Australian Government

Australian Bureau of Agricultural and Resource Economics

AUSTRALIAN COMMODITY STATISTICS 2003

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2003

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Foreword

Australian Commodity Statistics is an invaluable reference book for anyone associated with Australia's agricultural and resources industries. It is a comprehensive publication, containing overview and macroeconomic information as well as key statistics on the supply of and demand for each commodity covered. Current data are presented alongside historical data, with some historical series extending for over forty years.

In *Australian Commodity Statistics*, ABARE aims for continuity from year to year. This makes it possible for users to monitor industry developments over time. To ensure that the most relevant package of statistics is provided, the tables are scrutinised each year with some changes made and new tables added.

Australian Commodity Statistics can be used in conjunction with ABARE's *Australian Commodities*, in which the most important statistics, including forecasts, are updated throughout the year. Both of these publications provide background material for ABARE's national OUTLOOK conference to be held in Canberra in March 2004 and at which medium term outlook assessments will be presented for the major agriculture and natural resource based industries.

Other ABARE publications that contain mainly statistical information on commodities and as such complement the data presented in *Australian Commodity Statistics* are *Australian Crop Report* (quarterly), *Australian Mineral Statistics* (quarterly), *Australian Forest and Wood Products Statistics* (biennial) and *Australian Fisheries Statistics* (annual).

Readers can now purchase the wealth of statistical information contained in this report in Excel format in individual data subsets — see the details on the opposite page.

BRIAN S. FISHER
Executive Director

December 2003

Definitions and explanations

Abbreviations and symbols

lb	pound	454 grams
kg	kilogram	2.20462 pounds
t	tonne	1000 kilograms
kt	kilotonne	1000 tonnes
Mt	megatonne	1 000 000 tonnes
L	litre	1.761 pints
kL	kilolitre	1000 litres
ML	megalitre	1 000 000 litres
GL	gigalitre	1 000 000 000 litres
ha	hectare	2.471 acres
m^3	cubic metre	1.307 cubic yards
c	cent (Australian)	
A$	dollar (Australian)	
$m	million dollars (Australian)	
DM	deutschmark	
ECU	European currency unit	
€	euro	
£	pound sterling	
USc	cent (United States)	
US$	dollar (United States)	
¥	yen	
ct	carat	
bbl	barrel	
mbd	million barrels a day	
cif	cost, insurance and freight	
fas	free alongside ship	
fob	free on board	
fot	free on truck	
nec	not elsewhere classified	
ABARE	Australian Bureau of Agricultural and Resource Economics	
ABS	Australian Bureau of Statistics	
AGSO	Australian Geological Survey Organisation (now Geoscience Australia)	
AWB Limited	Australian Wheat Board, Australian grain marketing company	
BAE	Bureau of Agricultural Economics (now ABARE)	
BMR	Bureau of Mineral Resources, Geology and Geophysics	
DITR	Department of Industry, Tourism and Resources	
FAO	Food and Agriculture Organisation of the United Nations	

Small discrepancies in totals are generally caused by rounding.

0 is used to denote nil or a negligible amount.

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To assist users of *Australian Commodity Statistics* a 'where to find' list of commonly used or difficult to find general items is included on page 354

AUSTRALIAN ECONOMY

- overview
- macroeconomic indicators
- farm sector
- resource sector

1 Australian gross product, by sector

	Chain volume measures a						Nominal prices
			Mining				
	Rural		Mining (excl. services to mining)	Services to mining	Total	Gross domestic product	Gross domestic product
	Farm	Total b					
	$m	$m	$m	$m	$m	$m	$m
1975-76	12 420	13 210	9 625	na	11 115	309 805	79 492
1976-77	12 724	13 563	10 251	na	11 837	320 119	91 674
1977-78	12 281	13 119	10 510	na	12 096	323 038	100 225
1978-79	15 262	15 968	10 780	na	12 358	339 599	113 003
1979-80	13 117	14 004	10 553	na	11 943	348 291	128 769
1980-81	11 222	12 277	10 751	na	12 060	358 864	145 837
1981-82	13 412	14 286	10 665	na	11 683	371 645	167 656
1982-83	10 224	11 163	11 072	na	12 242	361 839	180 712
1983-84	15 211	15 995	11 889	na	13 287	381 145	203 624
1984-85	15 261	16 027	13 430	na	15 140	399 443	225 301
1985-86	14 855	15 595	15 042	2 705	16 728	415 921	248 459
1986-87	14 942	15 689	14 317	1 846	15 798	425 786	272 175
1987-88	14 388	15 258	16 779	2 380	18 570	448 618	310 498
1988-89	14 610	15 560	17 624	2 475	19 501	466 664	351 722
1989-90	15 891	16 829	19 665	2 198	21 601	484 078	384 807
1990-91	16 919	17 936	21 056	1 879	22 974	483 608	397 712
1991-92	15 515	16 604	22 158	1 727	24 097	484 908	406 429
1992-93	16 628	17 712	22 195	1 986	24 243	502 665	426 048
1993-94	17 321	18 359	22 594	1 997	24 672	522 223	446 832
1994-95	13 968	15 207	24 082	2 414	26 369	544 314	471 348
1995-96	17 558	18 779	25 950	2 581	28 399	567 535	502 828
1996-97	18 965	20 316	26 279	2 732	28 864	589 019	529 886
1997-98	18 728	20 137	27 104	2 866	29 817	615 288	561 229
1998-99	20 755	22 169	27 280	2 553	29 694	647 949	591 917
1999-00	22 299	23 862	29 310	2 220	31 390	673 839	628 621
2000-01	22 115	23 751	31 198	2 876	33 984	685 693	669 307
2001-02	23 235	24 880	31 120	2 681	33 801	711 547	711 547
2002-03	16 606	18 264	30 986	2 935	33 921	731 022	751 647

a Reference year is 2001-02. Original series, based on ANZSIC codes. For more information on chain volume measures, see the ABS information paper *Australian National Accounts, Introduction of Chain Volume and Price Indexes,* cat. no. 5248.0, released 19 March 1998. **b** Includes farm, forestry, fishing and hunting. **na** Not available.

Sources: ABS, *Australian National Accounts, National Income, Expenditure and Product,* cat. nos 5204.0 and 5206.0, Canberra.

2 Australian employment, by sector [a]

	Rural					
	Farm	Total [b]	Mining	Manufacturing	Other	Total employment
	’000	’000	’000	’000	’000	’000
1960-61	448	na	na	na	na	na
1961-62	453	na	na	na	na	na
1962-63	443	496	52	na	na	4 320
1963-64	420	486	52	na	na	4 435
1964-65	414	475	53	na	na	4 555
1965-66	409	470	55	na	na	4 705
1966-67	402	461	57	na	na	4 871
1967-68	401	458	60	na	na	4 989
1968-69	396	448	63	na	na	5 112
1969-70	392	452	69	na	na	5 285
1970-71	401	450	76	na	na	5 466
1971-72	393	447	77	na	na	5 540
1972-73	388	434	77	na	na	5 680
1973-74	377	427	78	na	na	5 863
1974-75	368	414	82	na	na	5 856
1975-76	365	401	81	na	na	5 929
1976-77	360	393	81	na	na	5 966
1977-78	351	390	80	na	na	6 018
1978-79	348	388	81	1 205	4 367	6 041
1979-80	364	404	81	1 242	4 460	6 187
1980-81	367	414	88	1 246	4 600	6 348
1981-82	363	409	99	1 249	4 668	6 425
1982-83	374	417	96	1 163	4 645	6 321
1983-84	367	407	98	1 139	4 724	6 368
1984-85	361	403	94	1 150	4 927	6 574
1985-86	386	428	106	1 129	5 187	6 850
1986-87	377	422	101	1 125	5 372	7 020
1987-88	375	418	98	1 159	5 544	7 219
1988-89	384	435	98	1 201	5 803	7 537
1989-90	381	428	104	1 201	6 089	7 822
1990-91	387	435	95	1 143	6 088	7 762
1991-92	367	408	90	1 086	6 040	7 623
1992-93	360	404	87	1 087	6 024	7 601
1993-94	363	409	89	1 092	6 165	7 755
1994-95	357	403	86	1 115	6 452	8 057
1995-96	370	418	85	1 112	6 674	8 289
1996-97	375	422	86	1 129	6 717	8 355
1997-98	378	431	83	1 121	6 827	8 461
1998-99	366	422	80	1 083	7 062	8 647
1999-00	383	438	78	1 115	7 276	8 907
2000-01	369	429	78	1 131	7 448	9 086
2001-02	381	438	81	1 098	7 590	9 208
2002-03	322	372	88	1 131	7 849	9 441

a Average employment over four quarters, based on ANZSIC and equivalent ASIC codes. **b** Includes farm, forestry, fishing and hunting. **na** Not available.
Sources: ABS, *The Labour Force, Australia,* cat. no. 6203.0, Canberra; ABS, *The Labour Force, Australia, 1979 to 1990,* cat. no. 6204.0, Canberra.

3 Contribution to Australian employment, by sector

	Rural				
	Farm	Total a	Mining	Manufacturing	Other
	%	%	%	%	%
1962-63	10.3	11.5	1.2	na	na
1963-64	9.5	11.0	1.2	na	na
1964-65	9.1	10.4	1.2	na	na
1965-66	8.7	10.0	1.2	na	na
1966-67	8.3	9.5	1.2	na	na
1967-68	8.0	9.2	1.2	na	na
1968-69	7.7	8.8	1.2	na	na
1969-70	7.4	8.6	1.3	na	na
1970-71	7.3	8.2	1.4	na	na
1971-72	7.1	8.1	1.4	na	na
1972-73	6.8	7.6	1.4	na	na
1973-74	6.4	7.3	1.3	na	na
1974-75	6.3	7.1	1.4	na	na
1975-76	6.2	6.8	1.4	na	na
1976-77	6.0	6.6	1.4	na	na
1977-78	5.8	6.5	1.3	na	na
1978-79	5.8	6.4	1.3	19.9	72.3
1979-80	5.9	6.5	1.3	20.1	72.1
1980-81	5.8	6.5	1.4	19.6	72.5
1981-82	5.6	6.4	1.5	19.4	72.7
1982-83	5.9	6.6	1.5	18.4	73.5
1983-84	5.8	6.4	1.5	17.9	74.2
1984-85	5.5	6.1	1.4	17.5	74.9
1985-86	5.6	6.2	1.5	16.5	75.7
1986-87	5.4	6.0	1.4	16.0	76.5
1987-88	5.2	5.8	1.4	16.1	76.8
1988-89	5.1	5.8	1.3	15.9	77.0
1989-90	4.9	5.5	1.3	15.4	77.8
1990-91	5.0	5.6	1.2	14.7	78.4
1991-92	4.8	5.4	1.2	14.2	79.2
1992-93	4.7	5.3	1.1	14.3	79.2
1993-94	4.7	5.3	1.2	14.1	79.5
1994-95	4.4	5.0	1.1	13.8	80.1
1995-96	4.5	5.0	1.0	13.4	80.5
1996-97	4.5	5.1	1.0	13.5	80.4
1997-98	4.5	5.1	1.0	13.3	80.7
1998-99	4.2	4.9	0.9	12.5	81.7
1999-00	4.3	4.9	0.9	12.5	81.7
2000-01	4.1	4.7	0.9	12.4	82.0
2001-02	4.1	4.8	0.9	11.9	82.4
2002-03	3.4	3.9	0.9	12.0	83.1

a Includes farm, forestry, fishing and hunting. **na** Not available.

Sources: ABS, *The Labour Force, Australia,* cat. no. 6203.0, Canberra; ABS, *The Labour Force, Australia, 1979 to 1990,* cat. no. 6204.0, Canberra.

4 Value of Australian exports, by sector

Balance of payments basis

	Farm a	Forest b	Fisheries c	Resource sector d	Total commodities	Total merchandise	Total goods and services
	$m	$m	$m	$m	$m	$m	$m
1960-61	1 400	12	9	na	na	1 884	2 165
1961-62	1 635	12	13	na	na	2 165	2 462
1962-63	1 645	13	13	na	na	2 158	2 483
1963-64	2 147	16	14	na	na	2 764	3 149
1964-65	1 927	16	18	na	na	2 605	3 041
1965-66	1 849	15	24	na	na	2 655	3 125
1966-67	2 006	23	25	na	na	2 954	3 431
1967-68	1 833	18	34	na	na	2 968	3 574
1968-69	1 868	18	39	na	na	3 242	3 897
1969-70	2 105	20	39	1 268	3 416	3 998	4 765
1970-71	2 103	25	56	1 430	3 594	4 244	5 086
1971-72	2 414	28	73	1 545	4 021	4 746	5 685
1972-73	3 316	55	72	1 809	5 208	6 086	7 016
1973-74	3 504	74	66	2 246	5 849	6 833	7 896
1974-75	3 816	87	69	3 420	7 360	8 620	10 114
1975-76	4 267	84	80	3 869	8 306	9 589	11 225
1976-77	5 189	116	135	4 813	10 154	11 572	13 425
1977-78	5 203	123	143	5 211	10 570	12 158	14 245
1978-79	6 022	142	192	5 928	12 285	14 234	16 910
1979-80	8 398	207	235	7 400	16 262	18 869	22 017
1980-81	8 179	238	230	7 480	16 177	19 018	22 604
1981-82	4 372	239	307	8 289	16 686	19 662	23 696
1982-83	4 573	261	354	10 058	17 962	21 226	25 632
1983-84	4 703	266	393	11 524	20 502	23 968	28 892
1984-85	5 470	311	399	14 952	26 146	30 102	35 739
1985-86	6 332	348	482	16 285	28 483	32 492	38 948
1986-87	7 935	429	593	17 399	30 593	36 487	44 306
1987-88	10 369	481	730	19 980	35 321	41 903	51 742
1988-89	15 173	607	674	21 196	37 265	44 187	55 354
1989-90	14 438	607	784	24 932	40 496	48 927	60 899
1990-91	13 046	696	831	28 032	42 373	52 568	66 259
1991-92	14 597	737	980	28 305	44 324	55 427	70 080
1992-93	15 924	815	1 090	29 762	47 356	60 634	76 899
1993-94	17 411	897	1 243	29 881	48 900	64 419	83 015
1994-95	17 866	1 052	1 367	30 373	50 025	67 101	87 654
1995-96	20 186	1 067	1 328	34 452	56 474	76 146	99 095
1996-97	21 869	1 179	1 305	36 052	59 740	80 934	105 160
1997-98	23 092	1 324	1 489	40 926	66 182	88 538	113 744
1998-99	22 558	1 293	1 511	38 919	63 599	85 783	112 025
1999-00	24 159	1 576	1 988	44 066	70 755	97 665	126 034
2000-01	29 468	1 812	2 169	57 018	89 671	120 307	153 511
2001-02	31 169	2 003	2 100	55 953	90 448	121 090	152 290
2002-03	27 039	2 116	1 844	54 883	84 819	115 925	147 269

a Includes exports of wine. **b** Includes paper and paperboard. **c** Tuna captured under joint venture agreements or transhipped at sea are not included. **d** Minerals and energy resources. Before 1990-91, includes ABARE estimates for items such as bauxite, manganese and diamonds which were excluded from ABS estimates for confidentiality reasons. From July 1990, ABS estimates contain details for such items. **na** Not available.

Sources: ABS, *Balance of Payments, Australia,* cat. nos 5302.0 and 5303.0, Canberra; ABARE.

5 Contribution to Australian merchandise exports, by sector

Balance of payments basis

	Farm a %	Forest b %	Fisheries c %	Resource sector d %	Total commodities %
1960-61	74.3	0.6	0.5	na	na
1961-62	75.5	0.6	0.6	na	na
1962-63	76.2	0.6	0.6	na	na
1963-64	77.7	0.6	0.5	na	na
1964-65	74.0	0.6	0.7	na	na
1965-66	69.7	0.5	0.9	na	na
1966-67	67.9	0.8	0.8	na	na
1967-68	61.7	0.6	1.1	na	na
1968-69	57.6	0.5	1.2	na	na
1969-70	52.7	0.5	1.0	31.7	85.4
1970-71	49.5	0.6	1.3	33.7	84.7
1971-72	50.9	0.6	1.5	32.6	84.7
1972-73	54.5	0.9	1.2	29.7	85.6
1973-74	51.3	1.1	1.0	32.9	85.6
1974-75	44.3	1.0	0.8	39.7	85.4
1975-76	44.5	0.9	0.8	40.3	86.6
1976-77	44.8	1.0	1.2	41.6	87.7
1977-78	42.8	1.0	1.2	42.9	86.9
1978-79	42.3	1.0	1.3	41.6	86.3
1979-80	44.5	1.1	1.2	39.2	86.2
1980-81	43.0	1.3	1.2	39.3	85.1
1981-82	22.2	1.2	1.6	42.2	84.9
1982-83	21.5	1.2	1.7	47.4	84.6
1983-84	19.6	1.1	1.6	48.1	85.5
1984-85	18.2	1.0	1.3	49.7	86.9
1985-86	19.5	1.1	1.5	50.1	87.7
1986-87	21.7	1.2	1.6	47.7	83.8
1987-88	24.7	1.1	1.7	47.7	84.3
1988-89	34.3	1.4	1.5	48.0	84.3
1989-90	29.5	1.2	1.6	51.0	82.8
1990-91	24.8	1.3	1.6	53.3	80.6
1991-92	26.3	1.3	1.8	51.1	80.0
1992-93	26.3	1.3	1.8	49.1	78.1
1993-94	27.0	1.4	1.9	46.4	75.9
1994-95	26.6	1.6	2.0	45.3	74.6
1995-96	26.5	1.4	1.7	45.2	74.2
1996-97	27.0	1.5	1.6	44.5	73.8
1997-98	26.1	1.5	1.7	46.2	74.7
1998-99	26.3	1.5	1.8	45.4	74.1
1999-00	24.7	1.6	2.0	45.1	72.4
2000-01	24.5	1.5	1.8	47.4	74.5
2001-02	25.7	1.7	1.7	46.2	74.7
2002-03	23.3	1.8	1.6	47.3	73.2

a Includes exports of wine. **b** Includes paper and paperboard. **c** Tuna captured under joint venture agreements or transhipped at sea are not included. **d** Minerals and energy resources. Before 1990-91, includes ABARE estimates for items such as bauxite, manganese and diamonds which were excluded from ABS estimates for confidentiality reasons. From July 1990, ABS estimates contain details for such items. **na** Not available.
Sources: ABS, *Balance of Payments, Australia,* cat. nos 5302.0 and 5303.0, Canberra; ABARE.

6 Contribution to Australian total exports, by sector

Balance of payments basis

	Farm a	Forest b	Fisheries c	Resource sector d	Total commodities	Total merchandise	Services
	%	%	%	%	%	%	%
1960-61	64.7	0.6	0.4	na	na	87.0	13.0
1961-62	66.4	0.5	0.5	na	na	87.9	12.1
1962-63	66.2	0.5	0.5	na	na	86.9	13.1
1963-64	68.2	0.5	0.4	na	na	87.8	12.2
1964-65	63.4	0.5	0.6	na	na	85.7	14.3
1965-66	59.2	0.5	0.8	na	na	85.0	15.1
1966-67	58.5	0.7	0.7	na	na	86.1	15.4
1967-68	51.3	0.5	1.0	na	na	83.0	17.0
1968-69	47.9	0.5	1.0	na	na	83.2	16.8
1969-70	44.2	0.4	0.8	26.6	71.7	83.9	16.1
1970-71	41.3	0.5	1.1	28.1	70.7	83.4	16.6
1971-72	42.5	0.5	1.3	27.2	70.7	83.5	16.5
1972-73	47.3	0.8	1.0	25.8	74.2	86.7	13.3
1973-74	44.4	0.9	0.8	28.4	74.1	86.5	13.5
1974-75	37.7	0.9	0.7	33.8	72.8	85.2	14.8
1975-76	38.0	0.7	0.7	34.5	74.0	85.4	14.6
1976-77	38.7	0.9	1.0	35.9	75.6	86.2	13.8
1977-78	36.5	0.9	1.0	36.6	74.2	85.3	14.7
1978-79	35.6	0.8	1.1	35.1	72.6	84.2	15.8
1979-80	38.1	0.9	1.1	33.6	73.9	85.7	14.3
1980-81	36.2	1.1	1.0	33.1	71.6	84.1	15.9
1981-82	18.5	1.0	1.3	35.0	70.4	83.0	17.0
1982-83	17.8	1.0	1.4	39.2	70.1	82.8	17.2
1983-84	16.3	0.9	1.4	39.9	71.0	83.0	17.0
1984-85	15.3	0.9	1.1	41.8	73.2	84.2	15.8
1985-86	16.3	0.9	1.2	41.8	73.1	83.4	16.6
1986-87	17.9	1.0	1.3	39.3	69.0	82.4	17.6
1987-88	20.0	0.9	1.4	38.6	68.3	81.0	19.0
1988-89	27.4	1.1	1.2	38.3	67.3	79.8	20.2
1989-90	23.7	1.0	1.3	40.9	66.5	80.3	19.7
1990-91	19.7	1.1	1.3	42.3	64.0	79.3	20.7
1991-92	20.8	1.1	1.4	40.4	63.2	79.1	20.9
1992-93	20.7	1.1	1.4	38.7	61.6	78.8	21.2
1993-94	21.0	1.1	1.5	36.0	58.9	77.6	22.4
1994-95	20.4	1.2	1.6	34.7	57.1	76.6	23.4
1995-96	20.4	1.1	1.3	34.8	57.0	76.8	23.2
1996-97	20.8	1.1	1.2	34.3	56.8	77.0	23.0
1997-98	20.3	1.2	1.3	36.0	58.2	77.8	22.2
1998-99	20.1	1.2	1.3	34.7	56.8	76.6	23.4
1999-00	19.2	1.3	1.6	35.0	56.1	77.5	22.5
2000-01	19.2	1.2	1.4	37.1	58.4	78.4	21.6
2001-02	20.5	1.3	1.4	36.7	59.4	79.5	20.5
2002-03	18.4	1.4	1.3	37.3	57.6	78.7	21.3

a Includes exports of wine. **b** Includes paper and paperboard. **c** Tuna captured under joint venture agreements or transhipped at sea are not included. **d** Minerals and energy resources. Before 1990-91, includes ABARE estimates for items such as bauxite, manganese and diamonds which were excluded from ABS estimates for confidentiality reasons. From July 1990, ABS estimates contain details for such items. **na** Not available.

Sources: ABS, *Balance of Payments, Australia,* cat. nos 5302.0 and 5303.0, Canberra; ABARE.

7 Value of Australian exports, by sector [a]

Chain volume measures

	Rural products [b]	Resource sector products [c]	Other merchandise	Total merchandise [d]	Services [d]	Total goods and services [d]
	$m	$m	$m	$m	$m	$m
1976-77	12 560	11 887	1 651	26 098	5 453	31 655
1977-78	12 390	12 297	1 922	26 609	5 690	32 363
1978-79	12 397	13 056	2 601	28 054	6 688	34 661
1979-80	14 134	13 200	2 909	30 243	6 856	37 107
1980-81	12 578	12 700	2 649	27 927	7 488	35 307
1981-82	12 845	12 980	2 758	28 583	7 682	36 147
1982-83	11 857	14 069	2 829	28 755	7 654	36 345
1983-84	12 861	16 360	4 171	33 392	8 535	41 873
1984-85	15 853	20 180	5 412	41 445	9 769	51 289
1985-86	16 814	20 617	5 489	42 920	10 250	53 236
1986-87	17 611	22 171	7 638	47 420	11 404	58 887
1987-88	17 188	24 539	8 906	50 633	13 636	64 205
1988-89	16 203	24 646	9 710	50 559	14 858	65 223
1989-90	16 307	27 350	9 820	53 477	15 101	68 443
1990-91	17 732	31 690	10 635	60 057	16 475	76 434
1991-92	19 218	34 597	12 271	66 085	17 316	83 326
1992-93	20 575	35 337	13 969	69 881	19 076	88 883
1993-94	22 816	35 569	17 643	76 028	21 579	97 516
1994-95	21 406	36 526	20 106	78 037	24 295	102 264
1995-96	23 679	41 005	21 623	86 308	26 490	112 726
1996-97	26 990	45 712	24 265	96 966	27 623	124 543
1997-98	28 090	50 061	22 786	100 937	28 273	129 141
1998-99	29 751	49 536	23 405	102 691	29 147	131 772
1999-00	33 443	50 520	29 603	113 566	30 696	144 100
2000-01	34 758	56 001	29 609	120 368	34 239	154 528
2001-02	34 495	55 952	30 642	121 089	31 200	152 290
2002-03	31 372	57 920	31 510	120 802	30 458	151 259

a Reference year 2001-02. **b** Before 1989-90, wine and paper and paperboard are excluded. **c** Minerals and energy resources. Before 1990-91, bauxite, diamonds and manganese are excluded. **d** Balance of payments basis.

Sources: ABS, *Balance of Payments, Australia,* cat. nos 5302.0 and 5303.0, Canberra; ABS, *Balance of Payments,* Australia – Historical Series on Microfiche, cat. no. 5337.0, Canberra; ABARE.

8 Australian unit export returns

	Rural			Minerals			
	Farm	Forest and fisheries products	Total	Energy minerals	Metals and other minerals	Total	Total commodities
Annual indexes **a**							
1990-91	85.8	108.6	87.8	111.5	96.6	102.0	97.0
1991-92	87.6	112.6	89.7	103.6	88.1	93.7	92.2
1992-93	90.0	118.0	92.4	109.7	92.2	98.6	96.3
1993-94	90.2	134.2	93.7	100.2	88.6	92.8	93.1
1994-95	100.0	137.6	103.1	94.3	92.3	93.0	96.4
1995-96	104.8	134.5	107.3	101.5	95.3	97.5	100.8
1996-97	95.5	132.7	98.4	103.2	86.9	92.9	94.7
1997-98	102.3	133.4	104.9	106.0	94.8	98.9	100.8
1998-99	93.2	131.2	96.3	96.8	92.4	94.0	94.7
1999-00	90.7	141.2	94.7	110.4	98.1	102.7	99.8
2000-01	108.8	154.1	112.4	141.0	115.7	125.5	120.8
2001-02	118.7	158.1	121.9	140.8	110.4	122.3	122.0
2002-03	115.8	140.7	117.7	135.0	105.4	117.0	117.1
Quarterly indexes **b**							
2000-01							
September	98.7	121.0	101.5	141.5	121.3	129.3	118.6
December	108.6	107.9	108.6	153.8	127.6	138.1	127.1
March	111.7	107.8	110.7	145.3	125.5	133.4	125.2
June	117.0	110.8	116.1	157.5	126.8	139.1	130.6
2001-02							
September	120.6	120.2	120.7	157.9	122.0	136.5	130.5
December	120.7	110.7	119.2	150.1	120.3	132.3	127.6
March	121.5	114.3	119.8	145.3	118.5	129.3	125.9
June	112.6	104.1	112.5	143.8	117.4	128.0	121.8
2002-03							
September	111.1	108.0	111.5	148.4	118.9	130.7	123.5
December	119.5	105.2	118.0	148.6	114.8	128.4	124.5
March	118.9	94.7	114.7	148.7	115.1	128.6	124.0
June	114.3	84.4	111.0	127.4	107.5	115.6	113.4

a In Australian dollars. Base: 1989-90 = 100. **b** In Australian dollars. Base 1994-95 = 100.
Source: ABARE.

9 Australian main macroeconomic indicators

	Growth of real gross domestic product %	Growth of industrial production %	Interest rates Short term a %	Interest rates Long term b %	Inflation c %	Consumer price index d
1960-61	3.6	na	na	na	4.3	14.0
1961-62	1.4	na	na	na	0.4	14.1
1962-63	6.8	na	na	na	0.0	14.1
1963-64	6.9	na	na	na	1.2	14.3
1964-65	6.7	na	na	na	3.5	14.8
1965-66	1.7	na	na	na	3.7	15.3
1966-67	6.6	na	na	na	2.6	15.7
1967-68	4.5	na	na	na	3.5	16.3
1968-69	8.1	na	na	na	2.6	16.7
1969-70	6.0	na	6.7	6.1	3.1	17.2
1970-71	3.9	na	7.1	6.8	4.5	18.0
1971-72	3.8	na	6.0	6.2	6.9	19.3
1972-73	3.5	na	5.1	5.9	6.1	20.4
1973-74	5.1	na	11.3	8.2	12.9	23.0
1974-75	1.1	na	10.5	9.5	16.8	26.9
1975-76	2.7	na	8.6	10.0	12.9	30.4
1976-77	3.2	na	9.8	10.2	13.9	34.6
1977-78	0.8	0.4	10.4	9.6	9.5	37.9
1978-79	5.5	4.1	9.6	9.2	8.2	41.0
1979-80	2.4	3.7	11.2	10.7	10.2	45.2
1980-81	3.2	2.3	13.4	12.6	9.3	49.4
1981-82	3.1	2.4	17.0	15.1	10.5	54.6
1982-83	– 2.6	– 5.3	14.0	14.6	11.5	60.9
1983-84	5.3	2.9	11.9	13.8	6.7	65.0
1984-85	5.1	6.5	13.4	13.4	4.3	67.8
1985-86	4.2	2.8	16.8	13.7	8.4	73.5
1986-87	2.5	1.3	15.7	13.5	9.4	80.4
1987-88	5.4	7.5	11.8	12.5	7.3	86.3
1988-89	4.0	5.2	15.7	12.8	7.3	92.6
1989-90	3.7	1.8	16.9	13.3	8.0	100.0
1990-91	– 0.1	5.7	12.2	12.2	5.3	105.3
1991-92	0.3	– 0.8	8.1	10.0	1.9	107.3
1992-93	3.7	1.7	5.6	8.3	1.0	108.4
1993-94	3.9	3.8	4.9	7.4	1.8	110.4
1994-95	4.3	3.1	7.2	9.9	3.2	113.9
1995-96	4.2	2.6	7.5	8.7	4.2	118.7
1996-97	3.8	2.2	6.3	7.6	1.3	120.3
1997-98	4.5	1.7	5.0	6.0	0.0	120.3
1998-99	5.3	1.1	4.9	5.5	1.2	121.8
1999-00	4.0	2.7	5.6	6.5	2.4	124.7
2000-01	1.8	1.7	6.0	5.8	6.0	132.2
2001-02	3.8	1.9	4.6	5.9	2.9	136.0
2002-03	2.7	na	4.9	5.4	3.1	135.3

a 90 day bank bills, average of end-of-month data. **b** 10 year Treasury bonds, average of end-of-month data. **c** Percentage change in the consumer price index. **d** 1989-90 = 100. **na** Not available.

Sources: ABS, *Australian National Accounts, National Income, Expenditure and Product,* cat. no. 5206.0, Canberra; ABS, *Balance of Payments, Australia,* cat. no. 5302.0, Canberra; ABS, *Consumer Price Index,* cat. no. 6401.0, Canberra; ABS, *Quarterly Index of Industrial Production, Australia,* cat. no. 8125.0, Canberra; Reserve Bank of Australia, *Bulletin,* Sydney.

10 Australian trade balance and foreign debt

	Balance on goods and services		Current account balance a		Terms of trade b	Net foreign debt c	
	Imports	Exports	Level	Share of GDP		Level	Share of GDP
	$m	$m	$m	%		$m	%
1960-61	2 590	2 165	–748	–4.9	104.2	na	na
1961-62	2 188	2 462	–8	–0.1	106.0	na	na
1962-63	2 596	2 483	–468	–2.8	107.7	na	na
1963-64	2 846	3 149	–70	–0.4	119.3	na	na
1964-65	3 447	3 041	–780	–3.8	113.0	na	na
1965-66	3 588	3 128	–889	–4.1	113.5	na	na
1966-67	3 770	3 484	–659	–2.8	112.8	na	na
1967-68	4 224	3 574	–1 131	–4.4	108.0	na	na
1968-69	4 360	3 897	–980	–3.4	111.4	na	na
1969-70	4 871	4 765	–688	–2.2	112.7	na	na
1970-71	5 214	5 086	–749	–2.1	101.5	na	na
1971-72	5 351	5 685	–293	–0.8	99.5	na	na
1972-73	5 512	7 016	754	1.7	117.9	na	na
1973-74	7 996	7 896	–921	–1.7	127.1	na	na
1974-75	10 510	10 114	–1 195	–1.8	115.5	na	na
1975-76	11 163	11 225	–1 423	–1.8	110.4	3 133	4.0
1976-77	14 106	13 425	–2 435	–2.7	106.9	5 160	5.7
1977-78	15 342	14 245	–2 970	–3.0	96.9	7 434	7.5
1978-79	18 260	16 910	–3 604	–3.2	97.8	9 553	8.5
1979-80	21 444	22 017	–1 974	–1.5	101.4	7 923	6.2
1980-81	25 530	22 604	–5 435	–3.7	100.5	9 361	6.4
1981-82	29 660	23 696	–9 159	–5.5	98.5	18 378	11.0
1982-83	29 667	25 632	–6 854	–3.8	97.8	25 169	14.0
1983-84	32 162	28 892	–7 832	–3.9	100.0	31 850	15.7
1984-85	40 790	35 739	–11 283	–5.0	97.5	53 055	23.6
1985-86	47 199	38 948	–15 488	–6.2	88.4	78 396	31.5
1986-87	49 032	44 306	–12 597	–4.6	81.8	87 971	32.3
1987-88	54 080	51 742	–11 744	–3.8	88.3	98 767	31.8
1988-89	62 296	55 354	–19 200	–5.5	100.3	117 240	33.3
1989-90	68 771	60 899	–22 953	–6.0	107.6	130 620	34.0
1990-91	66 948	66 259	–17 689	–4.5	101.6	142 065	35.8
1991-92	69 269	70 080	–13 377	–3.3	104.1	159 651	39.3
1992-93	79 077	76 899	–15 210	–3.6	99.7	176 048	41.3
1993-94	89 675	83 015	–16 254	–3.6	96.9	167 919	37.4
1994-95	104 496	87 654	–28 645	–5.7	92.3	186 313	39.4
1995-96	108 711	99 095	–21 452	–3.9	95.2	193 170	38.1
1996-97	119 505	105 160	–17 602	–3.1	98.1	212 986	40.0
1997-98	131 124	113 744	–22 807	–3.7	96.2	227 782	41.0
1998-99	137 451	112 025	–33 607	–5.2	91.2	225 577	39.0
1999-00	154 606	126 034	–32 320	–4.8	95.1	277 804	42.4
2000-01	152 636	153 511	–18 334	–2.7	98.0	306 087	45.7
2001-02	153 938	152 290	–21 938	–3.1	100.0	329 191	46.2
2002-03	166 957	147 269	–42 463	–5.8	102.2	358 965	48.3

a Negative sign indicates current account deficit. **b** Ratio of implicit price deflator for exports of goods and services to implicit price deflator for imports of goods and services. Base: 2001-02 =100. **c** As at 30 June. **na** Not available.

Sources: ABS, *Australian National Accounts, National Income, Expenditure and Product,* cat. no. 5206.0, Canberra; ABS, *Balance of Payments, Australia,* cat. no. 5302.0, Canberra; ABS, *International Investment Position, Australia,* cat. no. 5306.0, Canberra; Reserve Bank of Australia, *Bulletin,* Sydney.

11 Average Australian exchange rates with selected countries [a]

	Japan ¥/A$	United States US$/A$	New Zealand NZ$/A$	Korea, Rep. of [b] won/A$	United Kingdom £/A$	Euro €/A$	Trade weighted index [c]
1960-61	402.22	1.1193	0.805	na	0.399	na	na
1961-62	405.56	1.1213	0.805	na	0.399	na	na
1962-63	402.46	1.1185	0.805	na	0.399	na	na
1963-64	404.76	1.1168	0.805	na	0.399	na	na
1964-65	402.18	1.1137	0.805	287.6	0.399	na	na
1965-66	404.03	1.1163	0.805	303.4	0.399	na	na
1966-67	403.88	1.1144	0.805	301.6	0.399	na	na
1967-68	403.87	1.1155	0.912	304.4	0.466	na	na
1968-69	398.92	1.1124	1.000	312.5	0.466	na	na
1969-70	399.88	1.1160	1.000	335.1	0.466	na	na
1970-71	400.22	1.1185	1.000	357.6	0.466	na	99.6
1971-72	371.74	1.1710	1.000	443.9	0.462	na	98.8
1972-73	367.32	1.2835	1.032	513.9	0.524	na	104.4
1973-74	408.19	1.4743	1.034	587.0	0.617	na	115.5
1974-75	404.94	1.3700	1.016	611.2	0.584	na	107.7
1975-76	379.39	1.2613	1.193	610.3	0.633	na	105.3
1976-77	330.52	1.1531	1.193	557.4	0.674	na	96.3
1977-78	273.88	1.1276	1.127	545.9	0.618	na	89.3
1978-79	227.36	1.1365	1.079	550.0	0.568	na	83.2
1979-80	259.57	1.1143	1.132	594.3	0.499	na	83.8
1980-81	248.28	1.1612	1.233	759.7	0.508	na	87.6
1981-82	257.36	1.1048	1.374	776.6	0.601	na	91.0
1982-83	232.66	0.9383	1.333	705.5	0.581	na	81.8
1983-84	211.95	0.9057	1.382	718.7	0.623	na	81.5
1984-85	192.55	0.7741	1.611	643.2	0.634	na	75.5
1985-86	140.21	0.6979	1.291	625.7	0.485	na	62.3
1986-87	100.84	0.6609	1.231	567.4	0.433	na	53.8
1987-88	97.11	0.7262	1.122	565.9	0.415	na	54.8
1988-89	106.55	0.8139	1.302	560.8	0.474	na	61.6
1989-90	112.49	0.7667	1.302	529.4	0.470	na	60.0
1990-91	107.01	0.7824	1.304	564.4	0.422	na	58.9
1991-92	100.45	0.7664	1.380	584.6	0.436	na	55.4
1992-93	82.57	0.6968	1.306	552.9	0.447	na	52.3
1993-94	73.01	0.6889	1.224	556.8	0.460	na	51.4
1994-95	69.96	0.7390	1.169	582.8	0.468	na	52.8
1995-96	77.02	0.7553	1.130	589.8	0.488	na	54.8
1996-97	89.90	0.7801	1.126	664.2	0.483	na	58.7
1997-98	85.56	0.6797	1.142	858.4	0.412	na	58.3
1998-99	77.55	0.6257	1.181	773.4	0.381	na	56.0
1999-00	67.88	0.6295	1.248	720.4	0.395	0.628	55.2
2000-01	61.42	0.5391	1.266	653.6	0.371	0.604	50.1
2001-02	65.90	0.5238	1.215	674.5	0.363	0.585	50.6
2002-03	69.75	0.5838	1.121	705.5	0.368	0.558	53.2

a Period average. As at 1 October 1999, the five most important currencies and their weights in the trade weighted index for the Australian dollar were the Japanese yen (18.13 per cent), US dollar (17.35 per cent), European Euro (13.53 per cent), Korean won (6.14 per cent) and Chinese renminbi (6.04 per cent). **b** Average of end-of-month data. **c** Base: May 1970=100. Period average. **na** Not available.
Sources: ABS, *Average Monthly Exchange Rates,* cat. no. 5654.0, Canberra; Reserve Bank of Australia, *Bulletin,* Sydney.

12 Exchange rates of selected countries a

	Australia A$/US$	Japan ¥/US$	Euro €/US$	United Kingdom £/US$	Real effective exchange rates b: United States	Japan	Germany
1960	0.8929	360.00	na	0.3571	na	na	na
1961	0.8929	360.00	na	0.3571	na	na	na
1962	0.8929	360.00	na	0.3571	na	na	na
1963	0.8929	360.00	na	0.3571	na	na	na
1964	0.8929	360.00	na	0.3571	na	na	na
1965	0.8929	360.00	na	0.3571	na	na	na
1966	0.8929	360.00	na	0.3571	na	na	na
1967	0.8929	360.00	na	0.3614	na	na	na
1968	0.8929	360.00	na	0.4167	na	na	na
1969	0.8929	360.00	na	0.4167	na	na	na
1970	0.8929	360.00	na	0.4167	na	na	na
1971	0.8850	350.68	na	0.4108	na	na	na
1972	0.8403	303.17	na	0.3997	na	na	na
1973	0.7042	271.70	na	0.4078	na	na	na
1974	0.6944	292.08	na	0.4275	na	na	na
1975	0.7634	296.79	na	0.4501	117.6	88.0	80.1
1976	0.8130	296.55	na	0.5536	120.6	87.1	81.1
1977	0.9009	268.51	na	0.5729	118.6	93.3	85.3
1978	0.8772	210.44	na	0.5210	134.9	70.3	65.2
1979	0.8929	219.14	na	0.4713	134.4	62.0	66.0
1980	0.8772	226.74	na	0.4299	137.7	55.5	65.0
1981	0.8696	220.54	na	0.4931	150.6	59.5	60.1
1982	0.9804	249.08	na	0.5713	168.0	52.4	61.9
1983	1.1111	237.51	na	0.6592	169.2	55.6	64.1
1984	1.1364	237.53	na	0.7483	177.7	56.7	63.5
1985	1.4305	238.54	na	0.7714	183.8	56.1	64.5
1986	1.4960	168.52	na	0.6817	150.0	70.6	70.6
1987	1.4323	144.64	na	0.6102	130.9	74.2	75.6
1988	1.2792	128.15	na	0.5614	122.9	79.0	76.7
1989	1.2663	137.96	na	0.6099	124.5	75.7	76.9
1990	1.2842	144.79	na	0.5603	115.8	68.3	82.0
1991	1.2884	134.71	na	0.5652	111.6	73.3	81.3
1992	1.3658	126.65	na	0.5664	109.0	75.5	84.9
1993	1.4788	111.20	na	0.6658	111.1	89.5	90.5
1994	1.3735	102.21	na	0.6529	108.5	95.1	93.2
1995	1.3554	94.06	na	0.6335	100.0	100.0	100.0
1996	1.2830	108.57	na	0.6386	103.6	85.6	98.7
1997	1.3479	120.61	na	0.6196	109.5	81.7	92.9
1998	1.5936	130.47	na	0.6191	116.6	76.3	89.5
1999	1.5506	113.57	0.940	0.6157	114.8	86.9	86.3
2000	1.7179	107.56	1.083	0.6151	123.5	93.3	80.8
2001	1.9299	121.00	1.115	0.6947	132.7	83.2	79.8
2002	1.8382	125.00	1.060	0.6310	131.8	76.6	79.7

a Period average. **b** The nominal exchange rate, trade weighted against 44 world currencies, adjusted for relative wholesale prices. Base: 1995 = 100.
na Not available.
Sources: ABS, *Average Monthly Exchange Rates,* cat. no. 5654.0, Canberra; International Monetary Fund, *International Financial Statistics Yearbook,* Washington DC; International Monetary Fund, *International Financial Statistics cd-rom,* December 2002.

13 Growth of real gross domestic product in selected countries

	Australia	United States	European Union	Japan	OECD a	China b	Korea, Rep. of
	%	%	%	%	%	%	%
1960	na	2.5	na	13.1	na	– 1.5	1.2
1961	0.7	2.3	5.2	11.7	4.4	– 29.7	5.9
1962	6.2	6.0	4.9	8.7	5.1	– 6.5	2.1
1963	6.2	4.3	4.7	8.7	4.8	10.7	9.1
1964	6.8	5.8	5.7	11.3	6.1	16.5	9.7
1965	5.2	6.4	4.2	5.6	5.3	16.9	5.7
1966	2.8	6.6	4.1	10.5	5.5	17.0	12.2
1967	6.8	2.5	3.4	11.1	3.7	– 7.2	5.9
1968	5.8	4.8	5.2	11.8	5.4	– 6.5	11.3
1969	6.0	3.0	6.0	12.0	5.1	19.3	13.8
1970	6.5	0.2	5.1	10.3	3.5	23.3	8.8
1971	4.7	3.3	3.3	4.5	3.3	7.0	9.2
1972	2.5	5.4	4.5	8.3	5.2	2.9	5.9
1973	5.5	5.8	5.8	8.1	5.8	8.3	14.4
1974	2.6	– 0.6	2.1	– 1.2	0.8	1.1	7.9
1975	2.7	– 0.4	– 0.5	3.2	– 0.1	8.3	7.1
1976	3.9	5.6	4.5	3.9	4.7	– 2.7	12.8
1977	1.3	4.6	2.7	4.5	3.8	7.8	10.1
1978	3.0	5.5	3.0	5.2	3.9	12.3	9.7
1979	5.2	3.2	3.4	5.5	3.7	7.0	7.6
1980	1.9	– 0.2	1.3	2.8	1.2	7.8	– 2.2
1981	3.9	2.5	0.3	3.2	2.0	4.5	6.7
1982	– 0.1	– 2.0	0.9	3.1	– 0.1	8.3	7.3
1983	0.0	4.3	1.8	2.3	3.0	10.5	11.5
1984	6.9	7.3	2.5	3.9	4.9	14.6	8.7
1985	5.1	3.8	2.5	4.4	3.6	12.9	6.5
1986	2.1	3.4	2.7	2.9	3.1	8.5	11.6
1987	4.9	3.4	2.8	4.2	3.6	11.1	11.5
1988	4.5	4.2	4.2	6.2	4.6	11.2	11.3
1989	4.4	3.5	3.6	4.8	3.8	4.3	6.4
1990	1.5	1.8	3.1	5.1	3.1	9.0	7.8
1991	– 0.9	– 0.5	1.8	3.8	1.2	9.2	9.2
1992	2.6	3.0	1.2	1.0	2.1	14.2	5.4
1993	3.8	2.7	– 0.3	0.3	1.4	13.5	5.5
1994	5.0	4.0	2.8	0.6	3.2	12.6	8.3
1995	4.0	2.7	2.5	1.6	2.5	10.5	8.9
1996	4.0	3.6	1.7	3.5	3.0	9.6	6.7
1997	3.6	4.4	2.6	1.8	3.5	8.8	5.0
1998	5.5	4.3	2.9	– 1.1	2.7	7.8	– 6.7
1999	4.5	4.1	2.6	0.2	3.2	7.1	10.9
2000	2.8	3.8	3.4	2.8	3.8	8.0	9.3
2001	2.7	0.3	1.6	0.4	0.7	7.3	3.1
2002	3.6	2.4	1.0	0.2	1.6	8.0	6.3

a Regarded as nineteen countries for all years. **b** Gross national product. Excludes Hong Kong. **na** Not available.

Sources: ABS, *Australian National Accounts, National Income, Expenditure and Product,* cat. no. 5206.0, Canberra; Asian Development Bank, *Key Indicators of Developing Asian and Pacific Countries,* Manila; OECD, *Main Economic Indicators,* Paris; International Monetary Fund, *International Financial Statistics Yearbook,* Washington DC.

14 Growth of industrial production in selected countries

	Australia	United States	Japan	Germany a	United Kingdom	OECD	China	Korea, Rep. of
	%	%	%	%	%	%	%	%
1961	– 6.0	0.7	19.5	5.8	0.3	na	– 41.6	5.0
1962	12.2	8.3	8.3	4.4	0.9	6.5	– 15.4	16.7
1963	5.7	6.1	11.2	3.3	3.4	6.2	12.6	14.3
1964	11.2	6.7	15.9	8.4	8.2	7.7	24.6	7.1
1965	4.7	9.9	3.7	5.3	2.8	6.6	27.8	8.3
1966	1.7	8.8	13.2	1.2	1.5	7.1	24.9	23.1
1967	5.6	2.2	19.4	– 3.0	0.7	3.7	– 15.7	26.2
1968	5.7	5.6	15.5	9.2	7.7	6.8	– 9.0	31.7
1969	6.6	4.6	15.9	12.8	3.4	8.1	35.9	19.5
1970	4.6	– 3.3	13.8	6.2	0.5	3.1	38.5	11.9
1971	3.9	1.4	2.7	1.4	– 0.5	2.0	13.4	15.2
1972	1.2	9.7	7.1	3.7	1.8	7.1	6.5	14.6
1973	10.2	8.1	15.0	5.6	9.0	9.2	8.7	33.6
1974	3.1	– 1.5	– 3.8	– 2.3	– 2.0	– 0.3	– 0.4	27.4
1975	– 7.6	– 8.8	– 11.1	– 6.7	– 5.4	– 8.1	15.0	19.0
1976	5.1	9.2	11.0	7.2	3.3	8.3	– 3.8	29.8
1977	– 1.6	8.1	4.2	2.4	5.2	4.7	14.8	19.9
1978	1.5	5.9	6.3	1.9	2.8	4.1	17.1	22.9
1979	5.2	3.3	7.4	5.0	3.9	4.8	8.1	11.7
1980	0.6	– 2.8	4.7	0.2	– 6.6	0.2	10.9	– 1.8
1981	3.0	1.6	1.0	– 2.4	– 3.2	0.5	1.7	12.7
1982	– 0.5	– 5.4	0.4	– 3.2	1.9	– 2.5	6.0	5.0
1983	– 2.9	3.7	3.0	0.5	3.7	1.8	9.9	15.6
1984	6.9	8.9	9.5	2.8	4.3	6.5	14.9	15.1
1985	8.0	1.6	3.7	4.0	5.5	3.0	19.6	4.4
1986	– 0.2	1.1	– 0.3	2.0	2.4	0.9	9.6	20.6
1987	4.8	4.6	3.4	0.2	4.1	3.7	13.0	18.2
1988	5.5	4.5	9.6	3.5	4.8	5.4	17.4	13.2
1989	4.6	1.8	5.8	4.8	2.1	3.3	6.0	3.3
1990	2.4	– 0.2	4.1	5.5	– 0.3	1.6	5.5	8.8
1991	– 3.6	– 2.0	1.8	0.3	– 3.4	– 0.4	12.8	9.6
1992	0.3	3.1	– 6.1	– 1.4	0.4	– 0.3	21.2	5.8
1993	2.9	3.4	– 4.5	– 6.6	2.2	– 0.5	21.9	4.4
1994	5.4	5.5	0.7	4.1	5.4	4.6	21.4	10.9
1995	0.2	4.8	3.4	0.7	1.7	3.4	16.1	12.0
1996	4.3	4.6	2.9	– 0.4	1.1	2.5	15.1	7.9
1997	2.8	6.8	3.6	3.0	1.0	4.8	13.2	6.8
1998	3.0	4.9	– 7.2	4.2	0.6	1.8	8.9	– 6.5
1999	3.1	4.2	0.5	1.6	0.5	3.0	8.5	24.2
2000	5.3	5.7	5.2	6.2	1.6	4.9	11.4	16.8
2001	1.7	– 3.5	– 6.5	0.1	0.0	– 2.6	9.9	1.8
2002	2.6	– 0.6	– 1.3	0.0	0.0	– 0.4	12.6	8.1

a West Germany until 1990; unified Germany from 1991. **na** Not available.

Sources: ABS, *Quarterly Index of Industrial Production,* cat. no. 8125.0, Canberra; International Monetary Fund, *International Financial Statistics Yearbook,* Washington DC; OECD, *Main Economic Indicators,* Paris.

15 Inflation and interest rates in selected countries

	Inflation rates a			Interest rates b			
				United States		Japan	
	United States	Japan	Total Euro Area c	Short term	Long term	Short term	Long term
	%	%	%	%	%	%	%
1960	1.6	3.4	1.9	2.9	3.8	na	na
1961	1.1	5.2	1.9	2.4	4.1	na	na
1962	1.1	6.8	3.2	2.8	3.9	na	na
1963	1.4	8.5	3.1	3.2	4.2	na	na
1964	1.1	3.9	2.6	3.6	4.2	na	na
1965	1.7	6.4	3.3	4.0	4.4	na	na
1966	3.1	5.3	3.2	4.9	4.5	na	6.9
1967	2.6	3.7	3.1	4.3	5.4	na	6.9
1968	4.2	5.5	4.2	5.4	5.8	na	7.0
1969	5.6	5.2	4.7	6.7	7.0	na	7.1
1970	5.9	7.6	5.6	6.4	6.2	na	7.2
1971	4.2	6.5	5.3	4.3	5.6	na	7.3
1972	3.5	4.8	5.0	4.1	5.7	na	6.7
1973	6.2	11.7	7.8	7.0	6.5	na	7.3
1974	10.9	23.0	13.9	7.9	6.8	na	9.3
1975	9.2	11.8	11.4	5.8	7.1	na	9.2
1976	5.8	9.5	9.0	5.0	6.4	na	8.7
1977	6.4	8.1	10.1	5.3	7.3	na	7.3
1978	7.6	4.1	8.7	7.2	8.4	na	6.1
1979	11.4	3.8	11.1	10.0	9.6	8.1	7.7
1980	13.5	7.8	14.5	11.6	11.9	9.9	9.2
1981	10.3	4.9	11.3	14.1	12.9	6.8	8.7
1982	6.1	2.7	9.6	10.7	10.3	7.0	8.1
1983	3.2	1.9	8.7	8.6	11.4	6.5	7.4
1984	4.3	2.3	7.8	9.6	11.2	6.3	6.8
1985	3.5	2.0	4.9	7.5	9.0	7.4	6.3
1986	1.9	0.6	2.4	6.0	7.7	4.4	4.9
1987	3.7	0.1	2.4	5.8	8.6	3.9	4.2
1988	4.1	0.7	2.7	6.7	9.0	4.0	4.3
1989	4.8	2.3	4.0	8.1	8.6	4.7	5.1
1990	5.4	3.1	4.0	7.5	8.7	6.9	7.4
1991	4.2	3.3	4.3	5.4	8.2	7.4	6.5
1992	3.0	1.7	3.8	3.7	7.5	4.5	4.9
1993	3.0	1.2	3.4	3.2	6.5	3.0	3.7
1994	2.6	0.7	2.8	4.6	7.4	2.2	3.7
1995	2.8	– 0.1	2.6	5.9	6.9	1.2	2.5
1996	2.9	0.1	2.3	5.4	6.8	0.6	2.2
1997	2.3	1.7	1.7	5.6	6.7	0.6	1.7
1998	1.5	0.7	1.2	5.5	5.7	0.7	1.1
1999	2.2	– 0.3	1.1	5.4	5.6	0.2	1.7
2000	3.4	– 0.7	2.4	6.5	6.0	0.2	1.7
2001	2.8	– 0.7	2.5	3.7	5.0	0.1	1.3
2002	1.6	– 0.9	3.4	1.8	4.6	0.1	1.3

a Percentage change in consumer price indexes. **b** Period average: United States – 3 month Treasury bill rate and 10 year government bond yield; Japan – 3 month certificate of deposit rate and average government bond yield. **c** Prior to 1985 based on total OECD statistical definition. Post 1985 based on Euro area statistical definition. **na** Not available.

Sources: International Monetary Fund, *International Financial Statistics,* Washington DC; International Monetary Fund, *International Financial Statistics Yearbook,* Washington DC; OECD, *Main Economic Indicators,* Paris.

16 Population in selected countries and regions [a]

	Australia million	United States million	European Union [b] million	Japan million	China million	Other East Asia [c] million	World [d] million
1960	10.3	180.7	279.1	94.1	665.2	191.7	3 021.5
1961	10.6	183.7	281.6	95.0	661.8	197.1	3 084.8
1962	10.7	186.5	284.6	95.8	676.3	202.5	3 148.0
1963	11.0	189.2	287.9	96.8	695.1	207.8	3 211.3
1964	11.2	191.9	290.5	97.8	708.6	214.2	3 274.6
1965	11.4	194.3	293.1	98.9	729.1	220.0	3 337.8
1966	11.6	196.6	295.2	99.8	749.1	225.9	3 409.7
1967	11.8	198.7	297.3	100.8	767.5	232.4	3 481.5
1968	12.0	200.7	299.1	102.0	789.1	238.7	3 553.4
1969	12.3	202.7	301.3	103.2	810.6	245.4	3 625.3
1970	12.5	205.1	303.1	104.3	833.8	252.1	3 697.1
1971	12.9	207.7	305.3	105.7	856.3	258.6	3 773.1
1972	13.2	209.9	307.3	107.2	875.9	265.2	3 849.1
1973	13.4	211.9	309.2	108.7	896.3	271.8	3 925.0
1974	13.7	213.9	310.6	110.2	912.9	278.5	4 001.0
1975	13.9	216.0	312.0	111.6	928.6	285.2	4 077.0
1976	14.0	218.0	313.1	112.8	941.7	286.8	4 150.5
1977	14.2	220.2	314.1	113.9	954.4	293.4	4 223.9
1978	14.4	222.6	315.0	114.9	967.4	300.1	4 297.4
1979	14.5	225.1	316.0	115.9	980.3	307.1	4 370.9
1980	14.7	227.8	318.0	116.8	1 001.2	314.6	4 444.4
1981	14.9	229.9	319.1	117.7	1 013.5	322.0	4 524.7
1982	15.2	232.2	319.8	118.5	1 025.8	328.9	4 605.1
1983	15.4	234.3	320.4	119.3	1 044.9	335.8	4 685.5
1984	15.6	236.4	321.0	120.1	1 060.3	342.7	4 765.8
1985	15.8	238.5	321.6	120.8	1 075.7	349.1	4 846.3
1986	16.0	240.7	322.3	121.5	1 092.2	356.2	4 934.0
1987	16.3	242.8	343.5	122.1	1 109.8	363.2	5 021.7
1988	16.5	245.1	344.7	122.6	1 127.5	370.1	5 109.4
1989	16.8	247.3	346.1	123.1	1 144.9	377.0	5 197.1
1990	17.1	249.9	348.0	123.5	1 161.0	380.5	5 284.8
1991	17.3	252.6	365.9	123.9	1 175.9	386.8	5 371.2
1992	17.5	255.4	367.5	124.3	1 189.4	393.4	5 457.5
1993	17.7	258.1	368.6	124.7	1 202.3	400.0	5 543.8
1994	17.8	260.7	369.7	125.0	1 214.9	406.6	5 630.1
1995	18.1	263.2	370.8	125.2	1 227.7	413.3	5 716.4
1996	18.3	266.6	372.7	125.8	1 243.3	419.9	5 804.8
1997	18.5	269.1	372.5	126.2	1 258.3	436.0	5 891.8
1998	18.7	274.0	373.3	126.3	1 262.4	432.4	5 901.1
1999	18.9	276.2	373.2	126.5	1 273.6	438.4	5 978.4
2000	19.2	275.1	374.5	128.1	1 309.7	448.0	6 111.4
2001	19.5	285.5	376.0	127.3	1 285.0	454.2	6 203.6
2002	19.7	288.6	377.5	127.4	1 287.0	475.5	6 297.5

a Midyear. **b** Regarded as twelve countries for all years. **c** Chinese Taipei, Indonesia, Malaysia, the Philippines, Republic of Korea, Singapore, Thailand. **d** United Nations estimates.

Sources: ABS, *Estimated Resident Population by Sex and Age: States and Territories of Australia,* cat. no. 3201.0, Canberra; Asian Development Bank, *Key Indicators of Developing Asian and Pacific Countries,* Manila; International Monetary Fund, *International Financial Statistics Yearbook,* Washington DC; OECD, *Main Economic Indicators,* Paris; United Nations, *World Population Prospects,* New York.

17 Australian farm returns, costs and prices

	Gross value of farm production $m	Farm costs $m	Net value of farm production $m	Index of real net value of farm production ab	Index of prices received b	Index of prices paid b	Farmers' terms of trade bc	Consumer price index b
1960-61	2 745	1 717	1 028	199	26.0	11.7	222.9	11.7
1961-62	2 734	1 781	953	184	24.7	11.7	211.2	11.7
1962-63	2 990	1 865	1 125	217	25.4	11.7	217.1	11.7
1963-64	3 398	1 953	1 445	275	27.4	11.7	234.5	11.9
1964-65	3 422	2 093	1 329	244	26.7	12.1	220.0	12.3
1965-66	3 287	2 250	1 037	184	27.4	12.6	217.3	12.8
1966-67	3 806	2 415	1 391	240	27.4	13.1	209.6	13.1
1967-68	3 323	2 472	851	142	26.7	13.5	198.5	13.6
1968-69	3 927	2 673	1 254	204	26.0	13.5	193.4	13.9
1969-70	3 706	2 668	1 038	164	25.4	13.5	188.4	14.3
1970-71	3 539	2 713	826	125	23.9	13.9	171.6	15.0
1971-72	3 939	2 793	1 146	162	26.0	14.9	175.3	16.0
1972-73	4 927	3 103	1 824	243	35.6	16.2	219.9	17.0
1973-74	6 381	3 594	2 787	328	43.1	18.4	234.3	19.2
1974-75	5 841	4 196	1 645	166	36.9	23.4	158.0	22.4
1975-76	6 138	4 832	1 306	117	39.0	27.0	144.3	25.3
1976-77	6 716	5 278	1 438	113	42.5	30.1	141.1	28.8
1977-78	6 941	5 742	1 199	86	44.5	33.3	133.8	31.6
1978-79	10 207	6 629	3 578	237	54.0	35.5	152.1	34.2
1979-80	11 708	7 761	3 947	237	64.3	39.5	162.7	37.7
1980-81	11 540	8 739	2 801	154	68.4	44.9	152.2	41.2
1981-82	12 649	10 205	2 444	122	67.7	49.9	135.7	45.5
1982-83	11 636	11 403	233	10	71.1	55.3	128.6	50.7
1983-84	15 422	12 255	3 167	132	74.6	59.8	124.8	54.1
1984-85	15 473	12 896	2 577	103	76.6	63.4	121.0	56.4
1985-86	15 466	14 051	1 415	52	76.6	68.3	112.2	61.2
1986-87	17 095	15 386	1 709	58	82.8	74.2	111.6	66.9
1987-88	20 039	16 726	3 313	104	99.5	77.4	128.6	71.8
1988-89	23 222	18 395	4 827	142	112.4	84.3	133.2	77.0
1989-90	23 813	20 008	3 805	103	109.3	90.1	121.4	83.2
1990-91	21 214	20 167	1 047	27	93.6	90.8	103.0	87.6
1991-92	20 970	19 392	1 578	39	94.5	90.7	104.2	89.3
1992-93	22 120	19 340	2 780	69	93.7	89.5	104.8	90.2
1993-94	23 686	20 187	3 499	85	97.4	91.1	106.9	91.8
1994-95	23 720	21 591	2 128	50	112.0	94.9	118.1	94.7
1995-96	27 332	22 879	4 453	100	111.2	99.4	111.9	98.7
1996-97	28 259	23 808	4 452	99	101.6	99.3	102.3	100.0
1997-98	28 419	23 930	4 489	100	100.0	100.0	100.0	100.0
1998-99	28 789	24 503	4 286	94	96.1	100.0	96.1	101.2
1999-00	30 377	25 421	4 956	107	97.1	103.3	94.1	103.6
2000-01	34 609	27 145	7 464	148	110.8	110.0	100.7	109.8
2001-02	39 746	28 351	11 395	220	122.8	112.5	109.2	113.0
2002-03	30 535	28 613	1 923	50	124.8	118.2	105.6	116.5

a Obtained by deflating the net value of farm production by the consumer price index. **b** ABARE revised the method for calculating farm, price and production indexes in October 1999. The indexes for the different groups of farm commodities are now calculated on a chained weight basis using Fishers' ideal index with a reference year of 1997-98 = 100. **c** Ratio of index of prices received by farmers to index of prices paid by farmers.

Sources: ABS, *Australian National Accounts, National Income and Expenditure,* cat. no. 5206.0, Canberra; ABS, *Consumer Price Index,* cat. no. 6401.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, V*alue of Agricultural Commodities Produced, Australia,* cat. no. 7503.0, Canberra; ABARE.

18 Volume of Australian farm production

	Crops			Livestock			
	Grains and oilseeds	Other crops	Total crops	Livestock slaughterings	Livestock products	Total livestock	Total farm
	index	index	index	index	index	index	index
1960-61	28.9	25.0	25.7	32.6	79.2	53.6	37.0
1961-62	24.7	23.2	24.0	39.3	83.1	58.3	38.5
1962-63	29.7	27.0	27.8	43.3	82.3	59.4	41.5
1963-64	31.2	28.7	28.7	45.6	86.4	62.9	43.3
1964-65	34.6	30.4	31.4	47.0	87.2	64.1	45.3
1965-66	25.8	29.7	27.1	45.1	84.2	61.0	41.9
1966-67	44.9	35.0	38.2	43.7	88.5	62.8	49.3
1967-68	26.2	31.6	28.4	45.8	88.1	64.2	43.6
1968-69	50.4	40.7	42.2	48.0	93.1	69.1	52.5
1969-70	38.8	36.7	36.4	51.9	98.0	74.0	51.2
1970-71	35.9	37.1	35.2	55.0	95.7	75.1	50.8
1971-72	39.7	39.8	38.4	60.1	94.8	78.0	53.9
1972-73	28.9	39.1	33.1	66.8	83.8	76.9	50.6
1973-74	46.0	34.8	39.5	65.5	80.4	74.5	53.2
1974-75	44.3	35.8	39.1	61.4	86.0	75.3	53.3
1975-76	48.4	34.9	40.6	74.0	82.6	79.4	55.8
1976-77	46.6	37.4	41.1	79.2	76.3	78.4	56.0
1977-78	39.2	40.8	39.4	86.8	74.5	81.0	55.8
1978-79	71.2	41.1	54.9	82.9	76.5	79.9	64.8
1979-80	63.6	41.9	51.6	72.5	76.8	73.9	60.1
1980-81	46.7	44.0	44.4	70.3	73.7	71.3	55.2
1981-82	66.2	48.6	56.1	73.6	75.0	73.7	62.9
1982-83	37.2	48.8	41.6	74.3	75.4	74.2	54.8
1983-84	88.6	53.7	69.6	69.0	79.5	73.4	70.3
1984-85	80.5	55.7	66.6	68.9	85.5	76.1	69.8
1985-86	71.7	59.4	64.0	72.4	87.0	78.6	69.5
1986-87	70.3	58.8	63.0	77.1	92.3	83.5	71.3
1987-88	60.5	63.8	61.2	79.7	94.0	85.6	71.4
1988-89	65.0	62.1	62.4	76.2	97.4	85.9	72.3
1989-90	65.3	65.1	64.2	82.5	108.1	94.3	77.2
1990-91	67.9	73.4	70.0	84.7	106.5	94.7	80.3
1991-92	61.7	78.1	69.9	87.7	95.5	91.2	78.6
1992-93	77.1	78.9	77.3	89.4	98.6	93.6	83.7
1993-94	85.4	80.4	81.7	91.3	99.9	95.2	87.0
1994-95	51.1	73.6	62.8	92.1	94.2	93.1	75.7
1995-96	89.7	82.0	85.2	91.4	94.5	92.9	88.6
1996-97	115.0	88.4	100.1	94.9	98.3	96.5	98.7
1997-98	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1998-99	114.6	101.9	107.2	102.9	104.0	103.4	105.5
1999-00	126.0	106.6	114.6	104.9	106.1	105.4	110.5
2000-01	117.1	108.1	111.6	109.5	105.6	108.0	110.0
2001-02	129.5	112.8	119.8	107.8	106.3	107.3	113.9
2002-03	52.6	92.9	73.3	109.7	94.8	103.7	88.1

Note: ABARE revised the method for calculating farm production indexes in October 1999. The indexes for the different groups of farm commodities are now calculated on a chained weight basis using Fishers' ideal index with a reference year of 1997-98 = 100.

Sources: ABS, *Australian National Accounts, National Income and Expenditure,* cat. no. 5206.0, Canberra; ABS, Agriculture Australia, cat. no. 7113.0, Canberra; ABS, *Value of Agricultural Commodities Produced, Australia,* cat. no. 7503.0, Canberra; ABARE.

19 Gross value of Australian farm production

	Crops			Livestock			
	Grains and oilseeds	Other crops	Total crops	Livestock slaughterings	Livestock products	Total livestock	Total farm
	$m	$m	$m	$m	$m	$m	$m
1960-61	536	536	1 072	533	1 140	1 674	2 745
1961-62	489	519	1 008	517	1 209	1 726	2 734
1962-63	577	559	1 136	574	1 279	1 854	2 990
1963-64	601	627	1 228	634	1 536	2 170	3 398
1964-65	661	659	1 320	733	1 369	2 102	3 422
1965-66	522	659	1 182	785	1 321	2 106	3 287
1966-67	894	745	1 639	796	1 371	2 167	3 806
1967-68	555	714	1 269	818	1 237	2 054	3 323
1968-69	904	812	1 716	892	1 319	2 211	3 927
1969-70	695	758	1 453	1 008	1 245	2 253	3 706
1970-71	674	802	1 476	1 011	1 052	2 063	3 539
1971-72	740	857	1 597	1 135	1 207	2 342	3 939
1972-73	610	972	1 582	1 542	1 803	3 345	4 927
1973-74	1 761	1 098	2 858	1 697	1 826	3 523	6 381
1974-75	1 767	1 438	3 204	1 020	1 617	2 637	5 841
1975-76	1 839	1 409	3 249	1 247	1 643	2 889	6 138
1976-77	1 638	1 551	3 189	1 686	1 841	3 527	6 716
1977-78	1 441	1 607	3 047	1 970	1 924	3 894	6 941
1978-79	3 080	1 833	4 913	3 138	2 157	5 294	10 207
1979-80	3 376	2 179	5 555	3 616	2 537	6 153	11 708
1980-81	2 673	2 637	5 311	3 485	2 744	6 229	11 540
1981-82	3 661	2 651	6 313	3 295	3 041	6 336	12 649
1982-83	2 331	2 672	5 003	3 454	3 179	6 633	11 636
1983-84	5 184	3 227	8 411	3 526	3 485	7 011	15 422
1984-85	4 807	3 073	7 880	3 808	3 785	7 593	15 473
1985-86	4 061	3 372	7 433	3 904	4 129	8 033	15 466
1986-87	3 751	3 827	7 578	4 585	4 931	9 516	17 095
1987-88	3 531	4 252	7 783	4 994	7 262	12 256	20 039
1988-89	4 698	5 146	9 844	5 484	7 894	13 378	23 222
1989-90	4 428	5 734	10 162	5 845	7 806	13 651	23 813
1990-91	3 366	5 779	9 145	5 715	6 354	12 069	21 214
1991-92	3 849	6 161	10 010	5 706	5 253	10 959	20 970
1992-93	4 788	6 108	10 896	6 016	5 208	11 224	22 120
1993-94	5 144	6 544	11 688	6 831	5 167	11 998	23 686
1994-95	4 000	7 102	11 102	6 622	5 995	12 617	23 720
1995-96	7 407	7 826	15 233	6 398	5 701	12 099	27 332
1996-97	7 999	8 172	16 170	6 336	5 753	12 089	28 259
1997-98	6 621	8 882	15 503	6 968	5 948	12 916	28 419
1998-99	6 922	9 204	16 126	7 238	5 425	12 663	28 789
1999-00	7 853	9 214	17 067	7 924	5 386	13 310	30 377
2000-01	8 595	10 086	18 681	9 872	6 057	15 928	34 609
2001-02	10 746	10 428	21 174	11 640	6 931	18 572	39 746
2002-03	4 677	9 080	13 757	9 824	6 954	16 778	30 535

Sources: ABS, *Australian National Accounts, National Income and Expenditure,* cat. no. 5206.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Value of Agricultural Commodities Produced, Australia,* cat. no. 7503.0, Canberra; ABARE.

20 Value of Australian agricultural exports (fob)

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	$m	$m	$m	$m	$m	$m	$m	$m
Grains and oilseeds								
Wheat (including flour)	3 389	4 346	3 687	3 467	3 481	4 197	4 612	3 109
Barley (including malt)	876	999	726	877	822	1 101	1 278	954
Oats	50	26	30	38	27	22	37	44
Sorghum	97	70	50	46	81	122	109	18
Rice	333	318	402	417	386	369	286	113
Lupins	85	195	193	171	240	157	105	53
Peas **a**	62	97	67	63	90	112	157	43
Chickpeas	51	120	118	50	101	113	167	52
Canola	138	124	256	558	638	544	572	289
Cottonseed	42	45	68	91	122	137	148	82
Other oilseeds **b**	15	21	20	24	28	28	19	18
Total	5 138	6 362	5 618	5 800	6 018	6 900	7 490	4 775
Industrial crops								
Raw cotton **c**	762	1 077	1 386	1 559	1 407	1 957	1 547	1 152
Sugar	1 552	1 546	1 706	1 289	1 092	1 111	1 392	1 415
Wine	474	599	813	991	1 352	1 630	2 101	2 399
Total	2 788	3 222	3 904	3 839	3 851	4 698	5 040	4 966
Other crops	2 050	2 162	2 300	2 487	2 780	3 145	3 432	3 418
Total crops	9 976	11 746	11 822	12 126	12 649	14 743	15 962	13 158
Meat and live animals for slaughter								
Beef and veal	2 384	2 071	2 610	2 863	3 119	4 007	4 189	3 756
Live cattle	344	428	333	343	433	482	526	562
Mutton	299	288	369	309	326	416	490	402
Lamb	199	240	275	305	369	508	626	554
Live sheep	227	190	193	182	180	258	392	408
Pig meat	30	33	52	71	159	186	265	256
Poultry meat	13	14	18	23	21	26	26	22
Canned meat	39	34	47	53	50	16	39	17
Total	3 535	3 298	3 896	4 148	4 656	5 898	6 553	5 978
Wool								
Greasy **d**	2 137	2 188	2 336	1 457	1 796	2 310	2 271	2 269
Semiprocessed	1 276	1 292	1 378	994	1 031	1 289	1 119	991
Skins	251	264	307	132	136	298	297	288
Total **d**	3 664	3 744	4 020	2 583	2 963	3 897	3 687	3 548
Dairy products								
Butter	181	220	238	294	291	291	297	224
Cheese	463	476	607	695	807	950	1 033	800
Casein	30	33	43	67	81	89	77	43
Skim milk powder	479	473	444	496	478	694	698	406
Wholemilk powder	255	268	275	364	403	580	571	380
Other dairy products	284	309	329	341	380	442	520	526
Total	1 692	1 779	1 937	2 257	2 439	3 047	3 196	2 378
Other livestock exports	1 319	1 302	1 417	1 444	1 452	1 884	1 771	1 977
Total livestock exports	10 211	10 123	11 270	10 432	11 510	14 725	15 207	13 881
Total farm exports	20 186	21 869	23 092	22 558	24 159	29 468	31 169	27 039

a Field peas and cowpeas. **b** Includes soybeans, linseed, sunflowerseed, safflowerseed and peanuts. Excludes meals and oils. **c** Excludes cotton waste and linters. **d** On a balance of payments basis. ABS recorded trade data adjusted for changes in stock levels held overseas by Wool International.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Agriculture, Fisheries and Forestry – Australia; ABARE.

21 Value of Australian agricultural exports (fob), by destination

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	$m	$m	$m	$m	$m	$m	$m	$m
Africa								
Egypt	293	532	314	579	500	544	721	332
South Africa	243	240	200	172	158	201	138	132
Total	692	932	918	1 169	992	1 293	1 544	906
Americas								
United States	973	1 109	1 494	1 684	2 044	2 890	3 335	2 955
Canada	407	438	468	452	435	541	481	511
Total	1 592	1 880	2 262	2 483	2 778	3 860	4 244	3 837
North Asia								
China	1 801	1 552	1 535	1 333	1 870	2 213	2 356	2 159
Chinese Taipei	700	732	714	741	752	806	771	749
Japan	4 021	3 605	4 012	3 964	4 168	4 849	4 298	3 943
Korea, Rep. of	993	975	983	1 099	1 168	1 442	1 403	1 318
Total	8 012	7 345	7 745	7 590	8 431	9 909	9 457	8 703
South East Asia								
Indonesia	1 160	1 429	1 204	1 071	1 069	1 561	1 605	1 453
Malaysia	936	912	927	789	753	1 076	777	621
Phillipines	457	490	495	599	631	702	631	485
Singapore	383	401	398	428	537	572	612	549
Thailand	368	401	452	515	527	672	598	545
Total	3 357	3 678	3 633	3 600	3 747	4 876	4 520	3 894
South Asia	557	1 160	1 485	1 186	1 268	1 216	1 228	654
Middle East	1 522	2 143	1 576	1 873	2 003	2 897	3 272	2 082
Europe								
European Union **a**	2 008	2 224	2 762	2 425	2 496	3 256	2 940	2 746
Russian Federation	55	56	141	31	22	74	88	65
Total	2 184	2 386	3 075	2 596	2 641	3 474	3 170	2 983
Oceania	816	841	904	926	988	1 138	1 205	1 283
New Zealand	533	538	590	628	680	804	870	945
Other **b**	1 454	1 506	1 494	1 135	1 312	804	2 529	2 698
Total	20 186	21 869	23 092	22 558	24 159	29 468	31 169	27 039

a Fifteen countries. **b** Includes commodities such as rice and lupins for which export data are not available by destination.
Note: For some agricultural commodities (namely, wheat, sugar and barley), data are only available by volume to specific export destinations. The country export values for these commodities are calculated using an average export unit return to all destinations.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

22 Indexes of prices received by farmers in Australia

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94
Crops sector									
Grains and oilseeds									
Wheat	86.6	78.9	85.2	110.6	102.0	69.0	103.8	93.4	88.3
Barley	76.5	77.8	85.6	109.2	111.2	75.3	86.2	92.8	79.0
Sorghum	75.5	67.0	73.5	89.3	85.6	80.3	83.7	94.1	85.9
Oats	75.9	74.8	81.0	92.8	79.4	72.1	78.8	78.9	65.6
Lupins	82.7	88.9	93.4	105.4	118.9	115.0	88.8	106.1	96.2
Canola	41.9	52.7	58.8	76.8	66.5	62.3	61.8	69.7	77.3
Total	84.4	79.4	87.9	107.7	102.1	75.7	95.3	94.2	89.9
Cotton	55.6	76.6	71.0	79.3	98.9	104.6	88.3	91.8	98.6
Sugar	69.7	82.9	84.5	96.5	109.8	102.6	90.4	89.6	102.8
Hay	60.7	59.7	64.4	74.1	80.3	95.1	95.6	77.3	78.3
Fruit	62.4	69.0	72.6	88.2	85.5	90.6	95.1	85.4	87.0
Wine grapes	29.1	32.9	49.6	49.5	59.6	46.7	53.8	52.5	58.0
Vegetables	69.4	84.4	79.6	112.4	122.5	86.5	89.8	94.3	100.6
Total crops sectors	75.9	78.5	83.4	102.1	103.2	84.9	93.4	91.9	92.5
Livestock sector									
Livestock for slaughter									
Cattle	97.2	105.6	109.1	119.9	129.2	123.2	117.9	117.0	134.1
Lambs	47.7	66.9	67.1	70.1	64.2	52.8	58.4	85.2	97.6
Sheep	35.1	45.3	55.8	69.3	29.4	8.8	21.4	39.0	48.4
Live sheep for export	68.6	79.2	86.8	79.2	78.0	34.7	47.8	55.7	66.8
Pigs	83.3	85.3	93.0	105.2	106.5	114.0	101.0	98.4	95.3
Poultry	74.4	77.9	85.6	98.6	100.4	100.7	93.6	97.7	101.7
Total	82.8	91.4	96.2	105.9	108.7	102.9	99.1	102.4	113.9
Livestock products									
Wool	82.5	95.2	153.2	156.5	131.9	99.7	86.7	75.1	75.2
Milk – market	61.6	65.5	66.7	73.8	76.9	79.4	81.5	84.7	87.0
Milk – manufacturing	54.1	62.7	74.4	87.8	95.7	97.1	99.8	113.0	106.5
Milk – total	58.4	65.0	72.1	82.9	88.8	90.7	93.2	102.3	99.2
Eggs	98.9	94.6	98.1	107.5	99.0	96.4	92.0	95.3	91.4
Honey	53.3	63.2	62.7	58.8	60.0	71.1	80.8	82.3	76.8
Total	78.0	87.9	127.0	133.3	118.7	98.1	90.6	87.4	86.1
Store and breeding stock	64.2	73.0	83.0	92.3	88.6	82.0	79.7	78.8	95.0
Total livestock sector	79.6	89.0	110.6	118.7	112.4	99.1	93.7	93.6	99.9
Total prices received	76.6	82.8	99.5	112.4	109.3	93.6	94.5	93.7	97.4

Continued

22 Indexes of prices received by farmers in Australia *(continued)*

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Crops sector									
Grains and oilseeds									
Wheat	124.9	136.3	107.5	100.0	94.5	96.6	114.9	129.5	131.9
Barley	135.1	143.7	116.6	100.0	87.7	109.2	126.6	132.4	162.9
Sorghum	112.3	119.0	106.7	100.0	88.1	80.3	94.1	113.0	170.5
Oats	131.3	112.9	100.3	100.0	63.7	74.9	68.7	91.3	122.1
Lupins	95.3	106.7	111.8	100.0	79.8	84.8	119.8	145.9	152.7
Canola	80.0	81.4	75.6	100.0	88.8	75.0	99.1	113.2	100.2
Total	120.9	126.1	105.1	100.0	90.6	93.7	110.6	125.1	134.1
Cotton	123.5	121.3	103.1	100.0	88.5	97.5	106.2	95.2	113.2
Sugar	112.7	110.2	100.0	100.0	94.4	80.7	76.5	90.2	85.1
Hay	108.8	102.3	93.6	100.0	98.4	100.0	110.7	104.2	155.0
Fruit	101.1	103.0	109.6	100.0	108.7	105.9	104.2	105.8	111.1
Wine grapes	72.8	82.4	88.5	100.0	109.8	99.3	114.1	104.8	112.1
Vegetables	115.1	115.2	100.9	100.0	112.7	104.6	118.0	113.3	120.1
Total crops sectors	115.2	118.2	104.1	100.0	94.6	94.3	105.2	106.6	118.7
Livestock sector									
Livestock for slaughter									
Cattle	126.1	104.9	93.0	100.0	105.6	119.9	147.7	168.7	142.4
Lambs	89.9	116.9	121.4	100.0	101.9	97.4	106.9	171.4	198.1
Sheep	58.3	85.9	85.0	100.0	83.7	71.5	121.2	226.3	208.0
Live sheep for export	82.8	98.5	92.7	100.0	94.0	95.3	111.4	156.1	179.3
Pigs	96.4	122.4	123.2	100.0	94.2	119.3	123.1	133.8	116.8
Poultry	98.2	99.6	107.2	100.0	94.1	90.9	90.8	93.8	93.5
Total	109.9	106.5	101.0	100.0	100.9	110.0	129.2	154.2	140.1
Livestock products									
Wool	115.4	93.3	91.9	100.0	79.2	83.0	100.2	115.8	168.9
Milk – market	93.8	98.6	100.6	100.0	97.4	98.9	55.0	61.7	55.8
Milk – manufacturing	97.8	113.6	105.0	100.0	95.3	85.2	119.8	136.9	122.2
Milk – total	96.5	108.2	103.4	100.0	96.0	89.8	98.9	112.6	100.7
Eggs	88.6	101.7	105.2	100.0	85.3	84.0	79.1	80.7	86.0
Honey	81.7	90.2	101.6	100.0	101.1	94.3	94.3	115.0	130.5
Total	105.8	100.8	98.1	100.0	87.7	86.1	97.4	110.6	124.5
Store and breeding stock	96.7	96.1	89.4	100.0	100.9	105.0	126.0	145.3	120.2
Total livestock sector	107.0	103.2	98.8	100.0	95.3	99.4	115.4	135.0	131.5
Total prices received	112.0	111.2	101.6	100.0	96.1	97.1	110.8	122.8	124.8

Note: ABARE revised the method for calculating these indexes in October 1999. The indexes for commodity groups are now calculated on a chained weight basis using Fishers' ideal index with a reference year of 1997-98 = 100. Indexes for most individual commodities are based on annual gross unit value of production.
Source: ABARE.

23 Farm land use and livestock numbers in Australia

	Area used for a		Total	Livestock numbers b		
	Wheat million ha	Other crops million ha	area of farms million ha	Beef cattle million	Dairy cattle million	Sheep million
1961-62	6.0	5.3	474.5	12.99	5.05	157.71
1962-63	6.7	5.5	476.6	13.47	5.08	158.63
1963-64	6.7	5.4	479.4	14.12	4.93	164.98
1964-65	7.3	5.8	481.9	13.97	4.84	170.62
1965-66	7.1	6.2	486.2	13.25	4.69	157.56
1966-67	8.4	6.6	487.0	13.65	4.62	164.24
1967-68	9.1	5.4	489.5	14.73	4.49	166.91
1968-69	10.8	5.8	490.6	16.28	4.34	174.60
1969-70	9.5	6.1	494.7	17.93	4.23	174.26
1970-71	6.5	6.9	497.2	20.26	4.11	171.74
1971-72	7.1	7.1	499.5	23.36	4.01	155.39
1972-73	7.6	6.7	499.8	25.12	3.98	134.10
1973-74	8.9	6.2	500.5	27.08	3.76	139.45
1974-75	8.3	5.5	499.6	29.07	3.73	145.83
1975-76	8.6	5.9	500.7	29.83	3.60	144.11
1976-77	9.0	6.0	491.5	28.27	3.27	131.32
1977-78	10.0	6.8	489.4	26.27	3.06	127.46
1978-79	10.2	7.2	493.2	24.25	2.87	130.50
1979-80	11.2	6.9	495.6	23.37	2.83	132.71
1980-81	11.3	7.0	495.4	22.37	2.80	131.44
1981-82	11.9	7.7	490.8	21.77	2.78	135.02
1982-83	11.5	7.9	483.8	19.72	2.76	130.51
1983-84	12.9	9.1	488.6	19.36	2.81	135.14
1984-85	12.1	9.1	489.2	19.98	2.81	145.67
1985-86	11.7	9.2	468.3	20.68	2.76	150.40
1986-87	11.3	8.6	471.0	20.96	2.71	153.18
1987-88	9.1	9.4	472.0	20.88	2.64	156.54
1988-89	8.9	8.7	466.9	21.42	2.62	164.91
1989-90	9.0	7.9	464.3	22.28	2.59	173.38
1990-91	9.2	8.2	462.8	22.88	2.50	166.57
1991-92	7.2	9.2	466.0	22.83	2.50	151.00
1992-93	9.1	9.0	460.1	22.65	2.53	140.54
1993-94	8.4	9.8	469.0	23.08	2.68	132.57
1994-95	7.9	8.9	463.3	22.99	2.74	120.86
1995-96	9.2	10.3	465.2	23.57	2.81	121.12
1996-97	10.9	10.5	462.2	23.74	2.96	120.23
1997-98	10.4	10.2	463.8	23.78	3.08	117.49
1998-99	11.5	12.8	453.7	23.36	3.22	115.46
1999-00	12.2	12.2	455.5	24.45	3.14	118.60
2000-01	12.1	12.4	455.7	24.50	3.22	110.93
2001-02	11.5	12.6	447.0	24.74	3.13	106.17
2002-03	10.8	na	na	23.47	3.03	98.16

a 1960-61 to 1998-99 years ended 31 March. From 1999-00, year ended 30 June. Details for establishments with estimated value of agricultural operations (EVAO) of $2 500 or more until 1985-86; EVAO of $5 000 or more from 1986-87 to 1988-89; EVAO of $20 000 or more from 1989-90 to 1990-91; EVAO of $22 500 or more from 1991-92 to 1992-93; and EVAO of $5 000 or more from 1993-94. **b** At 31 March. From 1999-00, as at 30 June. Before 1987, includes livestock holdings on establishments with an EVAO of $2 500 or more. From 1987, the EVAO has been raised to $5 000.
na Not available.

Sources: ABS, *Selected Agricultural Commodities, Australia (Preliminary),* cat. no. 7112.0, Canberra; ABS, Agriculture, Australia, cat. no. 7113.0, Canberra; ABS, Livestock and Livestock Products, Australia, cat. no. 7221.0, Canberra; ABS, Crops and Pastures, Australia, cat. no. 7321.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; ABS, *Agricultural Land Use and Selected Inputs, Australia,* cat. no. 7411.0, Canberra; ABARE.

24 Number of agricultural establishments and rural employment in Australia

	Agricultural establishments a	Rural employment b			
		Employers and self-employed	Wage and salary earners	Unpaid family helpers	Total
	no.	’000	’000	’000	’000
1960-61	202 800	na	na	na	448.1
1961-62	202 200	na	na	na	453.0
1962-63	201 600	na	na	na	443.2
1963-64	201 000	na	na	na	435.1
1964-65	200 350	na	na	na	429.2
1965-66	199 750	na	na	na	423.0
1966-67	198 400	251.9	139.4	25.7	416.9
1967-68	197 050	250.0	143.0	23.2	416.1
1968-69	195 700	242.4	142.2	25.4	409.9
1969-70	192 550	237.7	146.9	21.8	406.4
1970-71	189 400	243.0	148.9	22.8	414.6
1971-72	187 650	239.6	144.8	22.8	407.1
1972-73	185 900	236.0	143.3	22.1	401.4
1973-74	184 150	238.3	136.9	16.0	391.2
1974-75	182 250	238.7	127.0	16.1	381.9
1975-76	180 400	243.4	118.5	16.7	378.6
1976-77	173 650	248.3	107.1	17.6	373.0
1977-78	176 150	237.0	107.1	19.8	363.9
1978-79	177 220	233.1	113.9	14.1	361.1
1979-80	179 080	239.5	124.4	14.7	378.6
1980-81	175 760	243.9	124.9	13.6	382.4
1981-82	174 469	236.0	132.1	11.9	379.9
1982-83	175 729	253.4	120.6	16.8	390.8
1983-84	174 025	249.0	121.5	12.2	382.6
1984-85	171 441	248.1	116.8	11.2	376.0
1985-86	169 716	261.3	124.9	18.4	404.6
1986-87	128 707	250.1	118.6	25.4	394.1
1987-88	126 543	242.0	122.3	26.8	391.1
1988-89	125 708	245.9	133.1	25.5	404.5
1989-90	127 778	236.2	149.4	16.9	402.5
1990-91	124 975	238.3	143.4	26.8	408.6
1991-92	120 558	230.4	128.8	23.8	383.0
1992-93	120 655	227.7	122.4	27.2	377.3
1993-94	117 189	227.5	128.7	26.8	383.0
1994-95	116 193	228.2	148.3	26.8	403.4
1995-96	115 430	228.2	163.7	26.6	418.5
1996-97	114 187	225.6	171.0	25.3	421.9
1997-98	115 285	236.0	174.5	20.3	430.8
1998-99	116 478	214.1	188.8	18.9	421.8
1999-00	119 076	218.6	196.0	23.4	438.0
2000-01	119 626	206.8	200.5	21.8	429.1
2001-02	120 079	210.0	215.4	12.9	438.3
2002-03	na	164.4	191.5	16.3	372.4

a As at 31 March. Before 1986-87, includes agricultural establishments with an estimated value of agricultural operations (EVAO) of $2 500 or more. From 1986-87, the EVAO threshold was raised to $20 000, and from 1991-92, the EVAO threshold was raised to $22 500. **b** Average over four quarters. Between 1955-56 and 1993-94, the data refer to agriculture and services to agriculture. From 1994-95, data refer to agriculture, forestry, fishing and hunting, and services to these industries. **na** Not available.

Sources: ABS, NIF–10S Model Data, cat. no. 1313.0, Canberra; ABS, *Labour Statistics, Australia,* cat. no. 6101.0, Canberra; ABS, *The Labour Force, Australia,* cat. no. 6203.0, Canberra; ABS, *Characteristics of Australian Farms,* cat. no. 7102.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; Powell, R.A., Technological change in Australian agriculture: 1920-21 to 1969-70, PhD thesis, University of New England, Armidale; ABARE.

25 Summary of farm sector and other rural exports [a]

	Cereal grains and products $m	Sugar products and honey $m	Meat and meat preparations $m	Wool and sheepskins $m	Other rural [b] $m	Total $m
At current prices						
1970-71	596	160	428	594	386	2 164
1971-72	623	223	558	631	441	2 476
1972-73	421	259	857	1 270	592	3 399
1973-74	748	230	795	1 242	588	3 603
1974-75	1 460	661	444	770	605	3 940
1975-76	1 397	599	668	1 043	730	4 437
1976-77	1 317	645	886	1 558	935	5 341
1977-78	1 330	544	1 118	1 292	1 075	5 359
1978-79	1 182	466	1 711	1 608	1 390	6 357
1979-80	2 957	719	1 729	1 790	1 667	8 862
1980-81	2 339	1 198	1 592	1 920	1 648	8 697
1981-82	2 494	794	1 417	1 893	1 799	8 397
1982-83	1 837	596	1 632	1 819	2 020	7 904
1983-84	2 861	665	1 357	1 960	2 135	8 978
1984-85	4 000	625	1 409	2 651	2 509	11 194
1985-86	3 848	652	1 698	3 028	2 972	12 198
1986-87	2 759	698	2 247	3 920	3 570	13 194
1987-88	2 298	701	2 557	5 806	3 979	15 341
1988-89	2 828	934	2 270	5 984	4 053	16 069
1989-90	3 288	1 104	2 936	3 753	4 484	15 565
1990-91	2 436	948	3 173	2 887	4 897	14 341
1991-92	2 352	747	3 434	3 829	5 657	16 019
1992-93	2 954	1 072	3 750	3 367	6 450	17 593
1993-94	3 205	1 315	4 043	3 369	7 087	19 019
1994-95	2 523	1 730	3 654	4 216	7 529	19 652
1995-96	4 926	1 712	3 292	3 664	8 428	22 022
1996-97	5 954	1 694	2 957	3 744	9 339	23 688
1997-98	5 094	1 939	3 731	4 020	10 472	25 256
1998-99	5 046	1 472	4 008	2 583	11 572	24 681
1999-00	4 941	1 229	4 467	2 963	13 089	26 689
2000-01	5 937	1 330	5 796	3 897	15 693	32 653
2001-02	6 481	1 610	6 246	3 687	16 471	34 495
2002-03	4 486	1 346	5 655	3 548	14 901	29 936

a On a balance of payments basis. **b** Includes other farm, forest and fisheries products. Also includes wine, paper and paperboard, and tuna transhipped at sea or captured under joint venture agreements, which are not included in rural exports by the ABS.
Sources: ABS, *Balance of Payments, Australia,* cat. no. 5302.0, Canberra; ABARE.

26 Summary of operations of mineral resource establishments [a]

	Number of establishments at 30 June	Employment at 30 June [b]	Wages and salaries [c]	Turnover	Stocks		Purchases, transfers in and selected expenses	Value added
					Opening	Closing		
	no.	no.	$m	$m	$m	$m	$m	$m
Mining [d]								
1974-75	1 306	69 122	675	3 726	242	341	1 156	2 669
1975-76	1 271	67 609	783	4 257	346	479	1 340	3 050
1976-77	1 277	67 888	928	5 062	473	548	1 589	3 548
1977-78	1 352	66 312	1 018	5 777	579	639	1 962	3 875
1978-79	1 368	66 563	1 096	6 561	643	654	2 166	4 407
1979-80	1 448	73 805	1 286	8 042	651	795	2 702	5 484
1980-81	1 514	80 033	1 594	9 329	806	1 064	3 364	6 224
1981-82	1 490	79 745	1 882	10 199	1 075	1 350	3 776	6 698
1982-83	1 542	77 755	2 063	11 901	1 333	1 710	4 169	8 109
1983-84	1 630	77 926	2 129	13 524	1 699	1 700	4 700	8 825
1984-85	1 649	78 063	2 307	16 291	1 786	1 716	5 611	10 610
1985-86	1 528	78 945	2 573	19 618	1 656	1 818	6 824	12 956
1986-87	1 451	78 233	2 772	19 257	1 829	2 285	6 798	12 914
1987-88	1 475	76 753	2 883	20 912	2 246	2 166	7 226	13 606
1988-89	375	64 746	2 690	20 830	2 052	2 017	6 640	14 155
1989-90	1 313	78 373	3 504	26 573	2 205	2 581	8 789	18 160
1990-91	527	65 776	3 550	28 899	2 435	2 606	8 907	20 164
1991-92	499	61 348	3 567	28 371	2 496	2 580	9 313	19 143
1992-93	1 095	66 462	3 820	31 507	2 903	2 870	10 381	21 093
1993-94	516	56 465	3 627	29 018	2 614	2 517	9 989	18 933
1994-95	499	55 014	3 594	28 882	2 508	2 517	10 219	18 654
1995-96	511	56 529	3 882	31 014	2 761	2 501	11 392	19 882
1996-97	503	56 168	4 077	34 234	2 786	3 354	12 380	22 422
1997-98	528	51 048	4 157	37 558	3 353	3 318	13 540	23 770
1998-99	527	45 703	3 910	37 524	3 471	3 296	13 230	24 120
1999-00	529	53 169	4 169	42 632	3 897	4 146	12 705	24 412
2000-01	na	52 854	4 344	54 883	4 008	3 496	na	33 958
2001-02	na	na	na	na	na	na	na	na

a From 1992-93, the classification of census units is based on the 1993 edition of the Australian and New Zealand Standard Industrial Classification (ANZSIC). Before 1992-93, classification of census units was based on the Australian Standard Industrial Classification (ASIC); ANZSIC has replaced the following editions of ASIC: the 1983 edition (used since the 1982-83 census), the 1978 edition (used since the 1977-78 census) and the 1969 edition (used since the 1968-69 census). **b** Includes working proprietors. **c** Excludes amounts drawn by working proprietors. **d** Data for 1973-74 to 1987-88 and 1989-90 cover ASIC subdivisions 11–15; data for 1988-89, 1990-91 and 1991-92 cover ASIC subdivisions 11–14; data for 1992-93 cover ANZSIC subdivisions 11–14 (equivalent to ASIC subdivisions 11–15); and data for 1993-94 and 1994-95 cover ANZSIC subdivisions 11–13 (equivalent to ASIC subdivisions 11–14). Data from 1996-97 based on ABS mining collection, equivalent to ANZSIC subdivisions 11–13. **na** Not available.

Sources: ABS, *Manufacturing Industry, Australia,* cat. no. 8201.0, Canberra; ABS, *Manufacturing Establishments, Summary of Operations, Australia,* cat. no. 8202.0, Canberra; ABS, *Manufacturing Industry, Details of Operations, Australia,* cat. no. 8203.0, Canberra; ABS, *Mining Industry, Australia,* cat. no. 8401.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; ABS, *Mining Operations, Australia,* cat. nos. 8402.0 and 8415.0, Canberra.

27 Value of Australian mineral production, exploration expenditure and royalties paid

	Gross value of minerals produced ab						
	Metallics	Coal and petroleum	Construction materials c	Non-metallics	Total	Exploration expenditure de	Mineral royalties paid to governments be
	$m	$m	$m	$m	$m	$m	$m
1967	371	202	92	32	697	na	24
1968	468	250	97	37	852	na	22
1969	689	285	120	48	1 142	na	28
1970	815	439	137	59	1 450	na	43
1971	883	553	146	66	1 648	na	61
1972	931	689	162	85	1 867	na	67
1973	1 134	822	173	113	2 242	na	73
1974	1 429	959	207	115	2 710	na	99
1975	1 643	1 583	248	127	3 601	170	155
1976	1 858	2 223	276	179	4 536	156	177
1977	2 162	2 647	269	187	5 265	202	209
1978	2 088	3 001	313	216	5 618	262	223
1979	2 968	4 793	365	237	8 363	345	263
1980	3 540	6 226	448	273	10 487	581	371
1981	3 238	8 022	532	279	12 071	838	402
1982	3 820	8 635	605	288	13 348	1 380	433
1983	3 748	9 819	590	325 h	14 482	1 365	554
1984	4 389 f	11 717	706 g	327 h	17 457 i	1 249	586
1985	5 479 j	15 193	826 g	361 k	22 108 i	1 230	735
1986	5 963 j	11 961	894 g	596 l	19 720 i	1 208	942
1987	7 146 f	12 147 m	856 g	637 n	21 207 i	862	800
1988	8 310	10 221	973 g	777	20 281	1 295	821
1988-89	8 760 o	10 440 o	1 018 g	845 q	21 063 q	1 336	2 113
1989-90	11 110	12 700	1 399 g	924	26 133	1 190	2 156
1990-91	10 910 o	15 361 o	na	na	26 293	1 184	2 413
1991-92	10 957 o	15 010 o	na	na	25 985	1 078	2 167
1992-93	10 920 o	15 801 o	1 405 g	1 065	26 721	1 244	2 327
1993-94	10 861 o	14 841 o	na	na	25 702	1 299	2 033
1994-95	11 715 o	15 023 o	na	na	26 723	1 576	1 745
1995-96	12 793	15 986	na	na	28 779	1 685	1 867
1996-97	13 617	17 912	na	na	31 358	2 001	2 142
1997-98	14 696	19 517	na	na	34 213	2 048	2 298
1998-99	15 228	18 955	na	na	34 182	1 706	1 923
1999-00	14 234	20 065	na	na	34 299	1 399	2 448
2000-01	18 748	26 245	871	1 488	47 463	1 727	na
2001-02	na	na	na	na	na	1 523	na

a Before 1988-89, data compiled by the former Bureau of Mineral Resources on a calendar year basis; for 1988-89 and 1989-90, data compiled by ABARE on a fiscal year basis; and from 1990-91, data compiled by ABS from annual Mining Census data. **b** From 1965 to 1989-90, data cover ASIC subdivisions 11–15; data for 1990-91 and 1991-92 cover ASIC subdivisions 11–14; data for 1992-93 cover ANZSIC subdivisions 11–14 (equivalent to ASIC subdivisions 11–15); and data for 1993-94 and 1994-95 cover ANZSIC subdivisions 11–13 (equivalent to ASIC subdivisions 11–14). Data from 1996-97 based on ABS mining collection, equivalent to ANZSIC subdivisions 11–13. **c** Coverage is inconsistent between years. **d** Year ended 30 June. **e** Private expenditure; includes energy exploration. **f** Excludes bauxite for Western Australia. **g** Excludes Australian Capital Territory. **h** Excludes talc and limestone for Western Australia. **i** Includes confidential items not separately included in the listed categories. **j** Excludes bauxite for Western Australia and iron oxide, molybdenum and tin–copper concentrate for Tasmania. **k** Excludes limestone and salt for Queensland. **l** Excludes salt for Victoria and limestone and talc for Western Australia. **m** Excludes coal for Western Australia. **n** Excludes salt for Victoria and limestone, silica and talc for Western Australia. **o** Tasmanian coal production included in metallics. **q** Excludes salt and silica for Victoria and clay, dolomite, limestone, peat and silica for Tasmania. **na** Not available.

Sources: ABS, *Mining Operations, Australia,* cat. nos. 8402.0 and 8415.0, Canberra; ABS, *Mineral Exploration, Australia,* cat. no. 8407.0, Canberra; ABS, Actual and Expected Private Mineral Exploration, Australia, cat. no. 8412.0, Canberra; ABS, *Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; state mines departments and their equivalents; ABARE.

28 Australian private mineral exploration expenditure, by type of mineral sought

	Energy minerals			Metallic minerals					
	Petroleum	Other a	Total	Gold	Base metals b	Other metallics	Total	Other	Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m
1970-71	79	na	na	na	na	na	na	na	na
1971-72	104	na	na	na	na	na	na	na	na
1972-73	93	na	na	na	na	na	na	na	na
1973-74	90	na	na	na	na	na	na	na	na
1974-75	60	14	74	na	na	na	90	6	170
1975-76	56	15	71	na	na	na	78	7	156
1976-77	68	30	98	na	na	na	95	9	202
1977-78	103	48	151	na	na	na	101	10	262
1978-79	163	56	219	na	na	na	105	21	345
1979-80	295	85	380	30	92	41	163	38	581
1980-81	368	123	491	69	153	69	291	56	838
1981-82	804	165	969	95	167	79	341	70	1 380
1982-83	927	98	1 025	96	130	55	281	59	1 365
1983-84	824	60	884	152	138	40	330	35	1 249
1984-85	793	48	841	177	135	40	352	37	1 230
1985-86	766	82	848	215	79	32	326	34	1 208
1986-87	305	59	364	357	77	22	456	42	862
1987-88	495	48	543	581	84	40	705	47	1 295
1988-89	639	57	696	449	100	36	584	56	1 336
1989-90	583	52	635	341	118	39	498	57	1 190
1990-91	583	36	618	301	172	45	518	48	1 184
1991-92	474	40	514	305	145	66	515	48	1 078
1992-93	612	33	645	320	183	45	548	50	1 244
1993-94	507	35	542	454	192	43	688	69	1 299
1994-95	682	46	728	555	201	37	792	55	1 576
1995-96	725	60	785	547	252	40	839	61	1 685
1996-97	853	84	936	728	207	59	994	71	2 001
1997-98	981	87	1 068	648	227	55	930	50	2 048
1998-99	868	55	923	486	177	70	733	49	1 706
1999-00	723	47	770	375	157	64	596	33	1 399
2000-01	1 044	50	1 093	370	165	69	604	30	1 727
2001-02	883	59	942	331	133	87	551	30	1 523
2002-03	995	na	na	378	142	na	na	47	1 700

a Coal and uranium. **b** Includes copper, lead, zinc, silver, nickel and cobalt. **na** Not available.

Sources: ABS, *Mineral Exploration, Australia,* cat. no. 8407.0, Canberra; ABS, *Actual and Expected Private Mineral Exploration, Australia,* cat. no. 8412.0, Canberra.

29 Private new capital expenditure

	Mining a $m	Manufacturing $m	Other selected industries $m	All industries $m
1964-65	107	na	na	1 404
1965-66	217	na	na	1 713
1966-67	243	na	na	1 661
1967-68	325	na	na	1 813
1968-69	435	na	na	2 027
1969-70	533	na	na	2 360
1970-71	781	na	na	2 940
1971-72	874	na	na	3 120
1972-73	455	na	na	2 660
1973-74 b	541	na	na	3 776
1974-75	707	na	na	4 565
1975-76	654	na	na	5 316
1976-77	490	na	na	5 952
1977-78	804	na	na	7 091
1978-79	1 034	na	na	8 699
1979-80 c	1 117	na	na	8 298
1980-81	1 910	na	na	10 962
1981-82	2 868	na	na	13 999
1982-83	3 488	na	na	14 185
1983-84	2 386	na	na	13 021
1984-85	2 100	na	na	14 525
1985-86	2 799	na	na	18 070
1986-87	3 639	na	na	21 327
1987-88	3 986	7 088	15 493	26 567
1988-89	3 976	7 524	18 788	30 288
1989-90	4 055	8 439	18 756	31 250
1990-91	4 567	7 663	17 358	29 588
1991-92	4 217	7 325	13 592	25 134
1992-93	5 482	7 537	14 218	27 237
1993-94	5 586	8 350	16 053	29 989
1994-95	6 351	10 351	18 859	35 561
1995-96	7 525	10 457	22 489	40 471
1996-97	8 781	10 198	24 858	43 837
1997-98	11 029	10 996	24 185	46 210
1998-99	8 795	9 609	27 011	45 415
1999-00	5 468	10 142	28 815	44 425
2000-01	5 491	9 144	27 986	42 621
2001-02	7 250	9 181	27 949	44 380
2002-03	8 989	11 312	30 797	51 098

a Includes expenditure on petroleum and gas. **b** Break in continuity as a result of change in scope and the introduction of the integrated capital expenditure survey. **c** Break in continuity as a result of the changed definition in accounting for finance leases. **na** Not available.
Sources: ABS, *Private New Capital Expenditure, Australia, Actual and Expected Expenditure, Preliminary,* cat. no. 5625.0, Canberra; ABS, *Private New Capital Expenditure, Australia,* cat. no. 5626.0, Canberra; ABARE.

30 Australian production of mineral commodities

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Bauxite	Mt	43	44	46	51	55	54	54
Coal								
Black								
Salable	Mt	207	222	225	239	258	273	274
Raw	Mt	261	279	284	299	321	344	351
Brown	Mt	61	65	67	67	65	67	65
Copper in mine products **s**	kt	547	576	691	796	876	876	883
Diamonds	'000 ct	37 120	43 046	35 948	29 672	22 475	30 676	31 979
Gold in mine products **s**	t	299	317	303	299	296	265	278
Iron ore and concentrate	Mt	153	161 **s**	153 **s**	160	176	185	199
Lead in mine products **s**	kt	516	571	663	648	724	744	690
Manganese ore and concentrate **s**	kt	2 297	1 647	1 630	1 755	1 948	1 850	2 457
Nickel in mine products **s**	kt	115	134	127	141	197	205	210
Petroleum								
Crude oil and condensate	ML	31 049	33 961	27 897	37 447	38 705	36 100	33 319
LPG (naturally occurring)	ML	4 253	4 901	4 368	4 832	4 056	4 647	4 622
Natural gas and ethane	GL	30	31	32	33	34	36	37
Salt **s**	kt	8 315	9 035	9 203	9 610	9 492	9 213	10 325
Silver in mine products **s**	t	1 010	1 333	1 593	1 889	2 021	2 106	1 905
Tin in mine products **s**	t	9 215	10 544	9 877	9 820	10 016	8 173	5 458
Titanium minerals								
Ilmenite	kt	2 100	2 392	2 156	2 134	2 092	1 843	1 986
Rutile	kt	197	247	214	185	209	207	206
Synthetic rutile **s**	kt	534	662	569	566	650	612	673
Titanium dioxide pigment **s**	kt	159	162	164	168	181	186	194
Uranium	t	5 975	5 788	6 387	8 217	9 549	8 029	10 392
Zinc in mine products **s**	kt	1 060	1 038	1 142	1 265	1 483	1 490	1 529
Zircon concentrate	kt	411	409	385	372	377	389	454

s ABARE estimate.
Sources: ABS; state mines departments and their equivalents; ABARE.

31 Gross value of Australian mineral production, by commodity [a]

	1996-97 $m	1997-98 $m	1998-99 $m	1999-00 $m	2000-01 $m	2001-02 $m
Coal						
Black	8 647	9 609	11 611	10 228	11 621	13 627
Brown	442	385	328	na	520	na
Construction materials	na	na	na	na	871	na
Copper ore and concentrate	1 331	1 376	1 397	1 503	2 303	na
Diamonds	na	na	na	na	634	na
Gemstones						
Opals	na	na	na	na	98	na
Sapphires	na	na	na	na	12	na
Gold bullion	na	4 972	4 532	3 851	1 189	na
Gold ore and concentrate **b**	na	na	na	na	3 240	na
Iron ore and concentrate	3 570	3 922	4 307	3 605	4 938	na
Lead ore and concentrate	347	402	525	469	849	na
Manganese ore and concentrate **b**	na	na	na	na	210	na
Nickel ore and concentrate **d**	na	na	na	na	1 865	na
Petroleum						
Crude oil and condensate, LPG (naturally occurring), Natural gas and ethane	8 823	9 523	8 118	11 295	12 127	12 641
Salt	na	na	na	na	264	na
Tin ore and concentrate **b**	na	na	na	na	176	na
Titanium minerals						
Ilmenite **c**	171	189	212	288	169	na
Rutile	144	186	182	184	117	na
Uranium	na	225	266	325	423	367
Zinc ore and concentrate	779	695	739	934	1 768	na
Zircon concentrate	256	218	179	284	202	na
Total **d**	31 358	34 213	34 182	34 299	47 463	na

a Gross value is ex mine. For 1989-90 data are compiled by ABARE on a fiscal year basis; and from 1990-91 data are compiled by ABS from annual Mining Census data. Data in this table are not on the same basis as data shown in the previous table. **b** ABS confidentiality provisions apply, data not available for publication. **c** Excludes value of ilmenite use for beneficiated ilmenite. **d** Includes components shown as not available. Totals for 1993-94 and 1994-95 cover ANZSIC subdivisons 11–13 (equivalent to ASIC subdivisions 11–14). Data from 1996-97 are based on ABS mining collection (equivalent to ANZSIC subdivisions 11–13). **na** Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, Australian Mining Industry, cat. no. 8414.0, Canberra; ABS, *MiningOperations Australia,* cat. no. 8415.0, Canberra; state mines departments and their equivalents; ABARE.

32 Gross value of Australian mineral production, by state [a]

	New South Wales $m	Victoria $m	Queensland $m	Western Australia $m	South Australia $m	Tasmania $m	Northern Territory $m	Australia $m
1960	159	33	75	44	28	16	7	363
1961	156	43	64	45	32	16	7	363
1962	160	40	74	46	31	18	5	375
1963	185	41	84	45	34	20	6	416
1964	233	45	97	45	39	25	7	493
1965	267	50	98	48	39	29	11	542
1966	262	53	138	80	42	35	13	624
1967	274	57	135	134	40	35	19	697
1968	298	59	186	195	42	45	25	852
1969	351	64	258	290	80	67	31	1 142
1970	382	176	288	401	91	80	32	1 450
1971	382	282	301	476	88	80	38	1 648
1972	445	310	357	514	104	88	48	1 867
1973	475	413	470	602	122	85	72	2 242
1974	600	434	600	740	109	120	105	2 710
1975	839	618	832	976	116	113	103	3 601
1976	1 033	888	1 102	1 064	144	151	151	4 536
1977	1 193	1 055	1 226	1 309	147	178	152	5 265
1978	1 267	1 398	1 176	1 256	166	211	141	5 618
1979	1 578	2 888	1 646	1 593	209	249	196	8 363
1980	1 625	4 046	1 937	2 042	225	282	326	10 487
1981	2 237	4 903	1 894	2 119	254	284	378	12 071
1982	2 381	5 036	2 228	2 614	305	277	506	13 348
1983	2 375	5 792	2 368	2 575	542	277	551	14 482 b
1984	2 707	6 652	2 892	3 170 c	782	237	697	17 457 b
1985	2 959	8 514	4 020 d	4 310 c	1 165	269 e	620	22 108 b
1986	3 151	5 131	4 185	5 096 c	1 016	336	805	19 720 b
1987	3 249	5 471	4 277	5 834	991	300	1 085	21 207 b
1988	3 392	3 979	4 164	6 296	1 049	356	1 047	20 281
1988-89	3 705	3 715	4 689	6 259	1 131	382 f	1 182	21 063 g
1989-90	4 524	4 019 h	5 381	8 819	1 231	496	1 663	26 133 h
1990-91	3 751	na i	4 961	9 761	na i	355	1 866	26 293
1991-92	3 721	na i	4 981	9 994	na i	361	1 493	25 985
1992-93	3 817	na i	5 519	10 286	na i	310	1 350	26 721
1993-94	3 863	na i	5 134	10 231	na i	327	1 028	25 702
1994-95	3 867	na i	5 283	11 835	na i	327	1 074	26 723
1995-96	4 027	na i	5 922	12 847	1 117	na	na	28 779
1996-97	4 688	3 265	6 425	14 231	1 029	387	1 306	31 358
1997-98	5 019	3 379	7 318	15 672	1 124	356	1 345	34 213
1998-99	5 291	2 471	8 217	15 438	1 053	446	1 266	34 182
1999-00	4 979	3 532	7 984	14 758	1 206	550	1 290	34 299
2000-01	7 031	na	10 910	26 272	2 130	504	1 374	47 463
2001-02	7 861	na	na	27 547	1 697	470	1 459	na

a Gross value is ex mine. Before 1988-89, data compiled by the former Bureau of Mineral Resources on a calendar year basis; for 1988-89 and 1989-90, data compiled by ABARE on a financial year basis; and from 1990-91, data compiled by ABS from annual Mining Census data. Data for 1954 to 1989-90 cover ASIC subdivisions 11–15; data for 1990-91 and 1991-92 cover ASIC subdivisions 11–14; data for 1992-93 cover ANZSIC subdivisions 11–14 (equivalent to ASIC subdivisions 11–15); and data for 1993-94 and 1994-95 cover ANZSIC subdivisons 11–13 (equivalent to ASIC subdivisions 11–14). Data from 1996-97 based on ABS mining collection, (equivalent to ANZSIC subdivisions 11–13). **b** Includes items excluded from state totals for confidentiality reasons. **c** Excludes bauxite, limestone and talc. **d** Excludes limestone and salt. **e** Excludes iron oxide, molybdenum, and tin–copper concentrate. **f** Excludes clay, dolomite, limestone, peat and silica. **g** Excludes salt and silica for Victoria and clay, dolomite, limestone, peat and silica for Tasmania. **h** Excludes salt and silica for Victoria. **i** ABS confidentiality provisions apply; data not available for publication. **na** Not available.
Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, Australian Mining Industry, cat. no. 8414.0, Canberra; ABS, *Mining Operations Australia,* cat. no. 8415.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; state mines departments and their equivalents; ABARE.

33 Australian smelter and refinery production of mineral commodities

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Alumina	kt	13 326	13 252	13 581	14 207	15 037	16 098	16 417	16 408
Aluminium	kt	1 331	1 395	1 589	1 686	1 742	1 788	1 809	1 855
Blister copper **a**	kt	250	252	223	234	387	419	458	469
Copper	kt	294	310	283	306	477	517	561	537
Gold									
Australian origin	t	274	290	276	287	313	296	271	251
Overseas origin	t	36	35	18	20	12	16	20	65
Lead bullion **a**	kt	181	191	171	157	165	153	201	181
Lead **b**	kt	224	202	185	199	233	215	275	267
Nickel matte	kt	77	73	103	79	98	100	95	101
Nickel **c**	kt	73	73	79	77	101	121	131	130
Petroleum									
Automotive diesel oil	ML	12 200	12 968	13 183	12 968	12 737	13 212	13 064	13 335
Automotive gasoline	ML	18 358	18 084	18 589	18 705	18 652	17 887	18 000	17 984
Aviation turbine fuel	ML	4 882	5 284	5 423	5 218	5 539	5 836	5 390	5 149
Fuel oil	ML	1 998	1 796	1 662	1 634	1 839	1 951	1 684	1 441
Raw steel **d**	kt	8 471	8 467	9 143	8 549	8 053	8 003	8 311	9 399
Silver	t	350	339	227	410	543	532	616	672
Tin	t	550	570	650	595	602	1 039	829	708
Zinc	kt	330	319	304	323	405	534	572	570

a Metallic content. **b** Includes lead content of lead alloys from primary sources. **c** Includes nickel contained in metal and nickel oxide. **d** Includes recovery from scrap.
Sources: DITR; ABARE.

34 Prices of mineral commodities

	Alumina av. export unit value A$/t	**Aluminium** (high grade) LME cash US$/t	**Gold** London AM fix US$/oz	**Iron ore** a av. export unit value A$/t	**Steaming coal** av. export unit value A$/t	**Coking coal** av. export unit value A$/t	**Crude oil** world trade weighted average US$/bbl	**Uranium** Nuexco exch. value b US$/lb
1982-83	186.10	1 142.00	424.45	22.28	46.20	60.28	31.86	20.46
1983-84	180.47	1 482.00	391.75	19.44	42.33	55.88	28.65	20.67
1984-85	197.43	1 095.00	324.93	20.80	43.82	61.20	28.22	15.71
1985-86	186.11	1 074.00	333.37	23.46	47.58	65.04	22.27	16.71
1986-87	189.36	1 249.75	410.27	23.98	45.82	63.31	15.07	16.90
1987-88	238.85	2 241.50	455.37	20.04	39.11	52.45	16.26	16.22
1988-89	267.35	2 346.00	402.80	18.68	41.68	52.54	14.47	11.94
1989-90	329.04	1 638.25	382.79	22.19	48.93	60.69	16.56	9.39
1990-91	307.56	1 581.25	373.70	24.63	49.18	61.82	21.95	9.70
1991-92	241.73	1 232.00	351.93	26.74	48.48	61.55	17.76	8.02
1992-93	242.11	1 199.00	343.69	26.91	50.00	65.38	17.74	9.59
1993-94	224.36	1 204.50	378.93	24.28	47.84	61.97	14.45	9.68
1994-95	216.31	1 761.75	384.37	21.53	44.12	55.88	16.83	10.17
1995-96	247.36	1 662.78	389.89	22.70	49.29	61.30	17.44	13.69
1996-97	236.49	1 512.89	363.82	22.94	46.49	61.18	20.30	14.24
1997-98	274.06	1 510.08	306.07	26.66	48.25	68.30	15.03	11.18
1998-99	263.13	1 276.25	285.90	28.44	44.76	64.18	12.31	10.10
1999-00	297.80	1 515.25	281.60	25.29	39.43	53.54	24.05	9.40
2000-01	354.29	1 538.00	269.45	31.16	47.78	62.51	26.82	7.83
2001-02	314.25	1 359.76	287.87	33.05	57.51	75.95	21.59	9.58
2002-03	277.97	1 360.73	334.19	29.44	44.51	69.09	26.26	10.23

	Copper (high grade) LME cash US$/t	**Lead** LME cash US$/t	**Zinc** (high grade) LME cash US$/t	**Silver** c London fix USc/troy oz	**Nickel** LME cash US$/t	**Ilmenite** d av. export unit value A$/t	**Rutile** e av. export unit value A$/t	**Zircon** f av. export unit value A$/t
1982-83	1 049.00	280.00	767.00	1 047.58	4 421.50	28.00	255.00	117.00
1983-84	1 031.00	332.00	891.00	981.67	4 762.00	33.00	266.00	118.00
1984-85	1 379.00	337.00	864.00	673.92	5 040.25	31.28	352.66	122.58
1985-86	1 411.00	270.00	679.00	580.67	4 269.00	40.57	451.92	145.26
1986-87	1 393.00	322.00	810.00	604.42	3 843.75	53.33	553.82	194.60
1987-88	2 259.00	655.00	940.00	697.08	10 208.50	63.96	578.13	310.47
1988-89	2 845.00	642.00	1 582.00	609.92	14 730.50	70.27	616.99	535.68
1989-90	2 639.00	776.00	1 578.00	519.33	9 600.00	76.37	703.40	656.92
1990-91	2 641.00	682.00	1 308.00	428.00	9 081.00	82.38	775.61	515.75
1991-92	2 253.00	527.00	1 164.00	407.25	7 578.00	82.94	629.07	317.90
1992-93	2 193.80	487.00	1 114.00	387.08	6 252.43	79.72	545.46	193.28
1993-94	1 893.00	439.00	937.00	497.83	5 262.87	83.36	536.07	206.43
1994-95	2 765.59	613.00	1 045.00	516.20	7 447.13	86.16	568.94	295.34
1995-96	2 739.51	721.00	1 022.00	535.87	8 212.34	92.56	672.57	495.70
1996-97	2 264.68	707.00	1 124.00	490.54	7 223.57	99.42	733.81	601.80
1997-98	1 903.38	568.26	1 227.00	543.87	5 813.93	106.87	773.46	582.65
1998-99	1 514.50	513.47	998.18	516.15	4 506.75	116.97	789.31	513.74
1999-00	1 737.81	464.94	1 143.59	520.45	8 262.10	133.39	732.15	481.89
2000-01	1 786.51	476.14	1 049.66	466.71	7 239.79	152.06	849.08	607.62
2001-02	1 508.50	473.60	791.40	441.55	5 918.97	150.76	882.09	706.15
2002-03	1 595.11	444.67	774.77	461.00	7 673.15	132.51	768.03	633.26

a Lump and fines. **b** Nuexco exchange value to 1997-98; Ux Consulting Industry spot price from 1998-99. **c** London fix rate from May 2001; Handy and Harman, commercial bar, minimum 99.9 per cent prior to May 2001. **d** All grades, bulk and bagged, before January 1992; bulk only thereafter. **e** All grades before August 1999; bagged only thereafter. **f** All grades, bulk and bagged, to 31 December 1991; standard grade only from 1 January 1992 to 30 June 1993; all grades to September 1999; bagged only thereafter.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; London Metal Exchange; London Bullion Market Association; US Energy Information Administration; ABARE.

35 Exports and imports of Australian mineral resources [a]

	Coal, coke and briquettes	Other mineral fuels	ores and other minerals [b]	Gold	Other metals	Total	Imports [c]
	$m	$m	$m	$m	$m	$m	$m
1970-71	206	41	789	20	374	1 430	208
1971-72	240	60	810	20	415	1 545	187
1972-73	294	46	931	25	513	1 809	223
1973-74	352	105	1 116	35	638	2 246	590
1974-75	733	162	1 595	46	884	3 420	661
1975-76	1 066	161	1 831	50	761	3 869	723
1976-77	1 292	206	2 243	34	1 038	4 813	922
1977-78	1 489	234	2 400	48	1 040	5 211	1 021
1978-79	1 531	316	2 616	80	1 385	5 928	1 305
1979-80	1 686	427	3 306	113	1 868	7 400	2 157
1980-81	1 981	517	3 409	56	1 517	7 480	2 372
1981-82	2 367	903	3 456	94	1 469	8 289	3 144
1982-83	3 049	1 099	3 852	290	1 768	10 058	2 121
1983-84	3 477	1 502	4 229	400	1 916	11 524	2 066
1984-85	4 591	2 294	4 974	601	2 492	14 952	2 029
1985-86	5 204	2 214	5 309	1 137	2 421	16 285	1 537
1986-87	5 361	1 564	5 494	2 047	2 933	17 399	1 910
1987-88	4 866	1 786	6 358	3 107	3 863	19 980	2 772
1988-89	4 805	1 258	7 187	3 021	4 925	21 196	3 665
1989-90	5 932	2 068	8 348	3 764	4 820	24 932	4 322
1990-91	6 480	3 595	8 932	4 136	4 889	28 032	4 968
1991-92	6 949	3 402	8 477	4 605	4 872	28 305	4 910
1992-93	7 620	3 913	8 312	4 580	5 337	29 762	6 237
1993-94	7 253	3 351	8 233	5 521	5 523	29 881	5 791
1994-95	6 936	3 794	8 448	4 907	6 288	30 373	6 140
1995-96	7 843	4 165	9 614	5 850	6 980	34 452	6 701
1996-97	8 005	5 154	9 803	6 878	6 212	36 052	7 359
1997-98	9 586	5 309	11 373	7 226	7 432	40 926	8 564
1998-99	9 288	4 461	11 635	6 413	7 122	38 919	8 966
1999-00	8 336	9 082	12 361	5 164	9 123	44 066	12 060
2000-01	10 844	13 464	15 839	5 229	11 643	57 018	14 245
2001-02	13 430	10 940	15 286	5 300	10 997	55 953	13 548
2002-03	11 995	11 071	15 120	5 719	10 978	54 883	16 082

a Balance of payments basis. **b** Includes ABARE estimates for bauxite, manganese and other ABS confidential minerals from 1984-85 until 1989-90. From 1990-91, ABS data include actual details for these items. ABARE estimates for items not classified as mineral resources by ABS are included for all years since 1984-85. **c** Pre 1987-88 reported on a calendar year basis. (example, 1987-88 = 1988). Post 1987-88 reported on a fiscal year basis.
Sources: ABS, *Balance of Payments, Australia,* cat. nos 5302.0 and 5303.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; ABARE.

36 Australian exports of mineral commodities

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Alumina	kt	10 984	11 011	10 536	11 059	11 654	12 721	13 091	13 168
Aluminium (ingot metal)	kt	1 042	1 060	1 233	1 365	1 364	1 471	1 490	1 551
Coal, black									
Coking	kt	77	79	84	85	97	106	106	108
Steaming	kt	61	67	79	84	79	88	92	100
Copper **s**	kt	282	389	441	529	582	694	749	689
Diamonds **s**	'000 ct	33 627	52 521	42 483	51 244	51 095	25 513	25 811	32 274
Gold, refined	t	334	312	428	421	330	302	280	282
Iron and steel									
Iron ore and pellets	kt	126	138	142	135	149	157	156	181
Iron and steel	kt	3 130	3 212	3 347	3 332	2 941	2 931	3 297	3 599
Ferroalloys	kt	156	161	145	153	48	40	45	9
Lead **s**	kt	477	483	559	620	727	672	731	735
Magnesia	t	84 836	75 426	124 361	122 777	174 854	161 236	151 760	143 372
Manganese ore and concentrate **s**	kt	1 683	1 797	1 147	1 125	1 301	1 522	1 660	1 999
Petroleum									
Crude oil and other refinery feedstock	ML	10 899	12 401	14 785	14 291	20 877	24 044	23 936	20 949
LNG **s**	Mt	7	7	8	8	8	8	8	8
LPG	ML	1 469	2 421	2 824	2 486	2 857	2 785	3 211	3 194
Refinery products	ML	4 101	5 041	4 941	4 236	4 116	4 564	3 409	3 140
Salt	kt	7 996	7 605	8 444	8 710	8 389	8 636	8 912	10 168
Silver, refined bullion	t	236	306	257	399	447	450	547	511
Tin **s**	t	9 008	9 395	10 550	10 002	9 934	9 660	8 026	5 963
Titanium minerals									
Ilmenite concentrate **a**	kt	1 192	1 147	1 304	1 216	1 133	1 012	914	1 020
Leucoxene	kt	17	36	24	18	41	70	60	41
Rutile concentrate	kt	203	186	207	188	179	190 **s**	190	193
Synthetic rutile **s**	kt	304	351	476	381	369	443	398	453
Titanium dioxide pigment	kt	127	130	136	133	135	140	145	147
Uranium oxide (U_3O_8)	t	5 286	5 701	6 415	5 989	8 025	9 722	7 367	9 593
Zinc **s**	kt	965	1 011	926	1 126	1 120	1 456	1 488	1 549
Zircon concentrate **b**	kt	450	382	396	364	374	375 **s**	388	445

a Bulk and bagged before January 1992; bulk only thereafter. **b** All grades, bulk and bagged, to 31 December 1991; standard grade only from 1 January 1992 to 30 June 1993; all grades from 1 July 1993. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

37 Value of Australian exports of mineral commodities

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	$m	$m	$m	$m	$m	$m	$m	$m
Bauxite **s**	116	104	120	135	185	196	136	186
Alumina **a**	2 717	2 604	2 887	2 910	3 471	4 507	4 114	3 660
Aluminium (ingot metal)	2 379	2 088	2 828	2 840	3 302	4 229	3 965	3 696
Coal, black								
Coking	4 745	4 814	5 742	5 472	5 184	6 597	8 038	7 448
Steaming	3 014	3 118	3 790	3 767	3 114	4 204	5 294	4 449
Copper **b**	928	1 007	1 194	1 366	1 616	2 286	2 159	2 006
Diamonds **cs**	526	396	538	598	601	634	512	649
Gems, other than diamonds	136	115	93	79	83	99	82	74
Gold, refined	5 531	4 706	6 242	6 317	4 803	4 887	4 950	5 133
Iron and steel								
Iron ore and pellets	2 865	3 155	3 791	3 844	3 779	4 903	5 160	5 342
Iron and steel	1 508	1 382	1 607	1 311	1 265	1 484	1 484	1 853
Lead **b**	428	469	492	537	607	637	729	660
Magnesia	48	37	57	46	45	53	56	52
Manganese ore and concentrate **s**	212	231	157	165	185	261	299	316
Nickel **s**	1 157	1 072	1 103	845	1 862	2 308	2 032	2 327
Petroleum								
Crude oil and other refinery feedstock	1 675	2 119	2 251	1 881	5 292	8 137	6 390	6 402
LNG	1 372	1 537	1 599	1 425	1 949	2 671	2 613	2 607
LPG	189	356	367	297	648	830	721	855
Refinery products	933	1 147	1 097	866	1 202	1 844	1 234	1 198
Salt	179	168	211	222	221	253	267	233
Silver **d**	62	69	94	112	129	142	163	136
Tin **b**	61	57	75	73	70	76	49	38
Titanium minerals								
Ilmenite concentrate **e**	110	114	139	142	151	154	138	135
Leucoxene concentrate	11	19	15	9	16	21	23	16
Rutile concentrate	137	136	160	148	131 **s**	161	167	148
Synthetic rutile **s**	149	184	274	251	226	317	296	292
Titanium doxide pigment	324	256	346	387	404	494	460	428
Uranium oxide (U_3O_8)	242	245	288	288	367	497	361	427
Zinc **b**	816	844	988	1 133	1 233	1 882	1 529	1 424
Zircon concentrate **f**	223	230	231	187	180 **s**	228	274	281
Other mineral resources	1 553	3 191	2 075	1 172	1 695	2 006	2 257	2 410
Total mineral resources **g**	34 452	36 052	40 926	38 919	44 066	57 018	55 953	54 883

a Includes aluminium hydroxide. **b** Value of all ores, concentrates, intermediate products (where applicable) and refined metal. **c** Unsorted and sorted. **d** Includes refined bullion, powder, unwrought silver and semimanufactured forms. **e** Bulk ilmenite from 1 January 1992. **f** All grades, bulk and bagged, to 31 December 1991; standard grade only from 1 January 1992 to 30 June 1993; all grades from 1 July 1993. **g** Total mineral resources exports on an ABARE balance of payments basis. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

38 Australian exports of minerals, by destination [a]

	1988	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
	$m	$m	$m	$m	$m	$m	$m	$m
Africa	47	90	57	96	112	117	113	113
Americas								
United States	873	977	993	1 016	647	661	568	641
Other	226	182	229	213	299	407	408	364
Asia								
Chinese Taipei	700	889	1 091	1 175	1 466	1 538	1 493	1 617
Hong Kong, China	1 425	1 240	679	758	1 037	1 191	1 200	801
Japan	6 148	6 801	7 884	9 171	9 202	9 439	9 306	9 355
Korea, Rep. of	1 111	1 238	1 519	1 897	2 063	2 545	2 952	3 306
Singapore	644	828	1 274	1 908	2 208	2 549	1 874	2 161
Other	1 103	1 390	1 462	1 849	2 517	3 185	3 272	3 846
Europe								
United Kingdom	720	815	838	825	714	783	1 243	498
Other European Union	1 238	1 379	1 612	1 799	1 872	1 748	1 584	1 802
Other Europe	276	383	723	904	423	389	334	211
Oceania								
New Zealand	228	319	276	274	349	443	489	520
Other	54	268	293	350	384	405	382	398
Other	2 995	3 442	4 626	4 700	3 875	3 529	3 677	4 205
Total	17 788	20 241	23 554	26 935	27 169	28 929	28 897	29 838

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	$m	$m	$m	$m	$m	$m	$m	$m
Africa	119	164	231	180	153	263	364	415
Americas								
United States	485	742	1 931	1 227	1 798	2 109	1 585	1 435
Other	388	404	544	582	564	676	827	880
Asia								
Chinese Taipei	1 897	1 953	2 566	2 599	2 956	4 039	3 159	2 653
Hong Kong, China	844	1 021	1 668	1 088	996	1 256	1 365	980
Japan	9 176	9 077	10 545	10 008	11 337	15 034	14 855	14 356
Korea, Rep. of	4 708	5 241	4 520	4 420	4 647	5 958	6 162	5 743
Singapore	1 815	1 595	1 918	1 693	3 259	4 060	2 802	2 790
Other	4 488	4 608	4 524	4 641	5 271	6 858	7 528	8 186
Europe								
France	260	265	294	380	309	443	521	427
Germany	398	406	478	416	383	421	381	324
Netherlands	178	156	279	347	463	795	766	644
United Kingdom	791	581	1 097	2 456	1 537	1 469	2 009	2 855
Other European Union	893	908	1 172	1 301	1 172	1 446	1 742	1 393
Other Europe	479	238	1 001	336	185	162	92	185
Oceania								
New Zealand	700	818	739	719	858	989	1 207	1 102
Other	495	549	511	407	550	860	525	516
Other	5 615	5 415	5 953	5 957	7 483	9 102	9 022	7 988
Total	33 728	34 141	39 970	38 757	43 919	55 939	54 911	52 872

a Not on a balance of payments basis; totals differ from earlier tables. Prior to 1988-89, data compiled by the former Bureau of Mineral Resources on a calendar year basis; from 1988-89 data compiled by ABARE on a fiscal year basis.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; ABARE.

39 Australian imports of mineral commodities

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Clays	kt	49	32	38	45	66	57	50
Diamonds **a**	'000 ct	3 322	2 777	2 827	2 528	2 598	2 431	3 218
Iron and steel								
Iron ore and pellets **b**	kt	4 782	5 351	4 429	4 460	4 658	3 880	4 667
Iron and steel	kt	841	1 134	1 127	1 128	896	1 354	1 306
Ferroalloys	kt	80	79	57	47	46	46	51
Limestone	kt	1 027	636	1 066	705	665	595	582
Magnesium	kt	5	3	6	7	6	6	6
Petroleum								
Crude oil and other refinery feedstock	ML	24 768	25 017	29 729	26 936	26 343	27 308	27 958
LPG	ML	588	511	496	519	633	588	299
Automotive gasoline	ML	1 074	483	890	1 065	1 189	1 436	1 673
Diesel fuel **c**	ML	952	770	1 435	1 400	1 129	1 280	1 627
Other refinery products **s**	ML	1 677	1 128	581	648	902	na	na
Phosphate rock	kt	906	452	884	756	823	933	711
Platinum and platinum group metals	kg	3 471	3 536	8 329	3 199	2 158	1 652	2 319
Potassium fertiliser	kt	329	435	357	353	346	417	433
Sulphur	kt	146	131	325	263	482	544	593

a Includes sorted and unsorted, gem and industrial diamonds, and diamond dust and powder. **b** Includes limonite ore used for the production of refined nickel products. **c** Includes automotive diesel oil and industrial marine diesel fuel. **s** ABARE estimate. **na** Not available.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

40 Value of Australian imports of mineral commodities

	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	$m	$m	$m	$m	$m	$m	$m
Clays	14	10	17	17	25	23	14
Diamonds **a**	148	170	162	210	249	255	302
Gold **b**	589	1 991	2 351	2 390	1 686	2 207	2 957
Iron and steel							
Iron ore and pellets **c**	91	127	85	107	122	104	114
Iron and steel	807	1 061	940	1 034	923	1 099	1 226
Ferroalloys	69	74	69	54	58	60	59
Limestone	13	8	16	11	11	10	9
Magnesium	21	13	25	21	15	14	15
Petroleum							
Crude oil and other refinery feedstock	4 233	3 707	3 794	6 313	8 753	7 458	8 610
LPG	87	68	64	108	160	116	76
Automotive gasoline	225	93	134	321	432	448	569
Diesel fuel **d**	208	149	225	377	438	414	561
Other refinery products **s**	434	393	312	325	463	953	1 971
Phosphate rock	50	30	64	54	62	72	50
Platinum and platinum group metals	30	61	148	55	30	42	64
Potassium fertiliser	58	89	86	82	91	117	108
Silver	7	36	46	29	16	32	35
Sulphur	8	4	18	21	37	30	45

a Includes sorted and unsorted, gem and industrial diamonds, and diamond dust and powder. **b** Refined and unrefined bullion. **c** Includes value of limonite ore used for the production of refined nickel products. **d** Includes automotive diesel oil and industrial and marine diesel fuel. **s** ABARE estimate.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

RURAL COMMODITIES

41 Summary of Australian statistics for coarse grains [a]

			Production		Exports [b]	
	Area	Yield	Volume	Value	Volume	Value
	'000 ha	t/ha	kt	$m	kt	$m
1960-61	2 795	1.16	3 244	130	1 114	42
1961-62	2 450	0.97	2 382	105	1 092	46
1962-63	2 396	1.09	2 615	114	599	26
1963-64	2 423	1.08	2 608	117	706	31
1964-65	2 476	1.11	2 760	125	735	34
1965-66	2 710	0.87	2 371	120	478	24
1966-67	3 019	1.28	3 850	180	872	41
1967-68	2 693	0.75	2 023	98	330	16
1968-69	3 185	1.19	3 799	152	853	34
1969-70	3 334	1.10	3 684	134	904	33
1970-71	4 191	1.31	5 474	233	2 196	98
1971-72	4 492	1.29	5 782	223	3 138	135
1972-73	3 891	0.93	3 620	190	1 654	79
1973-74	3 664	1.27	4 671	347	1 739	136
1974-75	3 285	1.35	4 424	404	2 883	280
1975-76	3 868	1.44	5 575	500	3 137	306
1976-77	3 901	1.29	5 019	464	3 294	332
1977-78	4 318	0.98	4 218	347	1 928	177
1978-79	4 663	1.51	7 063	555	2 833	245
1979-80	4 199	1.48	6 215	669	4 459	511
1980-81	4 284	1.22	5 209	702	2 735	427
1981-82	4 847	1.38	6 687	799	3 445	517
1982-83	4 527	0.88	3 966	562	1 790	292
1983-84	5 794	1.64	9 497	1 240	4 529	735
1984-85	5 523	1.59	8 769	1 156	6 326	956
1985-86	5 306	1.53	8 113	974	5 757	813
1986-87	4 436	1.58	6 989	814	3 646	469
1987-88	4 576	1.57	7 162	911	2 494	375
1988-89	4 292	1.57	6 734	1 041	2 453	444
1989-90	3 919	1.79	7 005	1 087	3 306	662
1990-91	4 127	1.64	6 766	797	3 294	571
1991-92	4 624	1.75	8 109	1 076	2 716	485
1992-93	4 690	1.78	8 361	1 165	3 303	606
1993-94	5 092	1.94	9 865	1 274	2 298	440
1994-95	4 257	1.30	5 534	1 123	2 636	449
1995-96	5 296	1.90	10 083	2 093	4 095	1 023
1996-97	5 376	2.02	10 846	1 978	4 792	1 096
1997-98	5 388	1.87	10 101	1 601	3 388	806
1998-99	5 115	2.10	10 722	1 419	5 236	960
1999-00	4 245	2.22	9 436	1 401	4 531	931
2000-01	5 325	2.05	10 914	1 952	4 931	1 245
2001-02	5 806	2.25	13 052	2 583	5 680	1 424
2002-03	4 607	1.22	5 643	1 431	3 710	1 015

a Barley, oats, sorghum and maize. Includes triticale from 1979-80. **b** Exports are on a July–June basis, including grains and the grain equivalent of malt exported.

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat. no. 7112.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat no. 7121.0, Canberra; ABS, *Crops and Pastures, Australia,* cat. no. 7321.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; ABS, *Value of Agricultural Commodities produced, Australia,* cat. no. 7503.0, Canberra; ABARE.

42 Australian coarse grains area, yield and production, by state [a]

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia [b]
Barley								
Area								
1996-97	’000 ha	668	585	180	909	1 009	15	3 367
1997-98	’000 ha	701	618	135	1 017	1 036	13	3 521
1998-99	’000 ha	638	568	163	811	975	11	3 167
1999-00	’000 ha	476	585	130	550	845	9	2 596
2000-01	’000 ha	615	693	112	983	1 041	10	3 454
2001-02	’000 ha	665	700	96	1 088	1 151	7	3 707
2002-03	’000 ha	400	650	80	950	970	12	3 062
Yield								
1996-97	t/ha	2.22	2.03	2.38	1.80	1.91	2.33	1.99
1997-98	t/ha	1.95	1.50	1.52	1.99	1.86	2.38	1.84
1998-99	t/ha	1.95	1.53	1.96	1.81	2.10	2.73	1.89
1999-00	t/ha	2.18	2.03	1.95	2.03	1.67	2.44	1.94
2000-01	t/ha	2.04	2.41	1.03	1.38	2.23	2.60	1.95
2001-02	t/ha	2.08	2.37	1.78	2.08	2.42	3.71	2.23
2002-03	t/ha	0.78	0.68	1.13	1.21	1.29	2.33	1.07
Production								
1996-97	kt	1 483	1 189	429	1 635	1 923	35	6 696
1997-98	kt	1 365	928	205	2 027	1 926	31	6 482
1998-99	kt	1 247	870	320	1 469	2 051	30	5 987
1999-00	kt	1 040	1 189	254	1 117	1 409	22	5 032
2000-01	kt	1 253	1 670	115	1 358	2 320	26	6 743
2001-02	kt	1 382	1 656	171	2 263	2 782	26	8 280
2002-03	kt	310	440	90	1 150	1 250	28	3 268
Oats								
Area								
1996-97	’000 ha	393	175	39	316	121	8	1 052
1997-98	’000 ha	325	172	16	305	111	8	937
1998-99	’000 ha	354	188	18	228	112	8	909
1999-00	’000 ha	160	138	10	199	70	6	584
2000-01	’000 ha	138	140	13	248	75	7	650
2001-02	’000 ha	231	142	11	287	108	6	784
2002-03	’000 ha	290	135	8	190	88	7	718
Yield								
1996-97	t/ha	1.54	1.74	0.67	1.73	1.29	1.75	1.57
1997-98	t/ha	1.50	2.15	0.81	1.95	1.38	1.88	1.74
1998-99	t/ha	1.89	2.44	0.83	2.03	1.59	1.75	1.98
1999-00	t/ha	1.78	2.14	1.20	2.21	1.11	1.67	1.91
2000-01	t/ha	1.78	2.51	0.46	1.28	1.56	1.86	1.62
2001-02	t/ha	1.39	2.35	0.64	1.94	1.88	2.00	1.83
2002-03	t/ha	0.34	1.48	0.38	1.68	1.02	1.71	1.01
Production								
1996-97	kt	607	304	26	546	156	14	1 653
1997-98	kt	488	369	13	596	153	15	1 634
1998-99	kt	669	458	15	463	178	14	1 798
1999-00	kt	284	296	12	439	78	10	1 118
2000-01	kt	246	351	6	317	117	13	1 050
2001-02	kt	320	334	7	557	203	12	1 434
2002-03	kt	100	200	3	320	90	12	725

Continued

42 Australian coarse grains area, yield and production, by state [a] *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia [b]
Sorghum								
Area								
1996-97	’000 ha	117	1	424	1	0	0	544
1997-98	’000 ha	123	3	379	1	0	0	507
1998-99	’000 ha	216	1	367	2	0	1	587
1999-00	’000 ha	200	1	419	2	0	0	622
2000-01	’000 ha	258	2	494	2	0	0	758
2001-02	’000 ha	258	1	562	2	0	0	823
2002-03	’000 ha	160	0	340	3	0	0	503
Yield								
1996-97	t/ha	3.56	3.00	2.36	2.00	0.00	0.00	2.62
1997-98	t/ha	3.10	1.88	1.82	2.00	0.00	0.00	2.13
1998-99	t/ha	3.81	2.00	2.89	3.00	0.00	0.00	3.22
1999-00	t/ha	4.02	3.00	3.12	0.75	0.00	0.00	3.40
2000-01	t/ha	2.98	2.00	2.34	2.00	0.00	0.00	2.55
2001-02	t/ha	2.97	4.00	2.22	1.00	0.00	0.00	2.46
2002-03	t/ha	2.25	0.00	2.06	1.67	0.00	0.00	2.12
Production								
1996-97	kt	417	3	1 003	2	0	0	1 425
1997-98	kt	382	6	691	2	0	0	1 081
1998-99	kt	822	2	1 059	6	0	0	1 891
1999-00	kt	804	2	1 308	2	0	0	2 116
2000-01	kt	770	4	1 156	4	0	0	1 935
2001-02	kt	767	4	1 247	2	0	0	2 021
2002-03	kt	360	0	700	5	0	0	1 065
Maize								
Area								
1996-97	’000 ha	31	1	34	1	0	0	67
1997-98	’000 ha	22	1	34	1	0	0	57
1998-99	’000 ha	27	1	37	1	0	0	66
1999-00	’000 ha	22	1	59	1	0	0	82
2000-01	’000 ha	26	1	47	2	0	0	74
2001-02	’000 ha	28	1	53	1	0	0	83
2002-03	’000 ha	25	1	32	2	0	0	60
Yield								
1996-97	t/ha	8.26	7.00	3.82	5.00	0.00	0.00	5.94
1997-98	t/ha	7.32	10.00	2.85	3.00	0.00	0.00	4.75
1998-99	t/ha	6.89	3.00	3.92	4.00	0.00	0.00	5.12
1999-00	t/ha	8.07	7.00	3.82	3.00	0.00	0.00	4.95
2000-01	t/ha	6.85	8.00	3.38	4.50	0.00	0.00	4.66
2001-02	t/ha	8.79	9.00	3.74	4.00	0.00	0.00	5.51
2002-03	t/ha	8.48	5.00	2.81	4.50	0.00	0.00	5.27
Production								
1996-97	kt	256	7	130	5	0	0	398
1997-98	kt	161	10	97	3	0	0	271
1998-99	kt	186	3	145	4	0	0	338
1999-00	kt	178	4	224	2	0	0	406
2000-01	kt	178	8	159	9	0	0	345
2001-02	kt	246	9	198	4	0	0	457
2002-03	kt	212	5	90	9	0	0	316

Continued

42 Australian coarse grains area, yield and production, by state [a] *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia [b]
Triticale								
Area								
1996-97	’000 ha	118	93	2	26	105	2	346
1997-98	’000 ha	132	108	1	27	97	2	366
1998-99	’000 ha	143	111	1	29	99	2	386
1999-00	’000 ha	129	114	3	25	88	2	361
2000-01	’000 ha	126	127	1	28	105	2	389
2001-02	’000 ha	138	131	1	29	109	2	409
2002-03	’000 ha	115	60	4	14	69	2	264
Yield								
1996-97	t/ha	2.69	1.80	3.00	1.35	1.34	3.50	1.95
1997-98	t/ha	2.02	1.69	1.00	1.30	1.44	3.50	1.73
1998-99	t/ha	1.87	1.65	1.00	1.21	1.41	3.50	1.83
1999-00	t/ha	2.51	1.58	1.33	1.72	1.67	5.11	2.12
2000-01	t/ha	2.57	1.42	4.00	1.54	1.40	5.00	2.16
2001-02	t/ha	2.42	2.27	1.00	1.38	1.64	5.00	2.10
2002-03	t/ha	0.83	1.33	1.25	1.14	0.96	3.50	1.02
Production								
1996-97	kt	317	167	6	35	141	7	674
1997-98	kt	267	183	1	35	140	7	633
1998-99	kt	267	183	1	35	140	7	708
1999-00	kt	324	180	4	43	147	10	764
2000-01	kt	324	180	4	43	147	10	841
2001-02	kt	334	297	1	40	179	10	860
2002-03	kt	95	80	5	16	66	7	269
Total coarse grains								
Area								
1996-97	’000 ha	1 327	855	679	1 253	1 235	25	5 376
1997-98	’000 ha	1 303	902	565	1 351	1 244	23	5 388
1998-99	’000 ha	1 378	869	586	1 071	1 186	22	5 115
1999-00	’000 ha	987	838	621	777	1 003	17	4 245
2000-01	’000 ha	1 163	963	667	1 263	1 221	19	5 325
2001-02	’000 ha	1 320	975	723	1 407	1 368	15	5 806
2002-03	’000 ha	990	846	464	1 159	1 127	21	4 607
Yield								
1996-97	t/ha	2.32	1.95	2.35	1.77	1.80	2.24	2.02
1997-98	t/ha	2.04	1.66	1.78	1.97	1.78	2.30	1.87
1998-99	t/ha	2.32	1.74	2.63	1.85	2.00	2.32	2.10
1999-00	t/ha	2.66	1.99	2.90	2.06	1.63	2.48	2.22
2000-01	t/ha	2.38	2.30	2.16	1.37	2.12	2.58	2.05
2001-02	t/ha	2.31	2.36	2.25	2.04	2.31	3.20	2.25
2002-03	t/ha	1.09	0.86	1.91	1.29	1.25	2.24	1.22
Production								
1996-97	kt	3 080	1 670	1 594	2 223	2 220	56	10 846
1997-98	kt	2 663	1 496	1 007	2 663	2 219	53	10 101
1998-99	kt	3 191	1 516	1 540	1 977	2 369	51	10 722
1999-00	kt	2 630	1 670	1 802	1 602	1 634	42	9 436
2000-01	kt	2 771	2 213	1 440	1 731	2 584	49	10 914
2001-02	kt	3 049	2 300	1 624	2 866	3 164	48	13 052
2002-03	kt	1 077	725	888	1 500	1 406	47	5 643

a Crops sown for grain. Crop years are November–October for barley, oats and triticale, and March–February for sorghum and maize. **b** State and Australian totals may not be equal as a result of rounding and the inclusion of data for the Australian Capital Territory.
Sources: ABARE, *Australian Crop Report,* Canberra; ABS, *Selected Agricultural Commodities, Preliminary,* cat. no. 7112.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra.

43 Australian exports of sorghum and oats, by destination

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	kt	kt	kt	kt	kt	kt	kt	kt
Sorghum								
Asia								
Chinese Taipei	67	14	10	na **a**	na **a**	5	8	2
Japan	314	239	203	na **a**	na **a**	305	491	1
Papua New Guinea	19	34	24	9	0	13	38	45
United Arab Emirates	0	1	1	0	1	1	1	2
Other	10	12	13	na **a**	na **a**	367	48	20
Total	411	299	251	265	539	691	586	70
(value, $m)	97	70	50	46	81	122	109	18
Oats								
Asia								
Japan	7	8	9	11	11	19	9	8
Korea, Rep. of	0	0	1	2	4	3	1	1
Philippines	1	4	5	5	5	5	5	5
Libya	0	0	3	0	0	0	3	0
Malta	0	0	0	0	1	1	0	0
Middle East								
United Arab Emirates	2	1	1	1	3	2	2	2
Other **a**	222	110	135	237	137	68	111	161
Total	233	124	155	257	160	97	130	177
(value, $m)	50	26	30	38	27	22	37	44

a No country detail provided due to confidentiality. **na** Not available.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

44 Australian coarse grains supply and disposal, by grain [a]

	Area	Production	Exports [b]		Estimated domestic disposals	
					Feed and food	Seed [c]
	'000 ha	kt	kt		kt	kt
Barley [d]						
1997-98	3 521	6 482	3 463	(457)	1 948	143
1998-99	3 167	5 987	4 765	(525)	2 041	117
1999-00	2 596	5 032	3 325	(569)	1 854	157
2000-01	3 454	6 743	4 567	(602)	2 158	168
2001-02	3 707	8 280	5 274	(644)	2 361	138
2002-03	3 062	3 268	2 534	na	1 965	164
Oats						
1997-98	937	1 634	154		1 437	44
1998-99	909	1 798	248		1 522	28
1999-00	584	1 118	135		951	31
2000-01	650	1 050	86		927	37
2001-02	784	1 434	190		1 210	34
2002-03	718	725	133		546	40
Sorghum						
1997-98	507	1 081	184		894	3
1998-99	587	1 891	493		1 396	3
1999-00	622	2 116	665		1 448	4
2000-01	758	1 935	501		1 429	4
2001-02	823	2 021	375		1 644	3
2002-03	503	1 065	71		986	4
Maize						
1997-98	57	271	19		251	1
1998-99	66	338	36		300	1
1999-00	82	406	53		352	1
2000-01	74	345	45		299	1
2001-02	83	457	61		395	1
2002-03	60	316	43		272	1
Triticale						
1997-98	366	633	2		614	19
1998-99	386	708	0		690	18
1999-00	361	764	0		744	14
2000-01	389	841	0		826	14
2001-02	409	860	0		847	13
2002-03	264	269	0		252	17
Total						
1997-98	5 388	10 101	3 822		5 143	209
1998-99	5 115	10 722	5 542		5 949	167
1999-00	4 245	9 436	4 177		5 350	207
2000-01	5 325	10 914	5 199		5 639	224
2001-02	5 806	13 052	5 900		6 456	189
2002-03	4 607	5 643	2 785		4 021	227

a Crop years are November–October for barley, oats and triticale, and April–March for sorghum and maize. **b** Figures in parentheses are exports of malt in barley equivalents. Exports may include carryover from earlier harvests. **c** Estimated using the following seeding rates for grain crops: sorghum 5 kg/ha; barley 45 kg/ha; maize 15 kg/ha; oats 48 kg/ha; triticale 50 kg/ha. **d** Malt use is expressed as barley equivalent = malt x 1.2. Approximately 1000 tonnes of pearled cooking barley is also included annually. **na** Not available.

Sources: ABARE, *Australian Crop Report,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; ABARE.

45 Australian feedgrains prices

	Barley a $/t	Oats b $/t	Sorghum c $/t	Maize c $/t	Feed wheat c $/t	Triticale c $/t
1977-78	75.10	67.93	84.80	87.77	111.60	na
1978-79	76.66	64.73	85.86	102.60	116.61	na
1979-80	97.06	78.48	103.28	na	140.50	na
1980-81	139.41	141.44	135.33	na	151.37	na
1981-82	111.19	105.60	112.95	129.90	149.78	na
1982-83	158.14	na	na	na	184.11	na
1983-84	122.86	96.07	127.82	160.63	175.24	na
1984-85	110.20	104.99	131.69	147.48	204.36	123.32
1985-86	109.47	100.68	126.71	143.76	193.82	121.17
1986-87	106.38	100.83	111.42	135.60	170.12	111.23
1987-88	117.93	109.09	129.02	154.84	189.54	132.25
1988-89	142.35	124.35	152.19	175.95	221.84	147.43
1989-90	151.67	116.15	152.77	176.25	171.00	155.60
1990-91	123.58	107.79	136.79	167.53	135.83	125.17
1991-92	147.28	141.02	172.75	189.15	159.67	150.56
1992-93	130.65	105.43	148.91	181.98	143.50	132.82
1993-94	127.30	105.27	168.60	229.58	137.58	135.59
1994-95	227.00	237.96	215.74	276.08	232.75	229.58
1995-96	226.80	171.69	223.69	244.02	234.72	220.22
1996-97	180.73	143.10	174.79	207.61	188.38	178.47
1997-98	179.48	171.49	182.37	215.50	185.93	184.23
1998-99	133.48	110.44	141.63	173.38	155.38	130.84
1999-00	141.03	103.23	130.58	161.14	153.63	138.95
2000-01	173.80	136.96	162.60	186.58	171.83	176.29
2001-02	202.95	191.46	187.52	224.90	211.87	211.96
2002-03	304.78	333.85	288.89	343.07	309.69	308.47
2002						
January	209.50	202.50	192.50	241.25	222.50	227.50
February	217.25	205.50	184.50	237.75	225.75	223.50
March	212.25	206.00	184.75	229.50	221.75	221.75
April	203.67	206.33	195.75	233.75	220.00	219.00
May	198.80	210.20	192.60	238.40	221.00	215.60
June	214.00	220.00	197.75	244.25	222.00	219.00
July	227.80	235.00	221.40	266.80	231.50	232.60
August	257.50	275.00	263.25	291.25	280.00	261.00
September	287.25	306.25	284.50	318.75	320.00	291.75
October	307.00	340.00	309.00	342.00	345.00	318.00
November	348.75	348.75	343.50	394.25	361.25	343.33
December	341.67	360.00	340.00	403.33	335.67	338.33
2003						
January	342.50	358.75	345.00	432.50	343.00	345.00
February	352.50	363.75	330.00	407.50	330.00	353.75
March	315.00	350.00	265.00	328.75	305.00	317.50
April	281.40	355.00	253.00	298.00	276.40	291.60
May	303.50	360.00	258.25	308.75	291.25	313.75
June	292.50	353.75	253.75	325.00	297.25	295.00
July	288.00	312.00	216.00	312.00	262.00	287.00
August	248.75	230.00	193.75	280.00	220.00	242.50

a Average quote for bulk feed barley, delivered Sydney region. **b** Average quote for bulk feed oats, delivered Sydney region. **c** Average bulk quote, delivered Sydney region. **na** Not available.
Sources: The Land, Rural Press Ltd.

46 Summary of world statistics for coarse grains

	Area	Production	Use	Closing stocks a World	Closing stocks a United States	Stocks to use ratio	Trade b	Use per person	Price c
	million ha	Mt	Mt	Mt	Mt	%	Mt	kg	US$/t
1960-61	316	439.4	432.4	109.8	79	25	26	143	na
1961-62	316	432.3	438.6	103.6	67	24	34	142	46.0
1962-63	315	448.6	450.8	101.4	59	22	33	143	51.0
1963-64	320	455.2	450.5	106.1	64	24	36	140	55.0
1964-65	315	460.6	468.6	98.1	51	21	38	143	56.0
1965-66	313	472.5	490.3	80.3	40	16	47	147	55.0
1966-67	315	508.9	505.9	83.3	36	16	44	148	60.0
1967-68	319	533.5	522.4	94.4	46	18	44	150	50.0
1968-69	318	533.9	530.5	97.8	47	18	41	149	49.0
1969-70	323	558.1	558.1	97.8	46	18	48	154	54.0
1970-71	323	559.2	573.5	83.5	32	15	54	155	63.0
1971-72	324	617.4	601.4	99.6	47	17	58	159	52.0
1972-73	318	594.2	612.6	81.2	32	13	69	159	72.0
1973-74	335	659.4	660.8	79.8	22	12	82	168	114.0
1974-75	333	622.7	612.9	89.6	21	15	70	153	132.0
1975-76	339	641.0	637.3	93.3	24	15	87	156	116.0
1976-77	342	692.0	671.6	113.8	37	17	88	162	108.0
1977-78	344	691.1	680.8	124.0	50	18	95	161	95.0
1978-79	341	744.2	724.8	143.3	58	20	99	169	103.0
1979-80	341	735.3	726.2	152.5	64	21	107	166	115.0
1980-81	341	723.6	734.6	142.6	44	19	119	166	142.0
1981-82	349	759.2	733.3	168.4	78	23	110	162	118.0
1982-83	339	775.6	741.8	202.2	109	27	96	161	115.0
1983-84	334	678.2	747.2	133.2	40	18	104	160	146.0
1984-85	335	806.3	767.6	171.9	58	22	112	161	124.0
1985-86	341	833.8	762.5	243.2	127	32	95	157	106.0
1986-87	338	824.7	789.7	278.2	153	35	97	160	77.0
1987-88	325	787.2	800.3	262.9	134	33	103	159	86.0
1988-89	325	722.9	782.4	203.4	66	26	112	153	118.0
1989-90	323	793.8	815.0	182.2	46	22	117	157	110.7
1990-91	317	829.1	816.3	195.0	48	24	102	154	106.5
1991-92	323	810.7	811.5	194.2	34	24	107	150	110.4
1992-93	326	871.6	847.2	218.7	63	26	107	154	97.9
1993-94	319	798.9	838.6	179.0	27	21	100	150	114.8
1994-95	324	871.3	859.7	190.6	45	22	93	151	105.3
1995-96	314	803.0	841.9	151.7	14	18	94	146	160.1
1996-97	323	908.5	875.1	185.2	27	21	94	151	132.4
1997-98	311	883.8	873.2	195.7	38	22	86	148	112.4
1998-99	307	888.9	869.4	215.2	51	25	94	147	94.5
1999-00	300	877.5	883.9	210.6	49	24	105	147	89.9
2000-01	295	859.9	882.4	188.1	53	21	104	144	86.6
2001-02	301	892.3	904.3	176.1	45	19	102	146	90.1
2002-03	291	868.8	901.7	142.2	29	16	104	138	107.3

a Stocks data are based on national carryover levels at the end of national crop years. Aggregate stocks data therefore should not be construed as representing stock levels at fixed points in time. **b** September–August basis; includes intra-EU trade. **c** Export price US no. 2 yellow corn fob Gulf. **na** Not available.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; ABARE.

47 World coarse grains production, by region and country

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Africa								
Egypt	6.3	6.8	6.9	6.5	6.6	6.6	7.1	6.8
Nigeria	18.5	16.9	16.8	17.5	18.6	17.9	18.8	19.1
South Africa	11.0	10.8	8.3	8.1	12.0	8.4	10.5	9.6
Americas								
Argentina	13.9	18.9	24.7	17.8	21.7	19.6	18.7	19.4
Brazil	33.2	36.6	31.3	33.5	33.0	43.1	36.8	46.9
Canada	24.1	28.2	25.1	26.6	26.8	24.3	22.6	19.6
Mexico	23.9	26.5	23.1	24.7	26.2	24.0	27.2	25.8
United States	210.0	265.7	260.4	271.5	263.2	273.1	261.9	245.0
Asia								
China	124.5	141.3	114.7	143.5	137.2	114.0	122.3	129.2
India	29.8	34.3	31.0	31.7	30.5	31.6	34.7	25.7
Turkey	9.4	9.9	10.0	10.5	9.2	10.1	9.5	10.1
Thailand	3.9	4.1	3.9	4.5	4.1	4.8	4.6	4.5
Europe								
European Union **a**	88.5	103.8	109.4	105.5	102.1	107.4	106.7	106.1
Denmark **b**	4.5	4.5	4.6	4.4	4.2	5.1	4.9	na
France **b**	22.0	26.0	29.2	28.3	27.4	28.0	28.4	na
Germany **b**	22.1	23.2	25.7	24.4	24.8	23.7	27.1	na
Italy **b**	10.4	11.5	11.8	10.5	12.0	12.1	12.1	na
Spain **b**	8.1	14.4	13.9	16.2	12.0	14.8	11.8	na
Sweden **b**	3.2	4.0	4.0	3.4	3.7	3.7	3.5	na
United Kingdom **b**	7.5	8.4	8.4	7.2	7.2	7.3	7.4	na
Former Yugoslavia	6.3	5.8	6.5	5.7	6.6	3.3	3.0	na
Hungary	6.3	7.1	8.4	7.6	8.3	6.1	9.2	7.3
Poland	17.2	16.7	17.2	17.6	16.7	13.8	17.7	17.5
Romania	12.1	11.1	15.0	9.6	11.9	5.8	8.5	8.4
Russian Federation	30.7	31.8	41.6	19.0	21.8	28.2	35.2	33.4
Ukraine	15.6	9.5	15.5	10.3	10.6	13.0	17.0	17.1
Oceania								
Australia	10.1	10.8	10.1	10.7	9.4	10.9	13.1	5.6
Other	111.3	115.1	106.3	112.5	100.9	94.0	107.5	111.7
Total **c**	803.0	908.5	883.8	888.9	877.5	859.9	892.3	868.8

a Regarded as fifteen countries. **b** International Grains Council data from 2000-01. **c** World totals do not necessarily equal those of other tables as a result of the different sources used. **na** Not available.

Sources: ABS, *Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; International Grains Council, *Grain Market Report.*

48 World coarse grains production, by grain

	Corn	Barley	Sorghum	Oats	Total a
	Mt	Mt	Mt	Mt	Mt
1960-61	199.6	78.9	40.8	55.9	439.4
1961-62	207.8	74.3	38.6	48.9	432.3
1962-63	207.3	87.1	41.8	48.7	448.6
1963-64	217.1	89.2	43.7	45.8	455.2
1964-65	215.4	96.3	41.6	42.6	460.6
1965-66	225.5	92.7	46.4	44.6	472.5
1966-67	250.1	102.5	49.3	46.3	508.9
1967-68	262.2	105.0	53.3	48.1	533.5
1968-69	252.5	115.0	51.5	51.5	533.9
1969-70	270.0	118.0	54.8	51.9	558.1
1970-71	268.1	119.8	55.1	51.6	559.2
1971-72	308.5	131.4	57.7	53.8	617.4
1972-73	301.4	132.5	54.0	47.6	594.2
1973-74	330.5	146.0	65.9	49.7	659.4
1974-75	299.8	149.6	60.3	46.7	622.7
1975-76	339.2	136.0	63.8	44.6	641.0
1976-77	356.1	166.2	62.2	45.8	692.0
1977-78	365.4	157.1	64.4	48.4	691.1
1978-79	392.1	175.6	63.6	48.5	744.2
1979-80	425.3	153.8	61.5	42.5	735.3
1980-81	408.8	157.4	59.4	41.5	723.6
1981-82	441.8	149.5	70.4	40.2	759.2
1982-83	440.1	161.2	65.2	46.2	775.6
1983-84	348.2	158.5	58.5	43.5	678.2
1984-85	458.6	170.5	65.8	45.8	806.3
1985-86	479.1	173.6	70.2	47.0	833.8
1986-87	476.0	178.1	64.5	44.6	824.7
1987-88	451.1	175.3	56.6	40.6	787.2
1988-89	400.9	164.0	54.5	35.4	722.9
1989-90	461.2	166.1	55.3	39.3	793.8
1990-91	482.4	179.2	53.7	39.3	829.1
1991-92	491.4	169.8	53.7	33.0	810.7
1992-93	538.5	166.0	65.5	33.9	871.6
1993-94	476.2	169.1	56.0	35.4	798.9
1994-95	560.3	161.0	58.0	33.0	871.3
1995-96	517.4	142.1	55.3	28.7	803.0
1996-97	592.2	153.6	69.5	30.6	908.5
1997-98	575.2	154.5	58.9	31.0	883.8
1998-99	605.6	136.0	59.4	25.7	888.9
1999-00	607.4	127.7	59.0	24.1	877.5
2000-01	588.6	133.3	52.8	26.2	859.9
2001-02	599.1	142.1	57.7	27.1	892.3
2002-03	601.7	132.4	50.7	25.3	868.8

a Includes rye, millet and mixed grain.
Source: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

49 World coarse grains trade, by region and country

	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt	2002-03 Mt
Imports								
Africa								
Algeria	1.2	1.3	1.9	1.8	2.0	1.8	2.1	1.6
Egypt	2.3	3.2	3.3	3.7	4.6	5.3	4.9	5.1
Americas								
Brazil	0.7	0.7	1.9	1.3	2.1	1.0	0.4	0.7
Colombia	1.8	1.9	2.1	1.7	2.1	2.0	2.1	2.1
Mexico	8.5	5.4	8.0	9.1	10.1	11.2	9.0	9.0
Asia								
China	3.0	2.1	1.6	2.6	2.3	2.4	2.0	1.9
Chinese Taipei	6.0	6.0	4.8	4.8	5.2	5.2	4.9	4.7
Japan	20.2	20.5	21.0	20.9	20.4	20.2	19.9	19.8
Korea, Rep. of	10.1	8.7	7.6	7.8	9.3	8.9	8.8	9.2
Malaysia	2.3	2.3	2.2	2.4	2.3	2.6	2.4	2.4
Europe								
Eastern Europe	1.7	2.7	1.4	1.2	1.7	2.8	1.6	1.2
European Union **a**	5.8	2.7	2.3	3.1	2.7	3.1	4.3	4.3
Russian Federation	9.9	5.8	3.4	0.8	2.1	0.6	0.7	0.3
Middle East								
Iran	1.7	2.2	1.6	1.4	2.2	2.1	1.6	1.6
Saudi Arabia	4.8	7.2	5.3	7.1	7.4	6.5	7.3	7.4
Turkey	0.8	1.0	0.8	1.0	1.5	0.6	1.2	1.5
Total **b**	88.9	91.2	85.4	93.1	104.8	104.4	102.1	103.8
Exports								
Africa								
South Africa	2.8	1.5	1.3	0.6	1.5	1.3	1.6	1.0
Asia								
China	0.2	4.0	6.2	3.4	10.0	7.3	8.6	14.6
Americas								
Argentina	8.3	11.9	13.7	8.6	9.6	13.1	9.1	14.3
Brazil	0.2	0.5	0.0	0.0	0.1	3.8	3.9	4.1
Canada	4.4	5.4	3.7	3.2	3.7	3.6	2.4	1.6
United States	63.0	51.6	45.3	56.0	56.8	55.4	54.0	46.2
Europe								
Eastern Europe	1.2	2.3	3.0	3.3	3.3	1.5	4.0	3.0
European Union **a**	4.6	8.6	4.0	9.2	13.3	8.1	4.7	6.9
Oceania								
Australia	4.9	4.7	3.8	5.5	4.2	5.2	5.9	2.8
Total **b**	94.3	93.8	86.2	93.7	104.8	104.4	102.1	103.8

a Regarded as fifteen countries. Includes intra-EU trade. **b** Includes some unspecified countries.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Grain: World Markets and Trade,* Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

50 World corn trade, by region and country [a]

	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt	2002-03 Mt
Imports								
Canada	0.9	0.9	1.5	0.8	1.1	2.8	4.0	3.7
China	1.5	0.1	0.3	0.3	0.1	0.1	0.1	0.0
Chinese Taipei	5.7	5.7	4.5	4.6	5.0	4.9	4.7	4.5
Colombia	1.4	1.7	1.8	1.6	2.0	1.9	1.9	1.9
European Union [b]	4.5	2.4	2.1	2.7	2.3	2.9	2.9	3.0
Indonesia	0.8	0.9	0.5	0.5	1.2	1.3	1.1	1.6
Japan	16.0	16.0	16.4	16.3	16.1	16.3	16.4	16.5
Korea, Rep. of	9.0	8.3	7.5	7.5	8.7	8.7	8.6	9.0
Malaysia	2.3	2.3	2.2	2.4	2.3	2.6	2.4	2.4
Mexico	6.4	3.1	4.4	5.6	4.9	5.9	4.1	5.5
Saudi Arabia	0.9	1.3	1.2	1.3	1.5	1.4	1.3	1.4
Total [c]	65.9	65.0	63.3	66.2	73.4	76.5	74.3	78.8
Exports								
Argentina	7.5	10.8	12.2	7.9	8.9	12.2	8.6	13.5
Brazil	0.2	0.5	0.0	0.0	0.0	3.7	3.9	4.0
China	0.2	3.9	6.2	3.3	9.9	7.3	8.6	14.5
Hungary	0.1	1.1	1.2	1.8	1.8	0.7	2.8	1.5
South Africa	2.7	1.4	1.2	0.5	0.8	1.4	1.2	0.9
United States	56.6	45.7	38.2	50.4	49.5	48.3	47.3	41.0
Other	3.1	2.5	4.3	3.0	2.5	2.9	1.9	3.4
Total [c]	70.3	65.9	63.4	66.9	73.4	76.5	74.3	78.8

a September–August years. **b** Regarded as fifteen countries. Excludes intra-EU trade. **c** Includes some unspecified countries.
Source: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

51 World barley trade, by region and country

	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt	2002-03 Mt
Imports								
China	1.4	2.0	1.2	2.0	2.2	2.3	1.9	1.9
Eastern Europe	0.7	1.1	0.4	0.5	0.4	0.5	0.4	0.4
European Union [a]	0.3	0.1	0.0	0.1	0.1	0.2	1.0	0.7
Japan	1.7	1.4	1.4	1.4	1.6	1.5	1.4	1.3
Russian Federation	0.7	0.5	0.2	0.3	0.7	0.3	0.2	0.2
Saudi Arabia	3.9	5.9	4.0	5.9	5.9	5.1	6.0	6.0
Total [b]	13.3	16.9	12.7	16.9	18.8	16.9	17.2	16.1
Exports								
Australia	4.0	4.3	3.5	4.8	3.3	4.6	5.3	2.3
Canada	2.6	3.4	2.2	1.1	1.8	2.0	1.1	0.4
European Union [a]	2.3	6.9	2.5	7.4	10.5	6.1	3.1	5.0
United States	1.4	0.7	1.6	0.6	0.6	1.3	0.6	0.7
Total [b]	13.5	17.8	13.2	16.8	18.8	16.9	17.2	16.1

a Regarded as fifteen countries. Excludes intra-EU trade. **b** Includes some unspecified countries.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

52 World sorghum trade, by country

	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt	2002-03 Mt
Imports								
Chinese Taipei	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
European Union **a**	1.0	0.2	0.2	0.3	0.3	0.0	0.1	0.0
Israel	0.4	0.5	0.1	0.1	0.2	0.1	0.1	0.1
Japan	2.5	2.8	2.8	2.5	2.2	2.0	1.8	1.5
Mexico	1.8	2.1	3.3	3.3	4.8	5.0	4.8	3.4
Total **b**	6.2	6.0	6.8	6.4	8.0	7.4	6.9	5.4
Exports								
Argentina	0.8	0.8	1.3	0.6	0.9	0.4	0.4	0.6
Australia	0.5	0.2	0.2	0.5	0.7	0.5	0.3	0.1
United States	5.0	5.2	5.4	5.0	6.5	6.0	6.1	4.6
Total **b**	6.7	6.4	7.0	6.3	8.5	7.3	7.1	5.4

a Regarded as fifteen countries. Excludes intra-EU trade. **b** Includes some unspecified countries.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

53 US coarse grains supply and disposal

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Area	million ha	33.6	38.1	36.9	36.2	35.0	19.2	34.0	33.7
Yield	t/ha	6.2	7.0	7.1	7.5	7.5	14.2	7.7	7.3
Production	Mt	210.0	265.7	260.4	271.5	263.2	273.1	261.9	245.0
Opening stocks	Mt	45.3	14.4	27.0	38.2	51.4	48.9	52.7	45.1
Imports	Mt	2.8	2.9	2.9	3.1	2.8	2.7	2.6	2.6
Availability	Mt	258.2	283.1	290.4	312.7	317.3	324.7	317.2	292.7
Domestic use	Mt	180.7	204.5	207.0	205.3	212.1	215.4	216.9	217.8
– feed	Mt	133.8	154.7	154.7	152.3	157.2	159.8	158.6	153.0
– food, seed	Mt	46.9	49.7	52.2	53.0	55.0	55.6	58.3	64.8
Exports	Mt	63.0	51.6	45.3	56.0	56.8	55.4	54.0	46.2
Closing stocks	Mt	14.4	27.0	38.2	51.4	48.9	52.7	45.1	28.9
– FOR **a**	Mt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
– CCC **b**	Mt	0.9	0.1	0.1	0.3	0.4	0.4	0.2	0.1
– free	Mt	13.5	26.9	38.1	51.1	48.5	52.3	44.9	28.8

a Farmer Owned Reserve. **b** Commodity Credit Corporation.
Sources: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; US Department of Agriculture, World Agricultural Supply and Demand Estimates,Washington DC.

54 US corn supply and disposal a

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Area									
– planted	million ha	28.8	32.1	32.2	32.5	31.3	32.2	30.7	32.1
– harvested	million ha	26.4	29.4	29.4	29.4	28.5	29.3	27.9	28.1
Yield	t/ha	7.12	7.98	7.95	8.44	8.40	8.60	8.66	8.14
Production	Mt	188.0	234.5	233.9	247.9	239.5	251.9	241.5	228.8
Opening stocks	Mt	39.6	10.8	22.4	33.2	45.4	43.6	48.2	40.6
Imports	Mt	0.4	0.3	0.2	0.5	0.4	0.2	0.3	0.4
Availability	Mt	228.0	245.7	256.5	281.6	285.3	295.7	290.0	269.8
Domestic use	Mt	160.6	177.6	185.1	185.8	192.5	198.1	201.0	203.5
– feed	Mt	119.2	134.0	139.2	138.9	143.9	148.4	148.9	144.8
– food, seed	Mt	41.4	43.5	45.8	46.9	48.6	49.7	52.1	58.7
Exports	Mt	56.6	45.7	38.2	50.4	49.5	48.3	47.3	41.0
Closing stocks	Mt	10.8	22.4	33.2	43.2	43.6	48.2	40.6	25.6
– FOR **b**	Mt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
– CCC **c**	Mt	0.8	0.1	0.1	0.3	0.4	0.4	0.2	0.1
– free	Mt	10.1	22.4	33.2	42.8	43.2	47.8	40.4	25.5
Farm price	US$/bus	3.24	2.71	2.43	1.94	1.82	1.85	1.97	2.30
Loan rate	US$/bus	1.94	1.89	1.89	1.89	1.89	1.89	1.89	1.98
Export price **d**	US$/t	160.1	132.4	112.4	94.5	89.9	86.6	90.1	107.3

a September–August crop years. **b** Farmer Owned Reserve. **c** Commodity Credit Corporation. **d** US no. 2 yellow corn fob Gulf.
Sources: US Department of Agriculture, *Amber Waves,* Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; US Department of Agriculture, *World Agricultural Supply and Demand Estimates,* Washington DC.

55 US sorghum and barley supply and disposal

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Sorghum a									
Area harvested	million ha	3.3	4.8	3.7	3.1	3.5	3.1	3.5	3.0
Yield	t/ha	3.5	4.2	4.3	4.2	4.4	3.8	3.8	3.1
Production	Mt	11.7	20.2	16.1	13.2	15.1	12.0	13.1	9.3
Opening stocks	Mt	1.8	0.5	1.2	1.2	1.7	1.7	1.1	1.5
Availability	Mt	13.5	20.7	17.3	14.4	16.8	13.6	14.1	10.8
Domestic use	Mt	8.0	14.2	10.7	7.8	8.6	6.5	6.6	5.3
Exports	Mt	5.0	5.2	5.4	5.0	6.5	6.0	6.1	4.6
Closing stocks	Mt	0.5	1.2	1.2	1.7	1.7	1.1	1.4	1.0
Farm price	US$/bus	3.2	2.3	2.2	1.7	1.6	1.9	2.0	2.3
Loan rate	US$/bus	1.8	1.8	1.8	1.7	1.7	1.7	1.7	2.0
Export price b	US$/t	161.3	118.3	110.0	92.5	87.5	95.7	97.7	113.0
Barley c									
Area harvested	million ha	2.5	2.7	2.5	2.4	1.9	2.1	1.7	1.7
Yield	t/ha	3.1	3.1	3.1	3.2	3.2	3.3	3.1	3.0
Production	Mt	7.8	8.5	7.8	7.7	6.1	6.9	5.4	4.9
Opening stocks	Mt	2.5	2.2	2.4	2.6	3.1	2.4	2.3	2.0
Imports	Mt	0.9	0.8	0.9	0.6	0.6	0.6	0.5	0.4
Availability	Mt	11.2	11.5	11.1	10.9	9.8	10.0	8.3	7.3
Domestic use	Mt	7.6	8.5	6.9	7.2	6.8	6.4	5.7	5.2
Exports	Mt	1.4	0.7	1.6	0.6	0.6	1.3	0.6	0.7
Closing stocks	Mt	2.2	2.4	2.6	3.1	2.4	2.3	2.0	1.5
Farm price	US$/bus	2.9	2.7	2.4	2.0	2.1	2.1	2.2	2.7
Loan rate	US$/bus	1.6	1.6	1.6	1.6	1.6	1.6	1.7	1.9
Export price d	US$/t	166.9	137.8	118.2	95.9	105.3	110.6	111.6	128.6

a September–August crop years. **b** US no. 2 sorghum fob Gulf. **c** June–May crop years. **d** No. 2 barley fob Portland (July–June average).
Sources: US Department of Agriculture, *Agricultural Outlook,* Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; US Department of Agriculture, *World Agricultural Supply and Demand Estimates,* Washington DC.

56 Feedgrains export price quotations, by category

	US no. 2 hard red winter wheat (Gulf) a	US no. 2 yellow corn (Gulf) a	US no. 2 sorghum (Gulf) a	US no. 2 barley (Portland) b
	US$/t	US$/t	US$/t	US$/t
1978-79	141.0	103.0	96.0	102.0
1979-80	175.0	115.0	116.0	135.0
1980-81	183.0	142.0	141.0	149.0
1981-82	170.0	118.0	114.0	131.0
1982-83	160.0	115.0	114.0	116.0
1983-84	154.0	146.0	131.0	138.0
1984-85	148.0	124.0	110.0	119.0
1985-86	128.0	106.0	94.0	100.0
1986-87	110.5	77.0	71.0	94.0
1987-88	123.4	86.0	80.0	101.0
1988-89	165.8	118.0	103.5	127.0
1989-90	160.8	110.7	103.7	123.0
1990-91	117.9	106.5	104.4	118.0
1991-92	151.0	110.4	109.7	122.0
1992-93	141.3	97.9	95.8	115.0
1993-94	141.5	114.8	111.9	112.0
1994-95	156.4	105.3	103.7	119.1
1995-96	215.3	160.1	156.9	166.9
1996-97	178.5	132.4	124.5	137.8
1997-98	141.8	112.4	113.3	118.2
1998-99	119.1	94.5	94.5	95.9
1999-00	113.2	89.9	97.0	105.3
2000-01	128.5	86.6	99.0	110.6
2001-02	127.5	90.1	105.9	111.6
2002-03	160.5	107.3	108.5	128.6
2002				
January	130.0	92.1	99.8	110.6
February	127.0	91.0	97.8	112.3
March	125.8	90.0	95.8	112.0
April	125.3	87.3	93.7	110.9
May	123.6	90.5	95.1	110.9
June	135.8	93.5	97.3	107.9
July	151.2	99.7	102.6	112.1
August	165.2	110.0	114.7	119.4
September	191.8	114.1	119.1	133.5
October	194.4	109.8	115.2	134.2
November	182.8	109.1	115.8	137.0
December	169.2	106.9	118.8	133.0
2003				
January	154.7	105.9	117.9	131.5
February	153.8	106.0	116.1	130.4
March	144.8	105.2	114.6	130.8
April	143.2	105.3	112.9	131.2
May	146.2	107.9	114.8	126.2
June	132.7	107.1	110.5	124.2
July	133.8	97.6	100.1	125.0
August	155.1	100.5	108.2	124.8

a Export price, fob Gulf ports. **b** Export price, fob Portland.
Sources: International Grains Council, *Market Report,* London; US Department of Agriculture, Economic Research Service, *Wheat Situation and Outlook Report,* Washington DC.

57 Coarse grains supply and disposal in major exporting countries

	Area harvested million ha	Yield t/ha	Production Mt	Domestic use Mt	Exports Mt	Closing stocks Mt
United States (September–August)						
1996-97	38.1	6.97	265.7	204.5	51.6	27.0
1997-98	36.9	7.06	260.4	207.0	45.3	38.2
1998-99	36.2	7.51	271.5	205.3	56.0	51.4
1999-00	35.0	7.51	263.2	212.1	56.8	48.9
2000-01	19.2	14.22	273.1	215.4	55.4	52.7
2001-02	34.0	7.70	261.9	216.9	54.0	45.1
2002-03	33.7	7.27	245.0	217.8	46.2	28.9
Canada (August–July) a						
1996-97	8.0	3.52	28.2	21.8	5.4	4.8
1997-98	7.6	3.31	25.1	23.5	3.7	4.3
1998-99	7.4	3.60	26.6	23.6	3.2	4.9
1999-00	6.9	3.87	26.8	23.3	3.7	5.7
2000-01	7.2	3.39	24.3	24.7	3.6	4.3
2001-02	6.8	3.33	22.6	25.2	2.4	3.4
2002-03	5.9	3.31	19.6	22.4	1.6	2.9
Argentina (March–February)						
1996-97	4.7	4.06	18.9	6.8	11.9	1.1
1997-98	4.7	5.28	24.7	9.7	13.7	2.4
1998-99	3.9	4.57	17.8	10.0	8.6	1.6
1999-00	4.5	4.86	21.7	9.1	9.6	1.3
2000-01	4.1	4.81	19.6	9.4	13.1	1.2
2001-02	3.7	5.07	18.7	7.6	9.1	1.1
2002-03	3.6	5.33	19.4	6.5	14.3	1.2
Australia (November–October)						
1996-97	5.4	2.02	10.8	6.3	4.7	0.3
1997-98	5.4	1.87	10.1	5.7	3.8	1.2
1998-99	5.1	2.10	10.7	6.5	5.5	0.3
1999-00	4.2	2.22	9.4	5.9	4.2	0.2
2000-01	5.3	2.05	10.9	6.2	5.2	0.1
2001-02	5.8	2.25	13.1	7.0	5.9	0.4
2002-03	4.6	1.22	5.6	4.6	2.8	0.1
European Union (July–June) b						
1996-97	19.6	5.28	103.8	95.9	8.6	12.0
1997-98	20.5	5.34	109.4	98.1	4.0	21.7
1998-99	20.1	5.26	105.5	97.5	9.2	23.5
1999-00	19.0	5.37	102.1	95.8	13.3	19.5
2000-01	19.2	5.59	107.4	102.8	8.1	17.4
2001-02	19.5	5.46	106.7	102.3	4.7	20.0
2002-03	19.3	5.50	106.1	102.2	6.9	21.7
World						
1996-97	322.7	2.82	908.5	875.1	93.8	185.2
1997-98	311.1	2.84	883.8	873.2	86.2	195.7
1998-99	307.2	2.89	888.9	869.4	93.7	215.2
1999-00	299.6	2.93	877.5	883.9	104.8	210.6
2000-01	295.2	2.91	859.9	882.4	104.4	188.1
2001-02	301.0	2.96	892.3	904.3	102.1	176.1
2002-03	291.0	2.99	868.8	902.8	103.8	142.2

a Canada also imports about 0.5 million tonnes of grain from the United States each year. **b** Regarded as fifteen countries. Includes intra-EU trade.
Note: The marketing period of each country is shown in parentheses.
Sources: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; ABARE.

58 Australian cotton area harvested and lint yield [a]

	Area harvested			Lint yield		
	New South Wales	Queensland	Australia [b]	New South Wales	Queensland	Australia [b]
	'000 ha	'000 ha	'000 ha	t/ha	t/ha	t/ha
1960-61	na	na	15.0	na	na	0.173
1961-62	na	na	11.7	na	na	0.188
1962-63	na	na	15.3	na	na	0.118
1963-64	na	na	15.6	na	na	0.161
1964-65	7.3	7.9	15.3	0.942	0.207	0.652
1965-66	12.5	5.9	22.2	1.247	0.326	0.913
1966-67	12.3	5.5	21.5	0.927	0.541	0.855
1967-68	19.4	5.2	31.1	1.301	0.731	1.057
1968-69	22.3	6.3	32.5	1.158	0.722	1.035
1969-70	23.1	5.9	31.7	0.880	0.735	0.874
1970-71	26.4	5.2	35.1	0.485	0.596	0.565
1971-72	29.3	6.9	40.1	1.133	0.957	1.081
1972-73	31.7	8.0	43.6	0.744	0.600	0.720
1973-74	31.0	7.1	41.7	0.703	0.930	0.731
1974-75	27.5	7.4	38.5	0.982	0.797	0.856
1975-76	23.9	6.0	29.8	0.853	0.750	0.835
1976-77	24.8	8.9	35.3	0.847	0.787	0.794
1977-78	31.6	9.6	41.6	1.104	0.969	1.063
1978-79	36.1	13.4	49.8	1.102	0.993	1.063
1979-80	51.4	20.0	75.0	1.243	0.965	1.109
1980-81	61.6	22.0	83.6	1.252	0.991	1.183
1981-82	74.5	29.0	103.5	1.456	0.900	1.298
1982-83	71.9	24.6	96.5	1.043	1.049	1.045
1983-84	104.5	32.9	137.4	1.027	1.033	1.028
1984-85	131.2	51.9	183.1	1.538	0.904	1.358
1985-86	135.8	41.2	177.0	1.593	1.238	1.510
1986-87	125.0	31.0	156.0	1.451	1.297	1.420
1987-88	163.6	80.9	244.6	1.204	0.890	1.100
1988-89	140.8	53.3	194.1	1.577	1.332	1.515
1989-90	175.0	64.8	239.8	1.346	1.077	1.273
1990-91	202.0	77.0	279.0	1.678	1.403	1.552
1991-92	225.0	87.0	312.0	1.812	1.688	1.609
1992-93	204.0	82.0	286.0	1.478	1.314	1.304
1993-94	210.0	84.0	294.0	1.301	1.123	1.120
1994-95	157.0	89.0	246.0	1.594	1.402	1.362
1995-96	185.5	118.4	303.9	1.460	1.270	1.384
1996-97	277.0	119.1	396.1	1.599	1.403	1.535
1997-98	299.3	138.8	438.2	1.588	1.371	1.519
1998-99	381.7	179.9	561.5	1.243	1.341	1.290
1999-00	313.0	151.3	464.3	1.574	1.638	1.593
2000-01	327.9	199.4	527.3	1.627	1.432	1.529
2001-02	289.7	119.3	409.0	1.771	1.594	1.821
2002-03	149.8	53.6	203.4	1.784	1.368	1.674

a August–July crop years. **b** Includes data for Western Australia. **na** Not available.

Sources: ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Crops and Pastures, Australia,* cat. no. 7321.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; Department of Agriculture, Fisheries and Forestry – Australia, *Cotton Market News,* Canberra; ABARE.

59 Australian cottonseed and lint production [a]

	Cottonseed production			Lint production		
	New South Wales	Queensland	Australia [b]	New South Wales	Queensland	Australia [b]
	kt	kt	kt	kt	kt	kt
1960-61	na	na	4.5	na	na	2.6
1961-62	na	na	3.8	na	na	2.2
1962-63	na	na	3.1	na	na	1.8
1963-64	na	na	4.4	na	na	2.5
1964-65	11.8	2.8	17.4	6.8	1.6	10.0
1965-66	27.0	3.3	35.4	15.5	1.9	20.3
1966-67	20.0	5.2	32.1	11.5	3.0	18.4
1967-68	43.9	6.6	57.3	25.2	3.8	32.9
1968-69	44.9	8.0	58.5	25.8	4.6	33.6
1969-70	35.5	7.7	48.3	20.4	4.4	27.7
1970-71	22.3	5.4	31.9	12.8	3.1	19.8
1971-72	52.8	12.7	69.1	33.2	6.6	43.3
1972-73	36.4	10.7	50.7	23.6	4.8	31.4
1973-74	35.7	10.8	49.8	21.8	6.6	30.5
1974-75	44.1	9.7	53.8	27.0	5.9	33.0
1975-76	33.2	7.4	40.6	20.4	4.5	24.9
1976-77	34.9	11.7	46.6	21.0	7.0	28.0
1977-78	56.9	15.2	72.1	34.9	9.3	44.2
1978-79	56.8	21.7	78.5	39.8	13.3	53.0
1979-80	104.3	31.5	135.8	63.9	19.3	83.2
1980-81	125.8	35.6	161.4	77.1	21.8	98.9
1981-82	176.5	42.6	219.1	108.2	26.1	134.3
1982-83	112.3	42.1	154.4	75.0	25.8	100.8
1983-84	135.0	55.2	190.2	107.3	34.0	141.3
1984-85	308.2	102.2	410.4	201.8	46.9	248.7
1985-86	308.0	74.0	382.0	216.3	51.0	267.3
1986-87	281.6	48.4	330.0	181.4	40.2	221.6
1987-88	333.9	101.1	435.0	197.0	72.0	269.0
1988-89	345.0	74.3	419.3	222.0	71.0	294.0
1989-90	380.0	113.0	493.0	235.6	69.8	305.3
1990-91	526.0	160.0	686.0	330.6	102.4	433.0
1991-92	563.0	186.0	749.0	376.8	124.9	502.0
1992-93	365.1	162.4	527.5	258.2	114.8	373.0
1993-94	334.2	131.3	465.5	236.5	92.7	329.2
1994-95	286.5	187.1	473.6	202.6	132.4	335.0
1995-96	382.4	212.4	594.8	270.4	150.2	420.7
1996-97	627.5	232.6	860.1	443.7	164.5	608.3
1997-98	672.3	269.0	941.3	475.4	190.3	665.6
1998-99	677.5	346.9	1 024.4	479.1	245.3	724.4
1999-00	695.7	350.4	1 046.2	492.0	247.8	739.8
2000-01	740.5	399.5	1 140.0	523.7	282.5	806.2
2001-02	777.1	276.4	1 053.5	549.6	195.5	745.0
2002-03	377.9	103.7	481.6	267.2	73.3	340.6

a August–July crop year. **b** Includes data for Western Australia. **na** Not available.

Sources: ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Crops and Pastures, Australia,* cat. no. 7321.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; Department of Agriculture, Fisheries and Forestry – Australia, *Cotton Market News,* Canberra; ABARE.

60 Australian production, trade and use of raw cotton

	Domestic lint production a	Gross value of production b	Imports		Exports		Use
			Volume	Value	Volume	Value	
	kt	$m	kt	$m	kt	$m	kt
1960-61	2.6	na	na	na	na	na	na
1961-62	2.2	1.3	na	na	na	na	na
1962-63	1.8	1.9	19.3	na	na	na	21.3
1963-64	2.5	2.2	25.7	na	na	na	25.5
1964-65	10.0	7.7	25.2	na	na	na	25.6
1965-66	20.3	14.3	14.6	8.2	na	na	28.3
1966-67	18.4	13.6	9.1	4.7	na	na	28.8
1967-68	32.9	19.7	12.3	6.9	na	na	28.1
1968-69	33.6	20.7	5.7	3.8	3.7	1.9	28.9
1969-70	27.7	18.6	4.7	3.0	11.5	5.1	30.1
1970-71	19.8	14.0	7.0	4.3	7.4	3.4	30.3
1971-72	43.3	29.8	8.9	5.8	2.4	1.6	27.4
1972-73	31.4	32.6	3.8	2.7	22.3	11.3	28.7
1973-74	30.5	32.6	8.4	9.3	3.2	1.8	31.6
1974-75	33.0	26.6	4.0	4.8	7.7	5.4	23.3
1975-76	24.9	29.3	4.1	4.4	16.0	11.5	26.9
1976-77	28.0	37.5	5.0	7.4	5.5	7.1	22.2
1977-78	44.2	52.2	4.0	5.6	9.8	10.9	21.4
1978-79	53.0	76.0	1.7	3.1	23.6	28.5	20.6
1979-80	83.2	135.3	2.0	4.0	48.5	66.9	21.2
1980-81	98.9	147.0	2.2	4.3	59.0	92.0	21.7
1981-82	134.3	182.0	1.0	1.9	79.0	117.0	20.4
1982-83	100.8	168.0	0.7	1.3	129.0	198.0	17.5
1983-84	141.3	269.0	1.1	2.4	82.0	148.0	20.5
1984-85	248.7	330.0	2.7	6.0	140.0	262.0	20.3
1985-86	267.3	295.0	0.5	1.4	241.0	380.0	21.0
1986-87	221.6	372.5	0.3	0.6	251.0	345.0	22.3
1987-88	269.0	421.6	0.3	0.7	176.0	353.0	22.2
1988-89	294.0	536.9	1.1	2.9	287.3	462.8	21.8
1989-90	305.3	658.0	0.1	0.3	306.0	579.8	24.3
1990-91	433.0	981.0	0.7	2.2	339.7	737.7	23.0
1991-92	502.0	972.0	0.7	1.8	458.1	945.0	27.7
1992-93	373.0	770.0	0.3	1.3	396.0	755.5	28.3
1993-94	329.2	739.0	0.3	1.4	360.5	732.0	31.7
1994-95	335.0	910.0	0.2	1.2	296.4	678.0	33.4
1995-96	420.7	1 001.0	0.7	2.0	311.4	762.3	42.0
1996-97	608.3	1 342.0	0.2	0.6	505.0	1 076.9	42.4
1997-98	665.6	1 449.2	0.2	1.0	593.4	1 385.6	40.4
1998-99	724.4	1 394.7	0.2	1.0	646.7	1 559.0	37.7
1999-00	739.8	1 568.3	0.4	1.4	703.0	1 406.6	40.6
2000-01	806.2	1 861.7	0.4	1.6	833.8	1 957.1	36.1
2001-02	745.0	1 504.0	0.4	1.0	718.4	1 547.2	32.0
2002-03	340.6	739.1	0.3	1.0	595.7	1 152.3	25.6

a August–July crop year. **b** Includes cottonseed. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Value of Agricultural Commodities Produced, Australia,* cat. no. 7503.0, Canberra; Raw Cotton Marketing Advisory Committee, *Annual Report,* Canberra; ABARE.

61 Australian exports of raw cotton, by destination

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	kt	kt	kt	kt	kt	kt	kt	kt
Asia	281.7	463.9	537.5	594.1	657.7	778.6	674.8	559.9
China	18.9	76.4	74.7	18.2	5.4	11.4	13.1	29.6
Chinese Taipei	17.7	24.0	28.1	30.0	26.7	31.6	21.5	13.6
India	0.7	0.9	18.3	14.3	41.8	66.1	55.0	6.8
Indonesia	99.1	161.0	161.5	209.3	182.9	220.3	193.9	184.2
Japan	69.2	78.4	101.3	135.4	138.9	139.6	120.9	94.0
Korea, Rep. of	28.1	28.6	35.7	50.1	53.0	75.3	94.0	96.3
Pakistan	0.0	1.2	3.7	18.6	48.8	39.6	29.1	14.9
Philippines	6.2	10.5	8.1	7.2	12.2	11.6	5.1	3.3
Thailand	20.1	38.7	55.4	79.4	95.0	114.5	90.1	86.9
Other	21.7	44.3	50.9	31.6	53.0	68.8	52.1	30.2
Europe	24.9	30.5	49.2	45.0	41.1	49.3	41.3	31.5
Germany	0.4	0.3	3.2	0.6	0.8	0.0	0.0	0.2
Italy	17.1	19.0	30.4	27.4	22.4	29.2	24.3	17.3
Spain	5.0	5.6	11.5	9.0	3.0	2.6	2.9	2.9
Other	2.3	5.6	4.1	7.9	14.9	17.5	14.1	11.0
United States	2.8	7.2	0.3	0.2	0.1	0.4	0.0	1.2
Other countries	4.9	10.6	6.7	7.6	4.2	5.9	2.3	4.3
Total	311.4	505.0	593.4	646.7	703.0	833.8	718.4	595.7

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

62 Cotton prices and unit values

	Cotlook 'A' index a USc/lb	Australian base price for raw cotton b Ac/kg	Average unit export return for raw cotton Ac/kg	Average gross unit value c Ac/kg
1960-61	na	57.0	na	0.0
1961-62	na	59.0	na	59.1
1962-63	na	59.0	na	105.6
1963-64	na	57.0	na	88.0
1964-65	na	57.0	na	77.0
1965-66	na	57.0	na	70.4
1966-67	28.4	55.0	na	73.9
1967-68	31.3	58.0	na	59.9
1968-69	28.8	60.0	51.4	61.6
1969-70	28.0	58.0	44.3	67.1
1970-71	31.1	65.0	45.9	70.7
1971-72	37.2	72.0	66.7	68.8
1972-73	42.0	72.0	50.7	103.8
1973-74	76.5	120.0	56.3	106.9
1974-75	52.5	90.0	70.1	80.6
1975-76	65.3	117.0	71.9	117.7
1976-77	81.9	166.0	129.1	133.9
1977-78	65.1	135.0	111.2	118.0
1978-79	76.1	156.0	120.8	143.4
1979-80	85.4	179.0	137.9	162.6
1980-81	94.2	192.0	155.9	148.6
1981-82	73.8	164.0	148.1	135.5
1982-83	76.7	199.0	153.5	166.7
1983-84	87.7	237.0	180.5	190.4
1984-85	69.2	226.0	187.1	132.7
1985-86	49.0	174.0	157.7	110.4
1986-87	62.1	211.0	137.5	168.1
1987-88	72.3	237.0	200.6	156.7
1988-89	66.4	186.6	161.1	182.6
1989-90	82.4	247.7	189.5	215.5
1990-91	82.9	249.5	217.1	226.6
1991-92	63.1	198.4	206.3	193.6
1992-93	57.7	197.6	190.8	206.4
1993-94	70.6	234.4	203.0	224.5
1994-95	91.1	286.5	228.8	271.6
1995-96	85.5	262.7	244.8	238.0
1996-97	78.6	235.0	213.2	220.6
1997-98	72.2	248.6	233.5	217.7
1998-99	58.9	227.5	241.1	192.5
1999-00	52.9	199.2	200.1	212.0
2000-01	57.3	256.1	234.7	230.9
2001-02	41.9	193.8	215.4	201.9
2002-03	55.7	221.6	193.4	217.0

a Cotlook 'A' index quotes (cif Northern Europe) for strict middling (SM) 1 1/16" cotton from 1972-73 to July 1981, and for SM 1 3/32" cotton from August 1981. August–July crop year. **b** Equivalent to 'in store' prices – that is, Cotlook prices in USc/lb to which freight differentials have been added, then converted to Australian currency, with 'into store' charges added finally. Prices approximate import parity prices. **c** Gross value of production including cottonseed, divided by lint production. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Agriculture, Fisheries and Forestry – Australia, *Cotton Market News,* Canberra; Cotlook Limited, *Cotton Outlook,* United Kingdom; ABARE.

63 Summary of world statistics for raw cotton [a]

	Opening stocks kt	Production kt	Total supply kt	Consumption kt	Imports [b] kt	Price [c] USc/lb
1960-61	na	9 812	na	10 064	3 770	na
1961-62	4 110	9 682	13 792	9 840	3 476	na
1962-63	4 064	10 224	14 288	9 576	3 587	na
1963-64	4 901	11 052	15 953	10 410	3 870	na
1964-65	5 552	11 707	17 259	11 157	3 785	na
1965-66	6 218	12 386	18 604	11 712	3 726	na
1966-67	6 982	11 381	18 363	12 200	3 925	28.4
1967-68	6 113	11 218	17 331	12 241	3 782	31.3
1968-69	5 061	12 383	17 444	12 273	3 682	28.8
1969-70	5 143	11 909	17 052	12 189	3 860	28.0
1970-71	4 888	11 991	16 879	12 428	5 358	31.1
1971-72	4 675	12 871	17 546	12 718	5 369	37.2
1972-73	4 790	13 450	18 240	12 956	5 956	42.0
1973-74	5 229	13 638	18 867	13 130	5 819	76.5
1974-75	5 839	13 860	19 699	12 409	5 186	52.5
1975-76	7 186	11 745	18 931	13 404	5 724	65.3
1976-77	5 576	12 272	17 848	13 102	5 437	81.9
1977-78	4 813	13 905	18 718	13 295	5 898	65.1
1978-79	5 521	12 988	18 509	13 793	5 902	76.1
1979-80	4 726	14 255	18 981	14 367	6 642	85.4
1980-81	4 634	13 823	18 457	14 148	5 934	94.2
1981-82	4 503	14 952	19 455	13 768	5 596	73.8
1982-83	5 601	14 505	20 106	14 579	5 676	76.7
1983-84	5 549	14 314	19 863	14 965	5 891	87.7
1984-85	5 183	19 302	24 485	15 396	6 016	69.2
1985-86	9 076	17 480	26 556	16 399	6 313	49.0
1986-87	10 311	15 367	25 678	17 894	7 206	62.1
1987-88	7 685	17 641	25 326	18 325	6 648	72.3
1988-89	7 000	18 374	25 374	18 554	7 326	66.4
1989-90	6 723	17 362	24 085	18 916	7 123	82.4
1990-91	5 418	18 935	24 353	18 634	6 675	82.9
1991-92	5 886	20 832	26 718	18 733	6 362	63.1
1992-93	8 022	17 961	25 983	18 686	5 884	57.7
1993-94	7 471	16 707	24 178	18 606	6 065	70.6
1994-95	5 847	18 749	24 596	18 492	6 647	91.1
1995-96	6 521	20 318	26 839	18 765	5 994	85.5
1996-97	8 001	19 521	27 522	19 167	6 277	78.6
1997-98	8 797	20 009	28 806	18 972	5 717	72.2
1998-99	9 912	18 572	28 484	18 428	5 421	58.9
1999-00	10 472	19 051	29 523	19 804	6 178	52.9
2000-01	9 921	19 314	29 235	20 050	5 766	57.3
2001-02	9 286	21 438	30 724	20 524	6 422	41.9
2002-03	10 275	19 158	29 433	21 218	6 632	55.7

a August–July crop year. **b** Includes trade among the twelve republics of the former Soviet Union and Estonia, Latvia and Lithuania. **c** Cotlook 'A' index quotes (cif Northern Europe) for strict middling (SM) 1 1/16" cotton from 1972-73 to July 1981, and for SM 1 3/32" cotton from August 1981. **na** Not available.

Sources: US Department of Agriculture, *Cotton: World Markets and Trade, Foreign Agriculture Service Circular,* Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; Cotlook Limited, *Cotton Outlook,* United Kingdom; ABARE.

64 World area, yield and production of raw cotton a

	Area harvested	Lint yield	Production					
			Central Asian Republics b	India	Pakistan	United States	China	World
	'000 ha	kg/ha	kt	kt	kt	kt	kt	kt
1960-61	32 120	305	na	na	na	3 100	1 067	9 812
1961-62	32 413	299	na	895	328	3 110	806	9 682
1962-63	31 780	322	na	1 086	368	3 228	740	10 224
1963-64	32 882	336	na	1 103	422	3 330	1 197	11 052
1964-65	33 551	349	na	1 031	380	3 297	1 655	11 707
1965-66	33 326	372	na	961	417	3 255	2 090	12 386
1966-67	31 210	365	na	960	466	2 080	2 330	11 381
1967-68	30 964	362	na	1 129	520	1 621	2 351	11 218
1968-69	31 921	388	na	1 035	529	2 379	2 351	12 383
1969-70	32 487	367	na	1 044	538	2 175	2 079	11 909
1970-71	31 801	377	na	963	544	2 219	2 286	11 991
1971-72	33 043	390	na	1 260	707	2 281	2 112	12 871
1972-73	33 538	401	na	1 125	675	2 984	1 960	13 450
1973-74	32 849	415	na	1 079	633	2 825	2 547	13 638
1974-75	33 530	413	na	1 199	610	2 513	2 460	13 860
1975-76	29 889	393	na	1 130	494	1 808	2 373	11 745
1976-77	30 568	401	na	1 012	418	2 304	2 068	12 272
1977-78	33 568	414	na	1 229	553	3 133	2 047	13 905
1978-79	32 901	395	na	1 348	464	2 364	2 166	12 988
1979-80	32 211	443	na	1 363	744	3 185	2 199	14 255
1980-81	32 272	428	na	1 322	714	2 422	2 700	13 823
1981-82	32 972	453	na	1 428	748	3 407	2 961	14 952
1982-83	31 381	462	na	1 471	823	2 605	3 592	14 505
1983-84	30 920	463	na	1 333	494	1 692	4 638	14 314
1984-85	33 723	572	na	1 820	1 008	2 827	6 249	19 302
1985-86	31 582	553	na	1 964	1 216	2 925	4 137	17 480
1986-87	29 360	523	na	1 579	1 320	2 119	3 549	15 367
1987-88	30 878	571	na	1 555	1 468	3 214	4 246	17 641
1988-89	33 765	544	na	1 788	1 426	3 355	4 159	18 374
1989-90	31 567	550	na	2 295	1 456	2 655	3 788	17 362
1990-91	33 170	571	na	1 989	1 638	3 376	4 507	18 935
1991-92	34 820	598	na	2 023	2 177	3 835	5 683	20 832
1992-93	32 631	550	1 880	2 346	1 540	3 531	4 507	17 961
1993-94	30 706	544	1 947	2 134	1 368	3 513	3 745	16 707
1994-95	32 200	581	1 820	2 427	1 361	4 281	4 333	18 749
1995-96	35 958	564	1 716	2 885	1 785	3 897	4 768	20 318
1996-97	33 842	577	1 355	3 030	1 594	4 124	4 202	19 521
1997-98	33 772	592	1 506	2 686	1 562	4 092	4 594	20 009
1998-99	32 958	561	1 399	2 805	1 372	3 030	4 507	18 572
1999-00	32 373	588	1 559	2 652	1 872	3 694	3 832	19 051
2000-01	31 925	602	1 370	2 380	1 785	3 742	4 420	19 314
2001-02	34 063	627	1 569	2 678	1 807	4 421	5 313	21 438
2002-03	30 528	628	1 438	2 308	1 698	3 747	4 921	19 158

a August–July crop year. **b** Includes Tajikistan, Turkmenistan, Uzbekistan, Kyrgyzstan and Kazakhstan. **na** Not applicable.
Sources: US Department of Agriculture, *Cotton: World Markets and Trade,* Foreign Agriculture Service Circular, Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

65 World exports of raw cotton, by country [a]

	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt	2002-03 kt
Africa	881	1 047	1 133	1 126	1 152	1 047	1 100	1 250
Asia	508	349	208	247	519	282	160	261
China	5	2	7	148	368	98	74	164
Pakistan	312	26	83	2	90	125	35	50
Central Asian Republics								
Tajikistan	98	87	81	93	77	85	103	136
Turkmenistan	200	114	109	163	174	147	98	87
Uzbekistan	984	991	995	830	893	740	740	762
Australia	311	505	593	647	703	834	705	595
Central and South America	450	365	308	316	150	259	245	171
United States	1 671	1 495	1 633	946	1 470	1 472	2 395	2 591
Other	894	891	759	795	800	884	784	816
Total	5 997	5 844	5 819	5 163	5 938	5 750	6 325	6 669

a August–July crop year. Includes small quantities re-exported.
Sources: US Department of Agriculture, *Cotton: World Markets and Trade, Foreign Agriculture Service Circular,* Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

66 World imports of raw cotton, by destination [a]

	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt	2002-03 kt
Asia	2 987	2 999	2 437	2 550	2 768	2 750	3 204	3 464
China	663	787	399	78	25	52	98	681
Hong Kong, Korea, Rep. of and Chinese Taipei	858	747	675	755	757	649	792	691
Japan	330	292	292	275	279	248	231	221
Other Asia	1 136	1 173	1 071	1 442	1 707	1 801	2 083	1 871
Europe	1 366	1 365	1 319	1 124	1 117	1 084	1 011	944
Eastern Europe [b]	285	276	279	242	217	208	209	193
European Union [c]	1 039	1 054	1 004	851	870	849	779	731
Other Europe	42	35	36	31	30	27	23	20
Other	1 594	1 927	1 961	1 760	2 321	1 980	2 196	2 224
Total	5 947	6 291	5 717	5 434	6 206	5 814	6 411	6 632

a August–July crop year. Does not include cotton in transit. **b** Includes imports into Albania, Bulgaria, former Czechoslovakia, Czech Republic, Slovakia, Hungary, Poland, Romania and former Yugoslavia. **c** Regarded as twelve countries until 1 January 1995, then fifteen countries.
Sources: US Department of Agriculture, *Cotton: World Markets and Trade, Foreign Agriculture Service Circular,* Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

67 Summary of Australian statistics for dairy products

	Dairy cow numbers a	Milk yield per cow	Production			Export price c	
			Milk b	Butter	Cheese	Butter	Cheese
	'000	L	ML	kt	kt	$/t	$/t
1960-61	3 162	1 926	6 089	182	48	638	503
1961-62	3 230	2 032	6 563	201	57	598	458
1962-63	3 263	2 045	6 673	204	60	604	462
1963-64	3 296	2 064	6 803	206	59	618	477
1964-65	3 214	2 151	6 914	206	63	688	514
1965-66	3 094	2 236	6 919	209	60	669	534
1966-67	3 061	2 383	7 295	222	70	607	591
1967-68	2 963	2 298	6 808	196	71	584	519
1968-69	2 866	2 430	6 965	198	75	523	545
1969-70	2 829	2 659	7 523	223	76	512	480
1970-71	2 745	2 641	7 249	203	78	516	504
1971-72	2 693	2 629	7 079	196	81	793	673
1972-73	2 647	2 626	6 952	185	93	784	733
1973-74	2 492	2 711	6 756	175	96	695	761
1974-75	2 477	2 623	6 497	161	99	955	1 012
1975-76	2 467	2 533	6 248	148	113	836	1 117
1976-77	2 279	2 533	5 772	118	104	1 124	1 070
1977-78	2 056	2 734	5 621	112	116	1 280	1 259
1978-79	1 921	2 951	5 669	105	142	1 249	1 337
1979-80	1 869	2 906	5 432	84	151	1 595	1 545
1980-81	1 819	2 871	5 223	79	135	1 875	1 926
1981-82	1 810	2 905	5 258	76	153	2 714	2 158
1982-83	1 792	3 078	5 516	88	158	2 412	2 444
1983-84	1 809	3 269	5 913	111	161	1 871	2 611
1984-85	1 809	3 335	6 033	114	160	1 617	2 433
1985-86	1 770	3 411	6 038	105	170	1 592	2 515
1986-87	1 757	3 598	6 173	104	177	1 758	2 645
1987-88	1 714	3 657	6 130	98	176	1 634	2 735
1988-89	1 709	3 781	6 290	101	191	1 970	2 990
1989-90	1 698	3 790	6 263	111	175	2 421	3 461
1990-91	1 682	3 911	6 403	108	179	1 968	3 203
1991-92	1 699	4 074	6 732	114	198	2 177	3 316
1992-93	1 716	4 318	7 327	131	210	2 241	3 693
1993-94	1 786	4 523	8 077	152	234	2 197	3 750
1994-95	1 821	4 506	8 206	141	241	2 076	3 449
1995-96	1 884	4 626	8 716	153	272	2 993	3 881
1996-97	1 977	4 571	9 036	158	290	2 217	3 702
1997-98	2 060	4 582	9 439	164	310	2 513	3 955
1998-99	2 155	4 723	10 178	187	327	2 819	3 967
1999-00	2 171	4 996	10 847	183	373	2 350	3 670
2000-01	2 176	4 846	10 545	172	376	2 706	4 342
2001-02	2 123	5 309	11 271	178	431	2 767	4 738
2002-03	2 052	5 030	10 322	164	364	2 251	3 844

a Cows in milk and dry at 31 March on establishments with an estimated value of agricultural operations (EVAO) of $5 000 or more. From 1999-2000, at 30 June. House cows and heifers are included before 1977-78, but excluded thereafter. Before 1986-87, includes livestock holdings on establishments with an EVAO of $2 500 or more. **b** Before 1980-81, milk production included an estimate of on-farm use. **c** Fob.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Principal Agricultural Commodities, Preliminary,* cat. no. 7111.0, Canberra; Australian Dairy Corporation, *Monthly Statistics,* Melbourne; ABARE.

68 Value of Australian exports of dairy products, by destination

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Cheese								
Japan	$m	197.2	255.7	276.0	306.6	338.8	429.2	272.0
Philippines	$m	17.7	22.0	21.6	16.4	18.6	20.0	15.7
Saudi Arabia	$m	53.7	74.3	81.6	94.1	123.6	148.2	98.9
United Kingdom	$m	32.2	18.2	29.5	23.9	38.7	21.5	15.2
United States	$m	21.5	26.1	30.2	28.8	39.1	48.3	36.1
Other	$m	153.2	210.2	256.1	336.8	391.0	366.3	361.9
Total	$m	475.6	606.6	695.0	806.6	949.9	1 033.4	799.8
Butter and butterfat a								
Egypt	$m	20.4	11.8	33.0	33.7	34.6	23.5	18.9
Malaysia	$m	13.0	11.5	11.7	15.8	14.7	14.4	12.7
Philippines	$m	10.7	11.2	11.4	11.9	8.6	5.1	3.7
Singapore	$m	18.3	19.5	20.7	19.4	16.7	20.4	15.5
Thailand	$m	22.4	21.3	22.9	27.3	19.8	23.0	13.2
Other	$m	135.6	163.1	194.6	182.6	196.6	211.0	160.0
Total	$m	220.5	238.3	294.3	290.5	291.0	297.4	224.0
Skim milk powder								
Japan	$m	48.1	50.9	25.6	56.2	48.9	53.7	29.5
Malaysia	$m	76.0	76.8	73.7	78.3	87.4	88.4	51.4
Philippines	$m	113.4	101.6	128.5	102.0	181.4	143.5	69.0
Singapore	$m	38.1	25.3	32.3	26.7	51.8	52.8	38.4
Thailand	$m	61.6	47.2	61.9	55.1	67.2	69.1	33.2
Other	$m	136.0	142.5	174.0	159.8	257.5	290.5	184.1
Total	$m	473.2	444.2	496.0	478.1	694.2	697.9	405.6
Casein								
Japan	$m	6.5	5.3	5.3	9.2	12.8	14.4	6.4
United States	$m	18.7	28.4	47.4	57.7	55.4	56.0	27.0
Other	$m	7.7	9.5	13.8	13.8	21.3	6.5	9.4
Total	$m	32.9	43.2	66.6	80.7	89.5	76.8	42.8
Wholemilk powder								
Malaysia	$m	36.7	32.8	34.7	27.0	26.9	39.2	22.3
Singapore	$m	13.3	9.2	15.2	15.7	31.7	29.7	25.2
Taiwan	$m	29.3	21.9	42.1	49.2	54.9	54.1	44.9
Thailand	$m	20.7	24.9	29.4	28.8	24.9	22.6	14.0
Other	$m	168.1	186.3	242.7	282.8	441.8	425.5	273.4
Total	$m	268.2	275.0	364.0	403.4	580.2	571.1	379.8
Other products								
Fresh milk	$m	68.3	67.4	76.0	81.4	82.0	98.1	98.1
Other fresh products	$m	18.4	21.7	18.2	20.2	12.7	7.9	5.5
Condensed milk	$m	48.6	57.8	81.6	87.6	111.5	123.7	133.3
Other powders	$m	97.1	116.2	117.4	158.7	192.6	275.1	274.9
Total	$m	232.3	263.1	293.1	348.0	398.8	504.8	511.9

a Includes ghee, dry butterfat, butter concentrate and butter oil, all expressed as butter.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

69 Australian exports of dairy products, by destination

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Cheese								
Japan	kt	60.2	70.1	73.6	84.9	84.6	103.2	73.2
Philippines	kt	6.0	6.8	6.6	5.4	5.5	5.2	4.9
Saudi Arabia	kt	10.0	12.3	12.6	14.6	16.3	17.4	14.8
United Kingdom	kt	6.9	3.1	5.7	6.8	9.8	4.3	4.3
United States	kt	6.8	7.3	8.0	8.3	9.4	10.8	9.0
Other	kt	38.6	53.7	68.7	99.7	93.2	77.1	101.9
Total	kt	128.5	153.4	175.2	219.8	218.8	218.1	208.1
Butter and butterfat [a]								
Egypt	kt	10.6	5.5	12.2	17.0	14.5	10.7	10.0
Malaysia	kt	4.8	3.8	3.7	6.0	5.3	4.7	4.3
Philippines	kt	4.6	4.5	3.9	4.8	3.3	2.0	1.8
Singapore	kt	7.4	7.7	8.3	8.0	5.8	7.2	6.0
Thailand	kt	9.2	8.5	7.6	10.1	7.2	7.9	6.2
Other	kt	58.6	61.6	66.4	73.9	68.3	72.0	66.9
Total	kt	99.5	94.8	104.4	123.6	107.5	107.5	99.5
Skim milk powder								
Japan	kt	20.2	20.9	11.5	27.2	20.2	18.3	16.4
Malaysia	kt	29.2	30.1	32.8	36.1	25.9	25.3	22.9
Philippines	kt	47.5	41.0	57.4	47.0	51.1	41.4	29.8
Singapore	kt	16.4	10.7	15.4	12.4	15.1	16.4	17.8
Thailand	kt	24.2	19.0	27.0	24.4	18.2	21.8	14.9
Other	kt	54.6	56.4	76.0	71.1	72.1	87.0	79.2
Total	kt	192.2	178.0	220.1	218.2	202.6	210.2	180.9
Casein								
Japan	kt	1.0	1.2	1.0	1.2	1.2	1.2	0.9
United States	kt	3.6	5.1	9.1	9.6	5.8	6.5	4.8
Other	kt	1.0	2.6	2.8	2.8	3.0	0.8	1.8
Total	kt	5.7	9.0	12.9	13.6	10.0	8.5	7.6
Wholemilk powder								
Chinese Taipei	kt	9.6	7.7	14.8	17.8	14.4	13.2	13.3
Malaysia	kt	13.2	11.4	11.6	10.0	7.9	10.3	6.8
Singapore	kt	5.1	3.4	5.9	6.4	9.6	9.8	12.3
Thailand	kt	8.2	9.1	10.7	11.5	7.8	6.4	5.8
Other	kt	60.4	63.9	83.3	107.7	127.8	125.6	103.5
Total	kt	96.5	95.4	126.3	153.4	167.5	165.3	141.7
Other products								
Fresh milk	ML	79.8	75.1	81.7	86.1	83.1	86.9	88.3
Other fresh products	ML	9.3	8.6	6.1	5.2	3.1	1.4	1.5
Condensed milk	kt	44.6	51.6	62.4	68.9	62.6	71.5	102.3
Other powders	kt	34.5	36.2	38.2	53.6	48.6	67.3	75.2

a Includes ghee, dry butterfat, butter concentrate and butter oil, all expressed as butter.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

70 Australian dairy cow numbers, by state [a]

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia [b]
	'000	'000	'000	'000	'000	'000	'000
1965	719	1 187	689	113	159	143	3 214
1966	675	1 192	627	109	155	148	3 094
1967	668	1 211	599	103	149	149	3 061
1968	645	1 200	556	100	139	152	2 963
1969	604	1 209	497	97	139	153	2 866
1970	568	1 245	460	101	138	155	2 829
1971	527	1 244	441	96	138	153	2 745
1972	491	1 257	420	97	145	155	2 693
1973	465	1 274	390	98	141	155	2 647
1974	418	1 244	341	95	132	140	2 492
1975	387	1 269	329	91	135	144	2 477
1976	384	1 258	330	93	135	143	2 467
1977	373	1 167	312	84	120	128	2 279
1978	341	1 125	287	74	112	118	2 056
1979	320	1 047	265	72	105	110	1 921
1980	308	1 037	247	72	102	103	1 869
1981	289	1 024	236	71	100	99	1 819
1982	283	1 024	235	70	99	100	1 810
1983	293	998	234	69	98	98	1 792
1984	285	1 021	234	69	101	99	1 809
1985	274	1 036	229	69	102	98	1 809
1986	264	1 016	224	68	102	96	1 770
1987	270	997	223	67	102	96	1 757
1988	260	977	218	65	100	94	1 714
1989	258	990	210	64	94	92	1 709
1990	245	995	208	65	90	93	1 698
1991	230	1 000	199	66	89	97	1 682
1992	222	1 026	188	68	90	103	1 699
1993	222	1 033	189	70	93	107	1 716
1994	232	1 085	189	74	94	113	1 786
1995	230	1 113	189	73	97	119	1 821
1996	235	1 161	189	97	71	130	1 884
1997	245	1 229	194	71	101	137	1 977
1998	266	1 268	203	73	107	143	2 060
1999	282	1 340	196	65	117	154	2 155
2000	289	1 377	194	65	105	139	2 171
2001	270	1 360	187	72	132	155	2 176
2002	264	1 363	174	75	110	134	2 123
2003	262	1 303	172	76	113	127	2 052

a Cows in milk and dry at 31 March on establishments with an estimated value of agricultural operations (EVAO) of $5 000 or more. From 2000, at 30 June. House cows and heifers are included before 1977-78, but excluded thereafter. Before 1986-87, includes livestock holdings on establishments with an EVAO of $2 500 or more. **b** Includes data for the Australian Capital Territory and the Northern Territory.

Sources: ABS, *Principal Agricultural Commodities Australia,* cat. no. 7111.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra.

71 Australian production of wholemilk, by state [a]

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia [b]
	ML	ML	ML	ML	ML	ML	ML
1960-61	1 452	2 713	967	266	396	290	6 089
1961-62	1 567	2 869	1 097	265	434	333	6 563
1962-63	1 473	3 035	1 114	255	434	357	6 673
1963-64	1 466	3 159	1 090	260	443	378	6 803
1964-65	1 327	3 391	1 047	281	465	397	6 914
1965-66	1 367	3 414	1 005	281	447	400	6 919
1966-67	1 468	3 622	1 083	253	449	416	7 295
1967-68	1 410	3 338	987	252	404	413	6 808
1968-69	1 268	3 715	781	265	467	464	6 965
1969-70	1 413	4 028	870	254	483	469	7 523
1970-71	1 237	4 062	770	256	470	450	7 249
1971-72	1 171	3 973	768	255	458	451	7 079
1972-73	1 177	3 945	737	242	424	424	6 952
1973-74	1 069	3 917	665	241	439	422	6 756
1974-75	958	3 745	658	246	426	461	6 497
1975-76	980	3 518	683	233	398	436	6 248
1976-77	943	3 212	624	215	355	423	5 772
1977-78	891	3 263	559	209	339	360	5 621
1978-79	906	3 283	570	213	332	365	5 669
1979-80	907	3 151	508	222	329	315	5 432
1980-81	840	3 065	495	214	319	289	5 223
1981-82	875	3 028	546	209	306	294	5 258
1982-83	905	3 164	564	221	340	322	5 516
1983-84	940	3 400	619	232	382	340	5 913
1984-85	940	3 516	616	243	372	346	6 033
1985-86	904	3 575	600	243	365	351	6 038
1986-87	906	3 692	601	248	374	352	6 173
1987-88	932	3 649	617	249	377	306	6 130
1988-89	923	3 792	626	245	370	334	6 290
1989-90	879	3 787	629	267	356	343	6 263
1990-91	857	3 907	626	283	366	363	6 403
1991-92	894	4 119	635	302	411	372	6 732
1992-93	997	4 456	702	326	434	413	7 327
1993-94	1 098	4 968	764	344	456	447	8 077
1994-95	1 087	5 114	740	343	485	437	8 206
1995-96	1 115	5 482	751	342	512	514	8 716
1996-97	1 192	5 634	797	349	535	529	9 036
1997-98	1 242	5 866	822	387	580	543	9 439
1998-99	1 285	6 414	827	403	646	603	10 178
1999-00	1 395	6 870	848	714	412	609	10 847
2000-01	1 326	6 777	760	393	699	590	10 545
2001-02	1 343	7 405	744	393	715	672	11 271
2002-03	1 301	6 584	719	399	733	585	10 322

a Before 1977-78, milk production includes an estimate of on-farm use. **b** Includes data for the Australian Capital Territory and estimates for the Northern Territory.

Source: Australian Dairy Corporation, *Monthly Statistics,* Melbourne.

72 Australian manufacture of dairy products

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	kt	kt	kt	kt	kt	kt	kt	kt
Butter **a**	153.2	157.7	163.8	186.7	183.2	172.3	178.4	163.7
Cheese	272.5	290.0	310.4	327.2	373.4	375.5	430.5	364.0
Non-cheddar	98.1	113.9	121.5	140.6	157.1	163.0	192.1	162.4
Cheddar	174.4	176.1	188.9	186.6	216.3	212.5	238.4	201.6
Wholemilk powder	113.0	133.7	128.5	144.8	186.7	205.4	238.7	169.6
Skim milk powder **b**	215.5	223.5	215.1	255.2	246.6	249.3	243.1	199.1
Casein	6.2	5.6	8.8	13.5	15.0	13.0	13.9	10.3
Buttermilk powder	14.0	14.6	15.0	17.0	17.8	15.7	16.8	17.8

a Includes the butter equivalent of butter oil, butter concentrate, ghee and dry butterfat production. **b** Includes mixed skim milk powder and buttermilk powder.
Sources: Australian Dairy Corporation, *Monthly Statistics,* Melbourne; ABARE.

73 Australian consumption of dairy products

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Total consumption								
Butter	kt	51.9	49.7	54.7	58.3	58.9	56.8	56.8
Margarine (table)	kt	98.7	86.6	82.0	82.0	83.0 **s**	83.0	na
Cheese **a**	kt	191.6	197.8	197.2	204.1	219.0	219.0	211.0
Australian	kt	158.4	165.8	166.0	167.0	181.8	181.8	174.0
Wholemilk powder	kt	20.0	24.0	15.5	18.2	15.0	14.0	22.5
Skim milk powder **b**	kt	40.9	43.2	33.9	35.0	37.0	37.0	43.1
Casein	kt	1.4	1.6	0.3	0.4	0.5	0.5	0.7
Market milk	ML	1 895	1 920	1 918	1 931	1 934	1 920	1 916
Consumption per person								
Butter	kg	2.8	2.8	2.9	2.9	3.1	2.9	2.9
Margarine (table)	kg	5.4	4.7	4.4	4.4	4.3	4.3	4.3
Cheese **a**	kg	10.5	10.9	10.9	10.7	11.4	11.3	12.0
Australian	kg	8.7	9.0	9.0	8.9	9.5	9.4	9.4
Wholemilk powder	kg	1.0	1.2	0.8	0.9	0.8	0.7	1.1
Skim milk powder **b**	kg	2.2	2.3	1.8	1.8	1.9	1.9	1.1
Market milk	L	104.2	104.2	103.0	102.4	101.2	99.3	97.4

a In natural equivalent weight. **b** Includes buttermilk powder and mixed skim milk powder. **s** ABARE estimate. **na** Not available.
Sources: ABS, *Apparent Consumption of Foodstuffs, Australia,* cat. no. 4306.0, Canberra; ABS, *Apparent Consumption of Selected Foodstuffs, Australia,* cat. no. 4315.0, Canberra; Australian Dairy Corporation, *Dairy Compendium,* Melbourne; Australian Dairy Corporation, *Monthly Statistics,* Melbourne; Australian Dairy Corporation; ABARE.

74 Australian milk prices and gross value of production

	Producer price a			Gross value of production		
	Manufacturing milk	Market milk	Weighted average	Manufacturing milk	Market milk	Total
	c/L	c/L	c/L	$m	$m	$m
1960-61	na	na	5.3	196	128	325
1961-62	na	na	5.1	205	132	337
1962-63	na	na	5.2	218	132	350
1963-64	na	na	5.4	228	139	367
1964-65	na	na	5.6	239	145	384
1965-66	4.3	9.3	5.5	225	127	352
1966-67	4.4	9.3	5.5	244	138	382
1967-68	4.2	9.4	5.4	208	143	351
1968-69	4.3	9.3	5.5	221	142	364
1969-70	4.3	9.6	5.5	241	149	390
1970-71	4.6	10.0	5.9	245	154	399
1971-72	5.2	10.6	6.5	273	156	429
1972-73	5.3	11.0	6.7	269	165	434
1973-74	5.3	11.8	7.0	260	177	437
1974-75	6.0	14.2	8.0	288	195	483
1975-76	5.5	16.1	8.1	239	214	454
1976-77	5.7	18.7	9.2	232	249	481
1977-78	7.3	17.2	9.9	241	266	507
1978-79	8.5	18.5	11.0	275	293	568
1979-80	9.7	20.0	12.5	287	320	607
1980-81	13.0	23.1	16.0	479	352	830
1981-82	15.4	26.2	18.6	559	419	979
1982-83	16.7	28.7	20.1	663	463	1 126
1983-84	15.7	29.8	19.4	656	497	1 153
1984-85	13.5	31.2	18.2	510	526	1 035
1985-86	14.7	32.8	19.6	580	527	1 107
1986-87	17.5	34.5	22.1	687	570	1 257
1987-88	19.3	36.2	23.9	805	586	1 391
1988-89	22.7	37.9	26.8	981	654	1 635
1989-90	18.3	39.7	28.6	1 059	691	1 749
1990-91 b	18.9	40.9	23.5	1 099	726	1 825
1991-92	19.7	43.2	24.5	1 204	756	1 960
1992-93	24.4	43.5	29.0	1 522	793	2 314
1993-94	23.0	46.2	28.2	1 620	829	2 448
1994-95	22.2	47.8	27.9	1 511	908	2 419
1995-96	26.0	49.9	31.1	1 898	951	2 848
1996-97	24.0	51.1	29.6	1 830	981	2 811
1997-98	23.9	52.0	29.4	1 840	977	2 817
1998-99	22.5	51.5	28.5	1 905	994	2 900
1999-00	22.0	52.3	26.2	1 834	1 011	2 845
2000-01	na c	na c	29.0	2 496	558	3 053
2001-02	na c	na c	33.0	3 093	625	3 717
2002-03	na c	na c	29.5	2 480	565	3 045

a A slight series break occurs in 1977-78 as a result of a change in the method of valuation. **b** From 1990-91, manufacturing milk price is reported net of market support. **c** Since deregulation of farm gate milk prices from July 2000, manufacturing and market milk prices are no longer reported separately. **na** Not available.

Sources: ABS, *Value of Principal Agricultural Commodities Produced,* cat. no. 7501.0, Canberra; ABARE.

75 Average retail prices of selected dairy products, by quarter

	Milk a		Cheese b		Butter c	
	Sydney c/L	Melbourne c/L	Sydney c/kg	Melbourne c/kg	Sydney c/kg	Melbourne c/kg
1995						
March	107	111	732	682	312	336
June	108	113	712	674	312	328
September	110	116	714	696	320	344
December	111	117	720	716	340	368
1996						
March	113	120	688	724	336	364
June	113	121	732	746	348	388
September	114	125	754	698	360	404
December	115	126	742	700	372	406
1997						
March	115	130	792	718	364	408
June	115	130	772	714	376	398
September	116	130	756	720	370	412
December	116	133	722	710	348	412
1998						
March	116	135	760	714	366	410
June	116	135	742	674	374	408
September	116	135	722	724	374	422
December	116	135	778	716	362	410
1999						
March	122	139	786	720	380	412
June	122	140	762	730	372	418
September	122	140	776	702	384	422
December	129	142	762	710	380	432
2000						
March	131	146	764	742	372	432
June	135	150	768	698	374	428
September	133	147	686	656	378	426
December	133	146	704	740	386	452
2001						
March	135	145	734	698	390	446
June	135	145	726	706	434	466
September	138	146	732	752	456	430
December	144	152	848	836	468	440
2002						
March	145	154	820	780	458	436
June	147	153	740	738	480	472
September	147	153	752	758	466	478
December	154	156	762	770	472	456
2003						
March	155	156	770	782	484	476
June	157	156	742	726	464	468

a 1litre carton, supermarket. **b** Based on a processed, sliced, wrapped, 500 gram pack. **c** Based on a 500 gram pack.
Source: ABS, *Average Retail Prices of Selected Items,* cat. no. 6403.0, Canberra.

76 Average export unit values of Australian dairy products [a]

	Butter [b] $/t	Cheese $/t	Skim milk powder $/t	Wholemilk powder $/t	Casein $/t
1960-61	638.07	502.73	na	na	356.32
1961-62	598.03	458.15	na	na	333.33
1962-63	604.17	462.12	na	na	318.84
1963-64	618.22	477.03	na	na	317.65
1964-65	687.76	514.49	na	na	367.47
1965-66	668.60	533.60	na	na	517.77
1966-67	606.74	590.73	281.19	585.94	420.35
1967-68	583.85	518.84	240.51	619.47	488.10
1968-69	523.26	545.10	152.50	544.12	409.09
1969-70	511.70	480.39	156.60	496.73	399.34
1970-71	515.57	504.11	184.74	500.00	431.23
1971-72	792.54	672.67	331.74	630.87	557.05
1972-73	783.82	733.11	389.58	738.46	726.67
1973-74	694.86	760.53	416.58	766.82	741.46
1974-75	954.80	1 011.70	649.25	1 007.35	1 032.79
1975-76	835.74	1 117.46	464.70	1 041.67	1 012.99
1976-77	1 123.89	1 070.48	323.37	866.67	832.43
1977-78	1 279.88	1 258.50	389.36	1 037.92	1 022.22
1978-79	1 249.44	1 336.58	540.98	1 104.07	1 366.41
1979-80	1 595.04	1 545.01	577.24	1 100.29	1 842.86
1980-81	1 875.00	1 925.93	1 000.00	1 613.64	2 476.19
1981-82	2 714.29	2 157.89	896.55	1 906.98	2 391.30
1982-83	2 411.76	2 444.44	918.92	2 057.14	2 941.18
1983-84	1 870.97	2 611.11	885.25	2 071.43	2 500.00
1984-85	1 617.02	2 432.84	849.46	1 900.00	2 285.71
1985-86	1 591.84	2 515.15	987.34	1 937.50	2 800.00
1986-87	1 757.58	2 645.16	1 126.58	2 047.62	3 285.71
1987-88	1 634.15	2 735.29	1 382.35	2 243.24	3 875.00
1988-89	1 970.32	2 990.35	2 245.10	2 650.20	6 277.43
1989-90	2 420.90	3 460.80	2 340.85	2 852.70	5 648.35
1990-91	1 967.87	3 203.04	1 783.98	2 193.05	3 889.50
1991-92	2 177.05	3 316.42	1 953.08	2 431.63	4 663.18
1992-93	2 240.51	3 693.29	2 553.84	2 918.19	6 670.29
1993-94	2 196.56	3 750.07	2 232.74	2 603.09	16 322.78
1994-95	2 076.10	3 448.84	2 292.65	2 471.42	7 045.15
1995-96	2 992.85	3 880.56	2 845.11	3 141.29	8 956.43
1996-97	2 216.75	3 702.17	2 462.28	2 778.68	5 801.21
1997-98	2 512.67	3 954.53	2 495.26	2 882.43	4 828.54
1998-99	2 819.45	3 967.28	2 253.39	2 883.26	5 177.65
1999-00	2 350.18	3 670.02	2 191.42	2 629.23	5 941.28
2000-01	2 706.43	4 342.15	3 425.69	3 464.29	8 950.45
2001-02	2 766.57	4 738.11	3 320.31	3 454.24	9 031.70
2002-03	2 250.56	3 844.32	2 242.39	2 681.01	5 663.39

a Fob. **b** Commercial butter equivalent. **na** Not available.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

77 Australian imports of cheese, by variety

	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Volume	kt	kt	kt	kt	kt	kt	kt
Processed							
Cheddar	0.02	0.26	0.25	5.43	4.50	7.83	11.72
Emmenthaler	0.03	0.05	0.00	0.02	0.00	0.00	0.00
Gruyere	0.03	0.06	0.06	0.08	0.08	0.02	0.00
Other	4.34	5.36	8.28	6.90	8.87	3.29	0.45
Natural							
Blue vein	0.42	0.57	0.46	0.66	0.76	0.83	1.09
Camembert	0.54	0.54	0.38	0.32	0.36	0.21	0.19
Cheddar	11.34	10.44	10.90	10.92	13.47	15.91	19.24
Colby	0.74	0.23	0.71	1.18	1.47	1.79	1.89
Edam	1.34	1.01	0.97	0.75	0.75	1.00	0.94
Emmenthaler	0.27	0.25	0.17	0.13	0.18	0.15	0.00
Fetta	1.78	1.29	1.22	1.25	1.32	1.79	2.07
Gouda	1.02	0.85	0.74	0.51	0.44	0.59	0.36
Kasseri	0.19	0.19	0.18	0.15	0.12	0.14	0.15
Mozzarella	1.29	1.86	1.93	2.10	2.81	2.13	2.88
Parmesan	0.71	0.73	0.88	1.08	0.87	1.32	1.58
Provolone	0.22	0.26	0.27	0.26	0.34	0.31	0.26
Other	7.74	7.25	3.51	0.21	0.19	0.55	0.75
Total	32.02	31.19	30.93	31.96	36.54	37.87	43.57
Unit value							
Processed							
Cheddar	4.08	5.30	3.29	3.91	3.83	3.89	3.45
Emmenthaler	5.30	5.55	0.00	4.87	7.84	0.00	0.00
Gruyere	6.28	5.63	6.48	6.69	7.63	7.41	0.00
Other	4.67	4.56	4.25	3.92	4.04	4.68	8.69
Natural							
Blue vein	7.70	9.89	10.69	10.42	10.21	11.13	11.04
Camembert	9.30	9.13	10.44	9.06	9.64	10.07	10.62
Cheddar	2.98	3.07	3.30	3.36	3.26	3.76	3.05
Colby	3.84	3.80	3.84	3.75	3.59	3.76	3.22
Edam	3.85	4.63	4.31	4.17	4.31	4.61	4.34
Emmenthaler	5.16	6.12	5.91	6.18	7.03	7.33	0.00
Fetta	4.30	5.33	6.17	5.39	6.43	5.50	5.65
Gouda	4.43	5.62	6.55	5.55	4.71	4.37	5.80
Kasseri	7.46	8.39	8.89	8.01	9.02	7.99	9.51
Mozzarella	2.77	2.86	3.49	3.36	3.53	3.72	3.50
Parmesan	10.12	10.24	10.63	9.67	9.62	8.53	7.33
Provolone	7.71	7.94	8.62	8.19	8.64	9.20	9.56
Other	4.71	5.15	5.44	6.15	6.46	5.16	4.26
Average	4.21	4.53	4.52	4.19	4.13	4.41	3.87

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

78 Summary of world statistics for dairy products

	Production			Consumption		Exports a	
	Milk	Butter	Cheese	Butter	Cheese	Butter	Cheese
	Mt	kt	kt	kt	kt	kt	kt
1966	na	na	na	5 012	na	na	na
1967	na	5 125	na	4 959	na	659	na
1968	336	5 281	5 128	5 007	5 074	730	701
1969	335	5 060	5 291	4 919	5 306	718	689
1970	336	5 047	5 744	5 000	5 751	924	747
1971	338	5 035	6 117	4 959	6 031	814	796
1972	346	5 377	6 553	5 012	6 379	690	805
1973	353	5 548	6 779	5 529	6 719	1 086	907
1974	360	5 214	7 147	5 409	6 941	977	973
1975	361	5 513	7 210	5 457	7 088	886	962
1976	367	5 600	2 298	5 513	7 512	981	1 099
1977	372	5 944	7 822	5 669	7 855	1 003	1 161
1978	377	5 997	8 172	5 627	8 113	1 038	1 271
1979	381	6 011	8 519	5 755	8 363	1 287	1 410
1980	386	6 174	8 193	5 882	7 728	1 328	1 450
1981	386	6 070	8 423	5 806	7 944	1 297	1 534
1982	398	6 361	8 805	5 687	8 425	1 312	1 484
1983	413	6 892	9 012	6 023	8 614	1 197	1 502
1984	413	6 834	9 167	6 157	8 860	1 337	1 701
1985	419	6 817	9 473	6 233	9 092	1 400	1 720
1986	426	7 102	9 764	6 376	9 479	1 310	1 733
1987	426	6 622	10 065	6 717	9 814	1 820	1 774
1988	429	6 567	10 490	6 785	10 149	1 888	1 855
1989	435	6 719	10 748	6 327	10 418	1 427	1 832
1990	442	6 824	10 915	6 262	10 581	1 104	1 997
1991	429	5 667	10 939	5 252	10 617	706	2 039
1992 b	380	5 470	10 931	5 245	10 569	694	2 051
1993	378	5 493	10 895	5 169	10 550	718	864
1994	378	5 221	11 194	5 109	10 897	688	917
1995	381	5 173	11 345	4 954	11 028	675	969
1996	364	5 134	11 059	4 833	10 565	641	941
1997	366	5 073	11 388	4 863	11 121	745	1 010
1998	374	5 216	11 378	4 910	11 190	625	907
1999	378	5 361	11 750	4 988	11 623	591	892
2000	382	5 561	12 223	5 175	11 959	638	1 029
2001	386	5 662	12 313	5 402	12 186	630	1 067
2002	391	5 747	12 649	5 429	12 412	613	1 111

a Includes intra-EU trade up to and including 1993. **b** For years up to and including 1991, includes data for 38 selected major countries; from 1992, includes data for 31 major countries. **na** Not available.
Source: US Department of Agriculture, *Dairy: World Markets and Trade, Foreign Agriculture Circular,* Washington DC.

79 Milk production in selected regions and countries

	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt
Americas							
Canada	7 890	8 100	8 200	8 164	8 161	8 106	7 964
United States	69 857	70 802	71 373	73 807	76 004	75 069	77 002
Asia							
India	33 500	34 500	35 500	36 000	36 250	36 400	36 200
Europe	125 425	117 685	117 603	119 058	118 740	118 696	na
European Union **a**	121 569	113 818	113 753	115 218	114 900	114 856	115 130
Oceania	19 362	20 774	21 362	21 248	23 082	23 707	25 196
Australia **b**	8 957	9 274	9 722	10 178	10 847	10 545	11 271
New Zealand **c**	10 405	11 500	11 640	11 070	12 235	13 162	13 925
Total **d**	364 353	365 593	373 666	382 406	386 064	390 604	391 959

a Regarded as twelve countries until 1 January 1995, then fifteen countries. **b** Year ended 30 June. **c** Year ended 31 May. **d** Includes 31 major producing countries. **na** Not available.

Source: US Department of Agriculture, *Dairy: World Markets and Trade, Foreign Agriculture Circular,* Washington DC.

80 Production of dairy products in selected regions and countries

	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt	2002 kt
Butter								
Australia **abc**	141	153	158	164	187	183	172	178
Europe								
Russian Federation	419	290	280	270	260	265	270	280
European Union **d**	1 750	1 752	1 730	1 721	1 731	1 700	1 710	1 792
Japan **e**	78	86	87	89	86	88	80	88
New Zealand **bcf**	280	309	307	343	316	344	352	370
United States	573	533	522	530	579	570	559	615
Total	5 087	5 011	5 001	5 296	5 474	5 688	6 015	6 296
Cheese								
Australia **a**	241	272	290	310	327	373	376	431
Europe								
Russian Federation	217	173	165	170	185	220	260	340
European Union **d**	5 596	5 220	5 557	5 151	5 290	5 437	5 420	5 470
Japan **f**	31	33	34	35	35	34	34	34
New Zealand **g**	197	230	240	266	245	297	281	312
United States	3 138	3 274	3 325	3 398	3 581	3 746	3 747	3 900
Total	11 345	11 059	11 378	11 750	12 223	12 313	12 649	12 647
Skim milk powder								
Australia **a**	197	215	223	215	255	247	249	243
Europe								
Russian Federation	190	170	170	170	130	125	130	140
European Union **d**	1 193	1 195	1 146	1 092	1 108	1 079	953	1 070
Japan	190	200	200	202	192	194	175	180
New Zealand **g**	178	202	211	215	203	197	227	255
United States	559	482	552	515	617	659	641	712
Total	3 073	3 116	3 178	3 055	3 183	3 298	3 294	3 507

a Year ended 30 June. **b** Includes butter anhydrous milk fat and ghee. **c** Factory production only. **d** Regarded as fifteen countries. **e** Year ended 31 March. **f** Year ended 31 May. **g** Includes imported unprocessed cheese which is blended with domestically produced cheese.
Sources: Australian Dairy Corporation, *Monthly Statistics,* Melbourne; Agriculture and Livestock Industries Corporation, *Monthly Statistics,* Tokyo; Ministry of Agriculture and Fisheries, *Situation and Outlook for New Zealand Agriculture,* Wellington; US Department of Agriculture, *Dairy: World Markets and Trade, Foreign Agriculture Circular,* Washington DC; ABARE.

81 Exports of dairy products, by selected countries

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Butter								
Australia **ab**	77	60	99	95	104	124	108	108
European Union **c**								
Net exports **d**	187	176	219	168	161	176	172	207
New Zealand **ab**	234	238	315	315	279	338	347	343
Russian Federation	5	5	6	6	3	3	3	5
Ukraine	69	95	59	10	8	31	53	25
United States	64	19	18	3	2	4	3	3
Cheese								
Australia **a**	116	119	128	153	175	220	219	218
European Union **c**								
Net exports **d**	549	522	481	419	376	436	445	455
New Zealand **ab**	169	173	236	232	240	253	251	277
Switzerland	64	57	61	63	58	60	60	60
Skim milk powder								
Australia **a**	174	168	192	178	220	218	203	210
Canada	44	33	30	34	41	32	46	49
European Union **c**								
Net exports **d**	387	231	283	175	272	358	143	161
New Zealand **ae**	167	150	215	197	205	175	195	248
United States	164	32	117	104	217	142	96	126

a Year ended 30 June. **b** Includes butter, anhydrous milk fat and ghee. **c** Regarded as twelve countries until 1 January 1995, then fifteen countries. **d** Excludes intra-EU trade. **e** Skim milk and buttermilk powder.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Ministry of Agriculture and Fisheries, *Situation and Outlook for New Zealand Agriculture,* Wellington; US Department of Agriculture, *Dairy: World Markets and Trade, Foreign Agriculture Circular,* Washington DC; ABARE.

82 Imports of dairy products, by selected countries

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Butter								
European Union **a**	78	87	88	95	105	104	114	115
Japan	1	1	1	1	0	0	0	4
Poland	0	0	5	1	8	11	3	3
Russian Federation	241	113	250	150	55	60	110	120
Switzerland	3	3	5	4	5	5	5	5
Ukraine	5	1	3	0	3	1	2	1
Cheese								
Canada	21	23	23	23	25	29	27	28
European Union **a**	99	90	109	124	142	144	170	146
Japan	157	164	171	184	187	205	202	204
United States	153	152	141	156	195	186	198	214
Skim milk powder								
European Union **a**	46	68	73	66	73	78	57	69
India	2	0	0	1	18	17	2	2
Japan	103	75	74	57	57	52	53	44
Mexico	180	127	133	93	123	129	141	132
Peru	6	9	10	11	13	13	13	13

a Regarded as twelve countries until 1 January 1995, then fifteen countries. Excludes intra-EU trade.
Sources: US Department of Agriculture, *Dairy: World Markets and Trade, Foreign Agriculture Circular,* Washington DC.

83 Stocks of dairy products in principal producing countries

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Butter								
Australia **a**	9	33	20	16	21	14	6	3
Canada	14	13	15	9	14	15	20	13
European Union **b**	164	214	191	272	295	306	296	242
New Zealand **c**	109	126	88	86	93	72	50	51
United States	9	6	10	12	11	11	25	72
Total	459	472	418	493	544	542	512	449
Cheese								
Australia **a**	90	103	93	88	77	65	58	73
Canada	39	39	44	44	42	53	49	51
European Union **b**	1 360	1 416	1 290	1 164	1 148	1 131	1 170	1 160
New Zealand **c**	42	69	41	41	13	34	43	50
United States	187	221	218	235	282	322	301	332
Total	1 718	1 848	1 933	1 932	1 903	1 839	1 667	1 708
Skim milk powder								
Australia **a**	20	40	31	29	19	2	18	14
Canada	12	7	13	12	6	17	19	7
European Union **b**	93	205	227	326	280	154	196	140
New Zealand **c**	34	75	60	67	54	71	98	100
United States	39	32	57	69	113	288	408	521
Total	394	543	595	693	667	779	993	1 021

a Year ending 30 June. **b** Regarded as twelve countries until 1 January 1995, then fifteen countries. **c** Year ending 31 May.
Source: US Department of Agriculture, *Dairy: World Markets and Trade, Foreign Agriculture Circular,* Washington DC.

84 Major components of Australian farm costs

	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95
	$m	$m	$m	$m	$m	$m	$m	$m
Materials and services								
Fuel	946	911	1 010	1 123	1 060	1 107	1 091	1 120
Fertiliser	915	1 016	1 095	941	1 024	1 065	1 244	1 378
Chemicals	703	809	916	866	924	993	1 059	1 139
Seed and fodder	1 838	1 981	2 233	2 354	2 600	2 396	2 437	3 131
Marketing	1 746	1 910	2 041	2 093	2 059	2 268	2 306	1 955
Repairs and maintenance	1 380	1 608	1 742	1 572	1 522	1 580	1 706	1 768
Other	2 112	2 330	2 550	3 142 **a**	2 606	2 591	2 828	3 064
Total	9 640	10 565	11 587	12 091	11 795	12 000	12 671	13 555
Other costs								
Wages	1 996	2 346	2 545	2 352	2 230	2 284	2 445	2 550
Interest paid	1 798	2 118	2 595	2 462	2 220	1 838	1 695	2 069
Other overheads	299	301	331	315	276	303	337	344
Total	4 093	4 765	5 471	5 129	4 726	4 425	4 477	4 963
Total cash costs	13 733	15 330	17 058	17 220	16 521	16 425	17 148	18 518
Depreciation	2 993	3 065	2 950	2 947	2 871	2 915	3 039	3 073
Total farm costs	16 726	18 395	20 008	20 167	19 392	19 340	20 187	21 591

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03 **s**
	$m	$m	$m	$m	$m	$m	$m	$m
Materials and services								
Fuel	1 188	1 236	1 253	1 230	1 450	1 670	1 581	1 568
Fertiliser	1 651	1 760	1 828	1 905	1 840	1 920	1 980	1 870
Chemicals	1 349	1 480	1 520	1 584	1 620	1 680	1 760	1 625
Seed and fodder	2 928	2 801	2 998	2 947	2 900	3 320	3 560	4 920
Marketing	2 519	2 923	2 712	2 907	3 150	3 226	3 440	2 950
Repairs and maintenance	1 920	2 003	2 022	2 070	2 210	2 390	2 680	2 320
Other	2 937	2 954	2 961	3 003	3 080	3 295	3 520	3 410
Total	14 492	15 157	15 295	15 645	16 250	17 501	18 521	18 663
Other costs								
Wages	2 679	2 919	3 006	3 136	3 250	3 360	3 580	3 430
Interest paid	2 182	2 115	1 962	1 917	2 014	2 250	2 095	2 295
Other overheads	356	360	360	364	372	389	404	415
Total	5 217	5 395	5 329	5 417	5 636	5 999	6 079	6 140
Total cash costs	19 710	20 551	20 624	21 063	21 886	23 500	24 600	24 803
Depreciation	3 169	3 256	3 306	3 440	3 535	3 645	3 751	3 810
Total farm costs	22 879	23 808	23 930	24 503	25 421	27 145	28 351	28 613

a The large increase in 1990-91 was caused by the sharp rise in the wool tax. **s** ABARE estimate.

Sources: ABS, *Australian National Accounts, National Income and Expenditure,* cat. no. 5204.0, Canberra; ABS, *Australian National Accounts, National Income and Expenditure, Australia,* cat. no. 5206.0, Canberra; ABARE.

85 Indexes of prices paid by farmers in Australia

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94
Materials and services									
Seed, fodder and livestock									
Seed, seedlings and plants	63.3	67.4	72.0	80.6	82.3	82.5	85.3	87.6	88.9
Fodder and feedstuffs	62.2	63.9	68.9	76.6	79.0	75.5	80.5	78.5	79.9
Store and breeding stock	64.2	73.0	83.0	92.3	88.6	82.0	79.7	78.8	95.0
Total	61.5	66.3	73.4	81.6	81.7	77.6	80.5	79.0	85.0
Fertiliser	68.3	67.0	68.3	76.9	82.4	85.0	90.3	88.7	87.1
Chemicals and medicines	84.3	89.4	89.4	91.2	93.2	96.4	97.5	98.0	97.2
Fuel and lubricants	86.9	86.0	88.7	80.4	91.6	106.0	99.6	104.1	100.5
Electricity	78.2	81.5	86.3	90.4	93.4	96.7	100.4	101.8	100.9
Maintenance									
Plant and equipment	52.5	58.7	63.9	67.7	72.9	79.3	83.6	86.7	89.9
Structures	62.5	66.7	69.2	73.8	79.8	84.9	87.5	89.4	91.0
Total	55.6	61.2	65.5	69.6	75.0	81.0	84.8	87.5	90.2
Contracts	67.4	69.1	71.4	76.4	81.0	86.5	90.0	92.8	95.6
Other materials and services	62.5	68.9	74.0	79.4	85.7	90.2	91.2	92.4	94.1
Total	66.6	70.1	74.6	79.5	83.2	85.3	87.4	87.8	90.2
Labor	63.0	65.6	68.5	73.5	78.9	82.7	86.5	89.7	91.0
Marketing									
Freight outwards	78.1	82.2	84.2	87.5	90.9	95.5	96.9	97.9	98.5
Selling expenses	65.7	70.0	74.8	83.0	85.5	85.7	86.9	86.7	89.3
Total	68.4	72.6	76.5	83.8	86.4	87.4	88.7	88.7	91.0
Overheads									
Interest paid	130.1	147.0	133.9	169.6	199.9	170.3	139.6	107.4	100.2
Rates and taxes	57.9	62.6	67.1	73.2	80.4	87.4	89.3	91.5	92.0
Insurance	46.9	51.3	50.6	53.7	62.0	64.8	64.2	67.0	71.3
Other overheads	60.7	66.4	71.2	75.6	80.6	85.2	92.3	94.1	95.7
Total	85.8	94.9	93.7	110.5	126.5	119.9	109.4	96.7	94.5
Capital items									
Plant and equipment	59.9	67.0	73.0	77.0	80.5	82.3	83.9	87.4	91.7
Structures	63.8	68.1	70.7	75.5	81.9	87.5	89.5	91.7	93.4
Total	60.2	67.0	72.7	76.8	80.7	83.0	84.6	88.0	91.9
Total prices paid	68.3	74.2	77.4	84.3	90.1	90.8	90.7	89.5	91.1
Excluding capital items	70.1	74.5	77.9	85.2	91.2	91.8	91.5	89.7	91.0
Excluding capital and overheads	66.1	69.6	73.7	79.0	82.9	85.1	87.4	88.2	90.4
Excluding seed, fodder and store and breeding stock	70.0	75.7	78.3	85.0	92.0	94.0	93.1	91.9	92.5

Continued

85 Indexes of prices paid by farmers in Australia *(continued)*

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Materials and services									
Seed, fodder and livestock									
Seed, seedlings and plants	95.7	101.1	99.2	100.0	100.6	102.7	105.2	115.8	125.0
Fodder and feedstuffs	92.2	101.4	98.9	100.0	91.9	90.0	93.6	99.2	131.2
Store and breeding stock	96.7	96.1	89.4	100.0	100.9	105.0	126.0	145.3	120.2
Total	93.8	100.0	96.4	100.0	94.7	94.9	102.5	111.6	127.3
Fertiliser	89.6	98.2	99.2	100.0	102.7	98.6	106.4	104.3	106.9
Chemicals and medicines	97.9	98.1	99.0	100.0	100.4	101.6	103.3	105.6	108.0
Fuel and lubricants	96.6	100.4	104.9	100.0	95.2	115.5	138.6	131.2	138.5
Electricity	98.3	97.7	99.4	100.0	100.7	102.9	108.5	110.5	112.6
Maintenance									
Plant and equipment	92.5	95.3	97.6	100.0	102.3	106.1	112.0	115.2	118.4
Structures	92.5	94.6	95.4	100.0	102.8	104.6	109.3	112.5	115.7
Total	92.5	95.1	96.9	100.0	102.3	105.6	111.1	114.3	117.5
Contracts	97.3	98.4	99.6	100.0	104.3	107.9	114.4	117.7	120.9
Other materials and services	96.8	100.1	100.0	100.0	102.3	104.2	108.9	112.1	115.5
Total	94.1	98.7	98.6	100.0	98.8	101.4	109.1	112.4	120.0
Labor	92.3	95.1	97.0	100.0	103.7	107.1	110.1	113.3	116.8
Marketing									
Freight outwards	98.5	98.5	98.6	100.0	100.3	102.5	107.0	110.1	113.5
Selling expenses	91.7	95.6	95.5	100.0	102.8	105.2	109.3	112.5	116.0
Total	92.9	96.2	96.1	100.0	102.7	105.0	109.3	112.4	115.9
Overheads									
Interest paid	113.2	127.9	117.0	100.0	90.6	98.8	111.2	104.2	110.7
Rates and taxes	94.2	92.2	95.6	100.0	102.1	107.1	112.4	115.5	119.1
Insurance	74.3	90.8	98.1	100.0	102.8	105.1	109.8	118.6	124.5
Other overheads	96.8	99.2	100.5	100.0	103.1	104.1	108.7	111.9	115.4
Total	101.4	109.2	106.4	100.0	96.5	102.5	111.3	109.7	115.1
Capital items									
Plant and equipment	94.3	97.3	99.0	100.0	103.3	106.6	112.7	116.0	119.2
Structures	94.8	95.8	96.7	100.0	101.7	103.8	108.9	112.0	115.3
Total	94.4	97.1	98.7	100.0	103.0	106.1	111.9	115.2	118.3
Total prices paid	94.9	99.4	99.3	100.0	100.0	103.3	110.0	112.5	118.2
Excluding capital items	95.0	99.8	99.4	100.0	99.5	102.8	109.6	112.0	118.0
Excluding capital and overheads	93.6	97.7	97.9	100.0	100.2	102.9	109.3	112.5	118.7
Excluding seed, fodder and store and breeding stock	95.1	99.3	99.9	100.0	101.0	104.9	111.5	112.6	116.4

Note: ABARE revised the method for calculating these indexes in October 1999. The indexes for the different groups of farm cost items are now calculated on a chained weight basis using Fishers' ideal index with a reference year of 1997-98 = 100.
Source: ABARE.

86 Indicative interest rates for the Australian farm sector

		Major trading banks	
	Australian broadacre farms a	Overdrafts for small businesses bc	90 day bank bills b
	%	%	%
1971		na	8.15
1972		na	5.75
1973		na	6.40
1974		na	8.80
1975		na	8.80
1976		10.25	10.45
1977		10.25	11.10
1978		10.25	10.80
1979	8.88	9.75	10.35
1980	9.24	10.25	13.85
1981	10.09	12.00	16.00
1982	11.48	14.50	18.75
1983	11.35	13.60	13.60
1984	12.02	13.60	12.80
1985	12.48	15.00	16.50
1986	15.45	17.40	14.80
1987	15.56	16.85	13.35
1988	13.86	15.25	13.15
1989	14.28	19.75	18.30
1990	16.67	18.70	15.05
1991	14.12	14.35	10.45
1992	12.02	10.90	6.40
1993	9.67	9.75	5.25
1994	9.29	9.30	5.45
1995	9.67	11.10	7.55
1996	10.43	11.25	7.57
1997	9.20	9.50	5.35
1998	8.30	7.70	5.32
1999	7.80	7.45	4.93
2000	8.00	9.15	6.23
2001	8.70	8.25	4.97
2002	7.90	8.35	5.07
2003	7.85	8.35	4.67

a Estimated average rate paid by all broadacre farms on all farm business debt for the year ended 30 June. **b** At 30 June. **c** Refers to the midpoint of a range of rates which apply to the lowest risk borrowers for a range of banks. In practice many borrowers pay an additional risk margin. **na** Not available.

Sources: Reserve Bank of Australia, *Bulletin,* Sydney; ABARE.

87 Farm indebtedness to financial institutions [a]

	All banks [b]	Other government agencies [c]	Finance companies		Other farm debt [d]	Total farm debt
			Pastoral	Other		
	$m	$m	$m	$m	$m	$m
1980	na	na	321	273	na	na
1981	na	na	315	329	na	na
1982	na	na	366	334	na	na
1983	na	na	364	438	na	na
1984	na	na	488	450	na	na
1985	na	na	577	535	na	na
1986	na	na	717	622	na	na
1987	na	na	704	641	na	na
1988	7 738	1 530	544	651	1 250	11 713
1989	8 802	1 620	714	789	1 350	13 275
1990	10 161	1 690	402	1 121	1 410	14 784
1991	10 662	1 730	487	1 131	1 436	15 446
1992	11 345	1 856	467	912	1 460	16 040
1993	12 250	1 879	346	695	1 580	16 750
1994	12 410	1 909	366	785	1 631	17 101
1995	13 065	1 872	398	970	1 690	17 995
1996	14 753	746	376	1 343	1 792	19 010
1997	16 243	696	486	1 579	1 760	20 764
1998	17 266	603	625	1 354	1 810	21 658
1999	18 679	597	476	617	1 852	22 221
2000	21 613	677	630	1 897	1 901	26 718
2001	23 412	722	641	1 998	1 920	28 693
2002	24 808	735	667	2 025	1 967	30 202

a This table is based largely on data from the Reserve Bank of Australia and contains some modifications to table 87, *Australian Commodity Statistics 1997,* as a result of changes to data collection by the bank. The farm sector is defined as enterprises covered by ANZSIC (1994) agricultural categories 011–021. Credit outstanding in June of year indicated. **b** Derived from all banks lending to agriculture, fishing and forestry less the fishing and forestry component, which is estimated to be around 6 per cent of that total in 1997. **c** Includes the government agency business of state banks and advances made under War Service Land Settlement. Before 1996, includes loans from the Queensland Industry Development Corporation. From 1996, these loans are included in bank lending. **d** Includes loans from life insurance companies, lease agreements and indebtedness to hire purchase companies, trade creditors, private lenders and small financial institutions. **na** Not available.
Sources: Reserve Bank of Australia; ABARE.

88 Australian tractor sales, by type

	By power segment a				By wheel drive type			
	Under 30 kW	30–75 kW	75–150 kW	Over 150 kW	2WD b	4UWD c	4EWD d	Total
	no.	no.	no.	no.	no.	no.	no.	no.
1980	1 509	9 815	2 857	425	na	na	na	14 606
1981	1 926	9 993	2 788	761	na	na	na	15 468
1982	1 735	8 021	2 447	614	8 113	3 918	786	12 817
1983	1 750	7 477	2 239	478	6 382	4 514	1 048	11 944
1984	2 368	7 610	2 379	677	6 168	5 638	1 228	13 034
1985	2 168	7 274	2 064	687	5 007	6 004	1 182	12 193
1986	1 779	4 797	924	156	2 953	4 318	385	7 656
1987	1 610	4 469	1 029	168	2 756	4 202	318	7 276
1988	1 971	5 371	1 057	167	2 888	5 327	351	8 566
1989	2 540	6 658	1 363	223	3 006	7 392	386	10 784
1990	2 148	5 513	1 267	328	2 410	6 418	428	9 256
1991	1 470	3 304	659	148	1 407	4 010	164	5 581
1992	1 335	3 328	917	218	1 330	4 207	261	5 798
1993	1 254	3 499	997	347	1 308	4 429	360	6 097
1994	1 126	4 250	1 248	466	1 239	5 430	423	7 092
1995	1 009	4 104	1 399	597	1 034	5 663	412	7 109
1996	1 091	4 304	1 773	1 051	916	6 508	792	8 216
1997	1 137	4 196	1 990	1 451	827	6 908	1 039	8 774
1998	1 025	4 110	1 990	1 402	628	6 625	1 274	8 527
1999	1 116	4 208	1 490	1 137	539	6 657	754	7 950
2000	1 117	3 389	1 056	929	413	5 535	543	6 491
2001	1 144	4 340	1 080	820	430	6 451	503	7 384
2002	1 136	4 524	1 316	918	415	6 946	533	7 894
2000 quarter								
March	251	834	294	278	125	1 333	199	1 657
June	313	1 012	416	396	122	1 780	235	2 137
September	242	692	174	114	74	1 099	49	1 222
December	311	851	172	141	92	1 323	60	1 475
2001 quarter								
March	273	792	217	244	106	1 259	161	1 526
June	321	1 228	353	315	110	1 901	206	2 217
September	245	923	190	97	91	1 314	50	1 455
December	305	1 397	320	164	123	1 977	86	2 186
2002 quarter								
March	282	1 147	345	289	112	1 763	188	2 063
June	287	1 345	461	387	135	2 119	226	2 480
September	269	979	249	107	71	1 484	49	1 604
December	298	1 053	261	135	97	1 580	70	1 747
2003 quarter								
March	303	804	335	298	60	1 494	186	1 740
June	337	1 150	511	330	86	2 071	171	2 328
September	362	1 009	348	128	64	1 723	60	1 847

a Tractor power ratings refer to power takeoff, power in kilowatts. **b** Two wheel drive. **c** Four unequal diameter wheel drive. **d** Four equal diameter wheel drive. **na** Not available.
Source: Tractor and Machinery Association of Australia, Melbourne.

89 Australian trade in selected farm machinery

	Imports a				Exports			
	Tractors	Tillage machinery	Harvesting/ haymaking machinery	Seeding machinery	Tractors	Tillage machinery	Harvesting/ haymaking machinery	Seeding machinery
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
1971-72	22 081	541	1 859	196	513	2 120	4 696	256
1972-73	36 711	466	4 346	289	662	2 550	8 260	1 030
1973-74	41 606	1 008	9 495	572	411	3 016	9 453	1 111
1974-75	84 148	2 787	21 815	674	790	6 975	15 628	2 247
1975-76	116 290	3 215	21 164	665	2 440	5 889	12 080	626
1976-77	149 663	8 275	38 867	1 177	946	3 314	16 954	747
1977-78	110 697	8 338	46 932	1 744	1 165	4 775	8 888	2 293
1978-79	111 518	7 991	37 021	1 759	2 064	2 178	10 431	873
1979-80	169 008	10 472	62 964	2 316	3 742	2 578	12 268	1 481
1980-81	198 398	11 206	83 650	3 847	8 053	3 733	24 308	9 009
1981-82	260 771	14 252	89 061	3 362	6 638	6 224	12 897	4 002
1982-83	149 386	8 558	52 568	2 529	7 852	2 157	11 357	2 036
1983-84	174 936	10 585	109 281	3 516	4 804	1 935	4 764	2 236
1984-85	241 827	16 372	119 629	4 074	2 201	1 215	6 635	2 578
1985-86	198 476	9 822	68 493	3 555	7 352	1 268	13 745	5 945
1986-87	58 178	4 333	22 588	1 969	5 255	767	8 660	1 333
1987-88	124 132	7 528	39 628	4 189	2 892	1 214	18 183	609
1988-89	231 995	13 269	76 583	5 567	1 096	1 614	8 036	406
1989-90	268 895	22 090	96 195	5 913	1 301	1 107	12 059	886
1990-91	101 532	11 881	64 362	4 045	1 711	2 347	6 832	296
1991-92	91 061	8 631	43 394	4 002	890	2 446	11 295	841
1992-93	178 920	13 291	72 578	5 011	1 306	1 946	17 896	1 069
1993-94	245 154	15 220	118 227	6 835	1 112	2 704	31 541	782
1994-95	312 964	17 534	142 110	10 342	1 551	1 664	32 451	1 517
1995-96	366 038	25 448	170 307	14 505	1 524	2 896	43 088	1 504
1996-97	454 201	29 511	253 428	22 501	1 192	2 498	32 400	1 906
1997-98	512 157	30 278	243 655	30 525	995	1 391	33 946	1 269
1998-99	515 845	30 345	241 217	24 967	1 261	2 439	31 099	1 074
1999-00	416 136	30 127	229 839	24 214	1 223	2 666	29 748	402
2000-01	376 921	20 521	228 927	19 085	2 591	4 712	22 866	1 206
2001-02	477 563	25 789	161 079	29 197	4 416	2 211	44 996	1 144
2002-03	504 774	24 960	225 770	31 722	2 507	990	26 890	2 358

a Fob at the port of origin.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

90 Australian fertiliser prices, by type [a]

	Single superphosphate [b] $/t	Diammonium phosphate [b] $/t	Ammonium sulphate [c] $/t	Potassium chloride [c] $/t	Urea [c] $/t	Index of prices paid for fertiliser [d]
1970	na	na	na	na	na	9.4
1971	16.18	na	40.41	69.10	79.24	11.6
1972	16.87	na	40.09	69.32	80.62	11.6
1973	16.99	na	40.79	68.80	81.44	11.6
1974	19.20	113.00	61.00	83.80	87.20	13.7
1975	54.60	na	103.00	103.40	120.60	30.8
1976	55.60	215.40	105.00	128.60	140.60	27.3
1977	53.16	135.00	91.80	109.45	153.95	28.0
1978	59.04	na	104.32	111.89	175.21	29.4
1979	56.76	247.80	112.06	117.54	185.16	32.1
1980	70.74	296.60	128.71	145.14	245.64	39.0
1981	83.40	337.60	149.14	176.42	274.23	46.5
1982	92.84	337.60	156.53	187.02	269.18	51.3
1983	101.42	334.00	155.64	180.50	261.11	52.6
1984	105.11	322.95	175.92	206.60	286.30	56.0
1985	118.46	342.17	218.19	267.29	321.50	62.2
1986	131.00	378.00	209.00	271.00	280.00	68.3
1987	128.00	339.00	211.00	279.00	276.00	67.0
1988	132.70	379.00	212.20	294.15	303.00	68.3
1989	155.40	396.00	229.40	328.70	339.70	76.9
1990	165.80	364.70	259.50	341.00	324.00	82.4
1991	177.10	389.00	276.00	361.80	390.00	85.0
1992	180.00	385.20	289.60	368.70	380.70	90.3
1993	173.00	368.80	293.10	367.50	389.70	88.7
1994	174.50	343.80	298.40	373.50	382.90	87.1
1995	179.10	417.30	319.20	372.30	455.90	89.6
1996	184.20	449.30	325.90	369.20	479.60	98.2
1997	179.17	460.25	317.88	362.75	434.80	99.2
1998	196.50	497.83	343.00	409.17	380.60	100.0
1999	197.00	487.83	339.25	437.50	333.80	102.7
2000	197.80	441.50	361.00	474.75	371.60	98.6
2001	209.83	475.25	377.25	511.25	443.60	106.4
2002	223.41	463.16	373.08	498.50	387.40	104.3
2003	na	na	na	na	na	106.9

a Average price paid by Australian farmers at 30 June. **b** Bulk. **c** Bagged. **d** Based on a 4 quarter average for the year ending 30 June. **na** Not available.
Sources: Department of Primary Industry, *Chemical Fertilisers in Australia,* AGPS, Canberra; manufacturers' price lists; ABARE.

91 World fertiliser indicator prices

	Phosphate rock a	Sulphur b	Diam-monium phosphate c	Triple super-phosphate c	Ammonia d	Urea d	Potash e
	A$/t	A$/t	A$/t	A$/t	A$/t	A$/t	A$/t
1989-90	50.0	111.0	212.0	163.0	73.0	147.0	127.0
1990-91	52.0	115.0	231.0	183.0	162.0	192.0	124.0
1991-92	56.0	83.0	211.0	159.0	148.0	190.0	144.0
1992-93	61.0	57.0	185.0	172.0	135.0	191.0	161.0
1993-94	55.0	47.0	223.0	195.0	219.0	192.0	164.0
1994-95	49.7	75.2	270.0	216.3	335.0	258.6	152.6
1995-96	49.9	63.2	300.7	229.5	262.6	273.4	149.0
1996-97	46.8	41.8	264.9	246.3	278.1	239.4	144.3
1997-98	53.9	44.8	302.2	279.7	233.0	190.3	166.2
1998-99	75.1	40.9	326.2	296.3	192.9	168.4	179.9
1999-00	74.8	64.1	268.4	242.8	226.6	190.1	178.9
2000-01	87.4	56.5	310.6	283.2	429.5	310.7	209.2
2001-02	89.8	46.5	298.8	262.4	286.2	216.5	214.9
2002-03	80.7	80.4	312.4	277.9	357.3	253.5	193.2
1998 quarter							
March	54.9	39.9	305.5	284.0	207.4	170.0	169.3
June	58.1	35.8	326.0	298.5	242.9	238.8	179.2
September	78.7	37.7	351.5	315.6	232.5	217.7	188.3
December	75.5	36.1	331.3	301.5	178.8	159.9	180.6
1999 quarter							
March	74.3	37.7	316.6	294.2	169.3	142.6	177.9
June	72.1	52.2	305.2	273.7	191.1	153.3	172.6
September	72.2	57.9	292.5	260.8	179.8	141.4	172.9
December	73.0	62.1	261.0	233.0	194.8	163.7	174.7
2000 quarter							
March	74.3	64.5	253.4	232.5	198.2	218.3	177.7
June	79.6	71.9	266.8	244.8	333.7	237.0	190.5
September	81.7	69.5	287.1	249.4	347.7	278.4	195.5
December	88.2	64.8	319.8	294.9	413.9	296.6	211.2
2001 quarter							
March	88.2	54.1	324.1	295.5	541.3	379.6	211.1
June	91.5	37.7	311.6	293.0	415.1	288.0	219.1
September	91.3	33.3	289.0	243.7	353.3	213.0	218.5
December	88.2	64.8	319.8	294.9	413.9	296.6	211.2
2002 quarter							
March	90.7	47.9	316.3	284.3	253.1	213.4	217.1
June	85.3	62.9	292.1	261.5	258.5	206.8	204.2
September	85.8	66.6	324.2	294.0	265.2	243.4	205.3
December	84.2	72.6	306.1	272.9	322.6	240.6	201.6
2003 quarter							
March	79.3	68.4	302.0	260.8	396.0	269.5	189.9
June	73.5	114.2	317.4	284.0	445.6	260.5	176.0
September	71.5	109.5	305.0	267.0	393.9	276.0	171.1

a US Gulf 68 BPL for the period to June 30 1998. Data after June 1998 refer to Jordan 70-74 BPL. **b** Vancouver spot. **c** Fob US Gulf. **d** Fob Middle East for the period to 30 June 1993 when data from this source became unavailable. Data after 30 June 1993 refer to fob US Gulf. **e** Vancouver standard muriate.

Source: Derived from data in Pike and Fischer, *Green Markets,* Maryland, United States.

92 Australian fertiliser consumption, by element

	Phosphate (P_2O_5) kt	Nitrogen (N) kt	Potash (K_2O) kt
1983-84	764.0	305.0	140.7
1984-85	685.0	344.0	141.2
1985-86	726.3	340.0	130.0
1986-87	871.8	332.5	135.7
1987-88	842.5	363.1	147.4
1988-89	790.5	392.6	160.8
1989-90	578.9	440.3	162.6
1990-91	580.0	439.4	145.4
1991-92	680.2	462.4	142.1
1992-93	801.4	488.0	145.2
1993-94	790.5	548.0	172.6
1994-95	950.0	564.5	201.2
1995-96	977.5	671.3	219.0
1996-97	1 016.0	824.6	196.5
1997-98	1 148.1	839.4	249.0
1998-99	1 058.7	940.7	223.0
1999-00	1 034.9	1 099.4	206.9
2000-01	1 096.6	1 002.0	202.6
2001-02	1 108.0	1 049.9	225.4
2002-03	na	na	na

Sources: FAO, *World Fertilisers Year Book,* Rome; Incitec Ltd, Queensland; ABARE.

93 Australian imports of fertiliser, by element

	Phosphate (P_2O_5) kt	Nitrogen (N) kt	Potash (K_2O) kt
1983-84	174.0	96.0	140.7
1984-85	194.6	149.7	145.4
1985-86	150.4	121.3	116.7
1986-87	176.5	153.8	136.9
1987-88	146.3	154.2	165.5
1988-89	249.9	204.8	179.9
1989-90	305.0	257.2	173.0
1990-91	306.0	270.1	147.2
1991-92	331.6	257.2	145.4
1992-93	464.1	308.6	153.7
1993-94	447.3	392.2	179.1
1994-95	516.0	406.8	219.6
1995-96	604.1	469.3	218.6
1996-97	644.5	597.7	196.9
1997-98	713.7	654.7	258.9
1998-99	696.5	695.1	213.0
1999-00	667.7	842.2	206.9
2000-01	637.3	704.7	202.6
2001-02	588.8	746.6	243.5
2002-03	na	na	na

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; FAO, *World Fertilisers Year Book,* Rome; Incitec Ltd, Queensland; ABARE.

94 Australian imports of raw materials for fertiliser production, by source

	Sulphur		Phosphate rock						
	Canada	Other	Christmas Island	China	Morocco	Nauru	Togo	Other	Total
	kt	kt	kt	kt	kt	kt	kt	kt	kt
1971-72	212	65	503	na	0	na	na	na	1 654
1972-73	396	10	684	na	0	na	na	na	2 282
1973-74	381	23	955	na	0	na	na	na	3 104
1974-75	502	78	1 002	na	0	na	na	na	2 639
1975-76	180	26	503	na	0	na	na	na	1 461
1976-77	381	26	567	na	0	na	na	na	1 319
1977-78	470	26	487	na	0	na	na	na	1 610
1978-79	337	99	543	na	0	na	na	na	1 756
1979-80	627	60	674	na	0	na	na	na	1 936
1980-81	552	4	624	na	0	na	na	na	2 232
1981-82	459	0	780	na	25	na	na	na	2 360
1982-83	371	21	699	na	0	na	na	na	2 111
1983-84	470	0	456	na	25	na	na	na	1 688
1984-85	420	1	533	na	111	na	na	na	1 762
1985-86	458	0	506	na	103	na	na	na	1 921
1986-87	329	1	370	na	66	na	na	na	1 459
1987-88	462	11	240	na	256	na	na	na	1 808
1988-89	506	13	0	0	310	1 203	162	562	2 237
1989-90	382	13	0	0	236	768	171	256	1 430
1990-91	108	9	0	0	93	224	25	134	476
1991-92	38	6	0	0	0	257	0	218	474
1992-93	79	20	0	0	62	355	31	401	849
1993-94	71	0	13	0	144	203	33	383	776
1994-95	122	22	22	0	182	178	177	508	1 067
1995-96	114	31	47	32	136	191	0	505	911
1996-97	113	32	66	50	104	167	0	519	906
1997-98	126	5	126	79	238	153	0	464	1 060
1998-99	231	94	146	44	273	88	0	332	884
1999-00	255	7	50	107	151	106	0	342	756
2000-01	435	46	0	293	145	119	0	266	823
2001-02	539	4	0	266	94	27	243	303	933
2002-03	557	36	0	200	48	16	244	202	711

na Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Primary Industry, *Chemical Fertilisers in Australia,* AGPS, Canberra.

95 Australian trade in manufactured fertiliser, by type

	Imports						Exports	
	Triple superphosphate	Diammonium phosphate	Monammonium phosphate	Other ammonium	Urea	Potassic fertiliser	Nitrogen fertiliser	Ammonium phosphates
	kt	kt	kt	kt	kt	kt	kt	kt
1970-71	3.1	0.0	0.0	15.1	na	na	0.8	0.0
1971-72	2.4	0.0	0.0	27.3	na	na	7.8	0.0
1972-73	2.0	0.0	0.0	9.3	1.3	na	21.4	0.0
1973-74	1.8	0.0	0.0	4.1	0.1	na	37.9	0.0
1974-75	0.3	0.0	0.0	6.5	4.3	na	7.3	0.0
1975-76	0.1	0.0	0.0	0.3	4.7	na	47.9	0.0
1976-77	20.7	0.0	0.0	6.3	17.9	na	1.2	0.0
1977-78	10.1	0.0	0.0	9.4	10.2	na	7.2	0.0
1978-79	66.3	0.2	0.0	8.9	16.7	na	8.2	0.0
1979-80	0.0	2.2	0.0	30.7	41.2	na	24.2	0.0
1980-81	0.0	51.2	9.0	38.7	40.2	na	22.9	0.0
1981-82	0.0	50.5	8.9	62.7	43.2	na	18.5	0.0
1982-83	25.2	183.6	32.4	22.7	76.6	na	21.2	0.0
1983-84	35.1	257.5	45.9	14.7	64.0	na	4.5	0.0
1984-85	55.4	306.6	54.4	46.3	138.2	na	34.6	0.0
1985-86	48.1	229.4	40.2	41.7	144.2	na	6.2	0.0
1986-87	76.4	201.8	38.2	80.3	177.2	na	10.3	0.0
1987-88	88.4	124.7	15.3	98.9	212.0	na	16.1	0.0
1988-89	97.3	250.3	103.1	113.1	255.1	299.4	46.5	0.0
1989-90	114.3	320.3	164.2	78.6	361.7	289.7	48.3	0.0
1990-91	157.8	347.3	141.1	42.9	388.8	247.4	96.6	0.0
1991-92	264.4	355.0	206.2	90.2	364.5	244.4	60.8	0.0
1992-93	249.9	482.7	250.0	116.8	367.2	258.4	50.8	0.0
1993-94	204.2	501.2	237.5	133.7	526.5	301.0	76.6	0.0
1994-95	306.8	548.5	232.6	124.9	554.3	367.8	66.0	0.0
1995-96	269.3	715.4	291.5	154.0	594.9	366.0	40.0	0.0
1996-97	335.5	706.0	317.3	197.3	850.7	329.3	32.1	0.0
1997-98	351.8	757.1	391.6	118.1	953.3	435.0	43.2	0.0
1998-99	284.9	771.7	413.6	78.5	1 038.2	357.1	65.0	0.0
1999-00	240.4	570.2	580.0	74.9	1 399.8	353.3	75.2	22.1
2000-01	224.1	447.4	647.4	22.6	1 139.5	346.0	107.7	282.8
2001-02	280.2	271.0	659.2	75.5	1 295.8	416.9	101.3	180.0
2002-03	187.0	237.2	692.8	70.7	1 072.8	433.1	172.8	na

na Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Primary Industry, *Chemical Fertilisers in Australia,* AGPS, Canberra.

96 Volume of Australian fertiliser imports, by state

	Triple superphosphate	Diammonium phosphate	Monammonium phosphate	Ammonium fertilisers		Urea	Potassic fertiliser	Phosphate rock
				Sulphate	Nitrate			
	kt	kt	kt	kt	kt	kt	kt	kt
New South Wales								
1997-98	49.6	109.2	81.0	6.1	9.2	95.8	20.3	150.1
1998-99	15.9	84.9	88.0	7.6	6.3	119.1	16.4	142.7
1999-00	20.7	70.6	115.6	3.0	10.3	137.6	18.4	164.8
2000-01	28.3	32.1	110.1	2.3	4.4	117.3	16.2	174.3
2001-02	32.8	24.5	108.6	5.4	14.4	136.4	19.8	204.4
2002-03	21.5	14.1	138.5	5.1	18.8	116.1	14.0	127.7
Victoria								
1997-98	148.3	197.8	143.7	22.6	3.3	253.7	145.0	484.4
1998-99	116.5	201.8	141.7	16.5	0.8	252.6	120.2	425.0
1999-00	91.2	149.4	191.4	5.7	0.9	318.7	94.4	349.0
2000-01	79.3	116.4	233.8	2.5	0.0	365.9	95.3	359.5
2001-02	107.1	72.6	269.0	7.4	0.4	371.0	128.9	369.0
2002-03	55.7	45.0	230.9	10.4	1.0	325.6	106.3	309.2
Queensland								
1997-98	7.4	85.8	45.6	7.9	13.0	223.4	120.0	0.6
1998-99	10.3	103.4	48.4	6.8	8.8	193.6	98.0	0.3
1999-00	6.1	45.4	69.7	0.8	26.9	293.3	105.1	0.1
2000-01	10.3	39.2	66.1	0.4	3.1	226.5	83.8	0.4
2001-02	6.8	5.8	60.1	0.9	27.8	255.3	98.5	1.0
2002-03	5.2	0.1	38.3	1.4	16.0	159.3	75.5	1.1
Western Australia								
1997-98	103.2	136.7	66.6	11.3	33.8	275.6	100.2	299.6
1998-99	90.6	167.4	95.4	0.0	21.9	351.1	90.4	267.6
1999-00	75.9	118.5	156.5	0.2	25.2	514.0	101.5	107.5
2000-01	67.0	125.7	182.6	6.6	2.8	294.4	110.6	161.1
2001-02	82.2	113.6	178.3	0.2	13.6	364.0	128.0	176.2
2002-03	77.2	130.1	242.4	4.7	4.6	289.3	164.0	139.9
South Australia								
1997-98	39.0	200.2	54.6	2.7	3.6	98.5	13.3	0.0
1998-99	44.2	191.4	40.2	6.1	1.5	116.0	10.7	0.0
1999-00	26.0	173.5	46.9	0.0	1.8	125.6	5.2	0.0
2000-01	19.8	129.2	54.9	0.1	0.4	121.7	7.8	0.0
2001-02	23.0	54.5	43.2	4.6	0.7	153.0	9.4	0.0
2002-03	20.5	47.9	42.8	5.4	3.3	164.2	10.0	0.0
Tasmania								
1997-98	4.3	25.2	0.0	4.5	0.1	6.2	32.8	125.1
1998-99	7.4	22.8	0.0	2.2	0.0	5.8	19.8	48.0
1999-00	20.5	12.8	0.0	0.0	0.0	10.5	20.5	72.4
2000-01	19.4	4.9	0.0	0.0	0.0	13.6	24.0	60.8
2001-02	28.3	0.0	0.0	0.0	0.0	16.0	21.4	138.6
2002-03	6.9	0.0	0.0	0.0	0.0	18.4	22.4	102.7
Australia								
1997-98	351.8	757.1	391.6	55.0	63.1	953.3	435.0	1 059.7
1998-99	284.9	771.7	413.6	39.2	39.3	1 038.2	357.1	883.7
1999-00	240.4	570.2	580.0	9.8	65.1	1 399.8	353.3	755.6
2000-01	224.1	447.4	647.4	12.0	10.7	1 139.5	346.0	822.7
2001-02	280.2	271.0	659.2	18.4	57.1	1 295.8	416.9	933.2
2002-03	187.0	237.2	692.8	27.0	43.6	1 072.8	433.1	711.3

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

97 Value of Australian fertiliser imports, by state [a]

	Triple superphosphate $m	Diammonium phosphate $m	Monammonium phosphate $m	Ammonium fertilisers Sulphate $m	Ammonium fertilisers Nitrate $m	Urea $m	Potassic fertiliser $m	Phosphate rock $m
New South Wales								
1997-98	9.22	32.35	23.24	1.45	2.23	18.28	4.39	10.23
1998-99	4.23	26.53	27.69	1.94	1.59	19.43	4.79	11.33
1999-00	3.99	16.86	27.44	0.54	2.09	23.22	4.22	12.19
2000-01	7.39	9.92	32.14	0.54	1.07	29.08	4.37	13.84
2001-02	7.81	6.82	30.63	1.21	4.33	27.43	6.04	17.81
2002-03	5.30	4.11	37.88	1.06	5.43	26.28	3.74	10.41
Victoria								
1997-98	35.47	57.58	42.00	4.93	0.83	48.99	28.18	29.95
1998-99	30.23	65.62	45.20	3.46	0.23	40.54	27.30	27.79
1999-00	18.68	36.72	47.07	1.03	0.21	53.60	22.00	25.06
2000-01	20.32	34.01	68.81	0.55	0.01	90.10	25.57	25.42
2001-02	22.65	21.10	77.33	1.65	0.11	76.06	36.13	25.62
2002-03	12.70	13.37	66.59	2.32	0.23	74.98	25.41	19.36
Queensland								
1997-98	1.68	24.20	13.00	1.81	4.09	40.68	25.82	0.15
1998-99	2.79	33.67	15.76	0.90	2.44	34.90	25.73	0.08
1999-00	1.32	11.63	17.45	0.17	6.06	48.36	23.90	0.02
2000-01	2.61	11.09	19.25	0.10	0.87	54.88	22.06	0.05
2001-02	1.60	1.64	17.42	0.18	8.56	49.97	28.41	0.12
2002-03	1.32	0.05	10.96	0.37	4.14	35.26	18.19	0.12
Western Australia								
1997-98	25.17	41.87	20.06	1.22	9.38	54.41	20.16	19.33
1998-99	24.60	55.47	32.35	0.00	6.20	51.96	20.92	21.80
1999-00	14.65	29.48	38.62	0.04	6.48	83.23	23.55	7.91
2000-01	15.52	41.57	58.22	1.39	0.64	75.14	27.90	12.95
2001-02	18.70	33.33	53.05	0.03	3.86	70.98	34.29	13.52
2002-03	16.05	37.74	69.91	1.18	1.79	66.90	37.66	10.89
South Australia								
1997-98	9.96	60.08	16.05	0.67	1.09	16.62	3.62	0.00
1998-99	10.53	63.28	13.29	1.54	0.47	18.12	2.61	0.00
1999-00	5.57	42.55	11.53	0.01	0.47	22.53	1.30	0.03
2000-01	4.88	39.09	16.19	0.02	0.12	32.36	2.34	0.00
2001-02	5.23	16.36	12.25	1.03	0.20	31.29	2.76	0.00
2002-03	4.60	13.27	11.55	1.14	0.83	37.78	2.58	0.00
Tasmania								
1997-98	1.04	6.97	0.00	1.08	0.04	1.24	6.14	7.93
1998-99	1.95	7.85	0.00	0.56	0.00	0.96	4.37	3.30
1999-00	1.88	3.40	0.00	0.00	0.00	1.56	4.26	4.97
2000-01	2.62	1.21	0.00	0.00	0.00	3.58	5.90	5.40
2001-02	3.05	0.00	0.00	0.00	0.02	3.06	5.64	10.86
2002-03	1.58	0.00	0.02	0.00	0.01	4.04	5.33	6.75
Australia								
1997-98	82.55	223.82	114.35	11.17	17.65	180.23	88.33	67.59
1998-99	74.33	252.43	134.28	8.41	10.94	165.91	85.73	64.29
1999-00	46.09	140.64	142.10	1.80	15.31	232.51	79.22	54.00
2000-01	53.34	136.88	194.60	2.59	2.72	285.14	88.15	61.82
2001-02	59.05	79.24	190.68	4.10	17.07	258.79	113.27	71.67
2002-03	41.55	68.54	196.91	6.07	12.42	245.23	92.91	50.09

a Fob at the port of origin.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

98 Volume of Australian fertiliser imports, by quarter

	Triple superphosphate	Diammonium phosphate	Monammonium phosphate	Ammonium fertilisers Sulphate	Ammonium fertilisers Nitrate	Urea	Potassic fertiliser	Phosphate rock
	$m	$m	$m	$m	$m	$m	$m	$m
1996 quarter								
March	22.4	89.9	36.6	0.1	10.0	36.8	17.4	11.8
June	15.3	72.8	28.1	0.3	14.4	55.3	12.3	6.6
September	12.9	37.1	10.0	1.6	11.9	60.1	11.3	11.7
December	20.2	39.4	18.5	2.2	7.3	45.8	14.0	15.6
1997 quarter								
March	23.2	59.2	31.0	2.2	8.6	35.0	18.3	11.5
June	16.8	50.4	23.1	3.6	6.6	71.2	14.7	11.3
September	5.3	23.6	5.5	4.1	5.8	51.8	16.7	20.2
December	20.2	34.8	25.8	1.0	4.8	25.7	23.0	17.0
1998 quarter								
March	36.6	91.9	50.4	6.1	3.7	38.5	24.4	17.2
June	20.5	73.6	32.7	0.1	4.0	64.3	25.3	13.2
September	17.3	32.1	16.9	4.3	2.2	37.3	18.2	26.9
December	11.3	36.5	21.0	0.1	4.8	29.1	19.9	22.3
1999 quarter								
March	29.5	119.9	65.8	2.6	1.2	42.6	20.2	10.5
June	16.1	64.0	30.6	1.4	3.5	56.8	28.1	4.7
September	7.4	11.8	9.5	0.1	4.3	37.7	18.8	13.1
December	7.1	23.4	38.1	0.1	7.8	30.7	19.9	18.3
2000 quarter								
March	21.5	62.0	55.9	1.5	1.6	52.5	24.3	13.5
June	10.0	43.5	38.5	0.1	1.5	111.6	18.9	9.1
September	1.9	9.5	15.0	0.1	0.3	70.0	21.1	9.7
December	13.5	12.8	29.2	0.1	0.9	31.3	18.6	23.5
2001 quarter								
March	17.4	50.8	89.3	1.4	1.2	78.0	33.1	19.8
June	20.5	63.8	61.1	1.0	0.4	105.8	17.9	8.8
September	3.4	2.4	17.3	1.9	2.3	35.8	29.2	21.2
December	15.1	5.6	35.4	0.1	4.7	44.9	19.8	20.5
2002 quarter								
March	26.4	40.7	75.4	0.1	4.0	51.4	37.3	14.5
June	14.2	30.6	62.6	2.1	6.1	126.6	30.9	15.5
September	14.3	1.5	18.3	1.9	6.6	32.3	31.4	20.3
December	1.4	6.8	35.5	0.5	4.0	25.0	13.0	12.4
2003 quarter								
March	19.9	35.1	83.4	0.9	5.1	79.6	41.6	10.0
June	6.0	25.2	59.7	2.7	3.7	108.3	21.9	7.5
September	6.6	1.6	18.8	0.1	1.7	36.0	18.8	9.9

a Fob at the port of origin.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

99 Value of Australian fertiliser imports, by quarter [a]

	Triple superphosphate	Diammonium phosphate	Monammonium phosphate	Ammonium fertilisers		Urea	Potassic fertiliser	Phosphate rock
				Sulphate	Nitrate			
	$m	$m	$m	$m	$m	$m	$m	$m
1996 quarter								
March	22.4	89.9	36.6	0.1	10.0	36.8	17.4	11.8
June	15.3	72.8	28.1	0.3	14.4	55.3	12.3	6.6
September	12.9	37.1	10.0	1.6	11.9	60.1	11.3	11.7
December	20.2	39.4	18.5	2.2	7.3	45.8	14.0	15.6
1997 quarter								
March	23.2	59.2	31.0	2.2	8.6	35.0	18.3	11.5
June	16.8	50.4	23.1	3.6	6.6	71.2	14.7	11.3
September	5.3	23.6	5.5	4.1	5.8	51.8	16.7	20.2
December	20.2	34.8	25.8	1.0	4.8	25.7	23.0	17.0
1998 quarter								
March	36.6	91.9	50.4	6.1	3.7	38.5	24.4	17.2
June	20.5	73.6	32.7	0.1	4.0	64.3	25.3	13.2
September	17.3	32.1	16.9	4.3	2.2	37.3	18.2	26.9
December	11.3	36.5	21.0	0.1	4.8	29.1	19.9	22.3
1999 quarter								
March	29.5	119.9	65.8	2.6	1.2	42.6	20.2	10.5
June	16.1	64.0	30.6	1.4	3.5	56.8	28.1	4.7
September	7.4	11.8	9.5	0.1	4.3	37.7	18.8	13.1
December	7.1	23.4	38.1	0.1	7.8	30.7	19.9	18.3
2000 quarter								
March	21.5	62.0	55.9	1.5	1.6	52.5	24.3	13.5
June	10.0	43.5	38.5	0.1	1.5	111.6	18.9	9.1
September	1.9	9.5	15.0	0.1	0.3	70.0	21.1	9.7
December	13.5	12.8	29.2	0.1	0.9	31.3	18.6	23.5
2001 quarter								
March	17.4	50.8	89.3	1.4	1.2	78.0	33.1	19.8
June	20.5	63.8	61.1	1.0	0.4	105.8	17.9	8.8
September	3.4	2.4	17.3	1.9	2.3	35.8	29.2	21.2
December	15.1	5.6	35.4	0.1	4.7	44.9	19.8	20.5
2002 quarter								
March	26.4	40.7	75.4	0.1	4.0	51.4	37.3	14.5
June	14.2	30.6	62.6	2.1	6.1	126.6	30.9	15.5
September	14.3	1.5	18.3	1.9	6.6	32.3	31.4	20.3
December	1.4	6.8	35.5	0.5	4.0	25.0	13.0	12.4
2003 quarter								
March	19.9	35.1	83.4	0.9	5.1	79.6	41.6	10.0
June	6.0	25.2	59.7	2.7	3.7	108.3	21.9	7.5
September	6.6	1.6	18.8	0.1	1.7	36.0	18.8	9.9

a Fob at the port of origin.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

100 Australian sales and prices of chemicals, by product type

	Herbicides ab	Fungicides/ plant growth regulants ab	Insecticides ab	Animal health products ac	Index of prices paid for chemicals d
	$'000	$'000	$'000	$'000	
1975	25 594	8 237	13 424	na	34.3
1976	35 518	10 337	13 627	na	40.1
1977	46 402	10 950	21 202	na	43.6
1978	54 362	12 090	25 317	61 462	44.7
1979	77 349	14 175	28 753	na	49.9
1980	94 301	17 551	34 986	88 552	58.0
1981	108 837	20 167	37 046	92 022	61.0
1982	109 722	19 744	37 957	91 810	62.7
1983	159 888	28 829	42 905	118 443	66.2
1984	192 830	29 536	53 906	137 878	70.3
1985	207 226	30 165	52 659	155 542	76.7
1986	216 820	34 845	60 233	171 839	84.3
1987	284 445	43 332	86 861	188 546	89.4
1988	366 727	46 622	104 395	284 375	89.4
1989	402 573	60 614	93 075	283 240	91.2
1990	398 336	57 856	115 108	267 017	93.2
1991	354 058	55 013	118 383	211 000	96.4
1992	463 104	87 699	120 688	247 823	97.5
1993	501 051	97 286	130 808	266 334	98.0
1994	421 457	79 710	130 823	259 940	97.2
1995	503 700	86 400	189 300	271 500	97.9
1996	600 500	101 300	251 600	285 000	98.1
1997	713 601	123 698	268 380	302 000	99.0
1998	833 987	138 570	328 270	291 500	100.0
1999	895 868	149 892	361 409	320 650	100.4
2000	883 677	155 525	326 686	364 314	101.6
2001	812 503	162 729	352 702	382 529	103.3
2002	na	na	na	na	105.6

a For the years to 1995, figures represent sales at the factory gate. These figures do not include sales from non-AVCARE members but are likely to represent about 90 per cent of actual total sales. **b** For the years after 1995, figures refer to total Australian sales as recorded by the National Registration Authority. **c** Estimated by ABARE for the years after 1995. **d** Based on a 4 quarter average for the year ending 30 June. **na** Not available.
Sources: Derived from data provided by AVCARE, Sydney; National Registration Authority, Kingston, Canberra; ABARE.

101 Australian farm fuel prices

	Petrol			Index of prices
	Super grade ab	Unleaded c	Off-road diesel a	paid for fuel d
	c/L	c/L	c/L	
1970-71	8.70	na	4.39	11.5
1971-72	9.24	na	4.65	11.5
1972-73	9.32	na	4.66	11.5
1973-74	10.31	na	4.74	12.4
1974-75	11.68	na	5.97	15.1
1975-76	13.53	na	7.86	19.5
1976-77	14.51	na	9.02	22.2
1977-78	17.13	na	11.21	25.7
1978-79	21.16	na	14.92	32.8
1979-80	28.79	na	22.22	46.1
1980-81	34.04	na	27.78	57.6
1981-82	36.30	na	29.64	63.0
1982-83	42.13	na	33.22	72.7
1983-84	45.50	na	34.00	78.9
1984-85	47.95	na	36.13	84.2
1985-86	52.21	na	33.91	86.9
1986-87	54.32	na	30.83	86.0
1987-88	56.28	na	31.49	88.7
1988-89	53.89	na	27.17	80.4
1989-90	60.27	na	30.89	91.6
1990-91	67.58	na	36.39	106.0
1991-92	64.70	na	33.14	99.6
1992-93	67.07	na	35.10	104.1
1993-94	67.23	na	32.47	100.5
1994-95	68.87	na	29.25	96.6
1995-96	71.54	na	30.60	100.4
1996-97	73.52	na	32.69	104.9
1997-98	73.02	76.51	29.98	100.0
1998-99	69.20	71.79	27.80	95.2
1999-00	82.16	85.18	36.62	115.5
2000-01	92.60	96.80	54.30	138.6
2001-02	81.62	87.62	47.64	131.2
2002-03	79.96	99.67	39.10	138.5

a Average price paid by Australian farmers. Net petrol price including farm rebates and subsidies. **b** Leaded petrol phased out as at 1 Jan 2002. Lead replacement petrol (LRP) introduced as at 1 Jan 2002. **c** Petrol price paid at the pump, excludes farm rebates and subsidies. **d** Base: 1997-98 = 100. **na** Not available.

Sources: Shell Australia Limited; Caltex Australia Petroleum Pty Ltd; ABARE.

102 Persons employed in agriculture, forestry, fishing and hunting

	1995-96 '000	1996-97 '000	1997-98 '000	1998-99 '000	1999-00 '000	2000-01 '000	2001-02 '000	2002-03 '000
Agriculture								
Grains, sheep and beef cattle	201.5	203.5	202.5	199.0	209.0	209.5	213.3	na
Horticulture and fruit	92.8	87.3	90.8	91.5	99.0	95.5	97.0	na
Other crops	17.0	18.0	20.5	20.0	19.0	15.8	17.0	na
Dairy cattle	30.3	40.0	38.3	32.5	34.3	29.8	30.8	na
Poultry	11.5	10.0	9.3	8.3	8.8	8.8	9.8	na
Other livestock	16.5	16.0	16.5	14.3	12.5	9.8	12.3	na
Total	369.9	375.0	377.9	365.9	383.0	368.6	381.0	321.7
Services to agriculture	17.8	22.5	25.0	27.5	29.3	27.5	24.8	na
Forestry and logging	11.3	10.8	13.8	14.3	8.8	13.3	13.0	na
Marine fishing	9.5	9.3	9.8	9.8	10.0	13.5	13.0	na
Aquaculture	9.5	4.3	4.0	4.0	5.8	5.8	5.8	na
Hunting and trapping	0.5	0.5	0.0	na	0.5	na	1.3	na
Total	418.5	421.9	430.8	422.3	438.0	428.9	438.3	372.4

na Not available.

Source: ABS, *6292.0.40.001 Labour Force, Selected Summary Tables, Australia, Quarterly,* Q3 Employed Persons by Sex, Industry, State, status in Employment.

103 Australian wages and the consumer price index a

	Contract rates %	Shearing rates b %	Rural wages %	Average weekly earnings %	Consumer price index %
1970-71	na	na	na	na	4.5
1971-72	– 1.4	na	5.6	10.2	6.9
1972-73	1.9	na	9.3	9.0	6.1
1973-74	6.3	na	20.0	16.2	12.9
1974-75	18.8	na	37.3	26.6	16.8
1975-76	14.9	na	13.7	15.7	12.9
1976-77	12.4	13.1	13.1	14.7	13.9
1977-78	6.7	9.2	10.8	10.3	9.5
1978-79	9.4	6.2	6.1	8.4	8.2
1979-80	8.4	12.3	7.2	8.5	10.2
1980-81	9.6	9.0	9.1	12.6	9.3
1981-82	9.7	9.6	11.7	12.3	10.5
1982-83	14.9	8.5	10.1	13.1	11.5
1983-84	7.8	3.8	6.2	7.1	6.7
1984-85	6.5	8.4	7.9	9.1	4.3
1985-86	3.8	4.2	4.7	5.1	8.4
1986-87	2.2	4.4	4.7	6.4	9.4
1987-88	3.7	2.9	3.9	5.9	7.3
1988-89	7.0	11.0	7.3	6.5	7.3
1989-90	6.1	6.5	7.4	6.9	8.0
1990-91	6.7	1.4	4.8	6.7	5.3
1991-92	4.1	1.0	4.6	2.6	1.9
1992-93	3.1	4.2	3.6	2.4	1.0
1993-94	3.0	0.4	1.4	2.9	1.8
1994-95	1.9	0.8	1.4	3.4	3.2
1995-96	1.0	2.3	3.1	2.5	4.2
1996-97	1.2	1.5	2.0	3.2	1.3
1997-98	0.5	1.8	3.1	2.9	0.0
1998-99	2.0	5.3	2.0	2.6	1.2
1999-00	3.4	1.8	3.2	1.8	2.4
2000-01	6.0	3.5	2.8	5.3	6.0
2001-02	2.9	2.4	2.9	4.2	2.9
2002-03	na	na	na	na	3.1

a Percentage change from previous year. **b** Based on price per 100 flock sheep. **na** Not available.
Sources: ABS, *Average Weekly Earnings, Australia,* cat. no. 6302.0, Canberra (derived from average weekly earnings for all employees series); ABS, *Consumer Price Index,* cat. no. 6401.0, Canberra; ABARE.

104 Summary of Australian fisheries statistics

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03 p
Prawns									
Production **as**	kt	29.4	27.7	29.6	31.2	26.8	30.0	29.0	25.4
Value of production	$m	368.4	344.3	385.3	416.4	414.6	453.5	421.5	348.0
Exports **b**	kt	13.1	11.0	12.4	12.0	11.6	12.1	11.9	9.5
Value of exports	$m	223.4	184.8	234.2	224.3	243.8	291.0	262.8	208.2
Imports **b**	kt	13.1	13.8	14.8	15.8	15.7	15.6	17.6	18.1
Value of imports	$m	154.7	156.2	191.1	202.6	192.9	233.5	221.4	220.2
Rock lobster									
Production **ac**	kt	15.7	15.8	16.6	19.4	20.5	16.9	14.3	16.8
Value of production **c**	$m	374.6	413.3	377.1	438.5	545.6	481.2	500.9	483.3
Exports **b**	kt	12.3	12.5	12.3	14.4	15.5	13.3	10.9	11.5
Value of exports	$m	417.6	453.4	424.5	451.4	577.7	532.6	492.6	463.1
Abalone									
Production **as**	kt	3.9	3.8	3.8	5.6	5.6	5.7	5.8	5.3
Value of production	$m	142.4	152.5	182.1	172.9	220.7	276.1	245.3	190.2
Exports **b**	kt	3.0	2.9	3.0	3.4	3.8	3.5	4.0	4.2
Value of exports	$m	146.7	169.6	191.7	184.6	223.4	249.3	263.1	216.1
Scallops									
Production **a**	kt	15.3	8.8	10.4	11.4	12.1	9.2	5.6	7.7
Value of production	$m	66.7	36.7	39.8	37.7	43.2	39.6	22.9	23.2
Exports **b**	kt	2.7	1.3	1.3	1.6	1.7	2.1	1.5	1.2
Value of exports	$m	67.1	36.6	36.4	33.2	42.0	53.4	34.4	28.7
Tuna									
Production **ads**	kt	9.2	13.0	11.9	16.7	16.2	16.1	15.9	14.5
Value of production **d**	$m	85.0	96.0	130.8	221.5	256.7	328.8	323.0	307.7
Exports **be**	kt	4.6	5.8	7.6	8.5	12.6	14.8	13.9	12.6
Value of exports **e**	$m	55.7	67.2	104.5	120.4	259.3	331.9	325.8	320.8
Imports **b**	kt	14.3	19.5	18.1	21.1	17.4	22.6	24.2	31.4
Value of imports	$m	47.0	53.3	63.2	78.6	67.5	77.8	99.7	112.6
Other fin fish									
Production **as**	kt	123.5	128.5	134.3	126.5	113.5	120.1	134.8	129.0
Value of production	$m	352.2	378.3	395.6	442.7	454.3	484.1	539.0	513.4
Exports **b**	kt	12.8	13.2	16.5	17.7	15.0	13.3	17.5	21.6
Value of exports	$m	111.5	115.4	129.4	154.4	133.7	146.4	176.0	164.2
Imports **b**	kt	68.5	70.8	72.8	76.6	84.8	86.1	83.4	92.3
Value of imports	$m	302.7	295.3	331.9	363.7	395.8	431.5	437.0	478.0
All fisheries products									
Production	kt	228.6	222.8	232.3	236.7	222.0	229.2	233.3	na
Value of production	$m	1 724.8	1 731.3	1 835.7	2 109.8	2 344.0	2 427.7	2 408.4	2 280.2
Edible exports	kt	54.8	51.6	57.4	61.5	63.9	64.7	64.3	64.3
Value of edible exports	$m	1 113.4	1 085.5	1 181.4	1 223.8	1 536.2	1 716.8	1 661.7	1 484.6
Value of non-edible exports	$m	214.6	219.3	308.1	287.6	451.8	451.9	438.5	359.6
Edible imports	kt	112.9	121.5	124.1	132.6	139.9	144.4	144.5	160.9
Value of edible imports	$m	600.1	602.7	690.1	744.8	780.6	870.3	875.9	925.2
Value of non-edible imports	$m	80.6	100.3	130.8	135.2	310.5	281.6	310.9	251.6

a Live weight. **b** Product weight. **c** Includes bugs for Queensland. **d** Includes an estimate of tuna production from joint venture agreements. Excludes Commonwealth southern bluefin tuna as an input to South Australian farms. **e** Excludes tuna transhipped at sea or captured under joint venture or bilateral agreements. **s** Includes estimates of aquaculture. **p** Preliminary. **na** Not available.

Sources: ABARE, *Australian Fisheries Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

105 Quantity and value of Australian production of fisheries products

	Unit	Prawns	Rock lobster a	Abalone	Scallops	Oysters	Tuna	Other fin fish	All fisheries products b
Quantity c									
1981-82	kt	21.8	16.0	na	na	7.8	21.7	57.9	na
1982-83	kt	22.2	18.0	na	na	7.8	21.3	58.5	na
1983-84	kt	22.7	16.0	na	na	7.0 d	15.8	64.0	na
1984-85	kt	20.5	14.1	na	na	7.5	13.0	73.0	na
1985-86	kt	18.5	11.8	na	na	6.8	13.5	76.0	na
1986-87 s	kt	21.0	12.0	na	na	7.1	12.0	85.0	na
1987-88 s	kt	23.0	16.0	na	na	8.0	11.0	94.0	na
1988-89 s	kt	28.0	18.0	0.0	0.0	8.0	9.0	98.0	168.0
1989-90 s	kt	23.3	15.7	0.0	0.0	7.5	8.2 e	120.9	182.8
1990-91 s	kt	29.1	14.7	0.0	0.0	8.1	11.7 f	145.4	216.3
1991-92 s	kt	24.5	18.5	0.0	0.0	8.2	13.2 f	139.8	212.9
1992-93 s	kt	25.1	18.4	3.4	33.0	8.6	10.2 f	123.6	236.9
1993-94 s	kt	23.2	16.8	3.3	23.7	8.7	7.7 f	121.9	223.9
1994-95 s	kt	28.0	16.4	3.8	15.8	9.4	8.7 f	127.5	232.2
1995-96 s	kt	29.4	15.7	3.9	15.3	10.1	9.2 f	123.5	228.6
1996-97 s	kt	27.7	15.8	3.8	8.8	10.1	13.0 f	128.5	222.8
1997-98 s	kt	29.6	16.6	3.8	10.4	10.7	11.9 f	134.3	232.3
1998-99 s	kt	31.2	19.4	5.6	11.4	8.7	16.7 f	126.5	236.7
1999-00 s	kt	26.8	20.5	5.6	12.1	9.7	16.2 f	113.5	222.0
2000-01 s	kt	30.0	16.9	5.7	9.2	9.6	16.1 f	120.1	229.2
2001-02 s	kt	29.0	14.3	5.8	5.6	9.6	15.9 f	134.8	233.3
2002-03 ps	kt	25.4	16.8	5.3	7.7	9.9	14.5 f	129.0	na
Value									
1981-82	$m	109.0	107.7	27.3	11.1	21.0	13.7 g	54.2 g	na
1982-83 s	$m	150.3	129.7	21.0	21.4	20.3	14.3 g	65.5	na
1983-84 s	$m	145.3	134.0	29.4	24.6	20.1	12.6 g	83.0	na
1984-85 s	$m	164.0	172.0	35.0	20.0	29.0	14.0	88.0	na
1985-86 s	$m	190.0	140.0	60.0	24.0	30.0	17.0	102.0	na
1986-87 s	$m	216.0	186.0	84.0	25.0	31.0	23.0	137.0	na
1987-88 s	$m	246.0	252.0	96.0	22.0	36.0	19.0	157.0	na
1988-89 s	$m	274.0	280.0	86.0	21.0	38.0	19.0	215.0	1 022.3 h
1989-90 s	$m	226.0	245.0	90.0	25.0	36.0	66.0 e	278.0	1 093.0 h
1990-91 s	$m	262.9	287.5	92.1	42.3	43.2	66.5 f	269.8	1 223.1 h
1991-92 s	$m	244.1	369.1	94.6	82.8	44.3	76.2 f	301.3	1 376.2 h
1992-93 s	$m	291.3	348.8	127.5	94.4	41.2	116.2 f	320.7	1 517.4 h
1993-94 s	$m	320.6	431.7	178.4	82.1	42.4	107.8 f	322.5	1 719.0 h
1994-95 s	$m	368.0	452.5	144.7	64.2	47.6	129.8 f	336.8	1 844.7 h
1995-96 s	$m	368.4	374.6	142.4	66.7	51.5	85.0 f	352.2	1 724.8 h
1996-97 s	$m	344.3	413.3	152.5	36.7	52.0	96.0 f	378.3	1 731.3 h
1997-98 s	$m	385.3	377.1	182.1	39.8	47.0	130.8 f	395.6	1 835.7 h
1998-99 s	$m	416.4	438.5	172.9	37.7	45.2	221.5 f	442.7	2 109.8 h
1999-00 s	$m	414.6	545.6	220.7	43.2	53.3	256.7 f	454.3	2 344.0 h
2000-01 s	$m	453.5	481.2	276.1	39.6	55.1	328.8 f	484.1	2 427.7
2001-02 s	$m	421.5	500.9	245.3	22.9	56.9	323.0 f	539.0	2 408.4
2002-03 ps	$m	348.0	483.3	190.2	23.2	62.2	307.7 f	513.4	2 280.2

a Includes bugs for Queensland. **b** Excludes those products for which no quantity data is available, eg live fish, pearls and some non-edible fisheries products.. **c** Live weight. **d** Excludes production in Victoria and Queensland. **e** Includes an estimate of tuna production from joint venture agreements. **f** Excludes Commonwealth southern bluefin tuna as an input to South Australian farms. **g** Excludes the value of Queensland production. **h** Includes pearls and other products. **s** ABARE estimate; the values of production are based on values to fishing operators (ABS estimates of gross value of production include certain marketing costs in some cases). **p** Preliminary. **na** Not available.

Sources: ABARE, *Australian Fisheries Statistics,* Canberra; ABS, *Fisheries, Australia,* cat. no. 7603.0, Canberra; ABARE.

106 Australian exports of prawns, by product type and destination

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Quantity a								
Headless	t	1 801	1 941	1 150	926	1 005	785	588
Hong Kong, China	t	214	450	88	47	80	14	14
Japan	t	1 310	1 326	821	657	654	539	437
Spain	t	78	13	119	27	0	28	0
United States	t	6	9	5	33	80	98	10
Other	t	84	70	72	108	93	75	127
Whole	t	8 891	10 174	10 630	10 096	10 789	10 870	8 730
China	t	1 560	2 248	2 081	1 662	1 231	1 414	780
Chinese Taipei	t	142	119	155	239	170	254	219
Hong Kong, China	t	1 117	1 422	1 132	1 140	1 899	1 777	1 388
Italy	t	8	40	91	72	42	24	52
Japan	t	4 611	4 549	4 667	4 614	4 085	4 194	3 806
Malaysia	t	198	0	101	176	131	180	214
New Zealand	t	187	217	197	139	190	253	237
Spain	t	454	668	1 389	1 157	1 584	915	1 223
Thailand	t	97	486	280	203	673	1 076	90
United States	t	9	1	3	50	138	45	13
Other	t	524	465	627	766	826	807	773
Other	t	283	272	215	608	330	270	213
Chinese Taipei	t	104	105	8	54	1	12	8
Japan	t	69	88	40	330	65	49	15
Singapore	t	24	23	13	42	22	19	30
United States	t	0	0	0	3	28	11	0
Other	t	69	42	132	155	112	161	161
Total	t	10 974	12 387	11 995	11 630	12 124	11 925	9 532
Value								
Headless	$'000	33 237	40 543	24 854	20 540	25 162	18 607	12 189
Hong Kong, China	$'000	2 636	6 849	1 256	704	1 338	310	318
Japan	$'000	27 097	31 152	19 941	16 443	18 200	14 227	9 800
Spain	$'000	772	229	1 579	367	0	375	0
United States	$'000	86	245	106	920	2 048	2 445	298
Other	$'000	1 183	1 054	1 234	1 266	1 395	906	1 773
Whole	$'000	147 361	189 055	195 710	209 386	258 481	239 367	192 379
China	$'000	18 284	33 449	34 274	25 777	20 946	23 262	14 914
Chinese Taipei	$'000	2 610	2 567	3 077	5 985	4 694	5 440	5 153
Hong Kong, China	$'000	15 064	20 930	18 032	18 655	36 377	32 940	26 874
Italy	$'000	84	942	1 730	1 134	896	430	1 074
Japan	$'000	93 755	105 749	101 199	123 510	133 574	129 283	105 143
Malaysia	$'000	1 738	0	1 397	2 423	2 172	3 112	3 890
New Zealand	$'000	2 017	2 510	2 426	1 745	2 604	3 223	3 365
Spain	$'000	5 125	8 808	19 946	15 928	27 703	15 549	17 214
Thailand	$'000	1 274	6 815	3 695	2 484	11 982	15 066	1 102
United States	$'000	197	14	85	580	4 290	906	327
Other	$'000	7 494	8 226	11 664	12 879	18 429	11 491	14 724
Other	$'000	4 191	4 643	3 691	13 863	7 405	4 853	3 676
Chinese Taipei	$'000	2 017	1 854	270	1 428	32	309	169
Japan	$'000	847	1 577	852	9 262	3 505	1 459	345
Singapore	$'000	328	438	295	730	481	379	556
United States	$'000	2	6	0	86	681	372	0
Other	$'000	777	507	1 841	1 917	1 510	2 271	2 606
Total	$'000	184 790	234 240	224 254	243 789	291 048	262 827	208 245

a Product weight.

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

107 Australian imports of prawns, by product type and source

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Quantity a								
Fresh, chilled or frozen	t	8 287	8 679	9 632	10 423	10 188	11 972	13 086
China	t	70	41	27	81	160	381	544
Chinese Taipei	t	166	114	24	34	118	42	41
India	t	139	541	956	873	1 652	2 571	2 763
Indonesia	t	242	344	402	557	1 198	1 526	1 629
Malaysia	t	727	680	629	768	660	587	395
Myanmar	t	374	243	400	422	596	716	644
New Caledonia	t	221	245	432	306	186	184	123
Papua New Guinea	t	117	54	103	142	151	133	161
Singapore	t	370	390	175	163	232	91	141
Thailand	t	5 103	5 259	5 162	5 769	3 823	3 677	3 597
Viet Nam	t	660	553	1 059	1 081	1 256	1 840	2 802
Other	t	97	215	261	228	155	223	245
Canned	t	5 069	5 698	5 654	5 133	5 217	5 432	5 032
Malaysia	t	1 530	1 676	1 277	1 254	1 364	1 356	1 202
Thailand	t	2 631	3 049	3 488	3 126	3 082	3 097	3 064
Viet Nam	t	69	78	64	90	74	94	167
Other	t	840	895	825	662	696	885	599
Other	t	457	430	476	177	168	155	29
China	t	2	0	2	2	3	3	0
Malaysia	t	17	10	31	19	69	65	0
Thailand	t	295	311	265	77	66	85	26
Viet Nam	t	42	33	39	45	24	2	0
Other	t	101	76	139	35	6	1	2
Total	t	13 812	14 807	15 761	15 733	15 572	17 559	18 147
Value								
Fresh, chilled or frozen	$'000	107 662	132 394	143 517	145 517	173 238	165 095	174 484
China	$'000	677	469	181	985	3 468	3 362	5 704
Chinese Taipei	$'000	2 575	2 109	482	730	2 601	626	714
India	$'000	1 265	7 333	13 165	12 222	32 505	38 963	39 759
Indonesia	$'000	2 764	5 122	6 215	6 926	15 776	17 934	17 501
Malaysia	$'000	7 445	6 800	6 117	7 336	7 019	6 321	3 889
Myanmar	$'000	3 886	2 933	4 890	4 615	7 405	8 183	6 451
New Caledonia	$'000	2 709	3 386	6 260	4 721	3 164	3 128	2 044
Papua New Guinea	$'000	937	493	1 103	975	1 320	1 139	1 357
Singapore	$'000	4 503	6 129	2 133	1 938	2 591	1 325	1 608
Thailand	$'000	72 475	85 974	81 700	86 645	70 400	51 886	47 027
Viet Nam	$'000	7 528	8 089	17 921	15 085	24 825	29 554	45 441
Other	$'000	898	3 557	3 349	3 340	2 165	2 674	2 990
Canned	$'000	42 046	50 860	51 147	45 373	57 917	54 553	45 386
Malaysia	$'000	11 742	13 217	9 709	9 676	12 662	12 030	10 082
Thailand	$'000	24 173	30 258	35 067	30 995	37 910	33 392	29 341
Vietnam	$'000	336	405	372	364	515	908	1 558
Other	$'000	5 795	6 980	6 000	4 339	6 830	8 223	4 404
Other	$'000	6 508	7 828	7 922	2 026	2 369	1 782	365
China	$'000	11	3	12	22	10	34	1
Malaysia	$'000	159	115	333	115	852	609	3
Thailand	$'000	4 639	6 098	5 364	1 200	1 033	1 055	334
Viet Nam	$'000	427	412	302	352	309	17	0
Other	$'000	1 271	1 201	1 911	337	165	66	28
Total	$'000	156 216	191 082	202 586	192 916	233 524	221 430	220 236

a Product weight.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

108 Australian exports of rock lobster, by product type and destination

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Quantity **a**								
Tails **b**	t	973	1 049	1 464	1 693	1 037	870	1 698
Chinese Taipei	t	84	8	72	82	18	5	32
Hong Kong, China	t	31	25	68	10	10	3	16
Japan	t	173	48	182	234	51	18	57
United States	t	668	963	1 113	1 331	915	831	1 476
Other	t	16	5	29	36	42	14	118
Whole **c**	t	11 322	11 091	12 752	13 348	11 882	9 697	9 468
Chinese Taipei	t	4 102	3 686	4 010	3 900	3 182	2 094	1 557
Hong Kong, China	t	2 750	2 280	3 219	4 691	4 658	3 983	3 603
Japan	t	3 425	3 019	3 327	3 857	3 306	2 585	2 940
Singapore	t	104	103	213	334	218	317	283
United States	t	58	19	151	113	215	234	53
Other	t	883	1 983	1 832	454	303	484	1 032
Other	t	186	122	176	448	426	374	368
France	t	0	13	62	51	16	6	20
Hong Kong, China	t	40	4	0	34	59	59	8
Japan	t	93	100	81	315	254	300	296
United States	t	1	4	14	11	26	3	18
Other	t	52	1	19	37	71	6	26
Total	t	12 481	12 261	14 392	15 490	13 345	10 942	11 535
Value								
Tails **b**	$'000	49 623	63 808	76 064	95 289	60 309	65 362	112 922
Chinese Taipei	$'000	2 375	260	1 770	2 611	654	327	1 244
Hong Kong, China	$'000	1 358	1 209	2 542	469	600	191	809
Japan	$'000	7 409	3 230	6 831	8 861	4 138	1 742	3 101
United States	$'000	37 647	58 956	63 773	81 393	53 243	61 932	102 178
Other	$'000	833	153	1 147	1 955	1 675	1 171	5 590
Whole **c**	$'000	399 184	359 209	372 542	472 136	460 785	420 391	343 797
Chinese Taipei	$'000	137 423	103 830	101 669	131 100	107 896	82 321	51 730
Hong Kong, China	$'000	104 541	84 865	107 096	167 977	195 809	189 134	144 334
Japan	$'000	117 750	88 401	89 872	141 531	124 399	105 549	102 735
Singapore	$'000	3 700	3 626	5 760	10 556	7 297	12 863	10 448
United States	$'000	2 651	798	5 643	5 045	13 395	10 379	1 868
Other	$'000	33 119	77 688	62 502	15 928	11 988	20 145	32 681
Other	$'000	4 589	1 442	2 835	10 231	11 554	6 855	6 388
France	$'000	0	26	340	1 694	673	232	221
Hong Kong	$'000	1 651	195	0	1 418	2 124	2 409	279
Japan	$'000	838	1 058	1 244	5 377	6 176	3 762	4 164
United States	$'000	14	103	859	370	1 006	266	762
Other	$'000	2 085	60	391	1 372	1 575	185	962
Total	$'000	453 395	424 458	451 440	577 657	532 648	492 608	463 106

a Product weight. **b** Fresh, chilled or frozen. **c** Live, fresh or chilled, frozen or cooked.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

109 Australian imports of lobster, by source

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Quantity a								
Cuba	t	182	63	49	41	38	14	27
Malaysia	t	0	8	6	29	18	15	25
New Zealand	t	30	9	15	3	0	4	6
Papua New Guinea	t	41	60	48	55	71	73	73
Thailand	t	31	62	83	185	178	130	194
United States	t	48	113	53	165	36	30	82
Viet Nam	t	75	50	75	102	50	4	19
Other	t	44	71	58	75	30	51	57
Total	t	451	436	386	654	421	320	484
Value								
Cuba	$'000	3 247	1 272	832	701	840	323	723
Malaysia	$'000	0	136	44	315	254	211	303
New Zealand	$'000	769	154	301	65	6	115	192
Papua New Guinea	$'000	1 035	2 135	1 885	2 198	3 043	3 365	3 373
Thailand	$'000	607	949	1 118	2 323	2 927	2 281	2 826
United States	$'000	932	2 281	1 154	3 616	834	562	2 364
Viet Nam	$'000	1 147	706	921	1 293	883	71	327
Other	$'000	767	1 477	1 008	622	629	1 131	953
Total	$'000	8 504	9 110	7 261	11 134	9 416	8 058	11 060

a Product weight.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

110 Australian exports and imports of abalone, by product type and country

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Exports								
Quantity a								
Fresh, chilled or frozen	t	1 320	1 275	1 543	1 570	1 505	2 007	1 701
China	t	4	15	19	19	27	51	30
Chinese Taipei	t	140	190	143	183	171	190	159
Hong Kong, China	t	349	479	827	836	732	1 210	1 129
Japan	t	780	517	502	494	531	507	351
United States	t	8	5	10	10	8	9	7
Other	t	39	69	42	28	36	40	24
Prepared or preserved	t	1 619	1 728	1 852	2 239	2 038	2 003	2 493
Chinese Taipei	t	465	515	606	666	660	396	207
Hong Kong, China	t	430	431	476	701	551	606	901
Japan	t	445	472	398	434	441	392	584
Singapore	t	224	236	257	363	252	300	326
United States	t	34	50	56	44	39	51	118
Other	t	21	25	59	30	97	258	356
Total	t	2 940	3 003	3 396	3 808	3 543	4 010	4 193
Value								
Fresh, chilled or frozen	$'000	69 128	71 811	78 614	94 304	103 931	122 987	109 279
China	$'000	98	592	750	885	2 398	5 613	3 141
Chinese Taipei	$'000	5 236	7 895	5 513	8 816	9 781	9 368	8 536
Hong Kong, China	$'000	24 638	32 091	43 525	51 391	53 000	70 354	71 567
Japan	$'000	36 023	26 617	25 216	30 296	35 370	33 160	22 574
United States	$'000	461	306	605	571	834	774	708
Other	$'000	2 672	4 311	3 004	2 345	2 547	3 719	2 753
Prepared or preserved	$'000	100 458	119 905	106 007	129 112	145 346	140 141	106 838
Chinese Taipei	$'000	28 281	35 735	34 671	34 766	32 209	26 145	8 403
Hong Kong, China	$'000	27 217	30 182	27 173	38 773	45 135	34 928	29 309
Japan	$'000	27 704	32 529	22 708	29 283	36 888	30 278	29 629
Singapore	$'000	13 764	15 830	14 589	21 105	20 018	24 637	20 088
United States	$'000	2 173	3 692	3 456	3 051	3 958	4 300	3 231
Other	$'000	1 318	1 937	3 409	2 134	7 138	19 854	16 177
Total	$'000	169 586	191 716	184 621	223 415	249 277	263 128	216 117
Imports								
Quantity								
Live, fresh or chilled	t	48	63	61	0	0	0	0
New Zealand	t	47	59	60	0	0	0	0
Other	t	1	4	1	0	0	0	0
Frozen or preserved	t	30	8	8	15	6	14	10
Japan	t	0	0	1	3	0	0	0
New Zealand	t	1	1	0	1	0	1	0
Philippines	t	4	2	1	0	0	0	1
Other	t	24	5	6	12	6	13	8
Total	t	78	71	69	15	6	14	10
Value								
Live, fresh or chilled	$'000	3 088	4 688	3 036	0	0	0	0
New Zealand	$'000	3 048	4 294	2 986	0	0	0	0
Other	$'000	41	393	50	0	0	0	0
Frozen or preserved	$'000	1 928	296	229	829	125	139	540
Japan	$'000	15	6	23	167	10	0	1
New Zealand	$'000	53	83	1	79	0	26	6
Philippines	$'000	86	52	16	0	0	0	50
Other	$'000	1 775	155	189	582	115	113	482
Total	$'000	5 017	4 984	3 266	829	125	139	540

a Product weight.

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

111 Australian exports and imports of scallops, by product type and country

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Exports									
Quantity a									
Fresh, chilled or frozen	t	2 662	1 273	1 309	1 530	1 629	2 058	1 403	1 130
China	t	50	0	4	44	157	472	1	0
France	t	640	200	194	103	46	0	0	0
Hong Kong, China	t	1 246	726	813	933	1 017	1 181	971	769
Malaysia	t	131	92	46	85	90	101	103	72
Singapore	t	356	188	177	268	266	277	305	246
United States	t	8	0	16	15	0	0	0	2
Other	t	231	66	60	82	53	26	23	43
Other	t	86	52	37	40	26	87	85	35
Hong Kong, China	t	33	34	25	38	15	30	84	35
Other	t	53	18	12	1	11	57	1	0
Total	t	2 748	1 325	1 346	1 569	1 655	2 145	1 488	1 165
Value									
Fresh, chilled or frozen	$'000	64 759	35 196	35 573	32 233	40 641	49 501	31 639	26 639
China	$'000	934	0	134	1 008	1 032	3 871	11	5
France	$'000	12 396	3 101	3 252	2 039	795	0	0	0
Hong Kong, China	$'000	33 513	22 605	24 487	20 133	28 688	33 506	21 270	18 732
Malaysia	$'000	3 354	2 639	1 148	1 604	2 261	2 994	2 471	1 611
Singapore	$'000	9 009	5 514	5 116	5 424	6 608	8 317	7 389	5 392
United States	$'000	221	3	234	290	0	0	0	63
Other	$'000	5 331	1 335	1 201	1 735	1 257	814	498	836
Other	$'000	2 353	1 374	818	1 002	1 371	3 904	2 794	2 048
Hong Kong, China	$'000	884	1 027	668	932	1 009	2 694	2 782	2 036
Other	$'000	1 468	347	150	70	362	1 210	12	11
Total	$'000	67 111	36 570	36 391	33 236	42 012	53 405	34 433	28 686
Imports									
Quantity									
Fresh, chilled or frozen									
China	t	60	119	57	248	141	260	454	654
Indonesia	t	0	0	3	0	23	98	39	18
Japan	t	551	509	804	481	835	826	664	937
New Zealand	t	4	1	15	23	43	33	29	13
Peru	t	24	18	0	0	74	68	0	12
Thailand	t	189	404	419	329	366	396	360	338
Viet Nam	t	13	26	67	25	50	96	48	7
Other	t	146	120	81	51	135	78	24	46
Total	t	988	1 196	1 445	1 157	1 665	1 856	1 617	2 024
Value									
Fresh, chilled or frozen									
China	$'000	605	1 116	561	3 037	2 034	4 179	6 137	6 618
Indonesia	$'000	0	1	15	0	153	798	424	144
Japan	$'000	7 227	7 398	12 020	7 043	14 698	13 609	9 058	12 033
New Zealand	$'000	79	14	156	343	684	614	566	267
Peru	$'000	199	116	0	0	970	785	0	140
Thailand	$'000	2 193	4 945	5 361	4 271	5 592	6 274	4 863	4 114
Viet Nam	$'000	98	168	527	167	308	603	564	64
Other	$'000	2 040	1 712	1 730	1 353	1 489	1 526	605	860
Total	$'000	12 441	15 471	20 370	16 215	25 928	28 388	22 219	24 241

a Product weight.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

112 Australian exports of fish, by product type and destination [a]

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Quantity [b]								
Live fish	t	na	na	na	na	na	na	na
Whole	t	11 777	14 647	17 213	18 300	19 634	24 187	24 096
China	t	176	183	593	2 222	1 239	1 761	2 101
Chinese Taipei	t	491	375	206	367	182	151	93
Germany	t	285	192	147	144	165	76	20
Japan	t	6 317	8 085	10 851	10 776	12 699	15 555	14 215
Saudi Arabia	t	187	266	165	106	60	135	120
Singapore	t	308	253	324	342	750	581	175
Thailand	t	1 448	2 160	1 415	986	1 241	1 308	1 087
United States	t	767	1 150	1 668	1 553	1 639	1 903	1 612
Other	t	1 796	1 983	1 844	1 805	1 659	2 716	4 672
Fillets	t	2 421	3 914	5 343	4 925	3 308	3 996	3 237
Japan	t	596	792	1 121	1 450	1 368	807	266
Thailand	t	234	90	573	238	13	0	1
United States	t	674	1 593	2 241	1 997	886	1 461	1 194
Other	t	917	1 438	1 408	1 241	1 040	1 728	1 776
Smoked, dried or salted	t	340	578	197	394	291	178	222
Canned	t	428	302	384	847	762	773	4 870
Other	t	4 020	4 226	3 034	3 117	4 106	2 263	1 783
Chinese Taipei	t	242	148	153	139	180	156	106
Japan	t	2 275	2 408	1 374	1 942	2 243	254	115
New Zealand	t	260	403	314	254	109	66	76
Other	t	1 243	1 267	1 192	782	1 574	1 786	1 486
Total	t	18 987	24 056	26 227	27 582	28 102	31 396	34 208
Value								
Live fish	$'000	14 657	16 028	13 313	23 593	41 585	47 271	46 991
Whole	$'000	99 894	134 086	174 110	246 315	308 807	383 530	376 428
China	$'000	340	989	3 634	2 486	433	4 364	3 675
Chinese Taipei	$'000	5 378	3 647	1 639	4 284	2 226	2 190	1 459
Germany	$'000	3 094	1 924	1 436	1 352	1 254	726	166
Japan	$'000	71 208	101 963	137 608	209 460	268 382	330 927	331 090
Saudi Arabia	$'000	181	266	174	55	69	161	124
Singapore	$'000	1 456	1 462	2 485	2 638	3 042	2 399	1 562
Thailand	$'000	3 233	4 392	2 997	3 004	3 346	3 210	3 331
United States	$'000	4 904	9 043	15 811	14 098	20 070	22 268	19 232
Other	$'000	10 099	10 401	8 328	8 937	9 985	17 286	15 790
Fillets	$'000	18 636	32 325	49 099	41 635	25 334	27 385	24 455
Japan	$'000	4 831	6 818	9 702	11 134	9 074	3 420	1 689
Thailand	$'000	469	190	1 194	615	52	2	10
United States	$'000	7 571	19 668	30 424	24 848	11 373	15 763	15 411
Other	$'000	5 765	5 649	7 779	5 038	4 836	8 199	7 346
Smoked, dried or salted	$'000	10 197	10 159	6 869	14 019	15 703	15 958	18 608
Canned	$'000	2 472	2 059	2 731	4 666	4 482	5 165	5 031
Other	$'000	36 740	38 884	28 567	62 854	82 443	22 517	13 439
Chinese Taipei	$'000	5 307	4 065	2 702	3 241	3 244	3 583	2 694
Japan	$'000	23 431	25 513	18 254	52 538	67 897	8 270	2 950
New Zealand	$'000	1 586	2 258	1 501	414	300	268	275
Other	$'000	6 415	7 048	6 109	6 662	11 001	10 396	7 519
Total	$'000	182 625	233 831	274 717	393 083	478 353	501 826	484 952

a Excludes tuna. **b** Product weight. **na** Not available.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

113 Australian imports of fish, by product type and source

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Quantity a								
Live	t	na	na	na	na	na	na	na
Fresh, chilled or frozen	t	55 009	56 273	57 433	54 033	51 701	55 439	55 788
Whole	t	24 227	21 771	21 280	15 415	14 432	18 321	19 106
New Zealand	t	9 189	8 137	8 088	8 290	8 678	9 188	9 999
Fillets	t	30 782	34 502	36 152	38 619	37 268	37 118	36 682
Chile	t	3 669	4 013	4 228	4 505	3 358	3 492	1 984
New Zealand	t	10 098	13 841	14 172	12 010	13 004	12 967	12 325
South Africa	t	2 250	5 175	5 848	5 868	5 793	6 139	5 256
Uganda	t	952	1 184	1 227	3 844	3 530	1 826	1 674
Smoked, dried or salted	t	3 010	2 727	4 081	4 706	2 941	2 151	2 801
South Africa	t	1 031	1 050	1 673	1 384	1 052	453	1 039
Denmark	t	312	457	476	357	303	534	581
Thailand	t	41	60	873	1 744	535	55	59
Canned	t	26 976	26 600	29 328	33 027	40 597	35 874	44 894
Canada	t	3 278	3 123	3 859	3 398	3 451	1 034	1 222
Thailand	t	12 589	12 660	15 328	18 072	23 717	1 530	1 751
United States	t	5 901	5 845	5 144	5 552	7 367	64	42
Other fish preparations	t	5 387	5 370	6 909	9 521	10 852	11 614	15 958
Japan	t	396	389	342	271	237	232	396
New Zealand	t	1 748	1 577	2 363	3 400	4 055	4 097	5 001
Thailand	t	2 549	2 515	2 741	3 112	3 375	3 883	5 320
Total	t	90 382	90 969	97 751	102 147	108 639	107 599	123 742
Value								
Live	$'000	9	1	0	54	22	35	6
Fresh, chilled or frozen	$'000	184 930	204 690	215 714	232 994	238 436	270 495	271 420
Whole	$'000	58 961	58 024	57 585	54 864	51 409	60 903	65 366
New Zealand	$'000	30 375	29 207	30 888	34 550	34 520	36 391	40 287
Fillets	$'000	125 969	146 667	158 130	178 130	187 027	209 592	206 054
Chile	$'000	8 738	10 462	13 104	14 837	12 380	12 524	6 554
New Zealand	$'000	45 116	57 087	62 486	65 330	70 307	75 632	73 970
South Africa	$'000	8 429	21 157	25 077	26 156	28 393	32 013	29 073
Uganda	$'000	4 100	5 189	5 156	14 416	12 611	12 332	10 931
Smoked, dried or salted	$'000	21 012	22 038	31 003	28 496	23 164	24 792	26 263
South Africa	$'000	4 054	4 024	6 563	5 571	4 728	2 495	4 847
Denmark	$'000	4 900	6 685	8 351	5 827	4 915	9 564	9 828
Thailand	$'000	349	371	3 712	5 489	1 524	474	404
Canned	$'000	117 592	142 401	164 910	158 374	188 628	176 996	207 810
Canada	$'000	18 901	20 268	26 392	22 434	25 207	6 534	6 756
Thailand	$'000	45 310	55 441	70 210	67 207	82 012	4 077	5 112
United States	$'000	24 081	35 312	33 445	31 485	38 248	274	129
Other fish preparations	$'000	24 964	26 026	30 695	40 471	50 542	56 351	73 303
Japan	$'000	2 530	2 910	2 675	2 810	2 399	2 589	2 806
New Zealand	$'000	5 537	5 414	8 142	13 077	15 702	17 519	22 555
Thailand	$'000	10 700	10 736	11 127	12 353	15 129	16 700	20 791
Total	$'000	348 507	395 157	442 322	463 275	509 207	536 701	590 553

a Product weight. **na** Not available.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

114 Australian exports and imports of oysters, by country

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Exports									
Quantity									
China	t	0	0	1	0	7	7	5	7
Chinese Taipei	t	0	0	0	0	2	7	5	2
Hong Kong, China	t	8	15	22	5	60	166	85	55
Japan	t	3	3	2	12	21	13	22	34
Singapore	t	5	0	7	52	60	40	77	60
Other	t	3	4	9	4	1	12	24	6
Total	t	19	22	42	73	152	246	219	163
Value									
China	$'000	0	0	26	2	68	46	34	90
Chinese Taipei	$'000	6	0	9	1	19	64	45	88
Hong Kong, China	$'000	211	210	293	77	1 885	4 903	1 596	544
Japan	$'000	48	57	20	105	133	201	265	542
Singapore	$'000	49	3	55	388	757	744	1 000	428
Other	$'000	35	26	112	39	21	325	561	52
Total	$'000	349	296	515	613	2 884	6 283	3 501	1 745
Imports									
Quantity									
China	t	2	2	1	2	2	2	2	47
Hong Kong, China	t	1	2	1	3	1	2	2	3
Japan	t	13	17	12	17	32	15	18	30
Korea, Rep. Of	t	13	7	1	2	12	11	18	28
New Zealand	t	522	470	509	597	612	565	580	685
Other	t	5	5	1	1	1	0	0	0
Total	t	555	503	527	622	660	596	621	792
Value									
China	$'000	91	70	49	53	61	82	86	295
Hong Kong, China	$'000	38	57	40	69	57	90	74	90
Japan	$'000	149	183	150	210	403	219	237	364
Korea, Rep. Of	$'000	121	76	24	39	121	129	197	243
New Zealand	$'000	3 720	3 614	3 648	4 540	4 549	3 872	4 134	5 933
Other	$'000	38	21	34	27	22	21	13	0
Total	$'000	4 157	4 020	3 944	4 938	5 213	4 414	4 740	6 926

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

115 Summary statistics for the Australian processed food industry

	Employment at 30 June b		Wages and salaries c		Turnover		Industry value added	
	1999-00	2000-01	1999-00	2000-01	1999-00	2000-01	1999-00	2000-01
	'000	'000	$m	$m	$m	$m	$m	$m
Meat								
Meat processing	28	28	948	1 001	7 038	8 378	1 523	1 641
Poultry processing	13	16	439	544	2 543	2 903	750	793
Bacon, ham and smallgoods	7	8	227	267	1 377	1 758	353	395
Total	47	53	1 614	1 812	10 958	13 039	2 626	2 829
Dairy								
Milk and cream processing	6	5	270	226	3 027	2 062	640	447
Ice cream	3	2	98	70	728	573	172	114
Other dairy products	9	12	403	535	4 593	5 823	1 060	1 068
Total	17	19	771	832	8 348	8 458	1 872	1 629
Fruit and vegetables	11	16	457	638	3 632	4 484	975	1 102
Oil and fat	1	4	84	218	934	2 088	226	465
Flour mill and cereal food								
Flour mill products	2	3	106	152	1 373	1 514	328	348
Cereal food and baking mixes	6	7	192	292	2 188	2 223	724	619
Total	8	10	298	444	3 561	3 737	1 052	968
Bakery products								
Bread	10	12	376	442	1 371	1 503	537	684
Cakes and pastry products	10	9	263	227	1 078	877	401	328
Biscuits	5	7	128	208	991	1 086	370	398
Total	25	28	767	877	3 440	3 466	1 308	1 411
Other food								
Sugar	6	6	247	228	1 996	1 688	424	253
Confectionery	6	6	271	288	1 542	1 487	608	626
Seafood	4	4	103	84	1 269	1 168	270	185
Prepared animal and bird feed	5	4	229	190	2 506	1 886	487	330
Food nec	14	15	526	611	3 164	4 038	954	1 230
Total	35	35	1 376	1 400	10 477	10 267	2 743	2 624
Beverage and malt								
Soft drink, cordial and syrup	6	6	255	215	2 702	2 505	722	808
Beer and malt	3	4	170	258	2 461	3 066	819	1 082
Wine	9	12	310	na	3 575	na	1 502	na
Spirits	0	0	8	na	234	na	71	na
Total	18	22	743	1 020	8 972	9 754	3 114	3 185
Total food and beverages	163	187	6 110	7 241	50 321	55 292	13 916	14 211

a Statistical data collection units that do not necessarily represent a separate physical unit. **b** Includes working proprietors. **c** Excludes drawings of working proprietors. **na** Not available.
Sources: ABS, *Manufacturing Industry,* cat. no. 8221.0, Canberra; ABS unpublished data, Canberra.

116 Australian food exports, by level of transformation

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	$m	$m	$m	$m	$m	$m	$m	$m
Minimally transformed								
Live animals except fish	574	621	532	528	625	753	938	780
Fish or shellfish	434	449	470	517	639	771	867	772
Horticulture								
Vegetables	187	177	209	218	191	201	218	199
Fruit and nuts	287	348	359	372	396	476	561	531
Total	474	525	568	590	587	677	779	730
Grains a	4 236	5 231	4 267	4 193	4 208	5 294	5 854	3 857
Oilseeds	201	198	364	683	798	721	752	400
Food nec	39	34	37	88	54	81	59	72
Substantially transformed								
Meat								
Meat processing	3 281	2 943	3 714	3 986	4 440	5 770	6 215	5 625
Poultry processing	14	14	18	23	21	26	26	22
Bacon, ham and smallgoods	71	69	64	61	86	65	80	82
Total	3 366	3 027	3 795	4 070	4 548	5 862	6 320	5 729
Seafood	694	659	744	756	900	945	799	716
Dairy								
Milk and cream processing	872	899	897	1 056	1 126	1 550	1 650	1 176
Ice cream	41	44	47	41	36	34	32	29
Other dairy products	794	852	1 008	1 193	1 305	1 486	1 592	1 285
Total	1 707	1 795	1 952	2 291	2 467	3 070	3 275	2 490
Fruit and vegetables	469	491	436	480	522	566	656	528
Oil and fat	95	104	167	170	131	129	147	144
Flour mill and cereal food								
Flour mill products	143	158	174	204	209	207	233	212
Cereal food and baking mixes	446	438	528	513	529	544	400	257
Total	589	596	702	717	738	751	632	470
Bakery products								
Bread, cakes and pastry products	17	16	11	11	19	15	8	3
Biscuits	58	72	83	79	69	73	92	96
Total	75	88	94	89	88	88	99	98
Other food								
Sugar **a**	1 595	1 595	1 742	1 377	1 111	1 236	1 481	1 474
Confectionery	194	170	162	176	230	261	287	291
Food nec	603	767	788	734	900	1 087	1 148	876
Total	2 392	2 532	2 692	2 288	2 241	2 585	2 916	2 641
Beverages and malt								
Soft drink, cordial and syrup	59	34	28	23	26	45	30	47
Beer and malt	204	215	216	207	213	266	317	324
Wine	474	604	874	1 068	1 374	1 753	2 105	2 424
Spirit	27	29	31	38	55	73	81	72
Total	764	883	1 150	1 336	1 667	2 136	2 533	2 867
Total food and beverages								
Minimally transformed	5 958	7 057	6 238	6 601	6 911	8 297	9 249	6 612
Substantially transformed	9 905	9 938	11 500	11 951	13 028	15 828	17 041	15 322
Elaborately transformed	246	238	232	247	273	302	336	360
Total	16 109	17 234	17 969	18 799	20 212	24 427	26 626	22 294

a Includes ABARE estimates where ABS confidentiality restrictions apply.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

117 Australian food exports, to selected regions

	Asia		European Union		NAFTA	
	2001-02	2002-03	2001-02	2002-03	2001-02	2002-03
	$m	$m	$m	$m	$m	$m
Minimally transformed						
Live animals except fish	358	254	1	0	9	14
Fish or shellfish	825	733	7	7	30	24
Horticulture						
Vegetables	171	150	23	21	0	0
Fruit and nuts	436	382	23	22	49	61
Total	607	532	46	42	49	61
Grains a	2 561	2 046	173	61	1	0
Oilseeds	619	344	43	12	82	35
Food nec	29	44	7	8	4	3
Substantially transformed						
Meat						
Meat processing	2 736	2 768	238	199	2 575	2 045
Poultry processing	9	6	1	0	0	0
Bacon, ham and smallgoods	59	63	3	1	2	2
Total	2 804	2 837	243	200	2 577	2 047
Seafood	645	526	29	40	105	132
Dairy						
Milk and cream processing	1 272	928	3	4	28	20
Ice cream	22	16	0	0	0	0
Other dairy products	871	665	80	99	213	177
Total	2 165	1 609	83	103	242	197
Fruit and vegetables	303	198	81	91	65	52
Oil and fat	90	82	3	1	3	5
Flour mill and cereal food						
Flour mill products	129	122	1	1	61	52
Cereal food and baking mixes	61	63	5	5	3	4
Total	190	185	6	6	64	56
Bakery products						
Bread, cakes and pastry products	3	0	0	0	0	0
Biscuits	20	23	3	7	5	5
Total	23	24	4	7	5	5
Other food						
Sugar **a**	1 069	1 105	1	2	246	207
Confectionery	183	183	1	2	12	8
Food nec	642	489	35	38	34	36
Total	1 894	1 778	37	41	293	251
Beverages and malt						
Soft drink, cordial and syrup	10	6	0	1	0	1
Beer and malt	257	246	7	0	1	0
Wine	109	112	1 077	1 140	780	1 010
Spirit	50	47	4	3	7	2
Total	426	411	1 089	1 144	788	1 013
Total food and beverage						
Minimally transformed	4 998	3 953	276	131	175	138
Substantially transformed	8 387	7 486	1 568	1 624	4 125	3 744
Elaborately transformed	153	164	6	9	18	14
Total	13 538	11 603	1 850	1 764	4 318	3 895

a Includes ABARE estimates where ABS confidentiality restrictions apply.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

118 Australian food imports, by level of transformation

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	$m	$m	$m	$m	$m	$m	$m	$m
Minimally transformed								
Live animals except fish	19	12	13	1	1	0	1	0
Fish or shellfish	25	25	30	31	35	37	37	41
Horticulture								
Vegetables	17	16	19	24	27	26	24	27
Fruit and nuts	79	77	90	94	99	110	117	115
Total	96	93	109	118	126	136	141	142
Grains	14	1	3	1	1	0	0	65
Oilseeds	52	38	40	29	23	24	21	61
Food nec	167	141	186	172	155	114	59	72
Substantially transformed								
Meat								
Meat processing	30	50	42	51	133	105	206	172
Poultry processing	0	0	0	0	0	0	0	0
Bacon, ham and smallgoods	26	29	33	28	29	31	36	39
Total	56	79	75	79	161	136	242	211
Seafood	579	584	666	720	751	843	865	923
Dairy								
Milk and cream processing	23	19	25	33	29	37	29	34
Ice cream	5	13	15	33	17	21	15	22
Other dairy products	176	172	188	207	230	261	277	275
Total	204	204	228	273	276	319	321	331
Fruit and vegetables	575	590	620	715	719	753	812	899
Oil and fat	267	258	253	288	271	275	280	357
Flour mill and cereal food								
Flour mill products	63	71	55	48	79	77	22	41
Cereal food and baking mixes	96	111	141	149	139	196	226	236
Total	159	182	196	197	219	273	248	277
Bakery products								
Bread, cakes and pastry products	41	49	63	76	81	92	57	29
Biscuits	51	55	58	62	80	82	106	152
Total	92	103	120	138	161	174	163	180
Other food								
Sugar	7	7	7	9	11	12	16	20
Confectionery	155	183	215	208	213	224	222	245
Food nec	487	498	618	729	757	858	923	1 032
Total	649	688	841	945	981	1 094	1 160	1 297
Beverages and malt								
Soft drink, cordial and syrup	246	252	286	276	330	405	421	461
Beer and malt	21	26	32	44	42	52	66	78
Wine	61	67	94	103	114	92	116	139
Spirit	189	191	216	232	252	330	351	327
Total	517	536	627	654	737	880	954	1 005
Total food and beverages								
Minimally transformed	371	310	380	352	342	312	260	381
Substantially transformed	2 962	3 132	3 507	3 893	4 140	4 604	4 874	5 277
Elaborately transformed	136	91	117	117	136	143	172	204
Total	3 470	3 533	4 005	4 361	4 618	5 059	5 306	5 862

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

119 Australian food imports from selected regions

	Asia		European Union		NAFTA	
	2001-02	2002-03	2001-02	2002-03	2001-02	2002-03
	$m	$m	$m	$m	$m	$m
Minimally transformed						
Live animals except fish	0	0	0	0	0	0
Fish or shellfish	2	2	0	0	0	0
Horticulture						
Vegetables	12	10	1	1	4	5
Fruit and nuts	16	15	8	10	34	35
Total	28	25	9	11	38	40
Grains	0	0	0	53	0	11
Oilseeds	14	16	0	0	5	21
Food nec	35	40	3	3	2	3
Substantially transformed						
Meat						
Meat processing	0	0	88	65	112	99
Poultry processing	0	0	0	0	0	0
Bacon, ham and smallgoods	1	1	5	7	14	13
Total	1	1	93	71	126	112
Seafood	500	539	35	39	51	62
Dairy						
Milk and cream processing	0	0	2	1	0	0
Ice cream	2	4	3	2	1	1
Other dairy products	1	1	67	68	6	6
Total	3	6	72	71	7	8
Fruit and vegetables	225	264	173	179	114	118
Oil and fat	117	132	115	157	4	5
Flour mill and cereal food						
Flour mill products	6	18	3	7	5	6
Cereal food and baking mix	97	110	67	66	27	18
Total	103	128	70	73	32	23
Bakery products						
Bread, cakes and pastry products	20	8	15	6	8	2
Biscuits	42	54	33	52	10	8
Total	61	61	48	58	18	10
Other food						
Sugar	6	8	2	3	4	2
Confectionery	36	47	87	97	21	16
Food nec	387	428	219	220	91	97
Total	429	482	308	320	116	115
Beverages and malt						
Soft drink, cordial and syrup	13	15	265	317	19	39
Beer and malt	3	3	45	54	13	16
Wine	0	0	76	83	1	1
Spirit	2	2	187	184	107	115
Total	18	20	573	638	140	171
Total food and beverages						
Minimally transformed	78	84	12	67	45	74
Substantially transformed	1 416	1 578	1 434	1 541	593	611
Elaborately transformed	42	55	53	64	15	13
Total	1 536	1 716	1 499	1 673	653	698

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

120 World food imports, by level of transformation [a]

	1997 US$m	1998 US$m	1999 US$m	2000 US$m	2001 US$m	Share [b] %
Minimally transformed						
Live animals except fish	8 619	8 842	8 838	8 833	8 480	2.1
Fish or shellfish						
Fish, live or fresh	23 338	23 162	24 784	24 734	25 090	5.8
Fish, dried, salted or smoked	2 551	2 602	2 701	2 708	2 727	0.6
Shellfish	17 066	16 565	17 312	18 976	17 964	4.2
Horticulture						
Vegetables	20 582	22 028	21 531	20 288	21 365	5.1
Fruit and nuts	32 177	31 951	32 229	30 222	30 458	7.5
Cocoa	5 793	6 450	6 008	4 622	4 775	1.3
Eggs, albumin	1 591	1 493	1 344	1 318	1 360	0.3
Grains and oilseeds						
Barley	2 457	2 202	2 425	2 854	2 541	0.6
Maize	10 142	9 410	9 050	8 750	8 737	2.2
Oilseeds, not soft oil	957	931	758	673	668	0.2
Oilseeds, soft oil	15 961	14 611	13 559	14 739	15 576	3.6
Rice	6 066	7 985	7 251	5 481	4 387	1.5
Wheat or meslin	17 877	15 160	14 397	13 328	12 596	3.5
Other cereal grains, nec	1 714	1 515	1 533	1 657	1 556	0.4
Substantially transformed						
Meat						
Beef, fresh, chilled or frozen	13 336	13 276	13 987	13 789	12 211	3.2
Meat, fresh, chilled or frozen	23 360	21 811	21 690	22 822	24 766	5.5
Meat or offal, preserved	1 751	1 567	1 550	1 733	2 231	0.4
Meat or offal, preserved, nec	5 254	5 263	5 238	5 265	5 634	1.3
Dairy						
Milk products, excluding butter and cheese	12 772	13 148	13 178	12 964	12 779	3.1
Butter and cheese	3 261	3 244	2 885	2 606	2 688	0.7
Cheese and curd	9 908	10 172	10 273	9 314	10 118	2.4
Fish or shellfish	9 195	9 215	9 332	9 543	9 542	2.3
Cereal products						
Flour or meal from wheat or meslin	1 619	1 219	1 033	1 077	916	0.3
Cereal flour or meal, nec	428	418	413	381	382	0.1
Cereal etc flour or starch	12 938	13 336	13 565	13 110	13 917	3.2
Horticulture						
Vegetables, prepared or preserved	9 531	9 912	10 506	9 646	9 722	2.4
Fruit, prepared or preserved	6 373	6 399	6 562	6 209	6 114	1.5
Fruit or vegetable juices	6 007	6 285	6 892	6 575	5 947	1.5
Sugar and confectionery						
Sugar, molasses and honey	14 011	13 393	12 176	10 387	11 549	3.0
Sugar confectionery	3 749	3 678	3 852	3 899	3 868	0.9
Chocolate and cocoa preparations	6 767	6 806	6 742	6 515	6 871	1.6

Continued

120 World food imports, by level of transformation [a] *(continued)*

	1997 US$m	1998 US$m	1999 US$m	2000 US$m	2001 US$m	Share [b] %
Animal and vegetable oil						
Margarine and shortening	1 211	1 302	1 275	1 260	1 135	0.3
Animal oil or fat	2 052	2 048	1 785	1 595	1 482	0.4
Vegetable oil or fat, fixed, soft	11 524	12 465	10 408	7 823	7 248	2.4
Vegetable oils, fixed, not soft	7 642	8 753	7 888	6 395	4 971	1.7
Animal or vegetable oils, processed	2 796	3 066	3 091	2 862	2 486	0.7
Other food						
Coffee and coffee substitutes	17 616	16 462	13 382	12 197	9 043	3.3
Tea and mate	2 617	2 978	2 770	2 683	2 575	0.7
Spices	2 305	2 424	2 609	2 616	2 407	0.6
Edible products, nec	16 625	17 097	17 716	17 220	18 155	4.2
Beverage						
Beverages, nonalcoholic, nec	3 982	4 190	4 732	4 804	5 259	1.1
Alcoholic beverages	27 470	28 597	29 584	28 723	29 746	6.9
Animal feed [c]	24 758	22 290	19 802	20 910	22 360	5.3
Total	427 750	425 722	418 636	404 106	404 406	100.0

a Based on over 100 reporting countries representing more than 90 per cent of world trade. **b** Average, 1997–2001. **c** Excludes unmilled cereal.
Sources: International Trade Centre, UNCTAD/WTO; ABARE.

121 World trade in processed foods, by major exporting countries [a]

	1997 US$m	1998 US$m	1999 US$m	2000 US$m	2001 US$m	Share [b] %
Meat						
Australia	2 554	2 457	2 685	2 913	3 281	6.3
Denmark	4 018	3 575	3 345	3 335	3 741	8.2
France	4 218	3 871	3 664	3 421	2 926	8.2
Netherlands	4 645	4 290	4 519	4 294	3 933	9.9
United States	6 894	6 411	6 340	7 305	7 239	15.6
Other	23 419	22 010	21 947	22 245	24 079	51.8
Total	45 748	42 613	42 501	43 513	45 200	100.0
Dairy						
Australia	1 356	1 339	1 420	1 573	1 568	5.3
France	4 176	4 089	4 011	3 803	3 709	14.3
Germany	4 816	4 879	4 519	4 093	4 507	16.5
Netherlands	3 488	3 742	3 411	3 118	3 356	12.4
New Zealand	2 406	2 134	2 009	2 125	2 679	8.2
Other	11 815	12 189	11 675	11 723	12 246	43.2
Total	28 057	28 373	27 045	26 434	28 065	100.0
Seafood						
Australia	99	71	80	94	63	0.9
China	1 054	923	1 022	1 391	1 428	13.0
Denmark	439	463	436	397	445	4.9
Korea, Rep. of	375	287	311	312	262	3.5
Thailand	1 882	1 876	2 016	2 058	2 012	22.0
Other	5 257	5 159	4 947	4 786	4 763	55.7
Total	9 105	8 779	8 812	9 038	8 973	100.0
Horticulture						
Australia	150	139	148	138	124	0.6
China	1 397	1 390	1 501	1 685	1 869	7.2
Italy	1 626	1 745	1 775	1 515	1 615	7.6
Netherlands	1 882	1 913	2 193	1 885	1 859	9.0
United States	2 368	2 393	2 448	2 378	2 272	10.9
Other	13 836	14 534	14 866	13 819	13 249	64.7
Total	21 258	22 113	22 931	21 421	20 989	100.0
Beverages [c]						
Australia	593	658	848	991	1 089	2.5
France	8 277	8 834	9 014	8 104	7 600	24.9
Germany	1 721	1 704	1 829	1 512	1 853	5.1
Italy	2 744	3 022	3 249	2 987	3 148	9.0
United Kingdom	5 388	4 786	4 712	4 619	4 661	14.4
Other	14 341	13 918	14 847	15 264	15 908	44.2
Total	33 065	32 922	34 498	33 476	34 258	100.0
Sugar and confectionery						
Australia	1 377	977	963	874	910	4.5
Belgium–Luxembourg	1 708	1 747	1 665	1 737	1 711	7.5
Brazil	1 919	2 082	2 062	1 359	2 485	8.7
France	2 526	2 455	2 225	2 066	1 905	9.8
Germany	2 472	2 463	2 176	1 874	2 214	9.9
Other	15 095	13 975	12 226	12 858	13 416	59.5
Total	25 097	23 699	21 317	20 768	22 640	100.0

Continued

121 World trade in processed foods, by major exporting countries a *(continued)*

	1997 US$m	1998 US$m	1999 US$m	2000 US$m	2001 US$m	Share b %
Animal and vegetable oil						
Argentina	2 236	2 751	2 347	1 691	1 642	8.8
Australia	263	293	254	220	203	1.0
Malaysia	4 775	5 574	4 911	3 515	3 355	18.3
Netherlands	1 738	1 915	1 719	1 224	1 270	6.5
United States	2 225	2 815	2 012	1 503	1 455	8.3
Other	16 392	15 549	13 841	12 008	11 182	57.1
Total	27 629	28 895	25 084	20 161	19 108	100.0
Animal feed d						
Argentina	2 404	2 006	2 049	2 433	2 627	11.0
Australia	413	331	403	565	483	2.1
Brazil	2 842	1 800	1 587	1 716	2 167	9.7
Netherlands	2 080	1 803	1 670	1 670	1 617	8.5
United States	4 782	4 206	3 526	3 975	4 414	20.0
Other	11 713	10 223	9 455	9 637	9 727	48.7
Total	24 234	20 369	18 690	19 996	21 035	100.0
Cereal products						
Australia	318	279	280	275	289	1.8
Belgium–Luxembourg	1 402	1 396	1 447	1 308	1 499	8.6
France	1 913	1 817	1 672	1 540	1 534	10.4
Germany	1 630	1 630	1 570	1 503	1 668	9.8
Italy	1 980	1 987	1 852	1 704	1 854	11.5
Other	10 100	9 366	9 231	9 164	9 465	57.9
Total	17 342	16 475	16 052	15 493	16 309	100.0
Other processed food						
Australia	193	164	202	232	211	0.6
Brazil	3 321	2 854	2 778	2 258	1 826	7.7
France	2 608	2 192	1 544	1 419	1 450	5.4
Netherlands	1 703	1 577	1 618	1 638	1 703	4.9
United States	2 858	2 798	3 044	3 204	3 398	9.0
Other	26 435	26 570	24 765	23 869	20 992	72.4
Total	37 118	36 155	33 951	32 620	29 580	100.0
All processed food						
Australia	7 316	6 708	7 281	7 874	8 223	2.9
France	26 961	26 567	25 242	23 269	21 840	9.8
Germany	19 945	20 908	19 612	17 390	20 113	7.7
Netherlands	19 390	18 551	18 858	17 365	17 673	7.2
United States	23 670	23 175	22 028	23 184	24 027	9.1
Other	171 400	164 483	157 814	153 837	154 281	63.2
Total	268 682	260 392	250 835	242 919	246 157	100.0

a Based on over 100 reporting countries representing more than 90 per cent of world trade. **b** Average, 1997–2001. **c** Alcoholic and nonalcoholic. **d** Excludes unmilled cereal.
Sources: International Trade Centre UNCTAD/WTO; ABARE.

122 Value of world trade in processed foods, by major importing countries [a]

	1997 US$m	1998 US$m	1999 US$m	2000 US$m	2001 US$m	Share [b] %
Meat						
Australia	52	37	64	99	90	0.2
Germany	5 016	4 778	4 253	3 589	4 059	10.0
Italy	3 447	3 512	3 208	3 030	3 001	7.5
Japan	7 584	6 759	7 813	8 551	8 409	18.1
United Kingdom	3 678	3 354	3 474	3 590	3 987	8.4
Other	23 923	23 478	23 654	24 751	25 297	55.9
Total	43 701	41 917	42 466	43 609	44 842	100.0
Dairy						
Australia	141	148	173	166	165	0.6
Belgium–Luxembourg	1 975	2 129	2 064	1 972	1 913	7.8
Germany	3 376	3 328	3 351	2 551	2 958	12.0
Italy	2 731	2 759	2 657	2 370	2 455	10.0
Netherlands	1 969	1 943	1 982	1 846	1 694	7.3
Other	15 749	16 256	16 109	15 979	16 400	62.2
Total	25 941	26 563	26 336	24 884	25 586	100.0
Seafood						
Australia	160	165	173	172	171	1.8
France	698	793	614	609	613	7.1
Japan	2 382	1 904	2 105	2 499	2 239	23.8
United Kingdom	838	898	804	714	780	8.6
United States	1 241	1 431	1 690	1 821	1 951	17.4
Other	3 877	4 023	3 946	3 729	3 788	41.4
Total	9 195	9 215	9 332	9 543	9 542	100.0
Horticulture						
Australia	221	215	251	249	217	1.0
France	1 835	1 980	2 039	1 904	1 721	8.4
Germany	3 100	3 177	3 198	2 704	2 915	13.4
Japan	2 316	2 214	2 571	2 558	2 499	10.8
United States	2 819	2 769	3 201	3 201	3 145	13.4
Other	11 621	12 241	12 700	11 813	11 286	52.9
Total	21 912	22 596	23 959	22 429	21 782	100.0
Beverages [c]						
Australia	297	272	320	377	371	1.0
Germany	3 000	3 307	3 589	2 955	3 333	9.7
Japan	1 902	2 420	2 069	1 995	1 935	6.2
United Kingdom	3 913	4 324	4 478	4 076	4 211	12.6
United States	6 376	6 896	7 816	8 567	8 964	23.1
Other	15 964	15 568	16 044	15 558	16 190	47.5
Total	31 452	32 787	34 316	33 527	35 004	100.0
Sugar and confectionery						
Australia	163	157	154	157	139	0.7
France	1 527	1 524	1 484	1 377	1 302	6.3
Germany	1 778	1 836	1 723	1 429	1 671	7.4
United Kingdom	1 857	1 823	1 795	1 651	1 698	7.7
United States	2 562	2 385	2 332	2 378	2 534	10.7
Other	16 639	16 153	15 211	13 809	14 944	67.2
Total	24 526	23 877	22 700	20 801	22 287	100.0

Continued

122 Value of world trade in processed foods, by major importing countries [a] *(continued)*

	1997 US$m	1998 US$m	1999 US$m	2000 US$m	2001 US$m	Share [b] %
Animal and vegetable oil						
Australia	204	173	189	181	152	0.8
Germany	1 378	1 460	1 281	1 122	1 121	5.6
Italy	1 849	1 492	1 524	1 254	1 339	6.5
United Kingdom	1 128	1 042	998	889	866	4.3
United States	1 650	1 603	1 500	1 508	1 297	6.6
Other	19 015	21 864	18 954	14 982	12 547	76.3
Total	25 225	27 635	24 447	19 936	17 323	100.0
Animal feed [d]						
Australia	99	98	93	97	122	0.5
China	1 791	1 405	619	908	639	4.9
France	1 714	1 524	1 266	1 462	1 484	6.8
Germany	1 841	1 831	1 422	1 479	1 679	7.5
Japan	2 374	2 046	1 944	2 036	2 114	9.5
Other	16 939	15 386	14 458	14 929	16 323	70.9
Total	24 757	22 290	19 802	20 910	22 360	100.0
Cereal products						
Australia	122	121	138	163	130	0.9
France	1 344	1 371	1 373	1 277	1 266	8.9
Germany	1 273	1 436	1 359	1 060	1 310	8.6
United Kingdom	988	1 055	1 057	1 007	1 092	7.0
United States	1 407	1 541	1 710	1 855	2 004	11.4
Other	9 851	9 449	9 374	9 205	9 414	63.3
Total	14 985	14 973	15 011	14 568	15 215	100.0
Other processed food						
Australia	676	671	670	713	647	1.9
France	2 232	2 247	1 997	1 798	1 628	5.5
Germany	4 554	4 458	3 806	3 117	2 901	10.4
Japan	2 775	2 549	2 450	2 451	2 308	6.9
United States	5 493	5 271	4 964	4 871	4 059	13.6
Other	23 434	23 765	22 590	21 766	20 638	61.8
Total	39 164	38 961	36 478	34 715	32 182	100.0
All processed food						
Australia	2 135	2 057	2 226	2 374	2 203	0.9
Germany	25 851	26 185	24 531	20 489	22 479	9.4
Japan	22 657	20 942	21 772	22 884	22 353	8.7
United Kingdom	19 727	19 908	19 645	18 287	18 889	7.6
United States	25 849	26 544	28 322	29 911	30 125	11.1
Other	164 640	165 178	158 421	150 979	150 073	62.3
Total	260 859	260 814	254 917	244 923	246 123	100.0

a Based on over 100 reporting countries representing more than 90 per cent of world trade. **b** Average, 1997–2001. **c** Alcoholic and nonalcoholic. **d** Excludes unmilled cereal.
Sources: International Trade Centre, UNCTAD/WTO.

123 Summary of Australian statistics for roundwood a

	Removals of roundwood a						
	Broadleaved	Coniferous	Total	Imports b	Exports b	Consumption	Consumption per person
	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	m^3
1960-61	9 135	1 664	10 799	4 101	271	14 629	1.38
1961-62	8 376	1 678	10 054	2 969	348	12 675	1.18
1962-63	8 784	1 869	10 653	3 423	276	13 800	1.25
1963-64	9 341	1 934	11 275	3 774	315	14 734	1.32
1964-65	9 555	2 054	11 609	4 138	308	15 439	1.35
1965-66	9 583	2 169	11 752	4 002	243	15 511	1.34
1966-67	9 144	2 183	11 327	4 110	414	15 023	1.27
1967-68	9 187	2 238	11 425	4 396	301	15 520	1.29
1968-69	8 987	2 344	11 331	4 624	342	15 613	1.27
1969-70	9 106	2 415	11 521	4 904	406	16 019	1.28
1970-71	9 256	2 555	11 811	4 999	435	16 375	1.27
1971-72	8 988	2 673	11 661	4 603	465	15 799	1.20
1972-73	9 778	2 808	12 586	5 937	2 110	16 413	1.22
1973-74	11 063	2 636	13 699	4 896	2 860	15 735	1.15
1974-75	10 921	2 850	13 771	5 404	3 145	16 030	1.15
1975-76	9 995	2 877	12 872	4 752	2 798	14 826	1.06
1976-77	11 331	3 078	14 409	5 558	3 831	16 136	1.14
1977-78	11 259	3 282	14 541	4 690	3 670	15 561	1.08
1978-79	10 595	3 381	13 976	5 478	4 156	15 298	1.06
1979-80	11 720	3 866	15 586	5 667	5 185	16 068	1.09
1980-81	11 464	4 447	15 911	6 019	4 568	17 362	1.17
1981-82	10 348	4 524	14 872	6 403	4 245	17 030	1.12
1982-83	9 217	4 442	13 659	4 694	4 206	14 147	0.92
1983-84	10 537	4 689	15 226	5 856	4 586	16 496	1.06
1984-85	10 919	5 768	16 687	7 195	4 626	19 256	1.20
1985-86	10 949	5 958	16 907	6 943	4 836	19 014	1.17
1986-87	11 222	5 516	16 738	6 333	5 845	17 226	1.06
1987-88	11 162	5 686	16 848	7 894	5 654	19 088	1.15
1988-89	11 475	6 153	17 628	8 069	5 093	20 604	1.22
1989-90	10 534	7 030	17 564	7 947	5 266	20 245	1.18
1990-91	10 037	6 553	16 590	6 836	5 522	17 904	1.03
1991-92	9 512	7 141	16 653	7 351	5 748	18 256	1.04
1992-93	9 801	7 866	17 667	7 697	6 106	19 258	1.09
1993-94	9 793	8 969	18 762	7 681	6 689	19 754	1.11
1994-95	10 857	8 703	19 560	8 915	7 976	20 499	1.14
1995-96	9 920	9 305	19 225	6 918	7 384	18 759	1.03
1996-97	9 442	10 562	20 003	7 502	8 462	19 043	1.03
1997-98	9 793	11 016	20 808	8 047	10 302	18 553	1.00
1998-99	9 504	11 816	21 320	8 124	9 896	19 549	1.04
1999-00	11 774	12 484	24 258	9 585	12 355	21 488	1.13
2000-01	11 547	12 806	24 352	8 489	13 017	19 824	1.03
2001-02	10 556	13 765	24 321	8 276	13 807	18 790	0.97
2002-03	11 323	12 769	24 092	9 303	16 006	17 389	na

a Gross roundwood equivalent (GRWE) of industrial log removals. Excludes log removals for firewood. **b** Estimated GRWE of forest products, including sawnwood, wood based panels, pulp, paper and paperboard, and woodchips. **na** Not available.

Sources: ABARE forestry database; Forestry and Timber Bureau, Department of National Development, *Compendium of Australian Forest Products Statistics: 1935-36 to 1967,* Canberra.

124 Land areas, by vegetation cover NFI 2003

	NSW	Vic.	Qld	WA	SA	Tas.	NT	ACT	Aust.
	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha	'000 ha
Closed forest	486	598	2 952	169	15	598	406	0 **a**	5 224
(% of land area)	0.61	2.63	1.71	0.07	0.02	8.82	0.30	0.00	0.68
Open forest	19 786	5 486	6 768	3 327	2 112	889	7 139	96	45 603
(% of land area)	24.68	24.10	3.92	1.32	2.15	13.12	5.30	39.92	5.94
Woodland forest	2 755	2 432	39 739	21 869	8 739	1 682	25 290	22	102 526
(% of land area)	3.44	10.68	23.01	8.66	8.88	24.80	18.79	9.03	13.35
Plantation	323	360	208	352	149	213	7	16	1 628
(% of land area)	0.40	1.58	0.12	0.14	0.15	3.15	0.01	6.63	0.21
Unknown	3 632		6 275						9 907
(% of land area)	4.53		3.63						1.29
Total forest									
vegetation cover	26 981	8 875	55 942	25 716	11 015	3 383	32 843	133	164 888
(% of land area)	33.66	38.99	32.39	10.18	11.19	49.89	24.40	55.57	21.46
Total land area	80 160	22 760	172 720	252 550	98 400	6 780	134 620	240	768 230

a The area of closed forest in the ACT is too small to be mapped at the scale used for this table.
Source: National Forest Inventory 2003, BRS, Canberra.

125 Australian prices of selected forest products

	Structural timber		Plywood	Hardwood	Softwood	
	Hardwood a	Softwood a	and board a	chips b	chips b	Newsprint c
	index	index	index	$/t	$/t	$/t
1980-81	50.2	53.1	49.1	na	na	na
1981-82	55.7	55.4	53.9	41.06	41.72	na
1982-83	60.4	60.1	60.6	42.00	35.59	na
1983-84	65.2	65.7	64.4	44.43	37.76	na
1984-85	72.2	72.6	67.3	50.68	50.31	na
1985-86	76.5	79.7	72.6	58.29	56.52	na
1986-87	79.9	81.7	75.3	66.02	45.76	na
1987-88	82.8	83.5	83.6	72.29	49.91	na
1988-89	94.4	94.0	92.9	73.47	45.46	672.23
1989-90	100.0	100.0	100.0	75.01	51.49	708.97
1990-91	101.7	103.7	104.0	75.46	56.58	708.76
1991-92	100.1	100.9	107.1	76.99	66.66	716.31
1992-93	105.0	109.2	106.9	75.68	66.61	687.75
1993-94	114.0	137.4	113.9	76.48	61.50	703.22
1994-95	122.7	137.4	117.5	77.94	62.79	715.79
1995-96	121.7	127.8	111.0	81.86	74.78	1 007.91
1996-97	118.6	123.2	108.2	82.63	61.87	888.20
1997-98	121.6	129.2	109.0	77.33	64.36	900.13
1998-99	126.8	133.0	108.7	77.51	65.95	930.02
1999-00	138.1	137.9	110.9	71.61 s	61.16 s	942.99
2000-01	150.5	139.5	114.2	74.62 s	70.71 s	961.77
2001-02	153.2	139.5	117.2	76.20 s	70.34 s	993.54
2002-03	157.5	142.6	121.7	77.03 s	61.95 s	922.91

a Index of prices paid by building contractors or subcontractors for materials delivered on building sites; weighted average for six capital cities; base 1989-90 = 100. **b** Average unit fob value of Australian exports in green tonnes. **c** Average unit value of Australian imports, fob New Zealand. **s** ABARE estimate. **na** Not available.

Sources: ABS, *Price Index of Materials Used in Building Other Than House Building, Eight Capital Cities,* cat. no. 6407.0, Canberra; ABARE.

126 Value of turnover in forest products industries a

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
	$m	$m	$m	$m	$m	$m	$m
ANZSIC group and class **b**							
Wood and wood products							
Log sawmilling	991	846	803	771	729	881	694
Resawn and dressed timber	1 158	1 035	1 036	1 215	1 177	1 287	1 633
Veneers, plywood and fabricated wood manufacturing	1 189	1 130	1 185	1 081	1 143	1 239	1 316
Wooden structural fittings and joinery nec	1 838	1 874	1 894	2 184	2 512	3 241	2 624
Hardwood woodchips	473	447	465	507	448	517	243
Wood products nec	760	632	604	560	589	682	617
Total	6 408	5 964	5 986	6 319	6 599	7 846	7 126
Paper and paper products							
Pulp, paper and paperboard	2 260	2 425	2 020	1 961	2 114	2 277	2 663
Paper bags including sack manufacturing	194	214	288	278	310	1 899	2 889
Solid fibreboard containers	467	619	537	506	556	551	714
Corrugated fibreboard containers	1 445	1 517	1 484	1 440	1 537	na **c**	na **c**
Paper products nec	825	801	867	993	1 085	1 054	1 686
Total	5 190	5 575	5 196	5 179	5 602	5 780	7 951
Total value	11 598	11 539	11 182	11 498	12 201	13 626	15 077

a Turnover is defined as follows: sales of goods whether produced by the establishment or not, plus transfers out of goods to other establishments of the same enterprise, plus bounties and subsidies on production, plus all other operating revenue from outside the enterprise such as commission, repair and service revenue, plus capital work done for own use or for rental or lease. Receipts from rent, leasing, interest other than hire purchase, royalties and the sale of fixed tangible assets are excluded. Since 1988-89, full ABS censuses of manufacturing establishments have been conducted triennially. **b** ANZIC group and class. **c** included with Paper bags including sack manufacturing. **na** Not available.
Source: ABS, *Manufacturing Industry, Australia,* cat. no. 8221.0, Canberra.

127 Employment in forest products industries [a]

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01
	'000	'000	'000	'000	'000	'000	'000
Forestry and logging	12.4	11.4	10.9	14.0	14.1	8.8	13.4
Manufacturing industries **a**							
Wood and wood products							
Log sawmilling	9.0	8.1	7.1	7.0	5.6	6.5	5.3
Resawn and dressed timber	7.1	6.4	6.9	7.4	6.2	6.2	7.9
Veneers, plywood and fabricated wood manufacturing	6.2	5.9	5.6	4.9	5.0	4.9	5.5
Wooden structural fittings and joinery nec	17.2	17.1	16.4	18.7	20.1	22.2	20.2
Hardwood woodchips	0.8	0.9	0.9	0.9	0.7	0.8	0.6
Wood products nec	7.8	7.4	6.7	6.5	5.7	6.2	5.7
Total	48.1	45.8	43.8	45.4	43.4	46.8	45.3
Paper and paper products							
Pulp, paper and paperboard	5.6	5.8	5.2	4.8	4.4	4.3	5.1
Paper bags including sack manufacturing	0.9	1.0	1.2	1.2	1.3	1.4	1.3
Solid fibreboard containers	2.3	4.1	2.4	2.4	2.5	2.6	2.9
Corrugated fibreboard containers	5.3	5.7	5.6	5.4	5.5	4.9	5.9
Paper products nec	3.6	3.5	3.4	3.5	3.7	3.6	4.6
Total	17.8	20.0	17.9	17.2	17.3	16.9	19.7
Total manufacturing industries	65.9	65.8	61.7	62.6	60.7	63.6	65.0
Total employment	78.3	77.2	72.6	76.6	74.8	72.4	78.4

a ANZSIC group and class. Based on PAYE employment statistics excluding volunteers.
Source: ABS, *The Labour Force,* cat. no. 6203.0, Canberra; ABS, Manufacturing Industry, Australia, cat. no. 8221.0, Canberra.

128 Value of Australian forest products trade [a]

	1996-97 $m	1997-98 $m	1998-99 $m	1999-00 $m	2000-01 $m	2001-02 $m	2002-03 $m
Imports							
Roundwood	1.3	1.7	1.4	0.8	0.9	0.7	1.8
Sawnwood							
Coniferous roughsawn	192.1	215.0	201.5	282.3	197.3	190.6	223.8
Coniferous dressed	100.0	121.0	120.7	156.1	123.4	149.7	175.9
Broadleaved roughsawn	46.9	51.1	55.9	62.4	59.7	58.0	64.7
Broadleaved dressed	34.7	35.5	38.6	47.3	47.2	44.2	40.3
Total	373.8	422.7	416.7	548.1	427.7	442.5	504.7
Railway sleepers	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Miscellaneous forest products [b]	298.2	354.0	396.3	475.9	461.5	528.1	589.3
Veneer	20.0	24.1	25.5	25.9	22.9	18.8	21.0
Plywood	48.6	62.0	63.7	77.4	64.9	80.2	112.8
Particleboard	4.0	6.7	7.9	11.3	13.8	18.7	21.5
Hardboard	4.5	5.7	6.2	6.6	5.5	7.1	6.0
Medium density fibreboard	38.6	35.2	30.6	55.4	34.7	31.7	29.4
Softboard and other fibreboard	9.6	11.2	8.5	12.7	9.7	8.3	9.2
Paper and paperboard							
Newsprint	216.8	238.8	239.5	257.9	277.5	219.8	244.5
Printing and writing	856.4	971.9	997.1	1 141.8	1 181.7	1 261.9	1 330.0
Household and sanitary	37.7	52.7	65.4	89.2	94.7	102.5	117.9
Packaging and industrial	396.2	433.2	454.2	508.8	534.1	407.0	307.8
Total	1 507.1	1 696.7	1 756.2	1 997.7	2 088.0	1 991.3	2 000.8
Paper manufactures [c]	282.5	315.5	348.0	356.2	377.5	372.4	405.5
Wastepaper	8.8	7.1	6.2	7.4	8.8	4.6	8.0
Pulp	125.2	126.1	193.1	219.8	316.6	221.3	253.7
Pulpwood	0.7	1.0	1.6	1.6	1.4	1.2	1.5
Total	2 722.7	3 069.6	3 262.0	3 797.0	3 834.1	3 726.9	3 965.2

Continued

128 Value of Australian forest products trade a *(continued)*

	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	$m	$m	$m	$m	$m	$m	$m
Exports							
Roundwood	52.95	37.70	48.79	69.75	66.77	89.08	106.82
Sawnwood							
Coniferous roughsawn	4.67	3.85	5.07	3.09	12.49	15.86	12.96
Coniferous dressed	7.97	6.11	9.90	16.89	12.03	14.27	14.05
Broadleaved roughsawn	23.82	15.07	22.08	25.52	24.23	28.85	33.63
Broadleaved dressed	3.49	4.48	5.73	5.73	10.17	6.88	7.91
Total	39.96	29.51	42.78	51.23	58.92	65.87	68.54
Railway sleepers	5.24	3.46	6.33	6.21	9.03	6.54	4.37
Miscellaneous forest products **b**	55.35	68.23	65.59	61.62	71.16	54.76	53.17
Veneer	6.77	5.44	6.49	6.29	8.06	6.98	4.21
Plywood	2.42	2.13	2.76	2.73	2.98	4.44	2.32
Particleboard	31.16	19.63	23.29	21.52	26.49	26.66	17.41
Hardboard	0.24	0.03	0.03	6.29	10.63	5.99	4.00
Medium density fibreboard	34.74	50.09	64.50	98.69	150.56	162.43	145.57
Softboard and other fibreboard	1.14	2.47	3.85	7.66	6.67	10.24	12.00
Paper and paperboard							
Newsprint	0.09	7.45	6.90	1.58	2.56	1.27	0.92
Printing and writing	57.01	65.99	81.51	121.09	145.63	284.91	213.98
Household and sanitary	58.80	63.93	59.74	80.11	80.44	94.82	97.19
Packaging and industrial	233.83	236.99	207.24	287.86	300.13	315.41	403.36
Total	349.73	374.35	355.40	490.63	528.76	698.67	718.18
Paper manufactures **c**	68.17	66.51	61.72	65.85	83.82	101.56	120.21
Wastepaper	10.70	17.88	25.09	39.89	39.73	55.45	49.59
Pulp	1.74	0.60	0.90	1.59	4.55	2.84	2.12
Woodchips	518.31	646.35	585.94	646.10	743.77	711.99	807.95
Total	1 178.63	1 324.38	1 293.44	1 576.08	1 811.90	2 003.50	2 116.46

a Values are duty or customs values for imports and fob from Australian ports for exports. **b** Includes such items as wooden doors, mouldings, packing cases, parquetry flooring, builders carpentry, cork, gums, resins, eucalyptus oils and other miscellaneous wood articles. Excludes wood furniture. **c** Includes such items as boxes, bags, account books, note books, letter pads and other paper stationery.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

129 Australian production, trade and consumption of sawnwood

	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3
Broadleaved (hardwood)							
Production	1 424	1 328	1 267	1 346	1 174	1 108	1 060
Imports	100	106	113	124	107	104	116
Exports	27	21	30	45	30	40	46
Consumption	1 496	1 413	1 350	1 425	1 248	1 165	1 085
Coniferous (softwood)							
Production	2 120	2 338	2 338	2 637	2 351	3 011	2 988
Imports	657	678	663	846	611	632	665
Exports	24	18	21	45	38	43	40
Consumption	2 752	2 998	2 980	3 437	2 910	3 590	3 519
Total broadleaved and coniferous							
Production	3 543	3 666	3 606	3 983	3 525	4 119	4 048
Imports	756	784	775	970	719	735	811
Exports	51	38	51	90	65	85	85
Consumption	4 248	4 411	4 330	4 863	4 157	4 755	4 604

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; state and territory forest agencies.

130 Australian imports of sawnwood, by source and type

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3
Country								
Canada								
Douglas fir	71	88	109	104	127	64	65	73
Western red cedar	63	63	67	55	79	42	52	67
Other	12	22	21	13	45	20	14	15
Total	146	173	197	171	251	126	131	155
Malaysia								
Meranti **a**	28	38	42	42	40	28	28	30
Other	24	16	18	19	24	20	20	20
Total	52	54	60	60	64	47	48	50
New Zealand								
Radiata pine	272	275	308	315	380	302	321	331
Douglas fir	16	24	29	57	61	51	59	60
Other	34	33	35	48	51	35	39	47
Total	322	332	372	419	491	387	420	438
United States								
Douglas fir	151	125	84	46	27	16	12	6
Western red cedar	3	3	2	1	2	1	1	1
Other	11	14	12	10	15	12	10	11
Total	166	142	98	58	44	29	23	17
Region								
Asia	71	73	82	88	96	77	77	86
Europe	16	18	17	16	47	51	30	31
North America	312	315	296	229	295	155	154	172
Pacific	338	346	386	437	507	406	438	460
South America	3	2	2	2	4	4	2	6
Other	1	2	1	3	20	26	36	56
Total	742	756	784	775	970	719	735	811
(value $m)	367.1	373.8	422.7	416.7	548.1	427.7	442.5	504.7

a Includes lauan and seraya from June 1996.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

131 Australian production, trade and consumption of railway sleepers

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3
Production	78	68	62	67	40	na	na	na
Imports	0	0	2	0	0	0	0	0
Exports	2	11	8	16	17	18	14	10
Consumption	77	57	57	51	23	na	na	na

na Not available.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; state rail authorities.

132 Australian production, trade and consumption of panel products

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3
Production									
Plywood	145	131	151	170	169	192	157	192	219
Particleboard	864	826	790	882	902	978	904	965	1 025
Medium density fibreboard	436	377	434	501	495	621	712	732	786
Total	1 445	1 333	1 376	1 554	1 566	1 791	1 774	1 890	2 030
Imports									
Plywood	73	66	74	89	100	114	97	116	173
Particleboard	35	20	13	17	22	32	44	70	93
Hardboard	15	11	6	6	8	9	8	7	9
Medium density fibreboard	102	78	85	77	74	138	88	81	77
Softboard and other fibreboards	14	11	18	23	17	26	33	20	18
Total	239	187	197	213	222	319	271	295	371
Exports									
Plywood	2	2	3	2	4	10	5	6	2
Particleboard	71	112	100	61	77	69	98	100	54
Hardboard	0	0	0	0	0	5	6	8	6
Medium density fibreboard	128	90	118	139	206	288	389	403	405
Softboard and other fibreboards	2	0	7	9	17	19	10	14	15
Total	204	205	228	212	304	392	509	531	483
Consumption									
Plywood	216	195	222	257	265	296	249	302	391
Particleboard	827	734	703	838	846	941	850	935	1 063
Medium density fibreboard	410	365	402	440	364	471	411	411	458
Total	1 453	1 294	1 327	1 535	1 475	1 708	1 511	1 649	1 912

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Australian medium density fibreboard manufacturers; Australian particleboard manufacturers; B.L. Steenson, Chartered Accountant; Plywood Association of Australia; ABARE.

133 Australian production of plywood, by type

	Interior	Sliced and random grooved	Marine	Overlaid	Tongue and groove flooring	Structural	Exterior and other commercial	Total
	m^3	m^3	m^3	m^3	m^3	m^3	m^3	m^3
1970-71	na	na	na	na	na	na	na	104 614
1971-72	na	na	na	na	na	na	na	76 090
1972-73	na	na	na	na	na	na	na	72 515
1973-74	na	na	na	na	na	na	na	78 449
1974-75	na	na	na	na	na	na	na	81 984
1975-76	na	na	na	na	na	na	na	78 191
1976-77	na	na	na	na	na	na	na	85 333
1977-78	17 771	2 777	4 208	26 836	9 872	15 084	8 133	84 681
1978-79	14 914	1 625	3 706	28 978	10 807	19 768	8 451	88 249
1979-80	14 995	1 311	3 505	27 097	11 167	21 656	7 131	86 862
1980-81	12 862	1 482	3 026	29 012	10 959	23 812	7 622	88 775
1981-82	11 586	1 782	1 784	28 520	11 586	24 955	8 913	89 126
1982-83	10 724	715	2 860	21 448	7 149	22 163	6 434	71 493
1983-84	13 109	742	2 144	18 798	8 904	31 001	7 750	82 448
1984-85	8 287	1 515	2 584	24 595	9 624	35 111	7 396	89 112
1985-86	8 723	1 437	2 637	27 001	9 659	34 949	11 489	95 895
1986-87	7 908	917	2 208	30 169	7 829	39 534	8 672	97 237
1987-88	8 326	928	2 382	37 242	9 028	44 249	9 002	111 157
1988-89	7 526	779	2 976	39 584	11 808	54 757	12 326	129 756
1989-90	7 005	635	2 087	37 135	12 114	55 011	11 192	125 179
1990-91	4 753	404	1 618	25 686	11 933	47 226	9 506	101 126
1991-92	4 927	194	1 490	22 010	15 295	44 682	17 962	106 560
1992-93	5 190	207	1 482	22 585	18 813	53 290	20 446	122 014
1993-94	6 048	201	1 475	26 866	17 416	63 232	23 086	138 324
1994-95	4 400	190	1 332	33 206	14 804	69 300	21 800	145 032
1995-96	4 202	160	1 339	42 503	13 390	63 025	6 236	130 855
1996-97	5 218	70	1 188	32 402	14 140	75 175	23 183	151 376
1997-98	4 422	47	1 336	35 373	15 743	89 074	24 341	170 336
1998-99	3 615	0	1 151	31 105	15 183	92 698	25 258	169 010
1999-00	3 872	0	1 245	30 110	15 118	109 881	31 539	191 765
2000-01	3 730	0	1 049	24 719	20 412	89 191	17 934	157 035
2001-02	4 002	0	1 241	31 153	15 801	119 455	20 582	192 234
2002-03	3 684	0	1 180	35 357	14 996	135 118	28 991	219 326

na Not available.
Sources: Plywood Association of Australia; ABARE.

134 Australian imports of veneer and wood based panels, by source

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3	'000 m^3
Plywood								
Chinese Taipei	0.01	0.00	0.00	0.04	0.00	0.00	0.00	0.02
Indonesia	30.95	32.51	38.30	37.02	39.16	25.92	29.59	34.79
Korea, Rep. of	0.02	0.00	0.00	0.00	0.03	0.03	0.00	0.04
Malaysia	6.84	6.74	8.41	10.39	16.87	16.00	15.79	20.73
New Zealand	23.83	27.07	32.86	37.33	38.40	30.77	47.31	70.55
Papua New Guinea	0.06	0.18	0.33	0.19	0.62	0.46	1.79	2.46
Singapore	0.24	0.23	0.64	3.18	0.89	0.60	2.29	2.68
Other	4.50	7.37	8.49	12.31	18.35	23.26	19.21	42.08
Total	66.47	74.08	89.03	100.45	114.31	97.06	115.98	173.34
(value, $m)	42.8	48.6	62.0	63.7	77.4	64.9	80.2	112.8
Veneer								
Malaysia	1.93	3.41	3.65	1.46	2.28	1.87	1.84	3.36
New Zealand	0.46	0.82	1.61	4.55	1.73	0.31	0.11	0.40
Philippines	1.85	4.38	3.79	4.54	6.08	4.69	4.85	3.83
Singapore	0.25	0.35	0.24	0.34	0.36	0.20	0.79	0.42
South Africa	0.02	0.05	0.36	0.80	1.14	0.84	0.72	0.69
Thailand	0.05	0.03	0.06	0.03	0.06	0.06	0.14	0.08
United States	2.26	2.24	2.29	2.12	2.06	1.39	1.46	0.97
Other	5.64	6.40	9.86	4.92	6.61	4.82	5.07	3.81
Total	12.46	17.68	21.86	18.75	20.32	14.16	14.98	13.57
(value, $m)	21.5	20.0	24.1	25.5	25.9	22.9	18.8	21.0
Particleboard								
Malaysia	0.12	0.27	0.26	0.35	0.47	0.30	0.92	0.51
New Zealand	19.18	12.48	16.02	17.44	27.72	31.67	35.01	27.52
Other	1.11	0.41	0.75	3.96	4.20	7.49	34.19	63.98
Total	20.36	12.98	16.90	21.68	31.94	43.90	70.00	92.99
(value, $m)	5.2	4.0	6.7	7.9	11.3	13.8	18.7	21.5
Hardboard								
Brazil	1.44	1.28	1.70	1.41	0.90	1.49	0.17	0.20
New Zealand	5.38	0.87	1.22	2.22	5.03	3.65	3.94	3.79
Other	2.70	3.92	3.19	3.12	2.37	2.76	2.77	4.96
Total	10.74	6.29	6.10	7.64	9.27	8.24	7.30	9.14
(value, $m)	6.8	4.5	5.7	6.2	6.6	5.5	7.1	6.0
Medium density fibreboard								
Malaysia	3.32	4.93	6.45	12.16	10.82	8.62	10.65	14.96
New Zealand	73.97	78.52	69.71	59.70	117.13	74.52	65.37	53.09
Other	0.98	1.80	1.29	2.54	9.69	5.11	5.41	9.29
Total	78.28	85.25	77.45	74.39	137.64	88.25	81.42	77.34
(value, $m)	42.2	38.6	35.2	30.6	55.4	34.7	31.7	29.4
Softboard and other fibreboards								
New Zealand	9.08	16.25	17.23	10.40	17.87	12.48	7.86	9.16
Other	2.40	2.24	6.26	7.05	7.99	20.97	12.03	8.81
Total	11.49	18.49	23.49	17.46	25.86	33.46	19.89	17.97
(value, $m)	5.2	9.6	11.2	8.5	12.7	9.7	8.3	9.2

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

135 Australian production, trade and consumption of paper and paper products

	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt	2002-03 kt
Production								
Newsprint	445.4	420.8	443.8	405.0	464.0	465.0	395.0	na
Printing and writing paper	351.0	364.0	424.0	497.0	535.0	554.0	624.0	na
Household and sanitary	180.0	181.0	191.0	187.0	232.0	204.0	198.0	na
Packaging and industrial paper	1 344.0	1 452.0	1 483.0	1 475.0	1 605.0	1 449.0	1 679.0	na
Total	2 320.4	2 417.8	2 541.8	2 564.0	2 836.0	2 672.0	2 897.0	na
Imports								
Newsprint	281.6	250.1	289.5	275.1	293.1	283.9	224.3	275.2
Printing and writing paper	576.8	688.8	741.5	718.0	838.6	760.3	822.2	892.1
Household and sanitary	25.4	24.1	32.4	40.1	53.5	54.8	55.9	66.7
Packaging and industrial paper	226.8	254.8	275.9	263.9	325.4	310.8	212.9	233.4
Total	1 110.7	1 217.7	1 339.2	1 297.2	1 510.6	1 409.8	1 315.3	1 467.5
Exports								
Newsprint	1.9	0.6	15.2	13.0	2.0	2.4	1.5	1.4
Printing and writing paper	26.2	35.0	46.9	59.9	97.1	100.2	158.0	208.3
Household and sanitary	12.0	14.9	15.4	14.7	23.2	23.4	24.5	26.1
Packaging and industrial paper	201.5	369.1	355.8	289.1	383.5	404.0	475.6	594.4
Total	241.6	419.5	433.4	376.6	505.8	530.1	659.6	868.8
Total consumption								
Newsprint	725.1	670.3	718.0	667.2	755.0	746.0	618.0	745.3
Printing and writing paper	901.6	1 017.8	1 118.7	1 155.2	1 276.5	1 214.2	1 288.3	1 307.2
Household and sanitary	193.4	190.2	208.0	212.4	262.3	235.4	229.4	257.8
Packaging and industrial paper	1 369.4	1 337.7	1 403.0	1 449.9	1 546.9	1 355.8	1 416.3	1 606.1
Total	3 189.5	3 216.0	3 447.7	3 484.6	3 840.8	3 551.7	3 552.8	3 916.3
Consumption per person								
Newsprint	39.8	36.4	38.6	35.5	39.8	38.9	31.9	na
Printing and writing paper	49.5	55.3	60.2	61.5	67.3	63.3	66.5	na
Household and sanitary	10.6	10.3	11.2	11.3	13.8	12.3	11.8	na
Packaging and industrial paper	75.2	72.7	75.5	77.2	81.5	70.7	73.1	na
Total	175.2	174.8	185.5	185.5	202.5	185.3	183.4	na

na Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Australian Paper Industry Council; FAO Pulp, Paper and Paperboard Production Survey.

136 Australian imports of paper and paperboard, by type and source

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	kt	kt	kt	kt	kt	kt	kt	kt
Newsprint a								
Canada	53.6	50.8	10.1	4.3	4.5	4.9	0.7	0.1
Finland	21.4	19.0	38.9	20.5	16.5	20.7	9.3	8.4
Indonesia	5.2	8.0	21.8	29.2	35.0	24.0	19.3	28.2
Korea, Rep. of	2.7	10.2	27.7	51.2	62.3	41.5	14.8	34.9
New Zealand	170.3	134.1	163.4	141.8	159.2	181.4	173.5	187.4
Other	28.4	28.0	27.4	28.0	15.6	11.4	6.7	16.3
Total	281.6	250.1	289.5	275.1	293.1	283.9	224.3	275.2
(value, $m)	290.8	216.8	238.8	239.5	257.9	277.5	219.8	244.5
Printing and writing paper								
Austria	6.0	23.0	17.9	18.3	17.0	15.8	19.5	20.6
Brazil	27.8	34.0	21.5	5.5	8.0	2.3	2.5	4.8
Canada	10.4	3.1	5.7	32.6	45.1	21.4	17.7	41.4
Finland	149.0	141.1	188.0	148.3	152.0	145.4	157.7	147.0
Germany	56.1	61.4	75.5	56.5	43.8	38.3	30.7	48.2
Indonesia	22.9	52.4	70.5	127.6	123.5	75.9	59.9	86.6
Italy	54.3	45.2	53.2	43.9	49.5	46.3	24.8	28.0
Japan	23.6	30.5	40.3	31.7	40.0	34.0	34.1	42.1
Korea, Rep. of	18.6	43.7	30.2	35.9	36.6	22.0	28.3	29.6
New Zealand	18.9	10.8	5.0	7.4	5.4	2.1	17.0	34.9
Norway	5.8	9.8	16.8	20.7	21.9	15.5	15.3	18.5
South Africa	17.3	21.6	20.3	24.1	18.9	14.8	12.7	13.4
Sweden	23.2	29.2	36.9	40.6	43.6	41.5	52.9	68.4
United States	68.4	86.6	85.1	52.6	59.2	89.3	89.7	91.6
Other b	74.6	96.5	74.7	72.2	174.1	195.6	259.4	216.9
Total	576.8	688.8	741.5	718.0	838.6	760.3	822.2	892.1
(value, $m)	936.8	856.4	971.9	997.1	1 141.8	1 181.7	1 261.9	1 330.0
Household and sanitary products								
Chinese Taipei	5.5	7.9	7.8	7.9	4.8	1.3	1.9	2.8
Indonesia	1.2	1.5	3.9	7.4	11.3	8.9	10.2	16.2
New Zealand	10.6	7.2	10.4	10.8	14.3	17.8	16.1	10.6
Other	8.1	7.4	10.3	14.0	23.1	26.8	27.7	37.1
Total	25.4	24.1	32.4	40.1	53.5	54.8	55.9	66.7
(value, $m)	49.5	37.7	52.7	65.4	89.2	94.7	102.5	117.9

Continued

136 Australian imports of paper and paperboard, by type and source *(continued)*

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	kt	kt	kt	kt	kt	kt	kt	kt
Packaging and industrial								
Belgium-Luxembourg	1.5	1.3	1.2	2.2	1.1	1.1	0.9	0.7
Brazil	14.2	14.4	11.4	3.2	3.1	2.0	0.6	0.7
China	3.0	4.0	3.8	6.3	4.9	6.6	6.9	8.7
Finland	26.6	25.2	28.4	26.4	35.6	40.8	19.1	23.4
France	3.7	2.9	4.4	5.6	4.0	3.3	2.8	3.5
Germany	9.4	10.2	10.1	16.5	33.9	24.5	16.4	9.0
Indonesia	2.7	4.2	3.7	4.5	6.7	4.3	3.7	3.9
Italy	4.5	4.6	3.7	4.2	7.5	8.3	6.8	11.3
Japan	1.9	1.8	2.4	1.7	1.6	0.7	0.7	3.5
Netherlands	4.9	5.2	4.9	5.3	4.5	4.3	2.7	3.3
New Zealand	22.6	20.3	26.3	45.3	69.0	77.0	45.2	19.6
Singapore	2.6	3.0	2.8	1.7	2.6	1.4	6.0	9.9
South Africa	2.1	1.7	6.7	3.9	8.5	10.8	12.0	61.8
Sweden	5.4	5.6	3.1	3.6	5.0	12.0	9.8	6.0
Thailand	0.5	0.4	1.7	9.2	14.9	0.4	4.1	3.1
United Kingdom	7.3	8.3	9.4	5.9	6.4	8.0	9.1	6.9
United States	103.9	126.8	138.2	109.2	105.5	93.2	56.3	19.8
Other	10.1	15.0	13.8	9.5	10.7	12.1	9.7	38.2
Total	226.8	254.8	275.9	263.9	325.4	310.8	212.9	233.4
(value, $m)	408.2	396.2	433.2	454.2	508.8	534.1	407.0	307.8

a Uncoated paper (at least 60 per cent mechanical pulp) used mainly for the printing of newspapers. **b** Includes imports for which country of origin is confidential.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS.

137 Australian production of wood pulp and use of wastepaper

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
	kt	kt	kt	kt	kt	kt	kt	kt
Mechanical	399	355	351	345	366	376	362	395
Chemical **a**	583	613	563	591	506	508	534	698
Total pulp	982	968	914	936	872	884	896	1 093
Wastepaper used	1 056	1 340	1 488	1 463	1 536	1 542	1 634	1 554

a Details for semichemical pulp are included in chemical pulp.
Sources: ABS, *Manufacturing Production, Australia,* cat. no. 8301.0, Canberra; Australian Paper Industry Council; ABARE.

138 Australian imports of wood pulp, by type and source

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	kt	kt	kt	kt	kt	kt	kt	kt
Mechanical								
Canada	0.1	0.2	0.1	0.1	0.2	0.2	0.4	0.4
New Zealand	0.0	0.0	1.6	7.6	7.6	6.0	3.9	5.8
United States	0.2	1.4	0.7	0.4	0.1	0.4	0.2	0.1
Total	0.3	2.1	2.4	8.2	8.1	7.6	4.5	6.5
(value, $m)	0.2	1.3	1.6	6.0	6.5	8.2	3.9	4.7
Chemical								
Brazil	3.0	1.6	1.7	51.4	10.6	16.9	24.4	33.9
Canada	47.0	69.6	37.2	40.8	44.5	33.9	23.4	45.1
Finland	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Indonesia	3.0	7.9	9.5	48.7	45.3	47.3	44.7	43.8
New Zealand	80.1	71.0	82.3	91.0	88.3	110.9	120.2	122.7
United States	31.7	27.5	24.8	23.9	29.6	22.2	7.2	9.0
Other	8.8	11.3	12.9	22.5	36.3	55.6	56.5	74.0
Total	173.6	189.1	168.3	278.1	254.6	286.8	276.4	328.5
(value, $m)	173.7	117.8	118.5	172.5	209.0	299.9	192.6	232.0
Semichemical								
Total	9.7	11.0	9.4	23.6	12.6	9.0	33.6	24.4
(value, $m)	9.7	6.1	5.9	14.6	4.3	8.6	24.7	17.1
Total wood pulp	183.6	202.1	180.1	309.9	275.4	303.4	314.5	359.5
(value, $m)	183.7	125.2	126.1	193.1	219.8	316.6	221.3	253.7

Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

139 Australian roundwood and woodchip trade

	Imports	Exports			
			Woodchips b		
	Roundwood a	Roundwood a	Coniferous	Broadleaved	Total
	'000m^3	'000m^3	kt	kt	kt
1970-71	118.2	na	na	na	na
1971-72	122.2	na	na	na	1 880
1972-73	97.1	na	na	na	2 794
1973-74	102.1	na	na	na	2 664
1974-75	37.2	na	na	na	2 566
1975-76	46.4	na	na	na	2 336
1976-77	32.2	na	na	na	3 234
1977-78	27.6	na	na	na	3 132
1978-79	17.0	na	na	na	3 349
1979-80	0.6	na	na	na	4 459
1980-81	0.1	na	na	na	4 143
1981-82	1.7	na	na	na	3 821
1982-83	1.7	na	na	na	3 689
1983-84	0.5	na	na	na	4 443
1984-85	0.5	na	na	na	4 565
1985-86	1.0	na	na	na	4 447
1986-87	1.0	na	na	na	5 020
1987-88	1.7	na	na	na	5 108
1988-89	2.9	8.4	247	5 462	5 709
1989-90	6.3	5.3	273	4 851	5 123
1990-91	0.5	79.5	263	5 266	5 529
1991-92	0.3	86.2	710	4 809	5 519
1992-93	1.6	242.0	861	4 818	5 679
1993-94	6.1	420.7	1 126	4 960	6 085
1994-95	2.1	286.7	1 921	5 626	7 547
1995-96	1.6	351.1	1 837	4 961	6 798
1996-97	1.1	615.5	1 909	4 843	6 752
1997-98	6.1	391.0	2 340	6 410	8 750
1998-99	5.7	778.3	2 314	5 590	7 904
1999-00	2.3	1 149.7	2 343	7 021 s	9 365
2000-01	1.3	863.6	2 465	7 631	10 096
2001-02	0.9	1 134.2	1 901	7 589	9 490
2002-03	2.3	1 245.2	2 228	8 707	10 935

a Includes saw logs and pulp logs. **b** Green tonne equivalent of bone dry tonnes. **s** ABARE estimate. **na** Not available.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

140 Summary of Australian statistics for grapes and grape products

		Grape use		Australian wine			
	Grape production	Wine making	Drying and table	Domestic sales	Sales per person	Production of dried vine fruit	Exports of dried vine fruit
	kt	kt	kt	ML	L	kt	kt
1960-61	535.0	187.6	347.4	53.1	5.0	83.0	57.6
1961-62	638.0	234.5	403.5	54.3	5.1	98.1	65.8
1962-63	479.0	169.3	309.7	57.1	5.2	71.6	61.9
1963-64	665.3	214.3	451.0	60.9	5.4	106.0	64.0
1964-65	690.5	225.4	465.1	63.0	5.5	109.6	70.9
1965-66	591.5	186.7	404.8	69.7	6.0	92.4	82.1
1966-67	694.7	241.5	453.2	79.8	6.8	108.4	69.0
1967-68	638.6	253.4	385.2	90.1	7.5	86.4	68.5
1968-69	553.4	299.6	253.8	100.2	8.1	55.6	62.4
1969-70	757.6	357.7	399.9	110.9	8.9	94.3	44.1
1970-71	548.0	293.6	254.4	110.5	8.6	60.4	59.9
1971-72	827.0	345.4	481.6	115.7	8.8	103.4	56.3
1972-73	606.3	330.5	275.8	130.0	9.7	57.0	72.6
1973-74	555.2	344.0	211.2	148.1	10.8	56.9	26.9
1974-75	733.6	432.5	301.1	168.0	12.1	66.9	31.6
1975-76	714.6	413.1	301.5	177.3	12.7	70.3	53.2
1976-77	728.4	458.3	270.1	187.0	13.2	64.5	44.2
1977-78	726.7	423.7	303.0	197.4	13.7	68.7	35.9
1978-79	760.4	466.1	294.3	231.1	15.9	61.8	46.1
1979-80	914.0	503.2	410.8	247.4	16.8	98.6	61.8
1980-81	754.8	486.8	268.0	264.9	17.8	60.2	52.1
1981-82	942.9	499.9	443.0	278.3	18.3	96.2	39.9
1982-83	807.3	431.3	376.0	293.7	19.1	84.5	58.1
1983-84	881.1	495.1	386.0	305.8	19.6	86.7	58.3
1984-85	890.0	559.0	331.0	320.5	20.0	77.0	56.0
1985-86	906.6	509.9	396.7	325.2	19.9	100.9	54.0
1986-87	859.2	523.5	335.7	329.8	20.3	69.8	58.2
1987-88	864.4	498.0	366.4	330.5	20.0	78.8	42.0
1988-89	977.1	640.6	336.5	309.1	18.4	64.4	51.9
1989-90	936.1	602.6	333.5	300.6	17.6	65.0	38.8
1990-91	940.0	539.0	401.0	296.3	17.1	88.7	36.4
1991-92	1 111.5	635.2	476.3	314.8	18.0	101.9	44.5
1992-93	909.5	626.2	283.3	312.1	17.7	45.4	55.1
1993-94	1 080.8	777.4	303.4	319.5	17.9	50.4	41.2
1994-95	939.7	629.8	309.8	316.3	17.6	53.5	14.7
1995-96	1 095.4	883.3	212.0	307.5	16.9	37.7	15.2
1996-97	1 161.0	798.0	363.0	332.8	18.1	69.3	25.3
1997-98	1 146.7	950.8	196.0	338.8	18.2	29.0	12.3
1998-99	1 293.8	1 101.0	192.8	348.3	18.5	44.0	13.7
1999-00	1 338.5	1 129.0	209.5	369.3	19.5	31.0	4.9
2000-01	1 590.7	1 421.9	168.8	384.8	20.1	16.7	6.4
2001-02	1 833.4	1 606.3	227.1	385.3	19.9	34.0	5.9
2002-03	1 576.2	1 438.9	137.3	402.5	na	17.0	9.7

na Not available.

Sources: ABS, *Australian Wine and Grape Industry,* cat. no. 1329.0, Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Sales of Australian Wine and Brandy by Winemakers,* cat. no. 8504.0, Canberra; Australian Dried Fruits Corporation, *Annual Report,* Melbourne; Australian Dried Fruits Board, *Annual Report,* Melbourne; Australian Dried Fruits Association, *Australian Dried Fruits Association News,* Mildura; Australian Dried Fruits Association, Mildura; ABARE.

141 Australian wine exports, by type and major destination

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Type								
Table wine	ML	146.08	184.46	205.95	276.14	330.53	405.58	501.27
Red	ML	68.75	85.51	100.00	144.01	179.79	234.20	308.85
White	ML	77.33	98.95	105.94	132.14	150.74	171.38	192.42
Sparkling wine	ML	5.71	5.56	6.85	8.23	6.63	6.93	7.28
Carbonated wine	ML	1.00	0.89	0.36	0.21	0.37	0.90	0.80
Fortified wine	ML	2.42	2.80	2.58	2.19	2.27	1.85	1.79
Other wine	ML	1.19	0.84	0.85	1.01	0.39	0.91	0.83
Total	ML	155.40	193.65	216.23	287.57	339.81	415.27	511.17
Major destination								
Canada	$m	29.1	37.2	50.8	73.7	91.2	123.5	174.5
China	$m	6.2	3.0	1.7	1.6	2.2	2.4	3.5
Germany	$m	11.9	15.4	24.9	40.9	50.1	48.0	60.9
Hong Kong, China	$m	11.2	11.4	10.3	12.6	14.5	16.9	15.2
Ireland	$m	18.6	23.9	27.2	37.4	40.1	42.7	40.3
Japan	$m	12.0	27.2	25.0	29.4	29.5	30.0	31.5
Netherlands	$m	8.1	12.2	21.3	36.2	33.9	33.4	40.6
New Zealand	$m	39.9	5.3	60.2	65.3	77.2	84.7	101.4
Singapore	$m	7.1	8.3	10.2	14.9	17.2	20.0	22.4
Sweden	$m	11.9	11.1	12.7	20.3	18.6	25.2	33.3
Switzerland	$m	11.0	15.7	19.1	28.4	30.9	30.1	36.7
Thailand	$m	4.7	1.3	2.1	2.5	2.7	3.4	4.4
United Kingdom	$m	257.1	362.2	446.5	590.4	689.8	842.6	857.0
United States	$m	120.0	196.4	215.7	316.9	417.3	583.2	857.7
Other	$m	50.5	82.1	63.5	81.8	114.8	215.0	119.2
Value	$m	599.3	812.7	991.2	1 352.3	1 630.0	2 101.1	2 398.6
Unit value	$/L	3.86	4.20	4.58	4.70	4.80	5.06	4.69

Sources: ABS, *Sales of Australian Wine and Brandy by winemakers,* cat. no. 8504.0, Canberra; Australian Wine Export Council, *Wine Export Approval Report,* Adelaide.

142 Australian domestic wine sales and imports, by type [a]

	1996-97 ML	1997-98 ML	1998-99 ML	1999-00 ML	2000-01 ML	2001-02 ML	2002-03 ML
Table wine	268.46	276.89	287.40	307.09	325.33	329.60	344.47
Red	83.66	87.38	99.09	114.05	125.56	130.08	142.84
White	184.80	189.51	188.31	193.04	199.76	199.52	201.63
Sparkling wine	32.06	31.07	32.62	32.57	30.66	29.42	31.62
Bottle fermented	22.88	22.31	20.29	18.22	16.71	17.42	22.99
Bulk fermented	9.18	8.76	12.33	14.35	13.95	12.00	8.63
Carbonated wine	3.43	3.17	1.45	3.51	3.29	3.12	2.80
Total unfortified wine	303.95	311.13	321.46	343.18	359.28	362.14	378.89
Total fortified wine	25.63	24.57	23.92	22.99	22.19	20.36	20.84
Vermouth and other wine	3.21	3.11	2.97	3.11	3.38	2.79	2.75
Total domestic sales	332.79	338.81	348.35	369.28	384.85	385.29	402.48
Total wine	346.38	364.43	372.60	388.88	397.62	399.77	419.59
Wine imports							
Table wine	10.11	21.45	20.14	14.10	8.12	9.20	11.58
Sparkling wine	2.39	3.00	2.92	3.83	2.91	3.28	3.85
Fortified wine	0.11	0.14	0.09	0.69	0.11	0.20	0.19
Other	0.99	1.04	1.11	1.00	1.64	1.80	1.50
Total	13.59	25.62	24.26	19.61	12.77	14.48	17.11

a Covers wine produced by winemakers with sales of 250 000 litres or more in the previous financial year.
Sources: ABS, *Sales of Australian Wine and Brandy by Winemakers,* cat. no. 8504.0, Canberra.

143 Australian wine grape production and prices

	Unit	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Bearing area	'000 ha	78	95	110	131	143	144
Wine grape production							
Red wine	kt	350.0	435.5	538.0	794.7	910.7	779.3
White wine	kt	397.3	447.5	437.0	498.2	575.8	559.9
Multipurpose	kt	203.5	218.0	154.0	129.0	119.9	99.7
Total	kt	950.8	1 101.0	1 129.0	1 421.9	1 606.3	1 438.9
Exports							
Wine	ML	193.6	216.2	287.6	339.8	415.3	511.2
– value	A$m	812.7	991.2	1 352.3	1 630.0	2 101.1	2 398.6
Indicator price, Riverland							
Cabernet sauvignon	A$/t	1 183.0	1 150.0	868.0	753.0	803.0	695.0
Chardonnay	A$/t	952.0	774.0	661.0	701.0	753.0	805.0

Sources: ABS, *Australian Wine and Grape Industry,* cat. no. 1329.0, Canberra; ABS, *Sales of Australian Wine and Brandy by Winemakers,* cat. no. 8504.0, Canberra; Phylloxera and Grape Industry Board of South Australia, Adelaide; ABARE.

144 Retail price indexes for alcoholic beverages a

	Beer	Wine	Spirits	Consumer price index b
1980-81	46.3	56.8	47.5	49.4
1981-82	51.1	60.5	51.2	54.6
1982-83	58.2	65.8	55.6	60.9
1983-84	63.8	70.7	59.7	65.0
1984-85	69.0	75.6	63.7	67.8
1985-86	75.1	77.7	69.8	73.5
1986-87	82.8	83.9	77.1	80.4
1987-88	90.4	89.0	84.1	86.3
1988-89	91.9	96.0	91.4	92.6
1989-90	100.0	100.0	100.0	100.0
1990-91	107.0	100.9	110.6	105.3
1991-92	112.0	103.7	117.3	107.3
1992-93	115.2	105.6	119.3	108.4
1993-94	119.1	110.4	122.4	110.4
1994-95	122.7	116.0	126.4	113.9
1995-96	129.4	122.0	130.0	118.7
1996-97	132.9	124.3	134.6	120.3
1997-98	103.9	128.6	134.2	120.3
1998-99	135.9	130.3	136.6	121.8
1999-00	138.8	130.7	138.5	124.7
2000-01	151.2	137.8	147.3	132.2
2001-02	155.3	141.8	151.8	136.0
2002-03	161.6	143.2	157.2	135.3

a Base: 1989-90 = 100. **b** Weighted average for eight capital cities.
Source: ABS, *Consumer Price Index,* cat. no. 6401.0, Canberra.

145 Production and trade in Australian dried vine fruit

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Production									
Dried weight	kt	38	69	29	44	31	17	34	17
Fresh weight s	kt	167	308	131	119	133	90	146	76
Gross value	$m	75	125	42	66	82	57	99	48
Gross unit value a	$/t	2 000.0	1 804.0	1 440.0	1 495.0	2 641.3	3 423.1	2 921.9	2 847.0
Exports									
Volume	kt	15	25	12	14	5	6	6	10
Value	$m	34	52	30	37	13	17	14	20

a Weighted average based on realisations by Australian Dried Fruits Association packers (who pack over 90 per cent of Australian dried vine fruit) before deduction of packers' costs and charges. **s** ABARE estimate.
Source: Australian Dried Fruits Association, *Australian Dried Fruits Association News,* Mildura.

146 Production and exports of Australian citrus, by variety

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Navel oranges									
Production	kt	136	201	210	149	180	252	178	296
Exports **a**	kt	46.14	68.67	73.72	60.51	68.68	99.09	86.83	101.12
– value	$'000	46 119	70 030	76 991	74 204	86 728	111 775	110 403	119 164
Valencia oranges									
Production	kt	303	388	356	299	337	399	236	337
Exports **a**	kt	42.42	47.63	43.54	51.64	42.81	51.39	47.77	32.14
– value	$'000	32 997	36 457	30 659	44 292	35 361	35 313	40 820	25 761
Mandarins									
Production	kt	71	83	81	94	91	79	92	109
Exports **a**	kt	11.27	12.24	12.77	16.12	16.32	27.13	23.55	29.63
– value	$'000	17 284	19 462	20 948	22 318	25 584	37 137	40 012	49 206
Lemons and limes									
Production	kt	32	37	35	30	30	33	31	38
Exports **a**	kt	5.38	3.25	3.84	4.03	4.54	3.22	2.52	0.00
– value	$'000	7 236	4 119	5 727	5 554	6 974	4 249	3 766	0
Grapefruit									
Production	kt	17	18	16	15	13	14	14	12
Exports **a**	kt	0.24	0.14	0.20	0.27	0.15	0.22	0.31	0.34
– value	$'000	244	167	221	296	174	254	462	557

a Fresh and dried.
Sources: ABS; Australian Citrus Growers Incorporated; Australian Horticultural Corporation, *Australian Horticultural Handbook,* Sydney.

147 Utilisation of Australian citrus

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	kt	kt	kt	kt	kt	kt
Production	688	552	632	791	574	192
Imports	18	10	18	15	11	15
Domestic consumption	256	223	216	259	201	na
Exports	136	137	134	181	152	201
Processed	313	228	300	366	240	na

na Not available.
Source: Australian Citrus Growers Inc.

148 Summary of Australian statistics for meat [a]

	Cattle numbers [b]	Sheep numbers [b]	Total red meat production [c]	Total red meat exports [d]	Total domestic consumption	Consumption per person: Beef and veal [e]	Lamb and mutton	Pig meat	Poultry meat
	million	million	kt	kt	kt	kg	kg	kg	kg
1960	16.51	155.2	1 426	330	1 024	38.7	46.0	8.3	4.4
1961	17.33	152.7	1 361	461	987	42.4	44.5	9.4	4.4
1962	18.04	157.7	1 545	556	1 030	45.3	42.4	8.8	4.4
1963	18.55	158.6	1 647	597	1 069	47.5	40.6	8.5	4.4
1964	19.05	165.0	1 718	653	1 078	45.0	38.6	8.8	5.2
1965	18.81	170.6	1 717	622	1 080	42.0	37.6	9.5	6.2
1966	17.94	157.6	1 706	564	1 047	38.6	38.0	9.8	7.4
1967	18.27	164.2	1 645	608	1 059	40.7	38.5	10.1	8.4
1968	19.22	166.9	1 720	598	1 088	41.3	40.7	10.8	9.0
1969	20.62	174.6	1 850	785	1 136	38.6	37.5	11.3	10.5
1970	22.16	174.3	1 955	775	1 120	39.6	36.4	13.6	10.4
1971	24.37	171.7	2 148	924	1 263	40.3	43.7	13.8	11.1
1972	27.37	155.4	2 283	1 168	1 240	40.4	38.9	14.6	12.3
1973	29.10	134.1	2 269	1 154	1 163	43.6	27.2	16.0	13.0
1974	30.84	139.5	1 945	665	1 278	55.0	25.1	13.1	13.4
1975	32.80	145.8	2 364	1 001	1 415	62.0	23.3	11.7	13.4
1976	33.43	144.1	2 670	1 204	1 421	65.5	20.8	12.1	14.4
1977	31.54	131.3	2 889	1 420	1 440	69.4	19.1	13.0	15.6
1978	29.33	127.5	2 824	1 449	1 370	65.1	16.8	13.3	16.6
1979	27.12	130.5	2 513	1 334	1 229	50.2	20.9	13.5	18.7
1980	26.20	132.7	2 311	1 159	1 180	45.1	19.7	15.5	20.1
1981	25.17	131.4	2 172	939	1 232	48.0	19.1	15.3	20.2
1982	24.55	135.0	2 473	1 184	1 294	49.7	20.5	14.8	19.4
1983	22.48	130.5	2 131	948	1 218	42.6	20.7	15.9	20.2
1984	22.17	135.1	2 003	709	1 301	44.7	22.3	16.4	19.8
1985	22.78	145.7	2 162	na	na	40.3	24.6	16.7	21.6
1986	23.44	150.4	2 341	na	na	41.7	22.7	17.2	22.8
1987	23.67	153.2	2 452	na	na	40.2	23.1	17.3	23.2
1988	23.52	156.5	2 404	1 102	1 310	40.2	21.4	17.6	23.7
1989	24.04	164.9	2 465	1 087	1 387	42.2	22.5	17.8	24.0
1990	24.87	173.4	2 705	1 312	1 375	39.6	22.6	18.4	24.8
1991	25.38	166.6	2 739	1 381	1 385	39.1	22.6	18.5	25.2
1992	25.33	151.0	2 827	1 499	1 339	36.9	20.3	19.5	25.2
1993	25.18	140.5	2 805	1 481	1 323	36.5	19.2	19.1	26.6
1994	25.76	132.6	2 863	1 479	1 426	38.8	21.0	20.1	27.4
1995	25.73	120.9	2 656	1 386	1 285	34.5	16.7	20.0	27.0
1996	26.38	121.1	2 634	1 304	1 353	38.9	16.5	18.6	27.7
1997	26.69	120.2	2 883	1 497	1 414	40.7	16.8	18.8	29.1
1998	26.85	117.5	2 973	1 606	1 390	38.0	16.8	19.4	30.9
1999	26.58	115.5	2 982	1 637	1 388	38.1	15.9	19.3	31.1
2000	27.59	118.6	3 103	1 759	1 417	36.4	17.7	19.9	33.1
2001	27.72	110.9	3 109	1 849	1 325	34.2	15.0	18.8	32.4
2002	27.87	106.2	3 132	1 803	1 424	37.1	14.6	20.7	36.0

a Data up to 1970 are on a financial year (July–June) basis (1970 = 1970-71). **b** Before 1987, includes livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of $2 500 or more. From 1987, the EVAO was raised to $5 000. **c** Beef and veal, mutton and lamb and pig meat production, expressed in carcass weight. **d** Before 1970, the exportable surplus of meat was derived by subtracting consumption from production, expressed in carcass weight. **e** Includes canned beef and veal before 1976. **na** Not available.

Sources: ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra; ABS, *Livestock Products, Australia,* cat. no. 7215.0, Canberra; Agriculture, Fisheries and Forestry – Australia, *Export Statistics,* Canberra; ABARE.

149 Australian saleyard prices of livestock [a]

	Yearling	Ox	Cow	Weighted average	Lamb	Mutton	Pig
	c/kg	c/kg	c/kg	c/kg	c/kg	c/kg	c/kg
1976	47.0	48.3	32.2	40.1	61.2	18.9	107.4
1977	50.4	49.7	42.2	46.1	73.2	38.4	106.5
1978	70.3	70.4	61.2	65.9	87.8	46.9	114.9
1979	152.9	148.7	136.2	144.2	112.4	69.7	145.8
1980	150.8	149.0	131.8	141.4	130.4	72.1	142.2
1981	140.3	126.1	111.6	123.7	128.8	69.2	170.9
1982	126.9	119.3	101.2	113.2	106.3	45.8	193.7
1983	166.8	157.5	136.9	150.5	108.6	45.3	162.4
1984	194.5	164.1	149.4	166.8	113.1	48.5	171.1
1985	193.0	173.8	155.6	171.3	89.1	35.8	176.9
1986	197.5	183.2	155.2	174.3	116.1	34.8	182.2
1987	207.6	196.3	167.3	186.7	128.5	43.0	186.3
1988	232.4	210.2	179.9	203.6	132.3	61.7	201.0
1989	245.8	213.5	185.1	212.6	137.7	45.4	222.1
1990	247.4	219.2	183.3	213.4	137.0	16.5	201.4
1991	229.5	219.6	176.2	202.1	120.6	11.2	214.3
1992	226.7	225.4	174.2	200.3	131.4	28.9	196.1
1993	244.9	250.1	184.8	218.6	185.1	33.8	213.0
1994	257.8	243.9	187.0	222.6	148.5	34.5	202.3
1995	238.3	216.9	169.2	201.8	189.1	68.4	218.1
1996	185.4	163.2	129.9	155.3	233.8	67.7	247.4
1997	190.0	184.7	135.3	162.6	200.0	75.2	218.6
1998	208.2	203.3	158.3	181.0	178.4	79.3	179.9
1999	233.1	215.4	183.5	204.3	204.9	60.6	216.0
2000	261.8	246.1	219.7	237.1	173.5	71.8	249.1
2001	331.0	315.5	289.4	307.2	265.7	146.0	276.2
2002	289.3	275.4	235.3	259.1	336.4	169.9	260.3
2002							
January	329.9	302.6	276.1	296.6	311.5	159.8	308.7
February	320.4	299.5	277.4	294.3	371.9	196.9	293.1
March	328.9	312.8	287.2	304.5	362.7	201.8	279.0
April	320.3	291.8	262.5	284.7	337.2	205.0	260.2
May	294.8	265.5	225.4	252.8	322.4	211.8	238.2
June	281.1	247.4	205.0	233.5	329.3	214.8	224.4
July	273.2	248.7	201.5	231.6	344.7	181.1	232.7
August	267.9	259.8	220.4	242.5	351.3	156.6	245.1
September	279.2	280.1	240.7	260.5	357.2	152.5	250.5
October	263.9	267.4	212.0	238.9	325.6	120.5	259.0
November	251.9	260.1	202.3	230.5	289.0	105.9	266.0
December	260.6	268.4	212.5	239.0	334.1	132.6	266.3
2003							
January	272.5	269.5	208.5	239.3	347.8	166.6	251.9
February	284.9	299.2	240.3	266.1	356.5	172.5	243.0
March	338.7	338.3	273.6	306.1	392.0	213.2	243.3
April	336.4	328.9	253.8	290.7	400.5	200.3	231.3
May	321.7	304.7	224.9	267.2	403.5	195.9	223.7
June	315.5	292.6	224.7	260.1	427.6	210.2	212.8

a Prices are on an estimated dressed weight basis and, with the exception of 'yearling', are for export quality stock: ox, 301–350 kilograms; cow, 201–260 kilograms; before January 1996, lamb,16–18 kilograms, score 3; from January 1996, lamb, 18–20 kilograms, score 3; mutton, 18–24 kilograms, score 3; and pig, 60–73 kilograms. Quotation is the monthly average of fat stock prices in each major state market, weighted by the monthly production of each meat in the respective states.

Sources: Meat and Livestock Australia, *Meat the Market, Sydney;* National Livestock Reporting Service; ABARE.

150 Australian retail prices of meat

	Beef a c/kg	Lamb a c/kg	Pork a c/kg	Chicken b c/kg
1980	545.7	370.7	384.0	204.5
1981	542.0	368.0	439.3	235.0
1982	545.8	366.5	490.9	248.0
1983	619.3	384.5	505.9	258.3
1984	653.7	398.4	507.7	254.6
1985	682.6	396.1	537.9	269.5
1986	708.3	433.1	556.9	275.2
1987	747.0	481.6	586.6	288.6
1988	814.4	519.6	621.9	285.7
1989	908.9	554.4	679.9	311.3
1990	961.6	582.6	700.2	310.1
1991	974.0	570.7	710.0	302.6
1992	963.7	551.8	698.7	298.2
1993	963.7	620.8	716.7	295.6
1994	997.4	611.0	719.6	301.0
1995	1 008.0	655.0	732.2	303.8
1996	991.0	708.8	771.7	333.5
1997	978.0	704.7	798.1	365.9
1998	982.3	696.1	773.7	344.3
1999	1 010.8	723.3	807.7	356.6
2000	1 061.0	724.3	850.1	355.7
2001	1 226.2	857.8	945.6	363.6
2002	1 320.7	982.8	1 024.8	384.7
1999				
March	984.2	709.5	778.1	357.3
June	1 016.2	742.2	788.5	354.1
September	1 018.1	725.0	807.3	355.2
December	1 024.7	716.4	856.7	359.9
2000				
March	1 048.3	721.0	869.9	356.4
June	1 074.7	737.0	834.4	365.4
September	1 056.7	723.8	848.4	358.6
December	1 064.3	715.2	847.7	342.3
2001				
March	1 114.2	765.1	889.4	370.7
June	1 214.2	847.5	920.1	342.4
September	1 253.8	897.4	962.5	364.1
December	1 322.6	921.4	1 010.5	377.2
2002				
March	1 328.2	962.1	1 047.4	383.8
June	1 339.5	1 007.9	1 021.7	395.1
September	1 298.1	979.8	1 016.1	383.1
December	1 316.9	981.5	1 014.0	376.8
2003				
March	1 325.4	981.4	1 020.3	383.8
June	1 360.3	1 012.2	1 016.8	396.5

a Price estimates are formed by indexing forward from actual average prices of beef, lamb, mutton, pork and chicken during December quarter 1973, based on meat subgroup indexes of the consumer price index. These indexes are based on average retail prices of selected cuts (weighted by expenditure) in state capitals. **b** Retail frozen.

Source: ABS, *Consumer Price Index,* cat. no. 6401.0, Canberra; ABS, *Average Retail Prices of Selected Items,* cat. no. 6403.0, Canberra.

151 Prices for Australian meat on principal overseas markets

	Beef				Mutton	Lamb	
	United States		Japan a		Japan a	United Arab Emirates a	United States a
	Boneless frozen b	Boneless frozen b	Boneless frozen	Boneless chilled	Boneless chilled c	Carcasses frozen	Bone-in frozen
	USc/kg cif	Ac/kg fas	Ac/kg fob	Ac/kg fob	Ac/kg fob	Ac/kg fob	Ac/kg fob
1980	263.0	200.0	na	na	na	166.0	na
1981	245.0	175.0	217.0	274.0	181.0	168.0	na
1982	230.0	190.0	230.0	285.0	174.0	164.0	na
1983	241.0	227.0	268.0	363.0	152.0	155.0	na
1984	226.0	222.0	273.0	352.0	170.0	167.0	na
1985	212.0	260.0	305.0	397.0	172.0	160.0	na
1986	201.0	262.0	308.0	439.0	159.0	166.0	na
1987	229.0	283.0	341.0	464.0	186.0	184.0	na
1988	245.0	270.0	336.9	477.2	172.8	188.9	238.4
1989	270.7	295.0	339.4	527.3	189.7	186.3	231.2
1990	266.5	301.0	366.9	523.5	241.2	176.9	223.2
1991	265.5	304.4	344.1	571.5	190.3	199.2	229.1
1992	247.5	301.4	335.6	567.6	246.4	239.2	244.8
1993	265.2	354.9	318.7	585.2	283.8	213.3	299.8
1994	239.3	297.7	308.7	576.3	270.8	192.5	259.6
1995	194.5	228.5	269.5	582.1	310.0	213.1	277.0
1996	173.8	188.7	228.3	473.3	298.2	217.3	327.6
1997	188.4	218.9	236.7	486.8	263.4	234.4	351.4
1998	175.5	244.3	253.9	523.9	324.9	249.2	398.8
1999	189.9	259.7	270.9	540.7	344.5	222.8	374.2
2000	195.4	308.8	311.9	566.5	559.7	272.9	380.5
2001	214.4	384.0	374.6	650.3	717.8	290.6	472.9
2002	218.6	314.2	339.7	636.5	782.5	320.4	548.6
2001							
March	199.7	350.9	343.0	627.8	827.7	244.9	360.4
June	203.0	362.1	363.6	643.6	840.9	308.6	435.5
September	227.7	410.0	384.4	657.3	641.7	293.6	586.5
December	227.0	410.4	407.4	672.3	560.9	315.4	509.2
2002							
March	233.1	416.9	378.2	668.3	848.0	338.8	632.4
June	221.8	368.5	339.0	625.3	765.8	333.6	538.0
September	217.4	364.4	314.4	608.7	942.4	310.3	560.7
December	202.3	326.3	327.1	643.8	574.0	298.9	463.1
2003							
March	203.9	309.6	310.8	647.2	833.5	297.5	434.0
June	185.5	256.7	307.6	640.4	735.7	311.5	493.4

a Average unit value of exports. **b** Beef that is 90 per cent chemical lean. **c** Fresh, chilled. Before and including 1987, figures are for the financial year ending June of the year quoted, from 1988 figures are for the calendar year ending December. **na** Not available.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Meat and Livestock Australia, *Meat the Market,* Sydney.

152 Australian exports of meat, by product a

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Quantity									
Beef and veal **b**	kt	738	730	821	883	852	959	902	902
Mutton **b**	kt	141	138	163	155	171	180	158	168
Lamb **b**	kt	52	63	71	85	99	115	109	116
Pig meat **b**	kt	6	7	12	16	39	44	59	63
Poultry meat **b**	kt	10	12	14	19	17	21	21	23
Canned meat	kt	10	8	11	12	10	3	6	4
Live sheep **c**	’000	5 880	5 237	4 961	4 959	4 859	5 936	6 443	5 843
Live cattle **c**	’000	616	864	692	713	846	846	797	969
Value d									
Beef and veal **e**	$m	2 384	2 071	2 610	2 863	3 119	4 007	4 189	3 756
Mutton **e**	$m	299	288	369	309	326	416	490	402
Lamb **e**	$m	199	240	275	305	369	508	626	554
Pig meat	$m	30	33	52	71	159	186	265	256
Poultry meat	$m	13	14	18	23	21	26	26	22
Canned meat **e**	$m	39	34	47	53	50	16	39	17
Live sheep **c**	$m	227	190	193	182	180	258	392	408
Live cattle **c**	$m	344	428	333	343	433	482	526	562
Total	$m	3 535	3 298	3 896	4 148	4 656	5 898	6 553	5 978
Unit value d									
Beef and veal	$/kg	3.23	2.83	3.18	3.24	3.66	4.18	4.65	4.17
Mutton	$/kg	2.12	2.09	2.27	1.99	1.91	2.31	3.09	2.91
Lamb	$/kg	3.68	3.87	3.87	3.77	3.78	4.38	5.29	5.43
Pig meat	$/kg	5.35	4.97	4.21	4.31	4.05	4.22	4.50	4.08
Poultry meat	$/kg	1.35	1.25	1.31	1.21	1.22	1.23	1.23	0.95
Live sheep	$/head	38.59	36.27	38.96	36.64	37.12	43.41	60.79	69.87
Live cattle	$/head	567.31	496.43	483.64	476.89	514.68	575.88	664.48	579.46

a Excludes re-exports and ships’ stores. **b** Fresh, chilled and frozen; shipped weight. **c** Excludes animals for breeding. **d** fob. **e** Based on quantity data from AFFA and export price data from the ABS.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Agriculture, Fisheries and Forestry – Australia, *Export Statistics,* Canberra; ABARE.

153 Summary of world statistics for livestock

	Livestock numbers		Production				EU stocks
	Cattle	Sheep	Beef and veal	Mutton and lamb	Pig meat	Poultry meat	Beef and veal
	million	million	Mt	Mt	Mt	Mt	kt
1960	na	na	na	na	na	na	na
1961	941	994	27.7	4.9	24.7	8.9	na
1962	957	997	29.2	5.0	26.1	9.2	na
1963	970	999	30.9	5.0	28.0	9.7	na
1964	988	1 013	31.3	5.0	28.7	10.1	na
1965	1 008	1 030	31.9	5.0	31.3	11.0	na
1966	1 028	1 040	33.6	5.1	32.4	11.7	na
1967	1 050	1 058	35.3	5.3	33.9	12.4	na
1968	1 063	1 072	37.0	5.4	34.4	12.8	na
1969	1 070	1 079	37.9	5.4	34.1	13.7	na
1970	1 082	1 061	38.4	5.5	35.8	15.1	na
1971	1 097	1 064	38.0	5.6	39.4	15.7	na
1972	1 120	1 036	38.5	5.7	40.6	16.8	na
1973	1 139	1 015	38.8	5.4	40.4	17.6	na
1974	1 166	1 027	41.8	5.1	42.4	18.2	na
1975	1 187	1 046	43.7	5.3	41.6	18.6	na
1976	1 199	1 046	46.1	5.3	40.7	20.0	na
1977	1 204	1 036	46.4	5.3	42.9	21.2	na
1978	1 206	1 049	46.9	5.4	45.6	22.7	na
1979	1 210	1 067	45.7	5.4	50.1	24.4	na
1980	1 216	1 096	45.5	5.6	52.7	25.9	na
1981	1 228	1 110	45.9	5.9	53.0	27.5	na
1982	1 243	1 129	45.8	5.9	53.1	28.3	203.3
1983	1 248	1 124	47.0	6.1	55.4	29.1	372.5
1984	1 254	1 119	48.4	6.1	57.4	29.7	604.3
1985	1 259	1 119	49.2	6.2	59.9	31.1	644.1
1986	1 266	1 115	50.9	6.2	61.4	33.2	459.7
1987	1 266	1 136	51.0	6.4	63.5	35.7	686.2
1988	1 271	1 150	51.4	6.6	67.0	37.5	379.0
1989	1 287	1 178	51.7	6.8	68.0	38.7	113.0
1990	1 296	1 189	52.9	7.0	69.8	40.9	512.0
1991	1 297	1 164	53.6	7.1	70.8	42.9	708.0
1992	1 299	1 135	52.4	7.1	72.9	45.1	872.0
1993	1 298	1 107	51.9	7.2	75.3	47.7	334.0
1994	1 311	1 093	47.3	6.6	77.5	51.5	40.0
1995	1 332	1 091	54.1	7.2	78.5	54.4	8.0
1996	1 338	1 073	54.6	7.1	78.4	56.0	420.0
1997	1 333	1 057	55.3	7.2	82.1	59.6	615.0
1998	1 331	1 053	55.2	7.3	87.6	62.2	513.0
1999	1 335	1 044	56.3	7.3	89.9	65.4	25.0
2000	1 345	1 048	56.9	7.6	89.5	68.7	2.0
2001	1 360	1 037	56.2	7.6	91.3	71.0	295.0
2002	1 367	1 034	57.9	7.6	94.2	73.9	275.0

na Not available.

Sources: FAO, *FAOSTAT Agriculture Database,* Rome; UK Meat and Livestock Commission, *International Meat Market Review,* Economics Information Services, London.

154 Summary of US meat statistics

	Unit	1995	1996	1997	1998	1999	2000	2001	2002
Cattle numbers a	million	102.8	103.5	101.7	99.7	99.1	98.2	97.3	96.7
Beef and veal b									
Production c	kt	11 585	11 749	11 714	11 804	12 124	12 298	11 983	12 427
Imports	kt	954	940	1 063	1 199	1 303	1 375	1 435	1 460
Exports and shipments	kt	826	851	969	985	1 094	1 119	1 029	1 110
Total consumption	kt	11 726	11 903	11 767	12 052	12 325	12 503	12 351	12 739
Consumption per person	kg	44.1	44.9	43.3	44.5	45.2	44.4	43.5	44.1
Pork b									
Production c	kt	8 097	7 765	7 835	8 623	8 758	8 596	8 691	8 929
Imports	kt	301	280	287	320	375	439	431	486
Exports and shipments	kt	350	431	474	558	580	584	708	732
Total consumption	kt	8 059	7 628	7 629	8 305	8 596	8 457	8 388	8 684
Consumption per person	kg	30.7	28.7	28.1	30.7	31.8	30.1	29.5	30.1
Poultry d									
Production c	kt	13 560	14 300	14 721	14 891	15 739	16 122	16 523	17 024
Exports and shipments	kt	1 924	2 204	2 273	2 180	2 252	2 433	2 742	2 376
Total consumption	kt	11 582	12 035	12 427	12 716	13 474	13 697	13 826	14 589
Consumption per person	kg	46.1	45.7	46.2	46.7	49.1	49.3	47.5	50.6

a At 1 January. **b** Carcass weight equivalent. **c** Refers to commercial production, which excludes farm slaughter. **d** Retail weight equivalent.
Sources: US Department of Agriculture, *Livestock and Poultry: World Markets and Trade,* Foreign Agricultural Service Circular, Washington DC.

155 Summary of New Zealand meat statistics a

	Unit	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02
Livestock numbers b									
Cattle	million	8.9	9.3	9.0	9.1	8.9	9.0	9.0	9.3
– dairy cattle	million	3.8	4.1	4.2	4.3	4.4	4.3	4.4	4.5
– beef cattle	million	5.0	5.2	4.9	4.8	4.4	4.6	4.7	4.8
Sheep	million	49.5	48.8	47.4	46.8	46.0	45.7	45.4	44.0
Production c									
Beef and veal	kt	630.0	631.0	664.0	620.0	558.0	580.0	609.0	589.0
Lamb	kt	390.0	375.0	419.0	416.5	401.0	427.8	433.5	413.8
Mutton	kt	144.0	134.0	124.0	128.6	116.6	104.9	128.7	107.2
Exports of meat d									
Beef and veal	kt	341.4	335.6	346.0	353.8	300.0	310.9	331.7	322.8
Lamb	kt	282.6	298.0	290.0	282.0	271.1	296.5	301.9	286.5
Mutton	kt	64.2	72.4	64.5	59.7	54.4	50.4	58.8	52.0
Consumption per person ce									
Beef and veal	kg	35.0	38.0	40.6	40.3	31.3	31.0	27.1	27.9
Lamb	kg	10.5	10.0	10.2	10.0	7.7	10.2	9.7	10.7
Mutton	kg	12.7	10.6	7.8	8.0	6.6	7.5	6.9	5.3

a October–September year. **b** At 30 June of first year shown. **c** Carcass weight. **d** Shipped weight. **e** Excludes meat withdrawn from export stocks for local consumption.
Sources: Meat New Zealand, *Annual Report,* Wellington; Meat and Wool Economic Service of New Zealand, *Annual Review of the New Zealand Sheep and Beef Industry,* Wellington.

156 Gross value of Australian livestock slaughterings

	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	$m	$m	$m	$m	$m	$m
Livestock slaughterings						
Cattle and calves **a**	3 805.1	4 133.9	4 615.5	5 948.8	6 637.0	5 713.2
Cattle exported live **b**	333.1	342.7	432.6	481.8	525.5	561.9
Sheep **c**	298.5	226.6	204.6	367.6	545.2	486.9
Lambs **cd**	574.4	645.2	668.6	776.5	1 180.7	1 289.7
Sheep exported live **b**	193.3	181.7	180.3	257.7	391.7	408.2
Pigs	709.8	689.7	791.7	822.3	967.7	895.9
Poultry	1 053.6	1 018.5	1 030.8	1 060.2	1 174.9	1 205.4
Total	6 967.8	7 238.3	7 924.1	9 714.9	11 422.7	10 561.2

a Includes dairy cattle slaughtered. **b** Excludes animals for breeding. **c** Excludes skin values. **d** New lamb saleyard indicator weight introduced in July 1995. New weight indicator 18–20 kilograms dressed weight used from 1995-96; before 1995-96, 16–18 kilograms dressed weight.
Note: The gross value of production is the value placed on recorded production at the wholesale prices realised in the market place. The point of measurement can vary between commodities. Generally the market place is the metropolitan market in each state and territory. However, where commodities are consumed locally or where they become raw material for a secondary industry, these points are presumed to be the market place. Prices used in these calculations do not include the GST.
Sources: ABS; ABARE.

157 Australian supply and use of beef and veal

	Slaughterings a	Average weight b	Production b	Exports bc	Consumption bd
	'000	kg	kt	kt	kt
1960	4 403	168	740	na	na
1961	4 700	139	652	na	na
1962	5 672	145	820	na	na
1963	6 136	154	943	na	na
1964	6 554	153	1 005	na	na
1965	6 564	154	1 013	na	na
1966	6 231	152	946	na	na
1967	5 597	155	869	na	na
1968	5 508	165	907	na	na
1969	5 788	164	952	na	na
1970	5 727	176	1 011	510	na
1971	6 093	173	1 054	574	na
1972	7 491	159	1 192	780	na
1973	8 443	172	1 453	920	na
1974	6 988	184	1 282	530	na
1975	9 596	171	1 638	777	na
1976	11 434	166	1 899	905	917
1977	12 791	169	2 158	1 138	986
1978	12 345	173	2 131	1 199	937
1979	9 839	180	1 770	1 096	728
1980	8 833	174	1 534	883	663
1981	8 099	176	1 422	711	716
1982	9 460	177	1 678	942	754
1983	8 118	174	1 414	767	655
1984	6 824	186	1 272	581	695
1985	7 151	187	1 338	690	637
1986	7 883	188	1 481	809	668
1987	8 048	194	1 564	908	654
1988	7 723	201	1 551	890	665
1989	7 483	210	1 573	872	710
1990	8 253	211	1 738	1 064	676
1991	8 427	208	1 749	1 080	675
1992	8 731	210	1 834	1 191	645
1993	8 343	217	1 814	1 169	645
1994	8 366	221	1 845	1 164	692
1995	7 906	217	1 719	1 106	622
1996	7 968	218	1 734	1 028	711
1997	9 148	212	1 939	1 189	754
1998	9 308	213	1 987	1 278	711
1999	8 756	227	1 991	1 272	721
2000	8 734	232	2 025	1 329	697
2001	8 749	237	2 072	1 407	667
2002	9 053	231	2 090	1 362	730

a Includes calves. **b** Carcass weight. **c** Includes canned and miscellaneous product. **d** Apparent consumption. **na** Not available.
Sources: ABS, *Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra; ABS, *Livestock Products, Australia,* cat. no. 7215.0, Canberra; Agriculture, Fisheries and Forestry – Australia, *Export Statistics,* Canberra; ABARE.

158 Australian cattle numbers, by state and territory [a]

	New South Wales '000	Victoria '000	Queensland '000	South Australia '000	Western Australia '000	Tasmania '000	Northern Territory '000	Australian Capital Territory '000	Australia '000
Adult female beef cattle									
1993	3 063	1 237	4 964	544	880	230	809	7	11 733
1994	3 243	1 325	4 884	576	951	245	846	7	12 076
1995	2 910	1 229	4 522	529	946	224	847	7	11 213
1996	2 963	1 287	4 775	534	934	233	848	7	11 667
1997	3 039	1 286	4 958	528	928	242	892	7	11 879
1998	2 863	1 119	5 145	540	964	232	915	5	11 783
1999	2 859	1 054	5 071	514	948	224	946	5	11 621
2000	2 801	1 134	5 667	480	1 086	194	913	6	12 282
2001	2 849	1 138	5 304	516	1 013	201	981	6	12 007
2002	2 852	1 158	5 762	594	1 013	199	1 069	6	12 652
2003	na	na	na	na	na	na	na	na	na
Total beef cattle and calves									
1993	5 768	2 439	9 987	1 011	1 596	488	1 349	12	22 650
1994	6 127	2 604	9 656	1 056	1 683	507	1 434	13	23 080
1995	5 867	2 659	9 689	1 064	1 773	507	1 419	13	22 991
1996	6 019	2 714	9 928	1 069	1 803	521	1 502	13	23 569
1997	6 118	2 627	10 130	1 024	1 787	515	1 609	13	23 736
1998	5 922	2 306	10 562	1 051	1 848	510	1 566	10	23 776
1999	5 846	2 180	10 444	1 006	1 817	491	1 566	9	23 358
2000	5 531	2 371	11 503	995	2 059	411	1 570	10	24 448
2001	5 786	2 435	11 088	1 050	2 001	426	1 707	11	24 504
2002	5 593	2 463	11 284	1 201	1 980	432	1 777	10	24 739
2003	na	na	na	na	na	na	na	na	23 474
Total dairy cattle and calves									
1993	343	1 484	282	143	117	161	2	0	2 532
1994	364	1 585	286	147	123	172	1	0	2 678
1995	370	1 621	285	152	126	185	1	0	2 740
1996	371	1 682	286	150	121	197	1	0	2 808
1997	393	1 784	292	157	122	211	0	0	2 958
1998	429	1 836	305	162	124	218	1	0	3 076
1999	445	1 945	304	177	114	233	1	0	3 220
2000	440	1 893	305	189	106	206	1	0	3 140
2001	428	1 971	288	192	126	210	0	0	3 217
2002	428	1 949	260	180	124	187	0	0	3 131
2003	na	na	na	na	na	na	na	na	3 026
Total cattle and calves									
1993	6 111	3 923	10 269	1 154	1 713	649	1 351	12	25 182
1994	6 491	4 189	9 942	1 202	1 806	679	1 435	13	25 758
1995	6 236	4 280	9 974	1 216	1 899	793	1 421	13	25 731
1996	6 390	4 396	10 214	1 219	1 924	718	1 503	14	26 377
1997	6 511	4 411	10 415	1 181	1 909	725	1 530	13	26 695
1998	6 351	4 142	10 867	1 214	1 973	728	1 567	10	26 851
1999	6 291	4 125	10 748	1 183	1 931	724	1 567	10	26 578
2000	5 970	4 264	11 808	1 184	2 165	617	1 571	10	27 588
2001	6 215	4 405	11 376	1 242	2 128	636	1 707	11	27 722
2002	6 021	4 412	11 544	1 381	2 104	619	1 777	10	27 870
2003	na	na	na	na	na	na	na	na	26 500

a At 31 March, an establishment with an estimated value of agricultural operations (EVAO) of $5 000 or more. From 2000, at 30 June. From 1991, house cows are excluded. **na** Not available.

Sources: ABS, *Principal Agricultural Commodities, Australia, Preliminary,* cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra; ABARE.

159 Australian exports of beef, veal and live cattle, by destination [a]

	Unit	1995	1996	1997	1998	1999	2000	2001	2002
Beef and veal									
Americas									
Canada	kt	33.3	28.7	35.0	38.6	43.3	41.5	50.9	82.9
United States	kt	210.7	179.9	220.9	285.2	291.1	352.3	397.7	385.9
Asia									
Chinese Taipei	kt	31.7	23.8	35.0	33.7	34.7	28.6	29.1	34.4
Hong Kong, China	kt	4.1	3.8	3.4	6.2	3.2	3.6	3.1	2.9
Indonesia	kt	10.4	16.6	24.3	1.7	11.6	13.1	9.6	14.6
Japan	kt	320.3	280.5	311.7	320.9	313.3	325.7	319.1	237.0
Korea, Rep. of	kt	63.6	57.6	60.9	33.5	77.9	73.3	56.8	80.2
Malaysia–Singapore	kt	10.9	11.7	12.7	11.0	10.6	9.4	8.8	11.3
Philippines	kt	14.9	20.5	26.9	20.2	20.4	14.3	19.7	12.9
Europe									
European Union [b]	kt	7.8	11.9	10.8	11.0	8.9	5.6	6.5	6.5
CIS	kt	3.5	3.2	9.6	24.5	8.4	1.4	5.3	1.4
Eastern Europe	kt	7.1	4.7	8.9	18.7	2.5	2.1	0.4	3.0
Middle East									
Kuwait	kt	0.3	0.9	0.7	1.4	0.5	0.1	1.1	0.4
Saudi Arabia	kt	0.3	2.3	1.1	2.6	1.0	0.5	5.0	2.3
United Arab Emirates	kt	0.1	1.5	0.9	1.6	0.6	0.9	2.0	1.7
Oceania									
New Zealand	kt	3.9	3.7	1.8	1.8	1.6	3.1	1.4	6.8
Pacific Isles	kt	2.8	3.1	3.1	3.1	2.1	2.3	2.5	2.7
Papua New Guinea	kt	8.9	12.8	10.8	7.0	8.2	7.1	4.8	4.3
Total beef and veal	kt	748.9	694.8	801.7	855.3	868.0	901.6	946.6	920.4
Live cattle									
Slaughter cattle									
Asia									
Indonesia	’000	217.8	386.5	421.7	41.2	159.5	296.7	287.7	425.6
Japan	’000	9.8	14.9	19.4	17.0	12.4	14.4	17.4	14.0
Malaysia	’000	37.6	44.0	57.5	42.7	65.2	56.5	77.5	90.9
Philippines	’000	186.2	200.0	253.8	215.9	266.1	223.8	97.4	113.1
Middle East									
Egypt	’000	15.5	52.2	37.5	119.6	240.5	207.6	203.2	143.9
Israel	’000	0.0	1.0	0.0	8.7	8.7	15.8	32.6	47.8
Jordan	’000	1.1	4.3	2.5	18.1	37.6	40.7	13.2	4.4
Libya	’000	0.0	10.0	105.3	120.7	23.1	0.0	0.0	0.0
Saudi Arabia	’000	0.0	0.0	1.1	0.0	0.0	0.0	20.8	54.3
Total	’000	478.7	724.1	910.5	597.0	833.7	887.0	797.9	951.1
Breeding cattle	’000	38.2	17.0	35.2	24.1	10.6	9.0	24.6	16.8
Total live cattle	’000	517.0	741.1	945.7	621.1	844.2	896.0	822.5	967.9

a Fresh, chilled or frozen, in shipped weight. **b** Regarded as twelve countries until 1 January 1995, then fifteen countries.
Source: Agriculture, Fisheries and Forestry - Australia, *Export Statistics, Livestock Exports,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

160 Value of Australian exports of beef and veal, and live cattle (fob)

	1995	1996	1997	1998	1999	2000	2001	2002
	$m	$m	$m	$m	$m	$m	$m	$m
Beef and veal								
Americas								
Canada	82.1	58.9	80.6	104.6	128.0	148.1	204.4	320.2
United States	492.9	354.0	500.4	735.2	805.1	1 172.8	1 699.7	1 593.6
Asia								
Chinese Taipei	115.0	64.2	112.9	108.2	123.2	116.7	132.6	152.3
Hong Kong, China	16.8	14.2	13.5	23.6	16.6	18.2	17.8	17.1
Indonesia	30.8	40.5	59.4	6.1	33.3	40.8	37.2	46.1
Japan	1 545.2	1 086.3	1 207.9	1 312.4	1 369.7	1 537.3	1 728.2	1 237.7
Korea, Rep. of	168.5	134.4	144.7	87.6	201.9	221.7	228.9	320.4
Malaysia–Singapore	64.9	62.0	71.7	66.7	68.7	70.6	78.7	91.4
Philippines	30.0	36.5	51.6	40.4	38.5	34.3	55.8	36.1
Europe								
European Union **a**	44.9	57.9	54.7	58.6	61.3	37.4	48.4	53.5
CIS	7.0	6.5	20.9	58.2	18.1	3.8	14.4	2.9
Eastern Europe	14.2	8.9	19.7	43.6	6.9	6.3	1.2	9.1
Middle East								
Kuwait	1.2	2.4	1.9	3.5	1.6	0.4	4.7	1.6
Saudi Arabia	0.8	6.0	3.0	7.4	3.3	2.1	23.0	11.6
United Arab Emirates	0.7	6.3	3.5	5.3	2.7	4.3	11.9	10.9
Oceania								
New Zealand	8.2	7.4	3.5	4.5	5.0	11.1	6.3	25.6
Pacific Isles	4.9	5.4	6.0	6.2	4.1	5.2	7.2	7.4
Papua New Guinea	14.6	20.6	19.0	12.3	14.1	14.1	11.5	9.8
Total beef and veal	2 645.7	2 017.8	2 412.1	2 768.3	2 963.3	3 464.1	4 357.3	4 002.6
Live cattle **b**								
Asia								
Indonesia	134.2	210.8	209.4	18.0	68.5	143.1	171.8	254.0
Japan	6.4	9.5	14.9	11.6	7.8	9.8	12.7	11.2
Malaysia	20.2	20.7	26.3	15.3	29.9	25.7	38.5	45.1
Philippines	87.2	93.4	117.9	87.7	126.7	117.8	58.4	65.8
Middle East								
Egypt	10.0	27.7	19.3	61.6	131.2	129.7	153.8	94.9
Israel	0.0	0.5	0.0	5.7	3.8	9.0	15.4	23.9
Jordan	0.8	2.4	1.3	7.7	15.7	18.1	6.7	2.4
Libya	0.0	4.6	57.7	64.9	13.5	0.0	0.0	0.0
Saudi Arabia	0.0	0.0	0.5	0.0	0.0	0.0	14.9	32.5
Total live cattle	266.2	375.9	453.8	280.3	409.2	471.7	514.4	580.8

a Regarded as twelve countries until 1 January 1995, then fifteen countries. **b** Excludes animals for breeding.

Source: Agriculture, Fisheries and Forestry - Australia, *Export Statistics, Livestock Exports,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

161 World cattle numbers, by country a

	1995 million	1996 million	1997 million	1998 million	1999 million	2000 million	2001 million	2002 million
Argentina	54.2	53.6	51.7	49.2	49.4	49.8	50.2	50.4
Australia **b**	25.7	26.4	26.7	26.9	26.6	27.6	27.7	27.9
Brazil	149.3	149.2	146.1	144.7	143.9	146.3	150.4	156.3
Canada	12.7	13.4	13.4	13.4	13.2	13.2	13.6	13.8
China **c**	123.3	104.0	110.3	121.8	124.4	127.0	128.7	128.2
European Union **d**	84.8	84.9	84.5	83.3	82.9	82.2	81.3	80.2
France	20.5	20.7	20.6	20.0	20.3	20.5	20.5	20.5
Germany	16.0	15.9	15.8	15.2	14.9	14.7	14.6	14.0
Italy	7.3	7.4	7.4	7.2	7.1	7.2	7.2	7.2
United Kingdom	12.0	11.7	11.4	11.5	11.4	11.1	10.6	10.4
Japan	4.9	4.8	4.8	4.7	4.7	4.6	4.5	4.6
New Zealand	8.9	9.3	9.0	9.1	8.9	9.0	9.0	9.3
Russian Federation	43.3	39.7	35.8	31.5	28.6	27.0	25.5	24.5
South Africa	12.6	13.3	14.1	13.6	13.5	13.2	13.5	13.5
Ukraine	19.6	17.6	15.3	12.6	11.7	10.6	9.4	9.4
United States	102.8	103.5	101.7	99.7	99.1	98.2	97.3	96.7
Uruguay	10.5	10.5	10.7	10.6	10.4	10.6	10.4	11.7
World	1 332.5	1 338.4	1 332.5	1 331.4	1 334.8	1 345.2	1 359.7	1 366.7

a As close as possible to 1 January. **b** Includes livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of $5 000 or more. **c** Excludes Hong Kong. **d** Regarded as twelve countries until 1 January 1995, then fifteen countries.

Sources: ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra; FAO, *FAOSTAT Agriculture Database,* Rome; Meat and Wool Economic Service of New Zealand, *Annual Review of the New Zealand Sheep and Beef Industry,* Wellington; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; US Department of Agriculture, *Livestock and Poultry: World Markets and Trade,* Foreign Agricultural Service Circular, Washington DC.

162 World beef and veal production, by country [a]

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Argentina	2 600	2 580	2 975	2 600	2 840	2 880	2 640	2 700
Australia	1 719	1 734	1 939	1 987	1 991	2 025	2 072	2 090
Brazil	6 080	6 150	6 050	6 140	6 270	6 520	6 895	7 240
Canada	928	998	1 075	1 150	1 238	1 246	1 250	1 295
China [b]	4 154	3 557	4 409	4 799	5 054	5 328	5 488	5 846
Colombia	604	650	680	671	651	662	681	710
European Union [c]	7 964	7 950	7 889	7 624	7 569	7 462	6 896	7 456
France	1 648	1 685	1 677	1 632	1 609	1 514	1 571	1 640
Germany	1 407	1 483	1 448	1 367	1 374	1 310	1 360	1 316
Italy	1 181	1 180	1 159	1 110	1 164	1 130	1 133	1 060
United Kingdom	976	712	694	697	678	708	652	692
Japan	601	555	530	530	537	530	458	535
Mexico	1 850	1 800	1 795	1 800	1 900	1 900	1 925	1 930
New Zealand	630	631	664	620	558	580	609	589
Russian Federation	2 734	2 570	2 326	2 090	1 900	1 840	1 760	1 740
South Africa	542	525	591	539	584	630	665	645
United States	11 585	11 749	11 714	11 804	12 124	12 298	11 983	12 427
Uruguay	344	410	468	454	425	440	317	425
World	54 083	54 619	55 309	55 158	56 330	56 869	56 210	57 883

a Carcass weight equivalent. **b** Excludes Hong Kong. **c** Regarded as twelve countries until 1 January 1995, then fifteen countries.
Sources: ABS, *Livestock Products, Australia,* cat. no. 7215.0, Canberra; FAO, *FAOSTAT Agriculture Database,* Rome; Meat and Wool Economic Service of New Zealand, *Annual Review of the New Zealand Sheep and Beef Industry,* Wellington; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; US Department of Agriculture, *Livestock and Poultry: World Markets and Trade,* Foreign Agricultural Service Circular, Washington DC.

163 Trade in beef and veal, by selected countries a

	1994	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt	kt
Exports									
Argentina	384	535	496	458	303	359	357	168	348
Australia	1 164	1 106	1 028	1 189	1 278	1 272	1 329	1 407	1 362
Brazil	312	228	224	232	306	464	492	748	881
Canada	244	245	319	382	428	492	523	575	610
China **b**	238	107	103	101	88	57	54	60	44
European Union **c**	1 220	1 199	1 101	1 051	769	949	615	546	510
India	177	196	204	215	245	222	365	370	416
New Zealand	466	497	520	530	509	462	505	516	503
United States	731	826	851	969	985	1 094	1 119	1 029	1 110
Uruguay	131	149	192	251	218	189	236	145	259
Total	5 067	5 088	5 038	5 378	5 129	5 560	5 595	5 564	6 043
Imports									
Brazil	104	151	181	150	106	54	70	44	78
Canada	279	245	228	244	232	254	263	299	307
Chinese Taipei	62	75	67	85	82	94	83	78	89
Egypt	176	149	136	167	159	218	236	136	162
European Union **c**	532	422	395	459	414	457	450	413	218
Japan	847	960	927	948	982	1 000	1 059	997	707
Korea, Rep. of	165	229	221	226	125	242	324	246	430
Russian Federation	541	612	876	1 062	684	838	478	650	638
United States	1 075	954	940	1 063	1 199	1 303	1 375	1 435	1 460
Total	3 781	3 797	3 971	4 404	3 983	4 460	4 338	4 298	4 089

a Carcass weight. **b** Excludes Hong Kong. **c** Excludes intra-EU trade. Regarded as twelve countries for all years to 1 January 1995, then fifteen countries.

Sources: US Department of Agriculture, *Livestock and Poultry: World Markets and Trade,* Foreign Agricultural Service Circular, Washington DC; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; Agriculture, Fisheries and Forestry – Australia, *Export Statistics,* Canberra.

164 Summary of Japanese beef and veal statistics

	Unit	1995	1996	1997	1998	1999	2000	2001	2002
Cattle numbers a									
Beef b	'000	2 965	2 901	2 851	2 848	2 842	2 823	2 806	2 838
Dairy c	'000	1 951	1 927	1 899	1 860	1 816	1 764	1 725	1 726
Total	'000	4 916	4 828	4 750	4 708	4 658	4 587	4 531	4 564
Cattle slaughterings									
Wagyu	'000	633.0	596.9	603.3	596.2	588.6	576.8	495.7	526.8
Dairy	'000	835.3	765.3	707.9	692.6	708.1	705.4	594.9	719.1
Calves	'000	11.4	8.4	6.9	10.5	9.7	6.4	5.4	4.8
Total	'000	1 479.6	1 370.6	1 318.1	1 299.3	1 306.4	1 288.6	1 096.0	1 250.7
Production d									
Wagyu beef	kt	249.6	238.0	242.0	241.3	240.0	236.2	205.5	217.1
Dairy beef	kt	340.0	308.6	280.1	278.6	289.6	288.1	247.9	312.3
Veal	kt	0.8	0.6	0.6	0.9	0.9	0.6	0.6	0.6
Total	kt	590.4	547.3	522.7	520.7	530.5	524.9	454.0	529.9
Imports									
Fresh or chilled beef and veal e									
Australia	kt	220.5	183.9	186.7	180.7	193.0	200.7	188.3	138.3
Canada	kt	2.4	2.0	2.5	2.4	3.4	5.4	5.9	3.9
New Zealand	kt	8.4	7.2	6.7	5.7	4.0	3.7	3.7	2.6
United States	kt	131.2	125.3	133.4	126.6	133.0	145.6	132.4	89.5
Other	kt	0.2	0.0	0.1	0.1	0.1	0.1	0.0	0.0
Total	kt	362.7	318.4	329.3	315.4	333.5	355.5	330.4	234.3
Frozen beef and veal e									
Australia	kt	93.6	99.7	117.0	129.8	121.2	129.3	135.2	92.1
Canada	kt	3.2	4.3	7.9	11.3	14.0	13.4	16.7	15.1
New Zealand	kt	18.4	19.7	16.0	13.2	11.3	10.0	12.7	7.7
United States	kt	167.2	182.8	172.9	193.5	194.5	202.7	178.6	137.0
Other	kt	2.0	2.2	2.2	1.6	2.3	7.9	0.6	0.3
Total	kt	284.4	308.7	316.0	349.4	343.3	363.3	343.7	252.3
Total beef and veal ef									
Australia	kt	314.1	283.6	303.6	310.5	314.2	330.0	323.5	230.4
Canada	kt	5.6	6.3	10.4	13.6	17.4	18.8	22.6	19.1
New Zealand	kt	26.8	26.9	22.6	18.8	15.3	13.8	16.4	10.3
United States	kt	298.4	308.0	306.3	320.1	327.5	348.2	311.0	226.5
Other	kt	4.5	4.3	3.7	2.8	3.6	9.0	1.0	0.5
Total	kt	649.4	629.2	646.6	665.9	678.0	719.8	674.5	486.8
Prices									
Wagyu steer g	¥/kg	1 624	1 643	1 789	1 766	1 720	1 677	1 561	1 462
Dairy steer h	¥/kg	738	830	890	748	686	836	698	482

a At 1 February. **b** Includes dairy steers. **c** Cows only. **d** Carcass weight. **e** Product weight. **f** Total includes cheek meat, head meat and cooked meat. **g** Prices for an average of A3–A4 type steers at Tokyo Central Wholesale Meat Market. **h** Prices for an average of B2–B3 type steers at Tokyo Central Wholesale Meat Market.

Sources: Japanese Ministry of Agriculture, Forestry and Fisheries, *Meat Statistics in Japan,* Tokyo; Agriculture and Livestock Industries Corporation, *Monthly Statistics,* Tokyo.

165 Summary of Korean beef and veal statistics

	Native cattle numbers a	Production b	Consumption: Imported beef and veal b	Consumption: Total beef and veal b	Average prices: Farm c	Average prices: Wholesale d	Average prices: Retail e
	'000	kt	'000	kt	won/kg	won/kg	won/kg
1970	1 284	na	na	37.3	na	na	658
1971	1 247	na	na	39.5	na	na	883
1972	1 333	na	0.3	40.2	na	na	1 013
1973	1 486	na	0.1	44.9	na	na	1 097
1974	1 778	na	0.0	51.5	na	na	1 315
1975	1 546	70.2	0.0	70.3	na	1 127	1 487
1976	1 451	74.8	1.0	75.5	na	1 707	2 123
1977	1 492	77.4	6.6	81.6	1 307	2 371	2 758
1978	1 624	74.3	2.2	114.7	1 712	2 729	3 460
1979	1 563	86.5	6.2	113.8	1 671	2 818	3 858
1980	1 390	93.3	10.6	100.0	1 963	3 577	4 820
1981	1 283	69.2	3.7	93.2	2 903	4 834	6 464
1982	1 526	61.4	4.5	106.5	3 539	5 437	7 432
1983	1 940	71.9	1.0	115.5	3 801	5 927	8 236
1984	2 318	90.8	1.8	106.6	3 577	5 723	8 316
1985	2 533	116.8	8.3	120.3	2 763	4 384	7 054
1986	2 370	150.8	3.6	147.9	2 487	3 875	6 234
1987	1 923	149.2	0.0	151.9	2 536	3 904	6 396
1988	1 589	126.6	14.2	141.5	3 511	5 500	8 276
1989	1 536	90.1	57.1	143.3	4 335	6 243	10 426
1990	1 622	94.9	81.9	177.0	4 811	6 629	11 450
1991	1 773	98.5	129.0	223.3	5 480	7 328	12 884
1992	2 019	99.6	127.3	226.9	6 007	7 634	14 170
1993	2 260	129.6	103.4	233.0	5 385	6 811	14 790
1994	2 393	147.3	122.5	269.8	5 835	7 244	15 438
1995	2 594	154.7	146.5	301.2	6 346	7 914	16 186
1996	2 844	173.7	149.2	322.9	5 696	6 971	16 236
1997	2 735	236.5	134.2	362.0	4 852	5 618	15 074
1998	2 383	264.1	85.4	345.5	4 014	5 438	13 822
1999	1 952	226.9	153.0	392.7	4 976	7 028	14 470
2000	1 590	214.1	190.0	402.4	5 504	7 414	17 418
2001	1 406	162.6	216.7	384.1	6 490	8 284	19 234
2002	1 410	147.4	225.3	402.7	7 854	9 127	29 478

a At 1 December. **b** Boneless weight. **c** Korean native cattle, 400 kilograms. From 1995, 500 kilograms, male. **d** Beef (carcass). **e** Beef (boneless), all cities. **na** Not available.

Source: Republic of Korea National Livestock Co-operatives Federation, *Materials on Price, Demand and Supply of Livestock Products,* Seoul.

166 Australian supply and use of pig and poultry meats

	Unit	1994	1995	1996	1997	1998	1999	2000	2001	2002
Pig meat										
Pig numbers **a**	'000	2 775	2 653	2 526	2 555	2 768	2 626	2 511	2 748	2 940
Breeding sows and gilts **a**	'000	323	293	293	303	320	309	293	332	356
Slaughterings	'000	5 365	5 191	4 840	4 899	5 212	5 037	5 014	5 172	5 603
Average slaughter weight **b**	kg	67.2	69.5	69.3	70.3	70.8	71.9	72.7	73.2	72.7
Production **b**	kt	360.8	361.0	335.4	344.2	369.0	362.2	364.4	378.5	407.3
Imports **bc**	kt	5.3	9.7	14.2	22.6	19.6	48.7	72.0	64.3	91.6
Exports **bc**	kt	9.0	9.5	11.7	16.5	25.1	45.1	55.5	77.0	91.1
Total consumption **bd**	kt	358.6	360.3	339.8	349.3	363.8	365.2	380.3	365.9	406.8
Consumption per person **bc**	kg	20.1	20.0	18.6	18.8	19.4	19.3	19.9	18.8	20.7
Closing stocks – pork **b**	kt	2.1	2.9	1.0	2.0	1.7	2.4	3.0	3.0	4.0
Poultry meat e										
Slaughterings	million	335.4	332.1	341.8	356.9	372.8	382.1	401.6	397.2	428.2
Average dressed weight **b**	kg	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.7	1.7
Production **b**	kt	503.7	504.2	525.2	557.4	602.1	613.8	657.5	662.0	735.8
Exports **b**	kt	14.2	17.6	18.4	17.8	22.9	24.0	23.7	30.6	27.9
Total consumption **d**	kt	489.5	486.6	506.8	539.6	579.2	589.8	633.9	631.4	707.9
Consumption per person	kg	27.4	27.0	27.7	29.1	30.9	31.1	33.1	32.4	36.0

a Livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of $5 000. **b** Carcass weight. **c** Includes preserved pig meat. **d** Apparent consumption. **e** Includes chicken, turkey and duck.

Sources: ABS, *Apparent Consumption of Foodstuffs,* cat. no. 4306.0, Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Principal Agricultural Commodities, Australia, Preliminary,* cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra; ABARE.

167 Australian pig numbers, by state and territory a

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Northern Territory	Australian Capital Territory	Australia
	'000	'000	'000	'000	'000	'000	'000	'000	'000
1991	831	409	613	273	405	39	3	na	2 573
1992	805	457	568	320	424	45	3	na	2 621
1993	823	434	622	307	438	45	3	na	2 673
1994	834	460	677	312	440	46	3	na	2 775
1995	791	439	644	316	423	38	3	na	2 653
1996	710	458	603	314	412	26	0	na	2 526
1997	729	485	600	297	417	24	2	na	2 555
1998	849	518	648	303	424	24	2	na	2 768
1999	778	521	621	277	406	22	2	na	2 626
2000	710	523	544	276	438	18	2	na	2 511
2001	845	557	597	286	438	22	2	na	2 748
2002	833	673	643	361	410	18	3	na	2 940
2003	na	na	na	na	na	na	na	na	2 960

a At 31 March. From 2000, at 30 June. Livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of $5 000 or more. **na** Not available.
Sources: ABS, *Principal Agricultural Commodities, Australia, Preliminary,* cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra.

168 World pig and poultry meat production in selected countries a

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Pig meat								
Australia	361	335	344	369	362	364	379	407
Canada	1 272	1 225	1 257	1 337	1 550	1 638	1 729	1 854
China **b**	36 484	31 580	35 963	38 837	40 056	40 314	41 845	43 266
Chinese Taipei	1 233	1 269	1 030	892	822	921	962	935
Denmark	1 475	1 458	1 523	1 631	1 642	1 625	1 714	1 759
France	2 144	2 183	2 220	2 313	2 349	2 318	2 315	2 345
Germany	3 602	3 635	3 564	3 834	4 103	3 982	4 074	4 123
Netherlands	1 622	1 624	1 376	1 725	1 711	1 623	1 433	1 377
Russian Federation	1 865	1 700	1 570	1 510	1 490	1 500	1 560	1 630
United States	8 096	7 764	7 835	8 623	8 758	8 597	8 691	8 929
Poultry meat								
Australia	504	525	557	602	614	658	662	736
Brazil	4 140	4 144	4 562	4 605	5 641	6 117	6 732	7 631
Canada	836	867	892	937	986	1 029	1 076	1 079
China **b**	7 419	8 673	7 406	8 120	8 550	9 269	9 278	9 558
France	2 079	2 230	2 275	2 324	2 233	2 243	2 269	2 260
Italy	1 123	1 151	1 177	1 154	1 177	1 140	1 156	1 242
Japan	1 171	1 130	1 124	1 097	1 078	1 091	1 074	1 107
Russian Federation	365	310	212	289	358	387	437	509
Thailand	780	840	900	930	980	1 070	1 230	1 205
United States	13 560	14 300	14 721	14 891	15 739	16 122	16 523	17 024

a Carcass weight equivalent. **b** Excludes Hong Kong.
Sources: ABS, *Livestock Products, Australia,* cat.no. 7215.0, Canberra; US Department of Agriculture, *Livestock and Poultry: World Markets and Trade,* Foreign Agricultural Service Circular, Washington, DC; Meat and Livestock Commission, *European Handbook,* Milton Keynes, UK.

169 World pig meat trade for selected countries [a]

	1994	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt	kt
Exports [b]									
Australia	9	9	12	17	25	45	55	77	91
Canada	301	366	384	420	432	554	658	727	863
China [c]	181	206	174	158	143	75	73	139	225
Chinese Taipei	331	381	388	70	3	0	0	0	0
European Union	908	772	861	949	1 034	1 390	1 470	1 235	1 194
United States	249	357	440	474	558	580	584	708	731
Imports [b]									
Australia	5	10	14	23	20	49	72	64	92
Hong Kong, China	224	153	138	185	253	260	297	318	335
Japan	728	869	1 010	786	777	919	995	1 068	1 162
European Union	25	83	95	62	44	54	54	55	60
United States	337	301	280	287	320	375	439	431	485

a Carcass weight equivalent. **b** Excludes intra-EU trade. **c** Excludes Hong Kong.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Livestock and Poultry: World Markets and Trade,* Foreign Agricultural Service Circular, Washington DC.

170 Australian supply and use of mutton and lamb

	Slaughterings '000	Average weight a kg	Production a kt	Exports ab kt	Apparent Consumption a kt
Mutton					
1980	14 590	19.6	286.4	229.8	67.9
1981	12 726	19.4	246.4	188.4	51.0
1982	14 016	19.6	274.2	205.5	54.7
1983	9 719	19.1	186.0	144.8	66.8
1984	9 306	20.4	189.6	97.1	93.7
1985	11 742	20.1	236.4	125.6	110.4
1986	14 223	19.7	280.1	168.6	112.1
1987	15 314	19.7	302.4	164.6	131.7
1988	13 130	19.9	261.3	155.1	109.7
1989	13 698	20.6	282.6	158.1	123.0
1990	17 254	20.7	358.0	192.8	142.7
1991	18 750	21.0	394.6	248.6	160.4
1992	18 186	20.7	376.6	245.0	131.0
1993	18 047	21.5	387.9	240.8	143.0
1994	17 991	20.9	375.3	241.5	155.0
1995	15 228	20.5	312.1	213.7	96.3
1996	14 447	21.1	304.1	200.3	106.7
1997	15 552	20.5	319.6	215.8	106.5
1998	15 316	20.6	316.2	216.4	100.6
1999	14 723	21.0	309.8	224.6	78.7
2000	16 379	21.1	345.7	248.2	97.5
2001	15 825	19.3	305.1	239.5	65.5
2002	14 880	20.0	296.9	228.6	71.3
Lamb					
1980	15 736	16.6	260.6	43.1	222.3
1981	16 179	16.8	272.5	38.5	234.4
1982	17 127	16.9	290.3	34.3	257.2
1983	16 804	16.9	283.7	33.5	251.2
1984	16 542	17.2	284.6	29.7	253.6
1985	18 759	17.1	319.9	42.9	277.2
1986	18 356	16.6	304.8	53.2	251.7
1987	17 516	16.9	296.8	53.3	244.6
1988	16 675	17.4	289.9	46.8	244.5
1989	16 864	17.8	299.6	43.9	255.0
1990	16 549	17.5	289.0	44.9	242.4
1991	15 818	17.3	274.3	45.0	229.7
1992	15 595	17.6	274.7	52.8	223.2
1993	14 668	17.6	258.7	60.4	196.2
1994	15 718	17.9	281.3	64.2	220.4
1995	14 680	17.9	263.0	57.0	205.8
1996	14 069	18.5	260.8	64.0	195.8
1997	14 924	18.8	279.9	76.0	203.9
1998	15 659	19.2	300.8	86.3	214.1
1999	16 346	19.5	318.8	95.4	222.7
2000	18 507	19.9	368.2	125.9	242.3
2001	17 923	19.7	353.1	126.1	227.0
2002	17 093	19.8	337.8	121.4	216.3

a Carcass weight. **b** Includes canned and miscellaneous product.

Sources: ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra; ABS, *Livestock Products, Australia,* cat. no. 7215.0, Canberra; Agriculture, Fisheries and Forestry – Australia, *Export Statistics,* Canberra; ABARE.

171 Australian sheep numbers, by state and territory [a]

	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australian Capital Territory	Australia
	million	million	million	million	million	million	million	million	million
Breeding ewes									
1991	26.084	11.673	7.334	7.629	13.750	1.973	0	0.050	68.493
1992	25.036	10.890	6.792	7.669	14.480	1.833	0	0.047	66.747
1993	22.875	10.348	6.052	7.533	13.942	1.770	0	0.042	62.563
1994	21.909	10.097	5.421	7.193	14.401	1.717	0	0.040	60.779
1995	na	na	na	na	na	na	na	na	58.916
1996	20.195	9.789	4.556	6.817	14.164	1.631	0	0.029	57.182
1997	20.541	10.008	4.595	6.747	13.820	1.633	0	0.037	57.380
1998	19.372	9.706	4.549	6.760	13.714	1.563	0	0.034	55.701
1999	19.973	9.951	4.106	6.873	13.080	1.618	0	0.037	55.638
2000	na	na	na	na	na	na	na	na	na
2001	40.887	22.272	8.660	12.585	23.129	3.284	na	0.110	53.421
2002	38.491	21.350	6.752	13.043	23.063	3.380	na	0.088	52.876
2003	na	na	na	na	na	na	na	na	48.431
Lambs and hoggets									
1991	13.820	5.952	3.743	3.852	8.019	1.250	0	0.030	36.668
1992	10.728	4.996	2.015	3.341	6.201	0.975	na	0.015	28.271
1993	10.162	4.864	1.796	3.604	7.299	1.054	na	0.021	28.799
1994	10.836	5.131	1.631	3.507	7.514	1.099	na	0.020	29.739
1995	9.136	4.709	2.060	3.110	6.864	0.937	na	0.014	26.830
1996	10.134	4.836	2.134	3.541	7.757	0.994	na	0.014	29.410
1997	11.576	5.427	2.215	3.694	7.360	1.141	na	0.019	30.461
1998	10.755	4.683	2.393	3.660	7.419	1.032	na	0.014	29.957
1999	10.211	4.976	2.385	3.556	7.401	0.954	na	0.014	29.496
2000	na	na	na	na	na	na	na	na	na
2001	na	na	na	na	na	na	na	na	27.969
2002	na	na	na	na	na	na	na	na	28.925
2003	na	na	na	na	na	na	na	na	26.542
Total sheep and lambs									
1991	60.572	28.789	17.796	17.513	36.707	5.059	0	0.128	166.567
1992	54.231	26.081	15.338	16.445	34.289	4.499	na	0.112	150.995
1993	48.906	24.430	13.495	16.009	33.195	4.403	na	0.106	140.542
1994	46.531	23.439	11.548	14.679	31.951	4.324	na	0.097	132.569
1995	40.515	21.371	11.577	13.249	30.217	3.853	na	0.078	120.862
1996	41.091	21.974	10.706	13.575	29.834	3.862	na	0.073	121.116
1997	42.388	22.325	10.528	13.106	27.821	3.977	na	0.084	120.228
1998	40.821	21.122	10.992	13.136	27.476	3.869	na	0.076	117.491
1999	40.583	20.944	10.556	13.065	28.378	3.801	na	0.080	115.456
2000	42.361	22.119	8.974	13.428	25.481	3.261	na	0.078	118.600
2001	40.966	23.012	9.121	13.125	23.849	3.292	na	0.096	110.928
2002	38.491	21.350	6.752	13.043	23.063	3.380	na	0.088	106.166
2003	na	na	na	na	na	na	na	na	98.162

a At 31 March. From 2000, as at 30 June. Livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of $5 000 or more. **na** Not available.

Sources: ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat. no. 7112.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra; ABARE.

172 Australian exports of sheep meat and live sheep, by destination

	Unit	1995	1996	1997	1998	1999	2000	2001	2002
Mutton ab									
Canada	kt	1.4	1.6	1.5	1.6	1.6	2.2	2.4	1.5
Chinese Taipei	kt	9.7	10.4	14.1	12.3	12.0	11.6	12.1	14.7
CIS	kt	1.6	0.9	3.6	5.2	0.6	1.6	1.6	2.3
European Union c	kt	11.6	11.4	10.5	10.7	7.9	8.2	7.4	8.5
Japan	kt	21.4	16.3	15.9	13.0	10.9	11.1	10.4	10.4
Korea, Rep. of	kt	3.4	2.3	2.0	1.4	1.4	1.0	1.0	1.2
Malaysia	kt	5.3	6.4	6.4	5.7	7.2	7.7	7.3	7.1
Papua New Guinea	kt	9.1	11.4	8.3	7.4	7.6	6.4	5.5	5.5
Saudi Arabia	kt	18.7	15.4	19.9	17.9	19.9	20.9	29.8	24.5
Singapore	kt	6.1	6.1	6.9	7.2	7.8	7.6	7.6	6.6
South Africa	kt	21.7	24.2	24.0	25.9	30.6	38.4	24.7	15.7
United States	kt	10.3	9.5	11.8	18.2	17.7	21.5	18.8	20.9
Other	kt	27.7	27.0	32.2	37.2	46.4	48.0	55.7	54.1
Total	kt	147.9	143.0	157.1	163.6	171.7	186.2	184.2	172.7
Lamb a									
European Union c	kt	5.4	6.5	8.2	9.2	11.4	13.5	13.3	13.4
Japan	kt	4.9	4.5	4.2	4.0	4.6	5.1	6.1	5.8
Papua New Guinea	kt	9.2	9.2	11.3	10.3	11.3	14.8	11.9	10.0
South Africa	kt	3.4	4.3	6.6	7.1	7.2	11.1	3.6	1.3
United Arab Emirates	kt	5.9	5.0	4.3	5.7	6.1	7.2	7.2	8.4
United States	kt	9.2	11.4	14.2	15.8	15.8	20.9	28.4	28.8
Other	kt	13.0	15.0	18.6	25.1	29.0	41.3	43.1	40.5
Total	kt	51.2	55.8	67.5	77.1	85.4	113.9	113.6	108.2
Live sheep									
Slaughter sheep	’000	5 895	5 642	4 995	4 895	4 960	5 321	6 699	6 024
Middle East	’000	5 796	5 402	4 913	4 858	4 892	5 282	6 596	5 931
Bahrain	’000	345	330	381	374	465	405	388	386
Egypt	’000	93	44	55	38	164	349	271	139
Jordan	’000	1 472	1 247	657	837	1 068	713	542	583
Kuwait	’000	1 146	1 096	1 037	1 434	1 250	1 473	1 540	1 570
Oman	’000	528	559	654	476	424	531	481	353
Qatar	’000	401	309	362	362	281	308	308	282
Saudi Arabia	’000	75	34	0	0	0	641	2 141	1 873
United Arab Emirates	’000	1 638	1 751	1 705	1 279	976	817	682	466
Other	’000	172	64	62	58	264	687	2 383	2 152
Singapore	’000	33	31	13	18	18	17	13	6
Other	’000	67	209	69	20	51	22	90	87
Breeding sheep	’000	1	1	169	85	65	100	112	39
Total	’000	5 896	5 643	5 163	4 980	5 026	5 421	6 812	6 063

a Shipped weight. **b** Includes young sheep and hoggets. **c** Regarded as twelve countries for all years to 1 January 1995, then fifteen countries.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

173 Value of Australian exports of sheep meat and live sheep (fob)

	1995	1996	1997	1998	1999	2000	2001	2002
	$m	$m	$m	$m	$m	$m	$m	$m
Mutton a								
Canada	2.3	2.9	3.0	3.2	3.1	4.6	6.8	5.2
Chinese Taipei	19.6	22.8	34.7	29.1	27.6	26.3	36.9	48.9
CIS	2.0	1.5	5.7	9.2	0.9	3.1	3.7	5.4
European Union c	40.8	47.3	43.2	44.2	27.8	33.5	41.4	41.1
Japan	60.6	44.2	45.1	37.9	32.6	34.0	42.7	51.1
Korea, Rep. of	5.7	3.6	3.3	2.3	2.1	1.7	2.3	3.3
Malaysia	9.4	12.1	14.1	11.6	13.7	16.5	21.7	22.9
Papua New Guinea	9.4	11.7	8.9	8.0	7.5	6.2	7.4	6.6
Saudi Arabia	40.5	31.3	47.7	37.4	36.8	43.9	90.1	77.5
Singapore	13.4	13.1	16.6	16.4	16.5	18.4	23.4	23.2
South Africa	33.9	35.4	34.4	34.6	35.3	46.3	30.9	17.6
United States	16.7	16.9	24.3	40.3	37.1	43.9	56.4	64.7
Other	55.0	53.1	71.8	78.4	84.6	97.8	146.8	152.2
Total	309.4	295.8	352.7	352.5	325.8	376.3	510.6	519.7
Lamb								
European Union b	24.9	31.3	44.4	44.8	49.4	69.8	99.9	85.7
Japan	25.7	23.6	22.5	22.9	25.1	30.7	37.0	40.7
Papua New Guinea	10.2	12.4	14.0	12.0	13.0	16.0	18.0	15.7
South Africa	6.3	7.3	11.6	9.7	10.0	15.3	5.5	1.2
United Arab Emirates	16.7	14.3	13.8	18.1	18.2	24.2	27.4	31.6
United States	42.8	61.7	83.2	97.6	103.2	150.2	219.9	218.2
Other	52.2	60.8	75.9	90.6	99.1	141.6	171.5	173.2
Total	178.8	211.5	265.5	295.6	318.0	447.7	579.1	566.2
Live sheep c								
Middle East	215	198	184	187	177	204	349	395
Bahrain	12	12	13	13	15	13	20	25
Egypt	4	2	2	1	6	12	14	9
Jordan	57	44	25	32	35	24	28	39
Kuwait	41	40	39	53	47	61	79	101
Oman	20	21	25	18	17	20	26	24
Qatar	15	12	15	17	13	15	16	21
Saudi Arabia	3	1	0	0	0	27	120	127
United Arab Emirates	60	65	63	49	35	29	34	30
Other	4	9	3	2	3	2	5	7
Total	220	207	187	189	180	206	355	402

a Includes young sheep and hoggets. **b** Regarded as twelve countries for all years to 1 January 1995, then fifteen countries. **c** Excludes animals for breeding.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

174 World sheep numbers, by country [a]

	1993 million	1994 million	1995 million	1996 million	1997 million	1998 million	1999 million	2000 million	2001 million
Argentina	24.5	23.5	21.6	18.0	17.3	13.7	13.6	13.5	13.5
Australia	140.5	132.6	120.9	121.1	120.2	117.5	115.5	118.6	110.9
China **b**	109.7	111.7	117.4	127.6	114.1	121.0	127.4	131.1	133.2
France	10.4	11.5	10.3	10.6	10.5	10.3	10.2	10.0	9.4
Greece	8.7	8.7	9.2	8.9	8.9	9.0	8.9	9.0	9.3
India	51.9	53.0	54.1	55.3	56.5	57.1	57.6	57.9	58.2
Iran	49.7	50.3	50.9	51.5	52.1	53.2	53.9	53.5	53.9
Iraq	5.4	5.2	5.1	5.3	6.6	6.7	6.8	6.8	6.1
Italy	10.3	10.5	10.7	10.7	10.9	11.0	10.9	11.0	11.1
Morocco	11.9	13.3	13.4	14.5	15.3	14.8	16.6	17.3	17.2
New Zealand	50.3	49.5	48.8	48.8	47.0	46.0	45.7	45.4	44.0
Romania	12.1	11.5	10.9	10.4	9.7	8.9	8.4	8.1	7.7
Russian Federation	48.2	40.6	31.8	25.3	20.3	16.5	13.4	14.0	12.6
South Africa	28.9	29.1	28.8	28.9	29.2	29.3	28.7	28.6	28.8
Spain	23.9	23.1	23.0	21.3	24.0	24.9	24.2	24.0	24.4
Turkey	39.4	37.5	35.6	33.8	33.1	30.2	29.4	29.4	28.5
United Kingdom	29.3	29.7	29.0	28.2	30.0	31.1	29.7	19.2	36.7
United States	10.9	9.7	8.9	8.5	8.0	7.8	7.2	7.0	7.0
Uruguay	24.0	22.1	20.2	19.7	18.2	16.5	14.4	13.0	12.1
Total	1 106.8	1 092.7	1 090.9	1 072.6	1 056.5	1 052.8	1 044.2	1 047.8	1 036.9

a Mostly at 1 December of year shown. Data for Australia are at 31 March. **b** Excludes Hong Kong.

Sources: ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra; FAO, *FAOSTAT Agriculture Database,* Rome; US Department of Agriculture, Livestock and Poultry: *World Markets and Trade,* Foreign Agricultural Service Circular, Washington DC.

175 World mutton and lamb production, by country a

	1993	1994	1995	1996	1997	1998	1999	2000	2001
	kt	kt	kt	kt	kt	kt	kt	kt	kt
Argentina	65	85	81	64	58	57	54	59	50
Australia	647	657	575	565	599	617	629	714	658
China **b**	714	780	900	1 000	1 190	1 239	1 335	1 440	1 540
France	147	140	139	146	141	144	138	140	134
Italy	77	75	73	74	72	73	73	69	60
New Zealand	514	552	562	540	524	547	519	540	562
Romania	85	75	69	66	59	60	54	57	49
Russian Federation	359	316	255	208	178	178	143	123	113
Spain	224	224	227	223	229	250	239	251	236
Ukraine	27	39	31	23	20	17	15	9	8
United Kingdom	399	391	401	382	321	351	361	359	258
United States	153	140	130	122	118	114	113	101	103
Uruguay	64	66	52	64	60	55	51	51	51
Total	7 184	6 600	7 200	7 050	7 170	7 298	7 345	7 554	7 570

a Carcass weight for calendar year. **b** Excludes Hong Kong.

Sources: ABS, *Livestock Products, Australia,* cat. no. 7215.0, Canberra; FAO, *FAOSTAT Agriculture Database,* Rome; US Department of Agriculture, Livestock and Poultry, *World Markets and Trade,* Foreign Agricultural Service Circular, Washington DC; Meat New Zealand, *Annual Report,* Wellington.

176 Trade in mutton and lamb, by selected countries a

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Exports								
Australia **b**								
Mutton	214	200	216	216	225	248	240	229
Lamb	57	64	76	86	95	126	126	121
New Zealand **c**								
Mutton	91	101	94	92	83	79	92	82
Lamb	328	354	336	334	325	354	357	339
Imports								
European Union								
France	161	172	159	167	167	170	120	140
Germany	36	40	42	43	41	44	42	38
United Kingdom	127	127	126	116	113	109	93	102
Saudi Arabia								
Mutton and lamb from								
Australia **b**	33	25	31	27	32	32	41	38
New Zealand **c**	15	22	22	21	22	23	17	12
United States **d**	29	33	38	51	51	51	66	73

a Carcass weight. **b** Includes canned and miscellaneous product. **c** For year ended 30 September. **d** Includes some goat meat. For year ended 30 September. **na** Not available.

Sources: Agriculture, Fisheries and Forestry – Australia, *Export Statistics,* Canberra; Meat New Zealand, *Annual Report,* Wellington; US Department of Agriculture, *Livestock and Poultry: World Markets and Trade,* Foreign Agricultural Service Circular, Washington DC; US Department of Agriculture, *Livestock, Dairy and Poultry Outlook, Electronic Outlook Report from the Economic Research Service,* Washington DC.

177 New Zealand sheep meat exports, by destination [a]

	1994-95 kt	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt
Mutton								
Canada	0.5	0.6	0.6	0.5	0.5	0.3	0.2	0.3
European Union [b]	25.1	33.5	32.5	30.1	27.3	27.5	31.4	28.2
Iran	2.8	4.9	0.0	0.1	0.0	0.0	0.0	0.0
Japan	4.0	3.8	4.0	4.0	2.4	2.0	2.5	1.6
Korea, Rep. of	8.1	7.2	4.2	3.3	3.2	1.7	0.0	0.0
Papua New Guinea	2.6	1.8	4.1	2.5	2.7	1.2	1.2	1.4
Russian Federation	7.9	2.3	0.4	0.8	0.0	0.0	0.1	0.1
United States	0.6	1.4	1.4	2.1	1.2	0.8	0.4	1.0
Other Middle East	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	9.8	16.9	17.3	16.5	17.0	16.8	22.9	19.4
Total	64.2	72.4	64.5	59.7	54.4	50.4	58.8	52.0
Lamb								
Canada	7.6	5.5	6.5	4.9	6.6	6.7	9.0	9.5
Germany	18.8	26.7	23.0	25.8	23.2	23.0	26.7	23.9
Iran	11.7	14.8	0.0	0.0	0.0	0.0	0.0	0.0
Japan	8.9	11.7	11.9	12.5	9.4	7.9	8.6	7.9
Korea, Rep. of	1.9	1.4	1.0	1.0	0.7	0.6	0.5	0.5
Jordan	10.1	8.6	9.1	5.3	8.8	9.5	6.3	5.1
Papua New Guinea	18.7	15.6	15.1	16.5	8.8	12.6	9.8	4.9
Saudi Arabia	13.4	17.0	19.0	14.2	15.9	19.3	15.7	11.4
United Kingdom	86.9	84.7	82.1	75.3	68.1	70.6	66.4	61.5
United States	9.3	10.9	13.4	18.3	17.2	17.0	16.5	20.5
Other	95.3	101.1	109.0	108.2	112.5	129.4	142.3	141.3
Total	282.6	298.0	290.0	282.0	271.1	296.5	301.9	286.5

a For October–September year. Shipped weight. **b** Regarded as twelve countries for all years.
Source: Meat New Zealand, *Annual Report,* Wellington.

178 Summary of Australian statistics for oilseeds [a]

	Area	Yield	Production	Exports [b]	Domestic use [c]
	'000 ha	t/ha	kt	kt	kt
1960-61	58	na	na	0	na
1961-62	43	0.70	30	0	30
1962-63	56	0.79	44	1	43
1963-64	74	0.80	59	6	53
1964-65	92	0.77	71	7	64
1965-66	58	0.76	44	0	44
1966-67	81	1.00	81	6	75
1967-68	93	0.63	59	9	50
1968-69	95	0.58	55	12	43
1969-70	161	0.96	155	6	149
1970-71	269	0.76	204	9	195
1971-72	528	0.70	371	103	268
1972-73	447	0.60	268	48	220
1973-74	306	0.84	258	17	241
1974-75	402	0.86	345	48	297
1975-76	292	0.83	243	82	161
1976-77	271	0.88	240	5	235
1977-78	444	0.94	416	8	408
1978-79	511	1.02	520	65	455
1979-80	497	0.97	484	141	343
1980-81	400	1.12	450	6	444
1981-82	411	1.24	509	26	483
1982-83	386	0.91	349	3	346
1983-84	529	1.04	549	20	529
1984-85	710	1.30	925	51	874
1985-86	686	1.27	872	183	689
1986-87	552	1.28	708	125	583
1987-88	633	1.35	856	91	765
1988-89	569	1.47	838	217	621
1989-90	458	1.67	763	172	591
1990-91	599	1.74	1 040	187	853
1991-92	638	1.78	1 136	231	905
1992-93	541	1.60	864	241	623
1993-94	708	1.49	1 055	287	769
1994-95	808	1.14	921	252	669
1995-96	861	1.56	1 346	523	823
1996-97	1 047	1.69	1 768	523	1 245
1997-98	1 307	1.53	2 002	908	1 094
1998-99	2 090	1.49	3 104	1 707	1 397
1999-00	2 625	1.45	3 809	2 445	1 364
2000-01	2 143	1.45	3 098	2 189	909
2001-02	1 907	1.58	3 020	1 920	1 100
2002-03	1 509	0.92	1 386	887	500

a Oilseeds are comprised of canola, cottonseed, linola, linseed, peanuts, safflowerseed, soybeans and sunflowerseed. **b** Seed only. **c** Includes any imports of seed, stocks carried over to the next season, feed and seed use, and any processing, of which some may be exported. **na** Not available.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Principal Agricultural Commodities, Australia, Preliminary,* cat. no. 7111.0, Canberra; *ABS, Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat no. 7121.0, Canberra; Australian Oilseeds Federation, *AOF Oilseeds,* Sydney; ABARE.

179 Australian oilseeds area, yield and production, by state and type

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
Canola								
Area								
1996-97	’000 ha	173.0	92.0	0.3	106.5	36.0	0.0	407.8
1997-98	’000 ha	270.0	117.0	0.3	248.0	63.0	0.0	698.3
1998-99	’000 ha	372.0	205.0	1.0	536.0	132.0	1.0	1 247.0
1999-00	’000 ha	523.0	283.0	1.0	909.0	200.0	1.0	1 917.0
2000-01	’000 ha	523.0	261.0	3.0	517.0	154.0	0.0	1 459.0
2001-02	’000 ha	534.0	238.0	1.0	394.0	164.0	1.0	1 332.0
2002-03	’000 ha	400.0	250.0	0.0	400.0	140.0	0.0	1 190.0
Yield								
1996-97	t/ha	1.9	1.4	0.0	1.0	1.5	0.0	1.5
1997-98	t/ha	1.3	1.2	0.0	1.1	1.4	0.0	1.2
1998-99	t/ha	1.7	1.3	1.0	1.1	1.5	1.0	1.4
1999-00	t/ha	1.5	1.4	1.0	1.1	1.2	1.0	1.3
2000-01	t/ha	1.6	1.5	0.3	0.7	1.3	0.0	1.2
2001-02	t/ha	1.3	1.5	1.0	1.1	1.7	1.0	1.3
2002-03	t/ha	0.3	0.7	0.0	0.8	1.3	0.0	0.7
Production								
1996-97	kt	331.0	132.0	0.0	107.9	52.9	0.0	623.8
1997-98	kt	362.0	136.0	0.0	270.0	88.0	0.0	856.0
1998-99	kt	623.0	257.0	1.0	615.0	193.0	1.0	1 690.0
1999-00	kt	800.0	397.0	1.0	989.0	238.0	1.0	2 426.0
2000-01	kt	836.0	380.0	1.0	353.0	204.0	0.0	1 775.0
2001-02	kt	715.0	347.0	1.0	419.0	272.0	1.0	1 756.0
2002-03	kt	100.0	180.0	0.0	330.0	180.0	0.0	790.0
Cottonseed								
Area								
1996-97	’000 ha	277.0	0.0	119.1	0.0	0.0	0.0	396.1
1997-98	’000 ha	299.3	0.0	138.8	0.0	0.0	0.0	438.2
1998-99	’000 ha	381.7	0.0	179.9	0.0	0.0	0.0	561.5
1999-00	’000 ha	313.0	0.0	151.3	0.0	0.0	0.0	464.3
2000-01	’000 ha	327.9	0.0	199.4	0.0	0.0	0.0	527.3
2001-02	’000 ha	289.7	0.0	119.3	0.0	0.0	0.0	409.0
2002-03	’000 ha	149.8	0.0	53.6	0.0	0.0	0.0	203.4
Yield								
1996-97	t/ha	2.3	0.0	2.0	0.0	0.0	0.0	2.2
1997-98	t/ha	2.2	0.0	1.9	0.0	0.0	0.0	2.1
1998-99	t/ha	1.8	0.0	1.9	0.0	0.0	0.0	1.8
1999-00	t/ha	2.2	0.0	2.3	0.0	0.0	0.0	2.3
2000-01	t/ha	2.3	0.0	2.0	0.0	0.0	0.0	2.2
2001-02	t/ha	2.7	0.0	2.3	0.0	0.0	0.0	2.6
2002-03	t/ha	2.5	0.0	1.9	0.0	0.0	0.0	2.4
Production								
1996-97	kt	627.5	0.0	232.6	0.0	0.0	0.0	860.1
1997-98	kt	672.3	0.0	269.0	0.0	0.0	0.0	941.3
1998-99	kt	677.5	0.0	346.9	0.0	0.0	0.0	1 024.4
1999-00	kt	695.7	0.0	350.4	0.0	0.0	0.0	1 046.2
2000-01	kt	740.5	0.0	399.5	0.0	0.0	0.0	1 140.0
2001-02	kt	777.1	0.0	276.4	0.0	0.0	0.0	1 053.5
2002-03	kt	377.9	0.0	103.7	0.0	0.0	0.0	481.6

Continued

179 Australian oilseeds area, yield and production, by state and type *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
Linseed								
Area								
1996-97	’000 ha	2.4	3.0	1.2	1.0	0.2	0.0	7.8
1997-98	’000 ha	2.5	3.2	1.3	1.1	0.7	0.0	8.6
1998-99	’000 ha	2.8	3.5	1.4	1.2	0.3	0.0	9.1
1999-00	’000 ha	3.0	3.8	1.5	1.3	0.5	0.0	10.1
2000-01	’000 ha	3.0	4.0	1.5	1.3	0.4	0.0	10.2
2001-02	’000 ha	3.0	4.0	1.5	1.3	0.4	0.0	10.2
2002-03	’000 ha	2.6	3.4	1.4	1.3	0.3	0.0	9.0
Yield								
1996-97	t/ha	0.8	1.0	0.7	0.7	1.5	0.0	0.9
1997-98	t/ha	0.6	0.8	0.4	0.8	0.9	0.0	0.7
1998-99	t/ha	0.9	1.1	0.8	1.1	1.2	0.0	1.0
1999-00	t/ha	0.9	1.1	0.8	1.1	1.4	0.0	1.0
2000-01	t/ha	0.8	1.0	0.7	0.9	1.2	0.0	0.9
2001-02	t/ha	0.8	1.0	0.7	0.9	1.0	0.0	0.9
2002-03	t/ha	0.9	1.2	0.7	0.9	1.7	0.0	1.0
Production								
1996-97	kt	1.9	3.0	0.8	0.7	0.4	0.0	6.8
1997-98	kt	1.6	2.5	0.6	0.8	0.6	0.0	6.0
1998-99	kt	2.4	3.8	1.1	1.2	0.4	0.0	8.8
1999-00	kt	2.7	4.2	1.2	1.4	0.6	0.0	10.1
2000-01	kt	2.5	4.0	1.0	1.2	0.5	0.0	9.2
2001-02	kt	2.5	4.0	1.0	1.2	0.4	0.0	9.1
2002-03	kt	2.3	4.0	1.0	1.2	0.5	0.0	9.0
Peanuts								
Area								
1996-97	’000 ha	1.0	0.0	21.0	0.1	0.0	0.0	22.1
1997-98	’000 ha	1.0	0.0	21.3	0.1	0.0	0.0	22.4
1998-99	’000 ha	0.4	0.0	21.0	0.1	0.0	0.0	21.5
1999-00	’000 ha	0.5	0.0	23.0	0.1	0.0	0.0	23.6
2000-01	’000 ha	0.5	0.0	21.0	0.1	0.0	0.0	17.3
2001-02	’000 ha	0.5	0.0	21.0	0.1	0.0	0.0	21.6
2002-03	’000 ha	0.6	0.0	21.3	0.1	0.0	0.0	22.0
Yield								
1996-97	t/ha	1.1	0.0	1.8	1.7	0.0	0.0	1.7
1997-98	t/ha	1.1	0.0	1.8	1.6	0.0	0.0	1.8
1998-99	t/ha	1.1	0.0	1.8	1.6	0.0	0.0	1.8
1999-00	t/ha	1.6	0.0	1.9	1.6	0.0	0.0	1.8
2000-01	t/ha	1.2	0.0	1.6	1.6	0.0	0.0	2.2
2001-02	t/ha	1.4	0.0	1.7	1.6	0.0	0.0	1.7
2002-03	t/ha	1.2	0.0	1.7	2.0	0.0	0.0	1.7
Production								
1996-97	kt	1.1	0.0	37.2	0.2	0.0	0.0	38.5
1997-98	kt	1.1	0.0	38.0	0.2	0.0	0.0	39.3
1998-99	kt	0.5	0.0	38.0	0.2	0.0	0.0	38.6
1999-00	kt	0.8	0.0	42.6	0.2	0.0	0.0	43.5
2000-01	kt	0.6	0.0	34.3	0.2	0.0	0.0	38.8
2001-02	kt	0.7	0.0	35.7	0.2	0.0	0.0	36.6
2002-03	kt	0.7	0.0	36.1	0.2	0.0	0.0	37.0

Continued

179 Australian oilseeds area, yield and production, by state and type *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
Safflowerseed								
Area								
1996-97	’000 ha	10.7	18.0	0.7	0.0	5.7	0.0	35.1
1997-98	’000 ha	7.0	5.2	0.3	0.0	2.8	0.0	15.3
1998-99	’000 ha	8.8	18.6	5.9	0.0	1.7	0.0	35.1
1999-00	’000 ha	8.7	18.9	6.3	0.0	2.7	0.0	36.7
2000-01	’000 ha	8.7	18.9	6.3	0.0	2.7	0.0	14.0
2001-02	’000 ha	8.7	18.9	6.3	0.0	2.7	0.0	36.7
2002-03	’000 ha	8.4	18.3	6.0	0.0	2.3	0.0	35.0
Yield								
1996-97	t/ha	0.8	0.5	0.3	0.0	0.7	0.0	0.6
1997-98	t/ha	0.5	0.4	0.7	0.0	0.7	0.0	0.5
1998-99	t/ha	0.6	0.8	0.5	0.0	1.0	0.0	0.7
1999-00	t/ha	0.7	0.8	0.7	0.0	1.7	0.0	0.9
2000-01	t/ha	0.8	0.9	0.7	0.0	1.7	0.0	0.6
2001-02	t/ha	0.7	0.7	0.6	0.0	1.1	0.0	0.8
2002-03	t/ha	0.7	0.7	0.6	0.0	1.4	0.0	0.7
Production								
1996-97	kt	8.5	8.8	0.2	0.0	3.8	0.0	21.3
1997-98	kt	3.6	1.9	0.2	0.0	1.8	0.0	7.6
1998-99	kt	5.5	14.9	2.7	0.0	1.7	0.0	24.8
1999-00	kt	6.2	16.0	4.6	0.0	4.7	0.0	31.4
2000-01	kt	7.0	17.0	4.6	0.0	4.7	0.0	9.0
2001-02	kt	6.0	12.9	3.8	0.0	3.1	0.0	27.8
2002-03	kt	5.9	12.9	3.8	0.0	3.2	0.0	26.0
Soybeans								
Area								
1996-97	’000 ha	21.5	1.8	15.5	0.0	0.0	0.0	38.8
1997-98	’000 ha	19.4	1.0	11.3	0.0	0.0	0.0	31.7
1998-99	’000 ha	35.0	1.5	11.5	0.0	0.0	0.0	48.0
1999-00	’000 ha	32.6	2.0	18.6	0.0	0.0	0.0	53.1
2000-01	’000 ha	20.8	0.8	11.6	0.0	0.0	0.0	33.3
2001-02	’000 ha	22.0	1.0	9.4	0.0	0.0	0.0	32.4
2002-03	’000 ha	7.3	0.1	3.0	0.0	0.0	0.0	10.3
Yield								
1996-97	t/ha	2.1	2.2	1.6	0.0	0.0	0.0	1.9
1997-98	t/ha	1.9	2.3	1.4	0.0	0.0	0.0	1.7
1998-99	t/ha	2.3	2.0	2.2	0.0	0.0	0.0	2.3
1999-00	t/ha	1.9	2.0	2.1	0.0	0.0	0.0	2.0
2000-01	t/ha	1.6	1.7	1.2	0.0	0.0	0.0	1.5
2001-02	t/ha	2.4	2.0	2.0	0.0	0.0	0.0	2.3
2002-03	t/ha	1.8	2.5	1.7	0.0	0.0	0.0	1.8
Production								
1996-97	kt	46.1	4.0	24.4	0.0	0.0	0.0	74.4
1997-98	kt	36.2	2.4	15.5	0.0	0.0	0.0	54.0
1998-99	kt	80.5	3.0	25.3	0.0	0.0	0.0	108.8
1999-00	kt	61.8	4.0	39.0	0.0	0.0	0.0	104.8
2000-01	kt	32.8	1.4	14.4	0.0	0.0	0.0	48.6
2001-02	kt	53.0	2.0	19.0	0.0	0.0	0.0	74.0
2002-03	kt	13.2	0.1	4.9	0.0	0.0	0.0	18.3

Continued

179 Australian oilseeds area, yield and production, by state and type *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
Sunflowerseed								
Area								
1996-97	’000 ha	41.3	1.4	95.8	0.1	0.3	0.0	138.8
1997-98	’000 ha	20.0	3.0	68.0	0.4	1.0	0.0	92.4
1998-99	’000 ha	78.0	3.0	85.0	0.4	1.1	0.0	167.5
1999-00	’000 ha	27.0	2.0	89.3	0.4	1.1	0.0	119.8
2000-01	’000 ha	17.6	0.2	64.2	0.0	0.2	0.0	82.2
2001-02	’000 ha	22.0	0.0	29.6	0.0	0.0	0.0	65.0
2002-03	’000 ha	14.0	0.0	25.5	0.0	0.0	0.0	39.5
Yield								
1996-97	t/ha	1.1	1.2	1.0	1.0	0.8	0.0	1.0
1997-98	t/ha	1.3	1.7	1.0	2.5	1.0	0.0	1.1
1998-99	t/ha	1.3	1.8	1.2	2.4	1.0	0.0	1.2
1999-00	t/ha	1.4	1.6	1.2	0.9	0.9	0.0	1.2
2000-01	t/ha	1.1	0.9	0.9	0.0	2.0	0.0	0.9
2001-02	t/ha	1.1	0.0	1.0	0.0	0.0	0.0	1.0
2002-03	t/ha	0.8	0.0	0.5	0.0	0.0	0.0	0.6
Production								
1996-97	kt	46.2	1.7	95.2	0.1	0.3	0.0	143.4
1997-98	kt	25.0	5.0	66.0	1.0	1.0	0.0	98.0
1998-99	kt	101.4	5.3	100.3	1.0	1.0	0.0	209.0
1999-00	kt	37.0	3.1	105.4	0.4	1.0	0.0	146.9
2000-01	kt	20.0	0.2	56.9	0.0	0.3	0.0	77.4
2001-02	kt	25.0	0.0	29.6	0.0	0.0	0.0	63.0
2002-03	kt	11.5	0.0	13.0	0.0	0.0	0.0	24.5
Total oilseeds								
Area								
1996-97	’000 ha	526.9	117.3	253.5	107.7	42.2	0.0	1 046.6
1997-98	’000 ha	619.3	130.4	241.4	249.6	67.4	0.0	1 307.0
1998-99	’000 ha	878.6	232.0	305.7	537.7	135.1	0.0	2 089.6
1999-00	’000 ha	907.9	310.2	291.0	910.8	204.3	0.0	2 624.6
2000-01	’000 ha	901.6	285.4	306.9	518.4	157.3	0.0	2 143.2
2001-02	’000 ha	880.0	262.4	188.1	395.4	167.1	0.0	1 906.9
2002-03	’000 ha	582.7	272.4	110.8	401.4	142.6	0.0	1 509.3
Yield								
1996-97	t/ha	2.0	1.3	1.5	1.0	1.4	0.0	1.7
1997-98	t/ha	1.8	1.1	1.6	1.1	1.4	0.0	1.5
1998-99	t/ha	1.7	1.2	1.7	1.1	1.5	0.0	1.5
1999-00	t/ha	1.8	1.4	1.9	1.1	1.2	0.0	1.5
2000-01	t/ha	1.8	1.4	1.7	0.7	1.3	0.0	1.4
2001-02	t/ha	1.8	1.4	1.9	1.1	1.6	0.0	1.6
2002-03	t/ha	0.9	0.7	1.5	0.8	1.3	0.0	0.9
Production								
1996-97	kt	1 062.2	149.5	390.4	108.8	57.5	0.0	1 768.2
1997-98	kt	1 101.8	147.7	389.3	272.0	91.6	0.0	2 002.3
1998-99	kt	1 490.6	284.0	515.3	617.4	196.2	0.0	3 104.3
1999-00	kt	1 604.2	424.3	544.0	990.9	244.5	0.0	3 808.8
2000-01	kt	1 639.4	402.6	511.8	354.3	209.7	0.0	3 098.0
2001-02	kt	1 579.3	365.9	366.5	420.4	275.7	0.0	3 020.0
2002-03	kt	511.5	197.0	162.6	331.4	183.9	0.0	1 386.4

Sources: ABS, Principal Agricultural Commodities, Australia, Preliminary, cat. no. 7111.0, Canberra; *ABS, Agriculture, Australia,* cat. no. 7113.0, Canberra; *ABS, Agricultural Commodities, Australia,* cat no. 7121.0, Canberra; ABARE, *Australian Crop Report,* Canberra; ABARE.

180 Australian exports of oilseeds, vegetable oils and meals, by type

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	kt	kt	kt	kt	kt	kt	kt	kt
Oilseeds								
Canola	347.77	283.43	590.07	1 319.83	1 892.61	1 479.11	1 303.09	612.30
Cottonseed	157.42	211.48	296.06	359.94	530.75	657.79	593.64	258.57
Linseed	0.41	0.64	0.06	0.32	0.10	0.01	0.03	0.03
Peanuts	0.79	1.89	3.66	4.75	3.93	2.81	5.10	3.53
Safflowerseed	10.52	17.54	12.01	8.60	6.93	13.62	10.36	2.77
Soybeans	2.39	3.65	3.13	2.53	2.65	11.26	5.42	7.22
Sunflowerseed	3.52	4.44	3.15	11.02	7.65	24.81	1.98	2.25
Total **a**	522.81	523.07	908.14	1 706.99	2 444.63	2 189.43	1 919.62	886.67
(value, $m)	194.27	190.41	344.80	672.31	789.46	708.84	740.09	388.93
Oils								
Canola	6.95	8.56	28.72	56.18	39.00	28.05	31.31	31.20
Cottonseed	0.18	0.74	18.32	1.35	0.31	0.64	2.49	2.05
Linseed	0.02	0.03	0.02	0.03	0.01	0.00	0.30	0.01
Palm	0.12	0.34	2.09	0.67	0.00	0.01	0.00	0.00
Peanut	0.13	0.63	0.44	0.67	0.09	0.16	0.59	0.12
Safflowerseed	0.51	1.05	1.60	1.45	0.37	0.07	0.13	0.00
Soybeans	0.07	0.02	0.12	2.06	0.29	3.15	2.21	1.43
Sunflowerseed	0.44	0.73	4.07	8.32	5.41	6.34	4.73	4.26
Olive	0.06	0.06	0.10	0.24	0.27	0.33	0.31	0.14
Total	14.28	14.03	59.94	72.97	47.83	41.82	49.55	51.16
(value, $m)	16.96	15.83	64.92	76.60	40.76	39.93	53.54	61.98
Oilseed meals								
Canola	0.00	0.00	0.00	0.18	0.54	1.73	0.00	0.00
Cottonseed and sunflowerseed	4.08	54.10	9.29	30.08	46.83	59.71	31.92	9.15
Linseed	0.02	0.00	0.00	0.00	0.02	0.00	0.74	0.19
Soybeans	4.55	2.83	3.65	2.43	1.74	2.47	1.78	1.54
Other **b**	3.07	1.58	41.04	115.41	68.64	8.32	1.80	1.38
Total	11.73	58.52	53.98	148.10	117.77	72.22	36.24	12.27
(value, $m)	5.06	11.04	12.96	422.58	220.23	559.89	10.07	5.59

a Excludes sesame seed and other oleaginous fruit. **b** Includes flour, meal of oilseeds, and oleaginous fruit. Excludes peanut meal.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

181 Australian exports of selected oilseeds products, by destination

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	kt	kt	kt	kt	kt	kt	kt	kt
Oilseeds								
Canola								
Bangladesh	123.24	78.21	94.64	126.33	99.36	148.22	151.75	70.12
China	0.00	0.00	132.66	393.79	1 212.02	294.81	335.77	50.08
Japan	222.16	204.65	230.33	293.19	369.96	375.94	395.43	444.40
Pakistan	0.00	0.20	20.89	42.83	56.21	224.32	306.66	38.50
Other	2.37	0.37	111.55	463.69	155.06	435.82	113.48	9.20
Total **a**	347.77	283.43	590.07	1 319.83	1 892.61	1 479.11	1 303.09	612.30
Cottonseed								
Chinese Taipei	0.63	1.08	0.58	3.50	3.35	2.45	1.47	0.57
Japan	135.00	166.20	177.08	175.34	175.98	152.57	164.48	133.41
Korea, Rep. Of	20.80	41.12	45.63	55.39	83.14	94.60	88.47	22.72
Saudi Arabia	0.00	0.00	0.00	0.30	2.27	17.00	8.50	0.00
United States	0.00	1.42	58.14	122.65	221.20	386.54	327.68	98.81
Other	1.00	1.66	14.63	2.77	44.82	4.64	3.05	3.05
Total **a**	157.42	211.48	296.06	359.94	530.75	657.79	593.64	258.57
Canola oil								
China	0.00	3.00	8.73	4.50	0.00	0.00	5.03	5.30
Japan	0.00	0.00	0.00	0.04	5.18	13.84	9.66	10.00
New Zealand	0.14	0.03	1.18	5.21	10.26	9.67	14.51	12.95
Other	6.81	5.53	18.82	46.43	23.56	4.54	2.11	2.94
Total	6.95	8.56	28.72	56.18	39.00	28.05	31.31	31.20
Cottonseed and sunflowerseed meal								
Korea, Rep. of	0.00	51.74	7.84	28.00	43.65	55.62	25.99	6.32
New Zealand	0.39	0.44	0.14	0.07	0.03	0.28	2.15	1.24
Other	3.69	1.93	1.31	2.00	3.14	3.81	3.77	1.59
Total	4.08	54.10	9.29	30.08	46.83	59.71	31.92	9.15

a Excludes sesame seed and other oleaginous fruit. **b** Includes flour, meal of oilseeds, and oleaginous fruit. Excludes peanut meal.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

182 Australian imports of oilseeds, vegetable oils and meals, by type

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	kt	kt	kt	kt	kt	kt	kt	kt
Oilseeds								
Canola	0.25	0.16	0.16	0.17	0.14	0.09	0.09	0.21
Copra	0.00	0.00	0.02	0.01	0.01	0.00	0.01	0.01
Linseed	0.06	1.02	3.33	0.40	0.14	1.23	1.04	0.56
Peanuts	14.22	4.12	3.84	5.68	3.70	7.41	5.77	28.38
Soybeans	69.15	54.05	47.59	23.32	18.13	0.09	0.31	43.82
Sunflowerseed	0.83	1.05	0.88	0.63	0.76	0.77	0.80	0.73
Other **a**	5.92	6.06	6.03	5.87	5.89	5.91	6.80	6.51
Total	90.44	66.47	61.84	36.08	28.78	15.50	14.81	80.22
(value, $m)	51.23	37.47	39.21	28.84	22.54	23.44	20.80	61.45
Oils								
Canola	0.49	2.19	1.54	2.17	3.71	3.52	3.28	10.48
Cottonseed	0.03	0.02	0.11	0.18	0.23	0.42	0.64	0.71
Linseed	3.00	2.74	2.08	2.35	2.68	2.67	2.43	1.90
Maize	1.57	2.42	1.54	1.41	1.65	1.79	2.04	1.90
Peanut	1.22	0.19	0.11	0.36	0.53	1.11	0.35	1.46
Safflowerseed and sunflowerseed	12.36	33.36	14.37	9.53	8.69	12.58	16.64	24.86
Soybean	29.17	18.30	12.24	13.82	8.01	7.88	10.90	10.65
Castor	1.34	1.69	1.87	1.76	1.97	1.15	1.41	1.47
Coconut	16.67	17.86	17.02	16.39	13.40	14.36	12.18	15.23
Olive	15.89	17.69	20.00	22.97	22.53	30.75	24.69	0.02
Palm	6.44	6.96	7.30	7.81	6.60	7.36	8.35	7.97
Palm kernel	5.06	5.63	7.22	6.65	8.47	8.23	11.95	10.33
Palm olein	74.97	71.30	76.72	72.91	79.56	77.24	74.63	82.50
Palm stearin	22.78	23.51	27.99	19.59	25.84	23.40	29.54	22.08
Tung	0.18	0.26	15.40	16.23	33.64	15.20	0.19	0.31
Other **b**	29.36	22.89	36.68	32.30	33.21	40.63	31.18	217.10
Total oils	220.54	227.01	242.18	226.42	250.70	248.28	230.38	408.98
(value, $m)	277.98	272.10	267.13	305.51	281.91	282.44	280.32	214.98
Oilseed meals								
Soybeans	152.28	183.42	159.78	176.90	211.86	204.71	258.76	373.66
Other **c**	29.36	22.89	36.68	32.30	33.21	40.63	31.18	217.10
Total	181.64	206.31	196.46	209.20	245.07	245.34	289.95	590.77
(value, $m)	51.08	71.28	73.09	59.12	67.76	83.21	105.80	153.82

a Oilseeds, oleaginous fruit, used for extraction of vegetable oils, not elsewhere specified. **b** Includes fixed vegetable oils not elsewhere specified, including mixtures; boiled, oxidised and dehydrated vegetable oils not elsewhere specified; vegetable oils and fats not elsewhere specified. **c** Includes flours.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

183 Summary of world statistics for oilseeds [a]

	Area	Production	Use [b]	Closing stocks World	Closing stocks Exporters [c]	Stocks to use ratio	Exports	Use per person	Price [d]
	million ha	Mt	Mt	Mt	Mt	%	Mt	kg	US$/t
1970-71	70.2	77.1	78.6	na	3.4	na	18.2	27.2	na
1971-72	73.9	83.3	82.6	4.7	3.6	5.6	18.3	28.4	na
1970-71	70.2	77.1	78.6	na	3.4	na	18.2	27.2	na
1971-72	73.9	83.3	82.6	4.7	3.6	5.6	18.3	28.4	na
1972-73	102.7	109.4	107.6	4.7	3.3	4.4	20.4	28.5	267.0
1973-74	107.9	125.0	120.4	8.2	6.5	6.8	22.0	30.7	260.0
1974-75	107.1	118.2	117.4	9.5	7.6	8.1	19.7	29.3	249.0
1975-76	106.9	128.3	125.6	12.9	10.3	10.3	23.8	30.8	215.0
1976-77	104.8	118.7	124.9	7.1	5.8	5.7	23.6	30.1	288.0
1977-78	115.4	138.1	136.5	9.6	7.3	7.0	26.9	32.3	259.0
1978-79	120.4	145.3	145.5	10.5	8.1	7.2	30.1	33.8	295.0
1979-80	127.8	164.6	156.4	18.0	14.9	11.5	35.2	35.8	278.0
1980-81	125.4	150.7	155.5	14.8	12.2	9.5	30.7	35.0	310.0
1981-82	128.8	165.1	167.0	12.9	10.0	7.7	35.5	36.9	253.0
1982-83	130.2	173.8	171.3	15.0	11.8	8.7	34.6	37.2	260.0
1983-84	130.3	161.1	165.4	10.0	6.6	6.0	32.5	35.3	301.1
1984-85	138.1	186.8	181.7	15.6	11.9	8.6	32.0	38.1	223.0
1985-86	137.0	191.7	187.1	21.2	17.9	11.3	33.8	38.6	210.8
1986-87	133.7	189.8	193.8	18.4	14.8	9.5	36.8	39.3	208.7
1987-88	140.9	204.9	204.6	16.1	11.4	7.9	39.2	40.7	282.3
1988-89	150.6	199.5	202.4	13.9	9.6	6.8	31.8	39.6	292.3
1989-90	151.3	213.6	209.0	14.4	10.1	6.9	36.3	40.2	246.9
1990-91	150.6	213.6	214.0	16.0	11.9	7.5	32.6	40.5	241.4
1991-92	157.0	222.6	224.6	14.7	10.7	6.6	37.4	41.8	237.4
1992-93	156.4	226.4	226.9	14.6	11.0	6.5	38.3	41.6	246.2
1993-94	159.9	227.3	231.1	12.0	8.2	5.2	38.4	41.7	258.8
1994-95	168.1	261.1	257.1	16.4	12.2	6.4	44.2	45.7	247.6
1995-96	174.5	257.7	261.5	13.3	8.3	5.1	45.0	45.7	303.4
1996-97	170.7	261.4	262.8	12.5	6.4	4.8	50.2	45.3	307.0
1997-98	177.7	286.5	283.4	15.7	8.5	5.5	55.3	47.8	259.0
1998-99	185.5	294.7	293.0	17.4	12.8	5.9	55.9	49.7	225.0
1999-00	189.2	303.4	301.1	19.9	11.9	6.6	65.1	50.4	208.0
2000-01	189.0	313.1	309.5	23.8	9.5	7.7	72.0	51.5	200.0
2001-02	192.4	325.0	321.0	36.9	8.3	11.5	70.7	52.6	203.0
2002-03	186.3	327.8	331.0	41.1	7.9	12.4	73.4	53.5	240.1

a October–September years, except where otherwise noted. Oilseeds comprise canola, copra, cottonseed, palm kernels, peanuts, soybeans and sunflowerseed. **b** Disappearance. **c** Stocks are indicative for the year in question. Soybeans: United States, Brazil, Argentina; cottonseed: United States; peanuts: United States, China; sunflowerseed: United States, Argentina; canola: Canada; copra: the Philippines; palm kernels: Malaysia. **d** US soybeans, cif Rotterdam, marketing year October-September. **na** Not available.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; ISTA mielke GmbH, *Oil World Annual,* Hamburg.

184 World oilseeds production, by country a

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	kt	kt	kt	kt	kt	kt	kt	kt
Africa								
South Africa	1 118	772	941	1 522	912	1 143	1 309	954
Americas								
Argentina	19 236	17 460	26 173	27 799	27 840	31 495	33 485	39 520
Brazil	25 012	27 988	33 391	32 331	35 611	40 824	45 074	54 170
Canada	8 795	7 283	9 195	10 490	11 696	9 936	6 705	6 080
Paraguay	2 654	2 884	3 168	3 245	3 096	3 685	3 450	4 060
United States	69 026	74 755	83 095	84 365	82 315	84 891	89 998	83 250
Asia								
China	43 327	41 445	43 410	44 903	45 761	51 135	52 570	52 670
India	25 518	27 936	24 943	25 735	23 022	21 463	25 113	19 540
Indonesia	5 449	5 972	5 067	5 236	5 766	5 837	6 066	6 020
Malaysia	2 521	2 678	2 516	2 813	3 096	3 431	3 315	3 738
Pakistan	4 031	3 671	3 658	3 668	4 396	4 113	3 857	3 800
Philippines	2 028	2 463	2 433	1 390	2 392	2 544	2 544	2 100
Turkey	2 170	1 865	1 962	2 060	2 210	1 850	1 885	2 320
Turkmenistan	550	260	370	415	420	350	350	280
Uzbekistan	2 200	2 014	2 300	2 000	2 150	1 920	2 100	2 000
Europe								
European Union b	13 137	12 951	14 970	15 178	16 680	14 253	13 879	13 542
Hungary	785	966	720	830	1 185	724	805	1 030
Poland	1 377	449	595	1 099	1 132	959	1 100	1 000
Romania	1 042	1 297	991	1 199	1 591	846	845	1 100
Russian Federation	4 615	3 154	3 182	3 422	4 619	4 405	3 198	4 220
Ukraine	2 897	2 156	2 370	2 369	2 913	3 653	2 434	3 490
Oceania								
Australia	1 303	1 740	1 989	3 071	3 767	3 080	2 983	1 351
Other countries	18 914	19 221	19 103	19 579	20 782	20 591	21 983	21 565
Total	257 705	261 380	286 542	294 719	303 352	313 128	325 048	327 800

a Oilseeds comprise soybeans, cottonseed, peanuts, sunflowerseed, canola, palm kernels and copra. **b** Regarded as fifteen countries for all years.
Sources: ABARE, *Australian Crop Report,* Canberra; ABS, Principal Agricultural Commodities, Australia, Preliminary, cat. no. 7111.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat no. 7121.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

185 World oilseeds production, by type

	Castor-seed	Copra	Cotton-seed	Linseed	Palm kernels	Peanuts	Rape-seed a	Sesame seed	Soybeans	Sunflower-seed
	kt	kt	kt	kt	kt	kt	kt	kt	kt	kt
1960-61	595	3 390	18 064	3 245	927	9 049	3 702	1 183	23 551	6 056
1961-62	570	3 079	17 767	3 265	795	9 537	3 556	1 413	26 945	7 085
1962-63	590	3 156	18 772	3 625	807	9 749	3 734	1 516	27 016	6 795
1963-64	675	3 423	20 163	3 525	823	10 611	2 924	1 546	28 121	6 466
1964-65	811	3 375	21 411	3 700	862	11 625	4 503	1 741	29 238	8 580
1965-66	784	3 528	22 085	3 675	847	10 956	5 042	1 572	31 700	8 110
1966-67	853	3 285	20 635	3 273	703	11 087	4 664	1 544	36 468	9 410
1967-68	909	3 335	20 163	2 738	762	11 849	5 724	1 727	37 773	9 791
1968-69	888	3 228	22 588	3 155	808	11 001	5 379	1 572	41 698	9 685
1969-70	866	3 203	20 148	3 995	885	10 705	5 264	1 624	42 478	10 155
1970-71	814	3 693	19 675	4 420	939	11 346	7 078	1 984	44 269	9 790
1971-72	854	4 291	21 631	3 024	906	11 777	7 661	1 827	47 184	10 019
1972-73	807	3 732	22 400	2 579	859	14 421	7 257	1 776	49 189	9 685
1973-74	997	3 204	22 862	2 763	993	16 251	7 098	1 873	62 377	12 175
1974-75	1 101	4 385	22 985	2 625	1 049	16 651	7 805	1 770	54 605	10 725
1975-76	800	5 020	19 888	2 873	1 078	18 468	8 385	1 671	65 543	9 959
1976-77	694	4 571	20 064	2 580	1 122	16 378	7 116	1 657	59 361	10 130
1977-78	773	4 745	22 685	3 392	1 157	16 735	7 820	1 779	72 114	12 822
1978-79	907	4 132	21 458	2 740	1 285	17 711	10 624	1 854	77 368	12 711
1979-80	875	4 287	23 248	3 089	1 415	17 183	9 933	1 852	93 339	15 162
1980-81	782	4 757	23 455	2 526	1 436	16 040	11 035	1 713	80 873	13 090
1981-82	914	4 508	26 348	2 459	1 708	19 581	12 253	2 069	86 050	14 664
1982-83	924	4 392	25 755	3 001	1 767	17 205	14 703	1 769	93 441	16 530
1983-84	970	3 693	24 211	2 640	1 975	18 510	14 259	1 951	83 092	15 328
1984-85	1 070	4 592	32 816	2 790	2 188	19 449	16 895	1 970	93 040	17 776
1985-86	1 180	5 231	29 415	3 010	2 467	19 784	18 536	1 960	96 958	19 331
1986-87	1 050	4 625	26 281	3 290	2 453	20 159	19 283	2 270	97 961	19 043
1987-88	830	4 299	30 206	2 790	2 609	20 656	23 192	2 230	103 310	20 674
1988-89	1 010	4 265	31 382	2 300	2 858	22 657	22 513	2 210	95 802	20 003
1989-90	1 110	5 022	29 785	2 450	3 256	21 670	21 891	2 140	107 148	21 584
1990-91	1 350	4 684	32 264	2 880	3 255	21 656	25 056	2 070	104 093	22 635
1991-92	1 170	4 665	35 504	2 460	3 343	21 879	28 223	2 350	107 298	21 684
1992-93	1 140	4 838	30 843	1 966	3 910	22 993	25 285	2 190	117 379	21 174
1993-94	1 115	4 890	28 940	2 191	4 137	24 229	26 735	2 400	117 771	20 621
1994-95	1 226	5 533	32 319	2 474	4 522	27 366	30 310	2 251	137 697	23 331
1995-96	1 368	5 134	35 147	2 619	4 868	27 467	34 435	2 408	124 912	25 742
1996-97	1 166	6 053	33 610	2 299	5 211	28 958	31 531	2 641	132 217	23 800
1997-98	1 191	5 330	34 354	2 436	5 050	27 289	33 234	2 752	158 066	23 211
1998-99	1 160	4 376	32 618	2 830	5 619	29 765	35 885	2 640	159 819	26 633
1999-00	1 270	5 457	32 926	2 890	6 407	29 056	42 473	2 710	159 904	27 217
2000-01	1 330	5 900	33 526	2 340	6 868	31 169	35 719	2 960	175 098	23 290
2001-02	1 089	5 255	36 582	2 150	7 124	33 758	36 167	2 810	183 724	21 266
2002-03	1 033	5 299	33 772	2 095	7 770	30 570	37 433	2 760	183 281	22 950

a Predominantly canola since the late 1980s.

Sources: ISTA Mielke GmbH, *Oil World Annual,* Hamburg; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

186 World oilseeds trade, by type and country [a]

	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt	2002-03 Mt
Imports								
Canola	5.80	5.97	6.76	9.09	10.97	9.32	7.66	6.73
China	0.00	0.00	0.29	2.15	3.68	2.36	0.80	0.80
European Union [b]	2.66	2.50	2.97	3.05	2.84	3.03	2.94	2.45
Japan	1.98	2.00	2.09	2.17	2.23	2.18	2.15	2.15
Copra	0.19	0.23	0.21	0.29	0.28	0.21	0.18	0.16
European Union [b]	0.06	0.11	0.11	0.10	0.10	0.06	0.04	0.05
Linseed	0.84	0.77	0.91	0.92	0.71	0.77	0.79	0.78
European Union [b]	0.55	0.43	0.57	0.58	0.42	0.59	0.62	0.62
Japan	0.08	0.08	0.08	0.08	0.06	0.05	0.05	0.03
Soybeans	32.91	37.42	39.50	40.72	47.97	55.04	57.05	60.96
China	0.80	2.27	2.94	3.85	10.10	13.25	10.50	14.00
European Union [b]	14.81	15.72	17.26	16.79	15.66	18.92	20.34	20.86
Japan	4.78	5.04	4.87	4.81	4.91	4.77	5.00	4.90
Mexico	2.40	2.72	3.48	3.76	3.95	4.37	4.90	5.10
Sunflowerseed	3.97	4.22	4.05	4.34	3.48	3.20	2.07	2.30
Israel	0.01	0.01	0.01	0.03	0.02	0.04	0.02	0.02
European Union [b]	3.06	3.32	2.90	3.33	2.77	2.56	1.59	1.74
Mexico	0.07	0.17	0.06	0.04	0.01	0.03	0.01	0.03
Turkey	0.50	0.36	0.58	0.60	0.44	0.31	0.22	0.25
Other oilseeds [c]	2.03	2.19	2.25	2.18	2.70	2.60	2.81	2.45
Total	45.73	50.81	53.68	57.55	66.09	71.13	70.55	73.38
Exports								
Canola	5.98	5.67	6.90	9.31	11.17	9.83	7.58	6.69
Australia	0.38	0.38	0.55	1.53	1.83	1.43	1.34	0.83
Canada	2.81	2.52	2.96	3.88	3.90	4.84	2.75	2.20
Copra	0.23	0.23	0.26	0.24	0.25	0.18	0.20	0.20
Papua New Guinea	0.07	0.07	0.10	0.07	0.08	0.04	0.06	0.06
Philippines	0.01	0.00	0.01	0.00	0.00	0.02	0.01	0.01
Linseed	0.85	0.78	0.89	0.93	0.71	0.79	0.76	0.78
Canada	0.81	0.75	0.84	0.89	0.67	0.72	0.69	0.65
Soybeans	31.97	37.02	41.05	38.72	46.68	55.07	57.13	60.95
Argentina	2.01	0.73	3.23	3.23	4.13	7.42	7.00	10.60
Brazil	3.63	8.75	8.75	8.93	11.16	15.47	16.20	22.20
United States	23.11	24.11	23.76	21.90	26.54	27.10	28.85	22.32
Sunflowerseed	3.65	4.16	3.93	4.45	3.39	3.48	2.24	2.35
Argentina	0.55	0.10	0.45	0.91	0.28	0.07	0.30	0.30
Hungary	0.25	0.22	0.16	0.15	0.15	0.20	0.18	0.10
Ukraine	0.45	1.10	0.79	0.88	0.41	1.02	0.10	0.30
United States	0.22	0.15	0.19	0.26	0.21	0.20	0.23	0.15
Other oilseeds [c]	2.38	2.30	2.28	2.25	2.90	2.67	2.84	2.48
Total	45.05	50.16	55.30	55.89	65.11	72.03	70.74	73.45

a Imports may not equal exports in any given period as a result of lags in shipping time. **b** Regarded as fifteen countries for all years; includes intra-EU trade. **c** Cottonseed, palm kernels and peanuts.

Sources: ISTA Mielke GmbH, *Oil World Annual,* Hamburg; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

187 World protein meals trade, by type and country a

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Imports								
Copra meal	0.75	0.95	0.83	0.58	0.85	1.14	0.85	0.78
European Union **b**	0.67	0.66	0.53	0.29	0.51	0.70	0.48	0.42
Korea, Rep. of	0.06	0.26	0.27	0.25	0.31	0.43	0.37	0.35
Fish meal	3.54	3.60	2.27	2.77	3.46	3.23	3.17	3.10
China	0.88	0.98	0.45	0.65	1.00	0.75	0.96	0.82
Chinese Taipei	0.35	0.31	0.17	0.29	0.29	0.30	0.23	0.26
European Union **b**	0.81	0.83	0.67	0.67	0.80	0.65	0.64	0.61
Peanut meal	0.50	0.47	0.39	0.26	0.24	0.24	0.23	0.21
European Union **b**	0.23	0.23	0.18	0.18	0.15	0.17	0.13	0.14
Thailand	0.13	0.13	0.12	0.05	0.05	0.05	0.08	0.05
Soybean meal	29.72	30.73	34.06	35.34	36.24	38.33	44.04	45.49
European Union **b**	13.00	11.42	13.64	16.43	16.52	17.11	19.54	19.75
Hungary	0.47	0.46	0.51	0.67	0.68	0.77	0.81	0.88
Indonesia	0.89	1.10	0.52	0.83	1.14	1.55	1.60	1.80
Philippines	0.90	0.97	1.05	0.86	0.97	1.11	1.55	1.10
Poland	0.78	0.80	0.93	0.81	0.90	1.22	1.50	1.40
Korea, Rep. of	1.06	0.81	0.88	1.10	1.09	1.41	1.50	1.65
Other meals **c**	9.99	10.20	10.57	10.08	9.82	12.37	8.28	10.67
Total	44.50	45.94	48.11	49.02	50.61	55.31	56.56	60.24
Exports								
Fish meal	3.51	4.03	2.18	3.05	3.71	3.29	3.12	3.17
European Union **b**	0.31	0.28	0.28	0.29	0.29	0.24	0.31	0.25
South America **d**	2.67	3.10	1.43	2.11	2.77	2.37	1.99	2.16
Peanut meal	0.55	0.49	0.46	0.29	0.31	0.33	0.41	0.22
India	0.26	0.30	0.22	0.05	0.01	0.02	0.10	0.03
Senegal	0.10	0.05	0.05	0.09	0.13	0.14	0.14	0.06
Sudan	0.06	0.06	0.07	0.07	0.07	0.08	0.08	0.08
Soybean meal	30.18	30.09	32.86	34.87	35.37	37.19	42.27	43.76
Argentina	7.78	8.35	12.95	13.40	13.75	13.60	16.07	18.20
Brazil	10.90	9.80	10.85	9.83	9.93	10.68	11.98	13.75
European Union **b**	0.54	0.80	1.24	1.28	1.27	1.96	2.27	2.26
United States	5.45	6.34	8.46	6.46	6.65	6.99	6.81	5.49
Other meals **e**	11.40	11.74	11.86	10.65	10.47	12.94	9.35	13.58
Total	45.64	46.34	47.36	48.86	49.86	53.75	55.15	60.72

a Imports may not equal exports in any given period, as a result of lags in shipping time. **b** Regarded as fifteen countries for all years; includes intra-EU trade. **c** Canola, cottonseed, linseed, palm kernel, sesame seed and sunflowerseed. **d** Chile and Peru. **e** Canola, copra, cottonseed, linseed, palm kernel, sesame seed and sunflowerseed.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

188 World vegetable oils trade, by type and country

	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt	2002-03 Mt
Imports								
Canola oil	2.56	2.55	2.69	2.61	2.67	2.59	2.43	2.46
European Union **b**	0.83	0.97	0.91	1.00	1.16	1.36	1.35	1.35
India	0.04	0.03	0.07	0.24	0.16	0.05	0.01	0.01
Coconut oil	1.32	1.49	1.81	1.15	1.58	1.83	2.06	1.98
European Union **b**	0.58	0.65	0.78	0.52	0.75	0.81	0.77	0.80
United States	0.40	0.54	0.65	0.34	0.42	0.51	0.61	0.50
Palm oil	10.53	11.68	11.01	12.24	13.76	16.77	17.65	19.16
European Union **b**	1.88	2.05	2.18	2.26	2.36	2.78	3.08	3.39
India	0.97	1.30	1.53	2.90	3.30	4.00	3.40	3.80
Pakistan	1.02	1.07	1.12	0.98	1.04	1.05	1.33	1.30
Singapore	0.98	0.98	0.25	0.29	0.43	0.39	0.39	0.37
Soybean oil	4.70	5.28	6.20	7.20	6.50	6.95	8.32	9.36
European Union **b**	0.01	0.00	0.01	0.03	0.02	0.02	0.02	0.04
India	0.06	0.05	0.24	0.83	0.79	1.40	1.55	1.60
Poland	0.07	0.07	0.10	0.10	0.10	0.12	0.14	0.14
Russian Federation	0.03	0.04	0.09	0.20	0.23	0.32	0.53	0.25
Sunflowerseed oil	2.51	3.04	2.72	2.97	2.81	2.23	2.09	2.16
European Union **b**	0.11	0.11	0.18	0.21	0.13	0.14	0.55	0.57
Other vegetable oils **c**	2.16	2.45	2.42	2.59	2.49	2.49	2.52	2.50
Total	23.79	26.49	26.84	28.75	29.81	32.86	35.07	37.62
Exports								
Canola oil	2.60	2.63	3.02	2.98	2.97	2.65	2.54	2.45
Canada	0.55	0.70	0.89	0.76	0.70	0.80	0.60	0.53
European Union **b**	1.75	1.60	1.74	1.88	1.99	1.59	1.69	1.68
Coconut oil	1.49	1.66	2.04	1.10	2.05	1.72	1.79	1.81
Philippines	0.90	1.02	1.39	0.60	1.15	1.20	1.07	1.04
Cottonseed oil	0.26	0.23	0.25	0.16	0.18	0.18	0.18	0.18
United States	0.10	0.11	0.09	0.05	0.06	0.06	0.07	0.06
Palm oil	10.94	12.27	11.39	12.48	14.23	17.10	17.81	19.60
Malaysia	6.66	7.54	7.42	8.10	8.85	10.48	10.50	11.60
Indonesia	2.08	2.43	2.36	3.06	3.87	4.78	5.69	6.20
Soybean oil	4.88	5.57	6.50	7.52	6.61	7.27	8.59	9.47
Argentina	1.63	1.86	2.73	3.06	3.04	3.21	3.73	4.58
Brazil	1.32	1.08	1.42	1.46	1.15	1.53	1.78	2.63
European Union **b**	0.56	0.85	1.04	1.05	1.05	1.11	1.10	1.03
United States	0.45	0.92	1.40	1.08	0.62	0.64	1.14	0.50
Sunflowerseed oil	2.57	3.15	2.88	3.10	3.09	2.29	2.15	2.19
Argentina	1.51	1.61	1.51	1.84	1.63	0.91	1.09	0.96
European Union **b**	0.14	0.46	0.33	0.24	0.20	0.16	0.09	0.06
Other vegetable oils **c**	3.00	3.47	4.77	3.99	4.01	3.74	3.59	2.35
Total	25.72	28.97	30.84	31.32	33.14	34.96	36.64	38.05

a Imports may not equal exports in any given period, as a result of lags in shipping time. **b** Regarded as fifteen countries for all years; includes intra-EU trade. **c** Castor, cottonseed, linseed, olive, palm kernel, peanut and sesame seed.
Sources: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

189 Selected oilseed, oilseed meal and vegetable oil import price quotations, by country [a]

	Canola [b] US$/t	Palm oil [c] US$/t	Soybeans [d] US$/t	Soybean meal [e] US$/t	Soybean oil [f] US$/t
1973-74	na	na	260.0	193.0	727.0
1974-75	na	na	249.0	163.0	616.0
1975-76	na	na	215.0	169.0	418.0
1976-77	na	na	288.0	237.0	570.0
1977-78	na	na	259.0	205.0	581.0
1978-79	na	na	295.0	238.0	655.0
1979-80	na	na	278.0	242.0	609.0
1980-81	308.0	na	310.0	273.0	545.0
1981-82	292.0	na	253.0	225.0	463.0
1982-83	303.0	406.0	260.0	224.0	463.0
1983-84	351.0	767.0	301.1	221.0	722.0
1984-85	303.0	569.0	223.0	155.0	625.0
1985-86	239.0	274.0	210.8	183.0	377.0
1986-87	180.0	310.0	208.7	191.0	324.0
1987-88	222.0	402.0	282.3	254.0	443.0
1988-89	218.5	357.7	292.3	262.8	435.0
1989-90	213.3	270.8	246.9	204.3	437.5
1990-91	199.3	317.6	241.4	198.3	454.4
1991-92	203.8	365.2	237.4	202.8	437.3
1992-93	234.1	382.3	246.2	207.3	453.3
1993-94	284.3	445.6	258.8	201.5	580.2
1994-95	288.9	659.7	247.6	183.6	641.8
1995-96	297.6	523.3	303.4	256.3	574.9
1996-97	284.4	526.1	307.0	277.7	535.6
1997-98	296.1	601.3	259.0	196.8	633.4
1998-99	227.3	481.9	225.0	149.7	482.9
1999-00	190.1	307.5	208.0	179.7	354.9
2000-01	202.0	243.8	200.0	187.9	335.9
2001-02	220.4	340.6	203.0	174.3	411.6
2002-03	258.0	336.3	240.1	195.0	540.0

a October–September average. **b** Cif Rotterdam; Europe '00' oil. **c** Malaysia fob; RBD. **d** Cif Rotterdam. **e** Cif Rotterdam; Arg. 45/46%. **f** Dutch fob; ex mill.
na Not available.
Sources: UISTA mielke GmbH, *Oil World Annual,* Hamburg.

190 Summary of Australian statistics for pulses

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Lupins									
Area	'000 ha	1 322.8	1 259.0	1 424.0	1 407.0	1 347.0	1 180.0	1 139.0	929.7
Yield	t/ha	1.2	1.2	1.1	1.2	1.5	0.9	1.1	0.6
Production	kt	1 559.0	1 522.6	1 561.0	1 696.0	1 968.0	1 055.0	1 215.0	536.7
Exports **a**	kt	886.9	881.0	972.0	969.5	1 423.7	714.4	414.2	180.6
Value of exports	$m	84.7	195.0	193.0	170.7	239.8	156.6	104.6	52.7
Average unit value	$/t	179.1	206.3	195.7	142.7	145.4	205.3	249.1	257.0
Gross value of production	$m	279.2	314.1	305.5	242.0	286.1	216.6	302.7	137.9
Field peas									
Area	'000 ha	381.6	336.2	366.5	370.0	320.7	397.0	337.0	312.4
Yield	t/ha	1.4	1.3	0.9	1.0	1.1	1.1	1.5	0.5
Production	kt	529.9	453.8	315.7	370.2	357.3	456.0	512.0	159.8
Exports **ab**	kt	216.6	334.7	203.8	207.2	307.3	387.0	459.1	107.6
Value of exports **b**	$m	62.2	97.1	66.9	62.6	89.8	111.7	156.9	43.0
Average unit value	$/t	248.2	244.6	271.8	236.6	296.9	218.6	287.7	380.0
Gross value of production	$m	131.5	111.0	85.8	87.6	106.1	99.7	147.3	60.7
Chickpeas									
Area	'000 ha	216.4	241.5	273.0	308.5	218.0	261.5	195.0	200.5
Yield	t/ha	1.3	1.2	0.7	0.6	1.1	0.6	1.3	0.7
Production	kt	286.9	287.7	198.6	187.6	229.9	162.4	258.0	136.0
Exports **a**	kt	112.1	341.8	255.9	109.4	217.5	217.8	278.0	88.5
Value of exports	$m	51.1	119.7	118.0	50.1	100.8	112.6	166.9	52.4
Average unit value	$/t	364.0	385.8	488.3	461.1	448.0	463.1	636.2	586.1
Gross value of production	$m	104.4	111.0	97.0	86.5	103.0	75.2	164.1	79.7
Total legumes c									
Area	'000 ha	2 076.4	2 030.0	2 309.4	2 391.8	2 146.7	2 174.0	1 932.2	1 711.5
Yield	t/ha	1.2	1.2	1.0	1.1	1.3	1.0	1.2	0.6
Production	kt	2 560.6	2 513.1	2 299.2	2 551.9	2 882.2	2 084.3	2 415.0	1 027.9
Exports **ad**	kt	1 329.7	1 667.7	1 549.4	1 474.7	2 318.5	1 760.8	1 720.2	713.0
Value of exports **d**	$m	254.0	464.3	438.4	358.6	606.3	626.8	723.7	286.0
Average unit value	$/t	224.5	210.5	235.4	185.8	219.7	223.7	219.2	350.3
Gross value of production	$m	574.8	529.0	541.2	474.1	633.3	466.3	529.3	360.0

a Exports are on a financial year basis. **b** Includes only field peas and cow peas. **c** Lupins, field peas, chickpeas, faba beans, mung beans, navy beans, vetch and lentils. **d** Also includes cow peas, lentils, pigeon peas and some other minor legumes on a financial year basis.

Sources: ABS, *International Trade, electronic data service,* cat. no. 5464.0, Canberra; ABS, *Principal Agricultural Commodities, Australia, Preliminary,* cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat no. 7121.0, Canberra; ABS, Summary of Crops, Australia, cat. no. 7330.0, Canberra; ABS, *Value of Agricultural Commodities Produced, Australia,* cat. no. 7503.0, Canberra; ABARE.

191 Australian area sown, yields and production of selected pulses, by state

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Australia a
Lupins							
Area							
1996-97	’000 ha	64.0	43.0	0.6	1 080.0	71.4	1 259.0
1997-98	’000 ha	80.0	41.0	0.0	1 207.0	96.0	1 424.0
1998-99	’000 ha	106.0	42.0	0.0	1 180.0	79.0	1 407.0
1999-00	’000 ha	135.0	35.0	0.0	1 104.0	73.0	1 347.0
2000-01	’000 ha	92.0	34.0	0.0	987.0	67.0	1 180.0
2001-02	’000 ha	106.0	33.0	0.0	920.0	80.0	1 139.0
2002-03	’000 ha	34.0	30.3	0.0	800.3	65.1	929.7
Yield							
1996-97	t/ha	1.50	1.21	1.00	1.18	1.43	1.21
1997-98	t/ha	0.94	0.80	0.00	1.12	1.10	1.10
1998-99	t/ha	1.65	1.10	0.00	1.16	1.29	1.21
1999-00	t/ha	1.78	1.29	0.00	1.45	1.10	1.46
2000-01	t/ha	1.38	1.38	0.00	0.79	1.46	0.89
2001-02	t/ha	1.16	1.24	0.00	0.98	1.84	1.07
2002-03	t/ha	0.62	0.27	0.00	0.56	0.88	0.58
Production							
1996-97	kt	96.0	52.0	0.6	1 272.0	102.0	1 522.6
1997-98	kt	75.0	33.0	0.0	1 347.0	106.0	1 561.0
1998-99	kt	175.0	46.0	0.0	1 372.0	102.0	1 696.0
1999-00	kt	240.0	45.0	0.0	1 603.0	80.0	1 968.0
2000-01	kt	127.0	47.0	0.0	783.0	98.0	1 055.0
2001-02	kt	123.0	41.0	0.0	904.0	147.0	1 215.0
2002-03	kt	21.0	8.2	0.0	450.3	57.2	536.7
Field peas							
Area							
1996-97	’000 ha	15.0	174.0	1.0	26.0	119.0	336.2
1997-98	’000 ha	17.5	170.5	1.0	36.5	140.0	366.5
1998-99	’000 ha	24.0	149.0	2.0	49.0	145.0	370.0
1999-00	’000 ha	17.0	131.0	0.0	46.0	125.7	320.7
2000-01	’000 ha	24.0	146.0	1.0	90.0	135.0	397.0
2001-02	’000 ha	15.0	125.0	0.0	70.0	126.0	337.0
2002-03	’000 ha	12.0	110.0	0.0	71.2	119.2	312.4
Yield							
1996-97	t/ha	1.23	1.22	0.00	1.02	1.64	1.35
1997-98	t/ha	0.91	0.57	0.67	0.85	1.21	0.86
1998-99	t/ha	1.18	0.62	0.00	0.82	1.43	1.00
1999-00	t/ha	1.50	1.10	0.00	1.00	1.12	1.11
2000-01	t/ha	1.04	1.16	0.00	0.49	1.60	1.15
2001-02	t/ha	1.13	1.22	0.00	1.17	2.06	1.52
2002-03	t/ha	0.75	0.10	0.00	0.43	0.91	0.51
Production							
1996-97	kt	18.4	213.0	0.0	26.4	195.0	453.8
1997-98	kt	16.0	98.0	0.7	31.0	169.0	315.7
1998-99	kt	28.2	93.0	0.0	40.0	208.0	370.2
1999-00	kt	25.5	144.1	0.0	46.0	140.6	357.3
2000-01	kt	25.0	170.0	0.0	44.0	216.0	456.0
2001-02	kt	17.0	153.0	0.0	82.0	259.0	512.0
2002-03	kt	9.0	11.3	0.0	30.8	108.8	159.8

Continued

191 Australian area sown, yields and production of selected pulses, by state *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Australia a
Chickpeas							
Area							
1996-97	’000 ha	31.2	135.0	20.8	42.6	11.9	241.5
1997-98	’000 ha	50.9	127.0	27.8	55.7	11.7	273.0
1998-99	’000 ha	74.7	125.9	41.5	50.9	15.5	308.5
1999-00	’000 ha	66.3	27.8	46.2	71.5	6.2	218.0
2000-01	’000 ha	124.5	8.0	71.0	57.0	1.1	261.5
2001-02	’000 ha	116.0	16.0	46.0	16.0	1.0	195.0
2002-03	’000 ha	71.0	9.0	111.0	6.0	3.5	200.5
Yield							
1996-97	t/ha	1.31	1.27	1.27	0.75	1.42	1.19
1997-98	t/ha	0.91	0.59	0.84	0.67	1.43	0.73
1998-99	t/ha	0.71	0.35	0.82	0.84	0.87	0.61
1999-00	t/ha	1.29	0.82	0.99	0.99	0.79	1.05
2000-01	t/ha	0.65	0.95	0.79	0.31	0.74	0.62
2001-02	t/ha	1.39	1.47	1.33	0.69	1.00	1.32
2002-03	t/ha	0.71	0.03	0.73	0.25	0.77	0.68
Production							
1996-97	kt	40.8	171.9	26.4	31.8	16.8	287.7
1997-98	kt	46.4	74.9	23.4	37.2	16.7	198.6
1998-99	kt	52.8	44.6	33.8	42.9	13.4	187.6
1999-00	kt	85.6	22.8	45.9	70.7	4.9	229.9
2000-01	kt	80.3	7.6	56.0	17.8	0.8	162.4
2001-02	kt	161.5	23.5	61.0	11.0	1.0	258.0
2002-03	kt	50.5	0.3	81.0	1.5	2.7	136.0
Faba beans							
Area							
1996-97	’000 ha	9.1	34.6	0.2	21.6	31.5	97.0
1997-98	’000 ha	21.3	47.1	3.5	37.8	45.0	154.8
1998-99	’000 ha	25.6	42.0	4.1	18.0	45.7	135.3
1999-00	’000 ha	16.8	55.1	0.0	16.2	58.7	146.8
2000-01	’000 ha	44.1	67.0	2.3	13.4	79.5	206.3
2001-02	’000 ha	37.0	55.0	0.0	13.0	75.0	180.0
2002-03	’000 ha	17.0	50.0	0.0	7.0	83.0	157.0
Yield							
1996-97	t/ha	2.02	1.77	0.87	0.98	2.21	1.76
1997-98	t/ha	1.27	0.87	1.00	0.72	1.42	1.05
1998-99	t/ha	1.03	1.44	0.68	0.88	1.95	1.44
1999-00	t/ha	1.98	1.39	0.00	1.19	1.65	1.54
2000-01	t/ha	1.38	1.55	0.88	0.52	1.90	1.57
2001-02	t/ha	1.89	1.73	0.00	0.77	2.33	1.94
2002-03	t/ha	1.06	0.10	0.00	0.29	1.00	0.69
Production							
1996-97	kt	18.5	61.3	0.1	21.3	69.5	170.8
1997-98	kt	27.2	41.0	3.5	27.1	63.8	162.7
1998-99	kt	26.2	60.3	2.8	15.8	89.0	194.3
1999-00	kt	33.2	76.8	0.0	19.3	97.1	226.4
2000-01	kt	60.7	104.2	2.0	7.0	151.0	324.9
2001-02	kt	70.0	95.0	0.0	10.0	175.0	350.0
2002-03	kt	18.0	5.0	0.0	2.0	83.0	108.0

Continued

191 Australian area sown, yields and production of selected pulses, by state *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Australia a
Mung beans							
Area							
1996-97	’000 ha	15.1	0.4	35.1	0.0	0.0	50.6
1997-98	’000 ha	12.7	0.0	33.7	0.0	0.0	46.4
1998-99	’000 ha	32.8	0.0	69.6	0.0	0.0	102.3
1999-00	’000 ha	20.0	0.0	28.0	0.0	0.0	48.0
2000-01	’000 ha	15.0	0.0	30.0	0.0	0.0	87.9
2001-02	’000 ha	18.0	0.0	25.0	0.0	0.0	43.0
2002-03	’000 ha	18.0	0.0	26.1	0.0	0.0	44.1
Yield							
1996-97	t/ha	0.75	0.80	0.62	0.00	0.00	0.66
1997-98	t/ha	0.40	0.00	0.54	0.00	0.00	0.50
1998-99	t/ha	0.67	0.00	0.81	0.00	0.00	0.76
1999-00	t/ha	0.90	0.00	0.83	0.00	0.00	0.86
2000-01	t/ha	0.83	0.00	0.61	0.00	0.00	0.59
2001-02	t/ha	1.00	0.00	1.00	0.00	0.00	1.00
2002-03	t/ha	0.65	0.00	0.84	0.00	0.00	0.76
Production							
1996-97	kt	11.4	0.3	21.9	0.0	0.0	33.6
1997-98	kt	5.1	0.0	18.1	0.0	0.0	23.2
1998-99	kt	21.9	0.0	56.3	0.0	0.0	78.1
1999-00	kt	18.1	0.0	23.2	0.0	0.0	41.3
2000-01	kt	12.5	0.0	18.2	0.0	0.0	51.9
2001-02	kt	18.0	0.0	25.0	0.0	0.0	43.0
2002-03	kt	11.7	0.0	21.9	0.0	0.0	33.6
Navy beans							
Area							
1996-97	’000 ha	0.1	0.1	5.5	0.0	0.0	5.7
1997-98	’000 ha	0.0	0.0	5.0	0.0	0.0	5.0
1998-99	’000 ha	0.0	0.0	4.0	0.0	0.0	4.0
1999-00	’000 ha	0.0	0.0	4.2	0.0	0.0	4.2
2000-01	’000 ha	0.0	0.0	4.2	0.0	0.0	4.2
2001-02	’000 ha	0.0	0.0	4.2	0.0	0.0	4.2
2002-03	’000 ha	0.0	0.0	5.0	0.0	0.0	5.0
Yield							
1996-97	t/ha	1.01	1.01	0.74	0.00	0.00	0.75
1997-98	t/ha	0.00	0.00	1.06	0.00	0.00	1.06
1998-99	t/ha	0.00	0.00	0.85	0.00	0.00	0.85
1999-00	t/ha	0.00	0.00	1.43	0.00	0.00	1.43
2000-01	t/ha	0.00	0.00	1.43	0.00	0.00	1.43
2001-02	t/ha	0.00	0.00	1.67	0.00	0.00	1.67
2002-03	t/ha	0.00	0.00	1.06	0.00	0.00	1.05
Production							
1996-97	kt	0.1	0.1	4.1	0.0	0.0	4.3
1997-98	kt	0.0	0.0	5.3	0.0	0.0	5.3
1998-99	kt	0.0	0.0	3.4	0.0	0.0	3.4
1999-00	kt	0.0	0.0	6.0	0.0	0.0	6.0
2000-01	kt	0.0	0.0	6.0	0.0	0.0	6.0
2001-02	kt	0.0	0.0	7.0	0.0	0.0	7.0
2002-03	kt	0.0	0.0	5.3	0.0	0.0	5.3

Continued

191 Australian area sown, yields and production of selected pulses, by state *(continued)*

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Australia a
Total pulses **b**							
Area							
1996-97	’000 ha	139.6	399.1	63.2	1 170.2	256.7	2 030.0
1997-98	’000 ha	187.4	398.3	71.0	1 337.0	314.7	2 309.4
1998-99	’000 ha	263.5	379.3	121.1	1 299.7	327.2	2 391.8
1999-00	’000 ha	257.1	263.9	78.4	1 247.7	298.6	2 146.7
2000-01	’000 ha	299.6	265.0	108.5	1 149.4	307.6	2 174.0
2001-02	’000 ha	293.0	239.0	75.2	1 022.0	302.0	1 932.2
2002-03	’000 ha	152.0	199.3	142.1	884.5	270.8	1 711.5
Yield							
1996-97	t/ha	1.35	1.28	0.84	1.15	1.59	1.24
1997-98	t/ha	0.93	0.65	0.72	1.08	1.19	1.00
1998-99	t/ha	1.16	0.65	0.80	1.13	1.31	1.07
1999-00	t/ha	1.57	1.15	0.96	1.40	1.18	1.34
2000-01	t/ha	1.02	1.27	0.76	0.74	1.57	0.96
2001-02	t/ha	1.33	1.35	1.24	0.99	1.98	1.25
2002-03	t/ha	0.73	0.12	0.76	0.55	0.93	0.60
Production							
1996-97	kt	188.2	510.7	53.1	1 351.5	408.7	2 513.1
1997-98	kt	174.6	257.0	51.0	1 442.3	373.1	2 299.2
1998-99	kt	304.4	248.2	96.3	1 472.3	428.5	2 551.9
1999-00	kt	404.4	303.7	75.1	1 747.0	350.9	2 882.2
2000-01	kt	305.5	337.8	82.2	853.8	482.8	2 084.3
2001-02	kt	390.5	322.5	93.0	1 008.0	597.0	2 415.0
2002-03	kt	110.2	24.8	108.2	484.6	251.7	1 027.9

a Includes data for Tasmania and the Northern Territory. **b** Lupins, field peas, chickpeas, faba beans, mung beans, navy beans, vetch and lentils.
Sources: ABS, *Principal Agricultural Commodities, Australia, Preliminary,* cat. no. 7111.0, Canberra; ABS, Agriculture, Australia, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities,* Australia, cat no. 7121.0, Canberra; ABS, Crops and Pastures, Queensland, cat. no. 7321.3, Brisbane; ABS, Summary of Crops, Australia, cat. no. 7330, Canberra; ABARE, *Australian Crop Report,* Canberra.

192 World pulses production, by region and country

	1994	1995	1996	1997	1998	1999	2000	2001
	kt	kt	kt	kt	kt	kt	kt	kt
Africa								
Burundi	259	358	327	311	313	261	219	284
Egypt	421	459	509	536	587	379	425	516
Ethiopia	527	800	874	863	787	945	996	1 160
Nigeria	1 595	1 801	1 897	1 959	2 105	2 158	2 200	2 222
Uganda	498	512	359	349	520	561	585	671
Americas								
Brazil	3 386	2 966	2 474	2 864	2 200	2 841	3 058	2 466
Canada	2 075	2 103	1 724	2 326	3 063	3 479	4 439	3 356
Mexico	1 637	1 562	1 783	1 318	1 459	1 364	1 230	1 495
United States	1 552	1 764	1 480	1 743	1 780	1 864	1 533	1 224
Asia								
China	4 968	4 479	4 692	4 043	4 865	4 704	4 696	5 122
India	13 305	14 903	13 217	14 119	13 249	14 957	13 447	10 655
Myanmar	834	1 033	1 273	1 298	1 429	1 581	1 665	2 141
Pakistan	803	994	1 098	992	1 162	1 061	935	761
Thailand	292	282	263	245	271	289	282	294
Europe								
Denmark	379	284	259	386	388	195	139	115
France	3 451	2 770	2 629	3 121	3 310	2 715	2 066	1 877
Poland	215	268	276	260	274	317	314	315
Russian Federation	2 673	1 498	1 711	1 579	889	796	1 155	1 596
Ukraine	2 636	1 570	1 122	1 072	770	628	652	827
United Kingdom	824	605	558	748	702	752	794	959
Middle East								
Turkey	1 679	1 849	1 832	1 700	1 580	1 409	1 316	1 455
Oceania								
Australia **a**	1 857	2 041	1 468	2 561	2 513	2 299	2 552	2 882
Total **b**	55 998	55 552	53 971	54 965	56 231	57 071	54 537	53 024

a On a fiscal year basis, for example, 1992-93 = 1993. **b** Includes some unspecified countries.

Sources: ABARE, *Australian Crop Report,* Canberra; ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat. no. 7112.0, Canberra; FAO, *Production Yearbook,* Rome; http://apps.fao.org/hage/collections?subset=agriculture.

193 World pulses trade, by region and country

	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
Imports							
Africa							
Algeria	129.8	250.4	135.4	146.5	142.5	160.5	174.7
Egypt	174.3	187.5	123.2	164.1	327.5	262.7	370.8
South Africa	118.4	61.6	82.4	61.8	59.8	62.0	45.9
Americas							
Brazil	205.9	122.7	196.5	254.6	134.7	120.8	169.8
Colombia	107.5	101.8	148.3	135.8	132.0	174.7	177.6
Cuba	100.0	124.1	181.4	155.0	219.2	119.8	151.1
Mexico	45.8	173.1	129.8	245.2	168.4	133.5	176.8
United States	110.8	111.0	130.0	120.8	201.5	210.8	213.1
Venezuela	115.4	81.4	92.6	100.2	101.1	108.2	114.8
Asia							
China	71.6	263.5	187.1	167.5	126.7	190.2	235.3
Hong Kong, China	25.0	18.3	17.0	17.9	17.6	14.5	11.7
India	502.0	692.4	1 084.4	628.8	269.3	352.5	2 424.0
Japan	186.2	162.6	173.2	158.2	171.3	170.0	163.4
Malaysia	62.0	88.5	85.1	55.2	66.8	62.0	62.1
Singapore	36.4	44.0	57.5	55.5	37.7	34.6	47.1
Europe							
Belgium–Luxembourg	675.2	661.1	538.2	600.7	591.1	572.0	451.5
France	234.5	166.9	114.4	112.8	110.3	161.5	144.6
Germany	469.9	278.2	202.6	184.4	209.9	138.5	107.9
Italy	552.7	386.6	379.6	407.2	417.9	436.5	420.7
Netherlands	776.2	613.5	450.7	594.2	584.7	330.3	228.0
Spain	830.1	589.1	636.3	784.1	776.7	850.2	767.7
United Kingdom	154.5	174.5	176.5	166.6	175.6	160.3	166.2
Middle East							
Iraq	11.8	13.4	23.5	8.5	10.5	10.5	10.5
United Arab Emirates	83.8	74.8	74.8	74.8	74.8	2.2	2.2
Total **a**	7 521.0	6 999.6	7 145.4	7 156.2	7 158.0	7 215.9	9 398.9

Continued

193 World pulses trade, by region and country *(continued)*

	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt
Exports							
Americas							
Argentina	201.0	162.7	310.7	321.1	281.7	283.4	275.8
Canada	1 487.1	1 275.7	1 304.6	1 688.7	2 096.6	2 695.0	2 865.9
Chile	35.8	26.8	21.8	20.8	12.6	13.4	13.9
Mexico	171.9	146.9	106.3	117.8	165.1	167.4	212.1
United States	594.6	544.8	539.1	713.3	615.1	569.3	581.8
Asia							
China	1 041.6	547.5	594.1	472.9	811.2	572.1	719.2
Burma	609.6	594.8	768.9	621.5	650.7	831.3	1 034.8
Singapore	24.0	30.2	46.2	46.5	26.5	23.7	37.3
Thailand	47.0	37.0	21.1	32.6	45.5	48.6	34.2
Europe							
Belgium–Luxembourg	194.3	177.7	117.1	100.0	60.3	103.2	134.4
Denmark	65.1	47.0	131.5	80.5	85.9	46.9	43.6
France	1 093.0	918.3	846.1	1 122.9	1 238.7	819.5	633.2
Hungary	54.3	26.2	16.0	20.0	22.8	10.7	8.3
Netherlands	64.9	54.0	80.4	104.4	93.6	80.3	50.7
United Kingdom	293.3	183.3	195.1	185.5	227.6	252.5	165.5
Middle East							
Turkey	282.7	502.3	489.8	354.5	233.3	163.3	360.4
Oceania							
Australia **b**	735.2	1 329.7	1 667.7	1 549.4	1 474.7	2 318.5	1 760.8
New Zealand	39.9	35.0	34.3	23.9	34.7	24.8	23.6
Total **a**	7 924.3	6 884.3	7 510.3	7 431.1	8 325.5	8 568.7	9 324.9

a Includes some unspecified countries. **b** Includes lupin exports. On a fiscal year basis: for example 1992-93 = 1993.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; FAO, http://appr.fao.org/page/collections?subset=agriculture.

194 Summary of Australian statistics for rice [a]

	Area	Yield [b]	Production Volume [b]	Production Unit value [c]	Exports Volume [d]	Exports Unit value [e]	Apparent consumption [df]
	'000 ha	t/ha	kt	$/t	kt	$/t	kt
1960-61	18.7	6.1	114.3	72.6	60.3	107.8	17.2
1961-62	20.3	6.6	134.2	57.4	50.8	114.2	17.5
1962-63	22.2	6.1	135.8	56.7	56.8	121.5	17.9
1963-64	24.0	5.9	142.0	55.6	56.1	130.1	18.2
1964-65	24.9	6.1	153.0	55.6	64.2	124.6	21.3
1965-66	26.1	7.0	181.7	56.1	63.9	126.8	25.2
1966-67	29.8	7.2	214.3	57.9	89.2	128.9	27.5
1967-68	30.7	7.0	214.5	59.7	99.0	141.4	28.2
1968-69	33.7	7.4	248.2	58.0	107.0	146.7	29.1
1969-70	40.2	6.1	247.0	58.7	120.7	141.7	30.2
1970-71	40.7	7.4	299.8	45.7	95.9	137.6	32.6
1971-72	40.5	6.1	248.4	47.9	169.3	114.6	33.1
1972-73	45.2	6.8	308.6	81.0	152.0	139.5	29.0
1973-74	67.5	6.1	408.8	123.5	124.8	229.2	27.4
1974-75	75.6	5.1	386.7	92.8	159.8	268.5	32.2
1975-76	74.8	5.6	417.0	98.8	215.2	238.8	33.5
1976-77	92.0	5.8	529.8	112.1	254.4	224.4	33.3
1977-78	91.4	5.4	490.3	124.6	273.2	241.9	34.8
1978-79	110.2	6.3	692.2	141.3	239.4	276.1	35.5
1979-80	116.4	5.3	613.1	153.3	449.6	288.9	37.1
1980-81	103.9	7.3	759.8	181.6	276.0	362.3	43.0
1981-82	123.0	7.0	857.0	121.4	558.0	349.5	43.9
1982-83	84.8	6.1	519.8	169.3	384.0	312.5	46.3
1983-84	119.1	5.3	634.2	140.3	241.0	381.7	50.5
1984-85	121.8	7.1	864.1	142.5	327.0	357.8	57.1
1985-86	106.1	6.5	687.5	138.8	464.6	398.2	58.6
1986-87	95.9	5.7	549.2	142.0	394.0	352.8	60.0
1987-88	105.4	7.2	761.1	204.0	314.6	391.0	80.2
1988-89	97.0	8.3	805.0	165.9	160.6	452.5	89.4
1989-90	105.0	8.8	924.0	153.0	149.8	486.7	97.6
1990-91	89.0	8.8	787.0	173.0	257.7	370.8	103.0
1991-92	127.0	8.8	1 122.0	158.1	465.1	445.9	90.6
1992-93	125.0	7.6	955.0	182.9	484.5	477.6	86.9
1993-94	132.7	8.2	1 082.0	265.2	533.7	506.6	98.7
1994-95	129.2	8.8	1 137.0	232.5	583.8	586.1	108.5
1995-96	149.7	6.4	951.2	207.1	632.5	531.7	118.2
1996-97	166.7	8.3	1 388.0	194.7	520.3	559.9	133.7
1997-98	141.2	9.4	1 330.9	225.6	680.4	583.2	135.5
1998-99	151.7	9.2	1 389.8	259.4	581.8	667.6	133.0
1999-00	133.3	8.3	1 100.7	262.7	672.1	616.4	na
2000-01	177.0	9.3	1 643.0	213.2	601.8	636.5	na
2001-02	150.0	8.5	1 275.0	256.3	628.7	515.9	na
2002-03	38.0	10.3	391.0	243.0	658.0	186.8	na

a Based on rice industry figures calculated on a crop year basis. For example, the 1985-86 data are for the Queensland summer crop harvested from December 1985, the New South Wales crop harvested from April 1986, and the Queensland winter crop harvested from June 1986. **b** Paddy. **c** Unit gross value of production. **d** Based on ABS data; April–March marketing year basis; generally exports of the crop harvested in the previous year – that is, 1998-99 exports are sourced from the 1997-98 crop harvest. Milled. **e** Unit gross value of exports. Between 1952-53 and 1987-88, calculated from financial year total export values. From 1988-89, calculated from marketing year (April–March) total export values. **f** Table rice only. Excludes rice used for feed, breakfast cereals and rice used for other purposes; includes imports. Financial year basis. **na** Not available.

Sources: ABS, *Apparent Consumption of Foodstuffs and Nutrients Australia,* cat. no. 4306.0, Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Rice Marketing Board for the State of New South Wales, *Annual Report,* Leeton; ABARE.

195 Australian rice area, yield and production, by state and type

	Unit	New South Wales			Queensland	Australia
		Medium grain	Long grain	Total a	Long grain	
Area b						
1992-93	’000 ha	na	na	123	2	125
1993-94	’000 ha	na	na	133	0	133
1994-95	’000 ha	na	na	129	0	129
1995-96	’000 ha	na	na	150	0	150
1996-97	’000 ha	na	na	167	0	167
1997-98	’000 ha	na	na	141	0	141
1998-99	’000 ha	na	na	152	0	152
1999-00	’000 ha	na	na	133	0	133
2000-01	’000 ha	na	na	175	0	177
2001-02	’000 ha	na	na	150	0	150
2002-03	’000 ha	na	na	38	0	38
Yield c						
1992-93	t/ha	na	na	7.67	5.50	7.64
1993-94	t/ha	na	na	8.16	0.00	8.16
1994-95	t/ha	na	na	8.77	0.00	8.80
1995-96	t/ha	na	na	6.35	0.00	6.35
1996-97	t/ha	na	na	8.28	0.00	8.33
1997-98	t/ha	na	na	9.35	0.00	9.42
1998-99	t/ha	na	na	9.11	0.00	9.16
1999-00	t/ha	na	na	8.14	0.00	8.26
2000-01	t/ha	na	na	9.29	0.00	9.28
2001-02	t/ha	na	na	8.50	0.00	8.50
2002-03	t/ha	na	na	10.29	0.00	10.29
Production c						
1992-93	kt	691	195	944	11	955
1993-94	kt	738	282	1 082	0	1 082
1994-95	kt	814	274	1 134	0	1 137
1995-96	kt	698	217	951	0	951
1996-97	kt	1 077	256	1 381	0	1 388
1997-98	kt	978	284	1 321	0	1 331
1998-99	kt	978	286	1 382	0	1 390
1999-00	kt	803	233	1 084	0	1 101
2000-01	kt	1 291	375	1 625	0	1 643
2001-02	kt	944	274	1 275	0	1 275
2002-03	kt	348	43	391	0	391

a Includes medium grain, long grain, fragrant and other varieties from 1992-93. **b** Rice industry figures. **c** Paddy. **na** Not available or not applicable.
Sources: ABARE, *Australian Crop Report,* Canberra; Queensland Rice Marketing Board, *Annual Report,* Home Hill; Rice Marketing Board for the State of New South Wales, *Annual Report,* Leeton; Ricegrowers Co-operative Mills Ltd.

196 Australian rice trade and payments to growers

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Exports a									
Quantity	kt	632	520	680	582	672	602	629	658
Total export value b	$m	336	291	397	388	414	383	324	123
Imports ac									
Quantity	kt	28	36	38	39	48	50	55	61
Total import value	$m	20	26	33	34	38	44	43	46
Indicator price									
Thai white rice d	US$/t	362.42	337.83	302.25	283.75	230.58	184.17	191.67	199.58
Exchange rate	US$/A$	0.76	0.78	0.68	0.63	0.63	0.54	0.52	0.58
Australian price e	A$/t	479.73	433.13	444.98	453.49	366.01	341.68	365.78	344.11
Average returns to growers f									
New South Wales	$/t	207.1	194.6	225.6	259.4	263.9	213.2	274.2	202.1

a Milled equivalent; marketing year (April–March) basis. **b** Free on board (fob). **c** Excludes broken rice. **d** US Department of Agriculture sourced nominal quote for Thai white rice,100 per cent, grade B/2nd grade, fob Bangkok (August–July basis). **e** Derived. **f** For paddy rice from harvest in year indicated. Returns to New South Wales and Queensland growers include bonuses paid by respective rice growers cooperatives. For New South Wales growers, returns take into account a deduction for grower equity in storage facilities made by the Rice Marketing Board, New South Wales.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Queensland Rice Marketing Board, *Annual Report,* Home Hill; Rice Marketing Board, New South Wales, *Annual Report,* Leeton; Ricegrowers Co-operative Mills Ltd; US Department of Agriculture, *Rice News,* Little Rock, Arkansas; ABARE.

197 Summary of world statistics for rice [a]

	Area harvested	Production [b]	Total use	Closing stocks [bc]	Stocks to use ratio	Trade [d]	Export price [e]
	million ha	Mt	Mt	Mt	%	Mt	US$/t
1960-61	120	151	157	10	7	7	132.33
1961-62	116	147	149	9	6	6	146.67
1962-63	120	155	151	13	8	7	149.42
1963-64	122	169	165	16	10	8	140.25
1964-65	125	181	180	17	10	8	135.00
1965-66	124	173	172	18	11	8	149.08
1966-67	126	179	179	19	10	8	181.67
1967-68	127	189	186	21	11	7	220.17
1968-69	129	195	192	25	13	7	186.75
1969-70	131	201	199	26	13	8	161.33
1970-71	133	213	211	29	14	9	131.83
1971-72	135	216	217	28	13	9	134.17
1972-73	133	209	213	24	11	8	187.12 [f]
1973-74	136	228	223	29	13	8	593.51 [g]
1974-75	138	226	226	28	12	7	439.12
1975-76	143	243	232	39	17	8	302.84
1976-77	141	236	237	38	16	11	274.66
1977-78	143	251	244	44	18	10	360.92
1978-79	144	262	252	54	21	12	339.83
1979-80	141	257	257	54	21	13	409.83
1980-81	144	270	275	53	19	13	492.58
1981-82	144	278	283	51	18	11	379.83
1982-83	141	285	285	57	20	12	280.42
1983-84	145	307	303	69	23	12	278.33
1984-85	144	317	309	88	28	12	211.29
1985-86	145	318	319	98	31	12	191.13
1986-87	145	316	320	103	32	13	189.66
1987-88	142	315	321	105	33	12	272.63
1988-89	146	331	327	111	34	15	292.44
1989-90	147	344	338	119	35	13	292.06
1990-91	147	352	345	126	37	15	296.09
1991-92	147	355	354	127	36	16	287.30
1992-93	146	356	359	124	35	17	244.25
1993-94	145	355	359	120	33	21	293.98
1994-95	147	365	366	118	32	20	289.76
1995-96	148	371	372	118	32	19	362.42
1996-97	150	380	379	119	31	28	337.83
1997-98	151	387	377	128	34	27	302.25
1998-99	153	394	387	135	35	26	283.75
1999-00	155	409	396	146	37	24	230.58
2000-01	151	398	393	148	38	28	184.17
2001-02	151	399	409	136	33	27	191.67
2002-03	146	380	408	107	26	28	199.58

a Based on US Department of Agriculture data. **b** Milled. **c** Closing stocks data are based on an aggregate of different local marketing years and should not be taken as representing world stock levels at a particular point in time. Stocks data do not include some major stockholders – for example, China and Burma – for which official information is not available. **d** Calendar year basis, 1960-61 =1961; includes intra-EU trade. **e** Thai white rice, 100 per cent, 2nd grade/grade B, fob Bangkok (August–July basis). From 1960-61 to 1983-84, prices are quoted from Thailand Board of Trade. From 1984-85, prices are nominal quotes from the US Department of Agriculture. **f** August–March average. **g** January–July average.
Sources: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; US Department of Agriculture, *Rice Market News,* Arkansas; US Department of Agriculture, Rice Outlook, (http://usda.mannlib.cornell.edu/reports/erssor/field/rcs-bb/); ABARE.

198 World rice production, by country or region a

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Australia	1.0	1.4	1.3	1.4	1.1	1.6	1.3	0.4
Bangladesh	26.5	28.3	28.3	29.8	34.6	37.6	36.5	38.0
Brazil	10.0	9.5	8.5	11.6	11.4	10.2	10.5	10.3
China	185.2	195.1	200.7	198.7	198.5	187.9	177.6	174.5
European Union **b**	2.1	2.6	2.7	2.7	2.7	2.5	2.6	2.6
India	119.4	122.0	123.8	129.0	134.6	127.3	139.6	113.6
Indonesia	51.1	49.4	49.2	50.4	52.9	51.5	51.3	51.5
Japan	13.4	12.9	12.5	11.2	11.5	11.6	11.3	11.1
Korea, Rep. of	6.4	7.1	7.4	6.8	7.1	7.2	7.4	6.7
Myanmar	17.0	15.5	15.3	16.0	17.0	18.6	18.0	18.0
Pakistan	6.0	6.5	6.5	7.0	7.7	7.1	5.8	6.3
Philippines	11.2	11.2	10.0	10.3	12.0	12.5	13.0	13.0
Thailand	21.8	20.7	23.5	23.6	25.0	25.8	26.5	26.0
United States	7.9	7.8	8.3	8.4	9.3	8.7	9.8	9.6
Viet Nam	26.8	27.3	28.9	30.5	31.7	31.0	31.9	32.3
World	551.4	563.6	574.2	586.1	607.8	592.1	594.0	565.5

a Crop year (paddy basis). **b** Regarded as twelve countries until 1 January 1995, then fifteen countries.
Sources: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; ABARE.

199 World rice trade, by country a

	1995 Mt	1996 Mt	1997 Mt	1998 Mt	1999 Mt	2000 Mt	2001 Mt	2002 Mt
Imports								
Bangladesh	0.67	0.06	2.52	1.22	0.64	0.40	0.31	1.00
Brazil	0.79	0.83	1.56	0.78	0.70	0.67	0.55	1.10
China	0.85	0.32	0.26	0.18	0.28	0.27	0.24	0.25
European Union **b**	0.95	0.84	0.79	0.78	0.85	0.92	0.96	0.88
India	0.00	0.00	0.01	0.00	0.09	0.00	0.00	0.00
Indonesia	1.08	0.84	5.77	3.73	1.50	1.50	3.50	3.50
Iran	1.57	1.29	0.84	1.31	1.10	0.77	1.96	0.75
Iraq	0.23	0.74	0.63	0.78	1.27	0.96	1.18	0.90
Japan	0.44	0.56	0.47	0.63	0.66	0.68	0.61	0.65
Malaysia	0.56	0.64	0.63	0.62	0.60	0.63	0.48	0.50
Nigeria	0.35	0.73	0.90	0.95	1.25	1.91	1.82	1.25
Philippines	0.70	0.81	2.19	1.00	0.90	1.18	1.18	1.20
Russian Federation	0.41	0.29	0.22	0.58	0.40	0.25	0.41	0.40
Saudi Arabia	0.81	0.66	0.78	0.75	0.99	1.05	0.94	0.95
World **c**	19.73	18.86	27.65	26.65	25.76	24.44	27.88	27.19
Exports								
Australia	0.52	0.58	0.66	0.56	0.67	0.63	0.63	0.33
China	0.27	0.94	3.73	3.73	2.71	1.86	1.96	2.25
European Union **b**	0.32	0.37	0.35	0.35	0.31	0.26	0.36	0.48
India	3.68	2.09	4.67	2.75	1.45	1.94	6.65	4.00
Myanmar	0.27	0.02	0.09	0.06	0.16	0.67	1.00	0.50
Pakistan	1.67	1.78	1.99	1.84	2.03	2.42	1.60	1.60
Thailand	5.28	5.22	6.37	6.68	6.55	7.52	7.25	7.75
United States	2.63	2.30	3.17	2.64	2.85	2.54	3.30	3.70
Viet Nam	3.04	3.33	3.78	4.56	3.37	3.53	3.25	4.00
World **c**	19.73	18.86	27.65	26.65	25.76	24.44	27.88	27.19

a Milled basis. **b** Regarded as twelve countries until 1 January 1995, then fifteen countries. Includes intra-EU trade. **c** Includes intra-EU trade.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; ABARE.

200 US rice supply and disposal a

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Area harvested	million ha	1.25	1.14	1.26	1.32	1.42	1.23	1.34	1.30
Yield	t/ha	6.30	6.86	6.61	6.35	6.58	7.04	7.28	7.36
Opening stocks **b**	Mt	1.05	0.81	0.87	0.88	0.69	0.87	0.89	1.22
Production **b**	Mt	5.63	5.45	5.75	5.80	6.50	5.94	6.74	6.51
Total supply **c**	Mt	6.95	6.60	6.91	7.01	7.52	7.16	8.05	8.21
Exports	Mt	2.69	2.49	2.76	2.73	2.80	2.64	4.31	5.58
Long grain	Mt	2.12	1.82	2.26	2.25	2.24	2.05	3.36	4.45
Medium–short grain	Mt	0.57	0.66	0.50	0.48	0.57	0.59	0.95	1.13
Domestic and residual use	Mt	3.42	3.24	3.28	3.59	3.85	3.68	3.87	3.58
Total use	Mt	6.11	5.73	6.03	6.32	6.65	6.50	8.18	9.16
Target price **d**	US$/t	236	na	na	na	na	na	na	232
Statutory loan rate	US$/t	143	143	143	143	143	143	143	143
Farm price	US$/t	202	220	214	196	131	124	94	93

a August–July marketing year. **b** Milled basis. **c** Includes imports. **d** Authorised under the Food Security and Rural Investment Act of 2002. **na** Not applicable.
Sources: US Department of Agriculture, *Rice Outlook,* Washington DC; US Department of Agriculture, *Rice Situation and Outlook Report,* Washington DC; US Department of Agriculture, *World Grain Situation and Outlook: Foreign Agriculture Circular,* Washington DC; ABARE.

201 Rice export price quotations, by country [a]

	Thailand Nominal price quote-US [b]	Arkansas [c]	California [d]
	US$/t	US$/t	US$/t
1980-81	492.58	563.00	611.23
1981-82	379.83	445.42	461.59
1982-83	280.42	392.79	350.90
1983-84	278.33	411.25	340.34
1984-85	211.29	397.45	336.20
1985-86	191.13	355.77	345.46
1986-87	189.66	259.68	286.41
1987-88	272.63	441.47	371.11
1988-89	292.44	344.65	368.26
1989-90	292.06	354.85	357.51
1990-91	296.09	344.84	354.67
1991-92	287.30	368.17	396.09
1992-93	244.25	312.04	395.17
1993-94	293.98	442.48	486.35
1994-95	289.76	317.91	391.51
1995-96	362.42	420.07	464.80
1996-97	337.83	458.22	432.27
1997-98	302.25	419.83	412.52
1998-99	283.75	373.83	483.96
1999-00	230.58	283.06	474.55
2000-01	184.17	280.28	338.09
2001-02	191.67	220.16	293.60
2002-03	199.58	na	291.33
2002			
January	197.00	224.06	309.97
February	201.00	212.86	308.64
March	198.00	208.60	308.64
April	196.00	196.05	292.11
May	207.00	196.05	281.09
June	208.00	191.80	281.09
July	205.00	196.05	279.98
August	197.00	196.05	279.98
September	192.00	198.07	279.98
October	192.00	198.97	279.98
November	193.00	198.97	279.98
December	191.00	198.97	279.98
2003			
January	206.00	na	287.00
February	204.00	na	287.00
March	201.00	na	289.00
April	200.00	na	306.00
May	204.00	na	309.00
June	209.00	na	309.00
July	206.00	na	309.00
August	200.00	na	334.00

a Key prices from major markets (August–July years) that are used as world indicators. **b** Thai white rice, 100 per cent 2nd grade, fob Bangkok, nominal price quote, USDA. Prior to 1984-85 quoted form Thailand Board of Trade. **c** US no. 2 long grain milled. **d** US no.1 medium grain milled. **na** Not available.

Sources: US Department of Agriculture, *Rice Market News,* Little Rock, Arkansas; US Department of Agriculture, *Rice Outlook;* (http://www.ers.usda.gov); ABARE.

202 Rice supply and disposal in major exporting countries [a]

	Area harvested million ha	Yield t/ha	Production [b] Mt	Domestic use Mt	Exports [c] Mt	Closing stocks [d] Mt
China						
1997-98	31.77	6.32	200.70	132.52	3.73	93.00
1998-99	31.21	6.37	198.71	133.57	2.71	96.00
1999-00	31.28	6.35	198.48	133.76	1.86	98.50
2000-01	29.96	6.27	187.91	134.36	1.96	94.10
2001-02	28.81	6.16	177.60	134.58	2.25	82.17
2002-03	28.20	6.19	174.50	134.80	2.25	67.60
Viet Nam						
1997-98	7.38	3.92	28.93	15.27	4.56	0.50
1998-99	7.58	4.02	30.47	15.76	3.37	0.35
1999-00	7.66	4.14	31.71	16.77	3.53	1.18
2000-01	7.49	4.14	31.02	17.25	3.25	0.91
2001-02	7.47	4.27	31.87	17.40	4.00	1.34
2002-03	7.41	4.36	32.32	17.55	4.00	1.16
Pakistan						
1997-98	2.32	2.81	6.50	2.55	1.84	0.12
1998-99	2.42	2.89	7.01	2.60	2.03	0.36
1999-00	2.52	3.08	7.74	2.60	2.42	0.81
2000-01	2.35	3.00	7.05	2.63	1.60	0.48
2001-02	2.12	2.75	5.82	2.65	1.60	0.09
2002-03	2.20	2.88	6.34	2.67	1.50	0.15
Thailand						
1997-98	9.94	2.36	23.50	8.80	6.68	1.05
1998-99	9.90	2.39	23.62	8.90	6.55	1.06
1999-00	10.08	2.48	25.00	9.60	7.52	1.41
2000-01	9.89	2.61	25.84	9.35	7.25	1.90
2001-02	10.13	2.62	26.51	9.77	7.75	2.40
2002-03	9.99	2.60	25.95	9.92	7.75	1.85
United States						
1997-98	1.26	6.61	8.30	3.28	2.64	0.88
1998-99	1.32	6.35	8.37	3.59	2.85	0.69
1999-00	1.42	6.58	9.35	3.85	2.54	0.87
2000-01	1.23	7.04	8.66	3.68	3.30	0.88
2001-02	1.34	7.28	9.76	3.87	3.70	1.22
2002-03	1.30	7.36	9.57	3.58	3.79	0.83
Total [cd]						
1997-98	151.08	3.80	574.18	377.16	26.65	128.25
1998-99	152.51	3.84	586.07	386.62	25.76	135.47
1999-00	155.14	3.92	607.80	395.90	24.44	145.60
2000-01	151.46	3.91	592.06	393.41	27.88	147.87
2001-02	150.88	3.94	593.95	409.32	27.19	135.75
2002-03	145.55	3.89	565.48	407.64	27.53	106.63

a Simple aggregation of different crop years. The marketing period in each country is: United States, August–July; Thailand, August–July; China, December–November; Pakistan, October–September; Viet Nam, July–June. **b** Paddy. **c** On a calendar year basis: 1995-96 =1996; includes intra-EU trade. **d** Closing stocks are based on an aggregate of different local marketing years and should not be taken as representing world stock levels at a particular point in time.

Sources: US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; US Department of Agriculture, *World Grain Situation and Outlook: Foreign Agriculture Circular,* Washington DC; US Department of Agriculture, *World Agricultural Production,* Washington DC; ABARE.

203 Summary of Australian statistics for sugar

	Area harvested '000 ha	Cane crushed kt	Sugar production a kt	No. 1 pool price $/t	Exports (actual) b kt
1960-61	138	9 313	1 362	99.6	809
1961-62	157	9 730	1 362	98.9	857
1962-63	163	12 940	1 823	104.5	1 164
1963-64	169	12 313	1 699	120.7	1 134
1964-65	190	15 312	1 921	96.8	1 290
1965-66	204	14 382	1 924	85.7	1 273
1966-67	226	16 953	2 307	76.0	1 664
1967-68	224	17 025	2 300	83.1	1 622
1968-69	230	18 708	2 684	88.2	2 062
1969-70	213	15 784	2 146	100.3	1 386
1970-71	221	17 645	2 448	102.8	1 571
1971-72	234	19 391	2 708	111.8	2 008
1972-73	242	18 928	2 732	118.7	2 084
1973-74	226	19 278	2 449	129.9	1 781
1974-75	253	20 418	2 761	252.7	1 996
1975-76	257	21 959	2 769	232.2	2 000
1976-77	288	23 344	3 194	214.1	2 556
1977-78	295	23 493	3 240	196.4	2 478
1978-79	252	21 457	2 812	213.2	1 840
1979-80	267	21 151	2 871	281.7	2 201
1980-81	288	23 976	3 227	372.4	2 558
1981-82	316	25 094	3 329	278.9	2 498
1982-83	318	24 817	3 428	224.1	2 548
1983-84	307	24 190	3 073	262.9	2 357
1984-85	313	25 512	3 439	234.6	2 524
1985-86	304	24 414	3 275	223.3	2 799
1986-87	310	25 413	3 268	282.2	2 471
1987-88	317	25 669	3 334	289.1	2 776
1988-89	313	28 073	3 566	334.3	2 824
1989-90	332	27 622	3 681	363.4	2 799
1990-91	339	25 200	3 407	344.0	2 649
1991-92	341	21 367	3 016	303.4	2 276
1992-93	339	29 461	4 133	308.5	3 127
1993-94	340	32 008	4 234	352.5	3 456
1994-95	365	34 943	4 931	392.4	4 112
1995-96	383	37 436	4 837	378.5	3 980
1996-97	401	39 938	5 301	341.1	4 309
1997-98	420	41 064	5 567	343.0	4 552
1998-99	402	40 128	4 998	357.0	3 961
1999-00	428	39 699	5 448	257.0	4 131
2000-01	411	31 228	4 162	253.0	2 966
2001-02	417	32 260	4 987	331.6	3 594
2002-03	423	37 968	5 461	276.7	4 219

a Raw tonnes actual. **b** Quantity of sugar shipped out.

Sources: ABS, *International Trade, electronic data service,* cat. no. 5464.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Crops and Pastures, Australia,* cat. no. 7321.0, Canberra; Australian Sugar Milling Council, *Annual Review,* Brisbane; Queensland Sugar Limited, *Annual Report,* Brisbane; Rural Press Ltd, *Australian Sugar Year Book,* Brisbane; ABARE.

204 Australian cane and sugar production

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Area harvested for crushing	'000 ha	401	420	402	428	411	417	423
Cane yield	t/ha harvested	99.5	97.9	99.8	92.8	75.9	77.4	89.8
Cane crushed	kt	39 938	41 064	40 128	39 699	31 228	32 260	37 968
Commercial cane sugar	%	13.51	13.76	12.46	13.72	13.33	14.09	14.10
Sugar production **a**	kt	5 301	5 567	4 998	5 448	4 162	4 987	5 461
Sugar yield	t/ha harvested	13.7	14.0	12.2	13.0	10.1	11.1	12.9
Cane to sugar ratio		7.53	7.38	8.03	7.29	7.50	6.47	6.95
Gross value of sugarcane cut for crushing	$m	1 186	1 248	1 044	882	657	1 013	977

a Raw tonnes actual. **na** Not available.
Sources: Australian Sugar Milling Council, *Annual Review,* Brisbane; Rural Press Ltd, *Australian Sugar Year Book,* Brisbane; ABARE.

205 Australian exports of sugar, by destination a

	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt	2002-03 p kt
Raw sugar in bulk								
Canada	667.4	715.1	684.0	708.8	530.7	512.1	477.5	na
China	329.0	340.3	85.0	50.0	39.0	60.0	230.0	na
Chinese Taipei	91.5	155.7	156.0	154.5	276.0	120.3	122.7	na
Egypt	62.0	165.0	173.0	88.0	0.0	0.0	0.0	na
Indonesia	60.2	149.0	169.9	206.9	130.4	55.5	66.6	na
Iran	19.5	30.4	40.0	20.0	124.0	80.0	0.0	na
Japan	663.6	639.2	708.0	648.6	675.4	474.5	762.6	na
Korea, Rep. of	570.2	680.3	798.0	617.7	815.2	504.8	569.8	na
Malaysia	583.0	611.5	694.0	642.3	767.6	654.9	771.1	na
New Zealand	187.0	131.5	182.0	0.0	0.1	0.0	0.0	na
Philippines	104.8	79.5	6.8	78.3	137.4	0.0	0.0	na
Saudi Arabia	0.0	54.8	154.0	200.0	204.0	171.7	169.3	na
Singapore	80.7	121.5	121.0	15.0	30.0	0.0	0.0	na
United States	140.0	200.0	140.0	107.7	75.0	62.9	83.2	na
Other countries	188.0	36.3	423.3	396.0	223.5	269.6	246.0	na
Total	3 747	4 110	4 535	3 934	4 028	2 966	3 499	na
Raw sugar in bags	23.5	16.9	9.6	8.6	7.5	7.2	6.3	7.0
Refined sugar	210.8	182.2	93.6	155.5	95.7	113.1	138.5	185.4
Total	3 981	4 309	4 638	4 098	4 131	3 087	3 643.6	na
(value, $m)	1 428	1 450	1 757	1 316	1 054	1 111	1 358	na

a Amount of sugar exported in July–June period, actual quantities. **p** Preliminary. **na** Not available.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Queensland Sugar Limited, *Annual Report,* Brisbane; ABARE.

206 World sugar supplies, consumption, trade and prices a

	Production	Total supply	Consumption	Closing stocks b		Trade c	World price d US terms	World price d Australian terms
	Mt	Mt	Mt	Mt		Mt	USc/lb	A$/t e
1960-61	56.1	70.9	na	na	na	na	na	59.1
1961-62	52.4	69.4	na	na	(24.2)	na	na	48.6
1962-63	51.3	64.8	na	na	(18.5)	na	na	120.8
1963-64	54.7	64.8	na	na	(20.6)	na	na	156.8
1964-65	66.8	78.0	na	na	(31.7)	na	na	49.6
1965-66	63.1	81.9	na	na	(30.6)	na	na	37.5
1966-67	65.6	84.8	na	na	(29.2)	na	na	33.4
1967-68	97.9	87.0	na	na	(31.1)	na	na	36.9
1968-69	68.4	89.0	na	na	(28.3)	na	na	57.9
1969-70	74.2	93.8	na	na	(29.0)	na	na	69.3
1970-71	71.0	92.0	72.8	18.8	(25.8)	na	3.3	84.7
1971-72	72.2	91.0	74.3	16.9	(22.7)	na	6.2	115.7
1972-73	75.6	92.5	76.4	16.4	(21.5)	na	8.7	143.1
1973-74	78.5	94.9	78.3	16.2	(20.7)	na	18.5	274.6
1974-75	78.0	94.2	75.9	17.7	(23.3)	na	30.3	499.5
1975-76	81.1	98.8	78.5	20.6	(26.2)	na	13.6	239.7
1976-77	86.7	107.3	81.3	25.1	(30.9)	na	8.3	162.0
1977-78	91.2	116.3	85.2	30.5	(35.8)	na	7.5	146.1
1978-79	91.0	121.5	89.3	31.7	(35.5)	na	8.2	159.9
1979-80	85.1	116.8	90.1	25.9	(28.7)	na	21.0	412.5
1980-81	88.7	114.6	89.8	25.6	(28.5)	28.6	24.7	467.8
1981-82	100.9	126.5	92.2	33.3	(36.1)	31.6	10.4	211.0
1982-83	100.6	133.9	94.4	38.7	(41.0)	29.6	7.6	184.9
1983-84	98.0	136.7	96.3	39.5	(41.0)	29.6	6.7	164.7
1984-85	100.4	139.9	98.0	42.0	(42.9)	29.2	3.7	108.6
1985-86	98.6	140.6	100.0	39.0	(39.0)	28.8	6.0	192.4
1986-87	104.2	143.2	105.9	35.8	(33.8)	28.7	6.2	203.2
1987-88	104.7	140.5	107.2	33.4	(31.1)	27.9	9.0	265.5
1988-89	104.6	138.0	107.0	31.1	(29.0)	35.2	11.6	319.1
1989-90	109.1	140.2	109.5	30.6	(28.0)	34.7	13.9	397.0
1990-91	115.7	146.3	110.4	35.0	(31.8)	34.4	9.4	264.6
1991-92	116.9	151.9	111.0	40.0	(36.0)	32.2	9.1	266.4
1992-93	112.7	152.7	111.9	39.8	(35.6)	32.6	9.6	304.8
1993-94	111.4	151.3	112.2	37.6	(33.5)	34.1	10.6	346.4
1994-95	116.1	153.8	114.7	38.2	(33.3)	35.5	13.6	411.7
1995-96	125.7	163.7	117.6	45.8	(39.1)	39.0	12.3	360.1
1996-97	124.3	169.7	121.5	46.9	(38.9)	38.6	11.3	331.6
1997-98	128.5	173.2	123.1	50.2	(40.7)	37.2	10.5	374.1
1998-99	134.7	184.9	125.4	56.8	(45.3)	44.0	7.2	252.0
1999-00	134.2	191.0	128.3	61.3	(47.9)	42.4	6.2	253.7
2000-01	131.2	192.4	131.4	60.8	(47.4)	43.8	9.8	407.2
2001-02	138.2	199.0	136.6	61.7	(45.2)	46.8	7.2	287.3
2002-03	148.9	206.3	139.5	67.9	(48.7)	49.0	7.5	286.7

a Raw sugar equivalent; September–August years. **b** Figures in parentheses show closing stocks as a percentage of consumption. **c** Trade is defined as world gross exports including those exports made under special arrangements, such as between Comecon countries and through the Lomé Convention. Individual countries of the former Soviet Union are treated as separate trading entities from 1983-84. **d** Average of monthly averages of International Sugar Agreement (ISA) price; fob and stowed Caribbean ports basis, in bulk. **e** Australian currency equivalents of ISA price. **na** Not available.

Sources: International Sugar Organisation, *Statistical Bulletin,* London; F.O. Licht, *International Sugar and Sweetener Report, World Sugar Balances,* Ratzeburg, Germany; F.O. Licht, *International Sugar and Sweetener Report,* Ratzeburg, Germany; ABARE.

207 World sugar production, by region and country [a]

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Beet sugar								
Europe	28.67	30.40	30.51	28.83	29.22	28.55	25.45	28.92
Eastern Europe	9.79	9.64	8.25	7.71	7.17	7.09	7.06	7.40
Poland	1.72	2.44	2.29	2.24	1.96	2.19	1.67	2.07
Russian Federation	2.24	1.87	1.48	1.38	1.72	1.67	1.76	1.69
Ukraine	3.80	2.94	2.28	2.04	1.78	1.69	1.79	1.85
Western Europe	18.88	20.76	22.26	21.12	22.05	21.46	18.40	21.53
European Union [b]	16.97	18.00	19.04	17.54	19.18	18.20	15.96	18.41
France	4.56	4.59	5.13	4.64	4.92	4.60	4.01	5.00
Germany	4.16	4.57	4.40	4.39	4.78	4.76	4.06	4.45
Turkey	1.50	2.02	2.58	2.92	2.16	2.76	1.80	2.32
Other	0.41	0.74	0.65	0.65	0.71	0.51	0.65	0.80
United States	3.55	3.64	3.98	4.01	4.51	4.25	3.61	3.97
Other countries	4.21	3.84	4.02	4.13	3.62	3.60	4.13	4.26
Total	36.43	37.88	38.51	36.97	37.36	36.39	33.19	37.15
Cane sugar								
Africa	6.98	7.92	8.17	8.79	8.56	8.97	8.65	9.19
South Africa	1.79	2.41	2.56	2.77	2.69	2.73	2.40	2.73
Americas	35.90	37.21	38.51	42.49	44.24	40.38	44.28	46.62
Brazil	13.66	14.73	16.05	19.38	20.39	17.04	20.32	23.00
Colombia	2.15	2.14	2.13	2.24	2.39	2.26	2.50	2.58
Cuba	4.50	4.32	3.29	3.85	4.12	3.59	3.78	3.50
Guatemala	1.33	1.82	1.56	1.62	1.64	1.65	1.85	1.85
Mexico	4.69	4.82	5.49	4.99	4.99	5.24	5.14	5.09
United States	2.69	2.56	2.96	3.23	3.40	3.49	3.38	3.23
Asia	38.19	34.68	35.52	39.73	40.13	39.56	44.36	44.85
China	5.37	5.83	7.28	8.34	6.70	5.99	8.12	8.59
India	17.88	14.03	13.97	16.90	19.78	20.11	20.13	19.00
Indonesia	2.29	2.38	2.38	1.62	1.49	1.69	1.87	2.10
Pakistan	2.66	2.59	3.85	3.84	2.63	2.70	3.48	3.86
Philippines	1.85	1.89	1.87	1.68	1.68	1.87	1.96	2.01
Thailand	6.32	6.10	4.33	5.48	5.83	5.44	6.51	6.65
Oceania	5.64	6.14	6.30	5.46	5.96	4.78	5.23	5.57
Australia	5.12	5.63	5.90	5.15	5.53	4.38	4.86	5.19
Total	86.71	85.95	88.52	96.48	98.90	93.70	102.52	106.24
Total beet and cane sugar	123.14	123.83	127.03	133.45	136.26	130.09	135.71	143.39

a Raw sugar equivalent, national crop years. **b** Regarded as twelve countries until 1 January 1995, then fifteen countries.
Source: F.O. Licht, *International Sugar and Sweetener Report, World Sugar Balances,* Ratzeburg, Germany.

208 World sugar trade, by country [a]

	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt	2002-03 Mt
Exports								
Australia	4.53	4.03	4.58	4.08	4.01	3.11	3.83	3.99
Brazil	5.50	5.92	8.05	11.25	8.83	8.98	12.66	13.81
China	0.83	0.43	0.28	0.57	0.39	0.18	0.42	0.16
Colombia	0.72	0.85	0.84	0.83	0.94	0.96	1.05	1.28
Cuba	3.80	3.62	2.57	3.12	3.44	2.93	2.92	1.82
Dominican Republic	0.31	0.35	0.27	0.19	0.18	0.19	0.19	0.17
European Union [b]	6.52	7.38	8.85	7.76	8.58	9.27	6.77	7.93
Fiji	0.44	0.38	0.26	0.35	0.32	0.30	0.27	0.30
Guatemala	0.92	0.90	1.28	1.13	1.17	1.43	1.32	1.28
Guyana	0.22	0.27	0.24	0.29	0.26	0.24	0.31	0.31
India	0.85	0.71	0.41	0.29	0.02	1.18	1.15	1.81
Korea, Rep. of	0.28	0.26	0.37	0.32	0.36	0.31	0.32	0.33
Mauritius	0.60	0.64	0.64	0.56	0.44	0.64	0.63	0.52
Mexico	0.58	0.79	1.16	0.60	0.44	0.61	0.39	0.13
Poland	0.00	0.51	0.47	0.47	0.42	0.43	0.06	0.45
South Africa	0.70	0.89	1.04	0.95	1.30	1.21	1.29	1.13
Swaziland	0.23	0.27	0.29	0.17	0.31	0.34	0.24	0.29
Thailand	4.85	3.81	2.62	3.20	3.90	3.66	4.56	4.09
Ukraine	1.95	1.20	0.12	0.15	0.14	0.12	0.09	0.21
United States	0.34	0.53	0.24	0.14	0.11	0.11	0.11	0.13
Other countries	4.85	4.87	2.62	7.60	6.82	7.55	8.25	8.81
Total [c]	39.01	38.61	37.20	44.02	42.37	43.77	46.83	48.96
Imports								
Algeria	0.91	0.91	0.92	0.93	0.94	1.04	1.02	1.41
Canada	1.10	1.05	1.11	1.16	1.11	1.24	1.10	1.32
China	1.94	1.10	0.41	0.54	0.64	0.89	1.28	0.90
Egypt	0.92	1.13	1.20	1.30	1.04	0.90	1.14	1.22
European Union [b]	4.13	4.03	4.60	4.33	4.70	5.48	5.34	5.38
Indonesia	1.22	1.50	0.69	2.29	1.67	1.43	2.07	1.72
Iran	0.94	1.32	1.14	1.01	0.99	0.99	1.01	0.95
Iraq	0.51	0.57	0.60	0.65	0.66	0.67	0.65	1.25
Israel	0.43	0.46	0.48	0.50	0.52	0.53	0.54	0.54
Japan	1.71	1.65	1.61	1.55	1.54	1.54	1.53	1.62
Korea, Rep. of	1.35	1.43	1.37	1.37	1.47	1.48	1.54	1.62
Malaysia	1.06	1.15	0.97	1.19	1.18	1.17	1.31	1.45
Morocco	0.48	0.62	0.55	0.49	0.58	0.51	0.54	0.54
Nigeria	0.60	0.63	0.90	0.83	0.82	1.02	1.49	1.47
Pakistan	0.39	0.74	0.10	0.01	0.28	1.34	0.24	0.03
Russian Federation	3.93	3.12	4.75	5.22	5.21	5.08	5.10	4.62
Saudi Arabia	0.60	0.63	0.66	0.64	0.71	0.77	0.81	0.87
Sri Lanka	0.38	0.61	0.44	0.51	0.65	0.63	0.65	0.67
Syria	0.51	0.57	0.52	0.52	0.51	0.00	0.00	na
Ukraine	0.31	0.14	0.14	0.32	0.26	0.44	0.27	0.99
United States	2.40	3.02	2.23	1.85	1.38	1.36	1.39	1.48
Other countries	12.83	10.88	13.89	14.16	13.12	14.43	16.05	16.25
Total [c]	38.63	37.26	39.28	41.37	39.99	42.95	45.05	46.30

a Includes both raw and white sugar measured in raw sugar equivalents, September–August years. **b** Regarded as twelve countries until 1 January 1995, then fifteen countries. **c** Totals for exports and imports may not be equal as a result of losses in transit, sugar being at sea at the end of each year, and discrepancies in the official statistics of individual countries.

Source: F.O. Licht, *International Sugar and Sweetener Report, World Sugar Balances,* Ratzeburg, Germany.

209 World raw sugar trade, by country [a]

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Exports								
Australia	4.25	3.84	4.48	4.02	3.88	3.01	3.70	3.87
Brazil	0.99	2.67	4.72	6.42	5.74	5.88	6.80	7.94
Colombia	0.54	0.46	0.39	0.51	0.60	0.66	0.58	0.74
Costa Rica	0.15	0.14	0.12	0.13	0.12	0.16	0.07	0.12
Cuba	3.80	3.62	2.57	3.12	3.43	2.92	2.75	1.71
Dominican Republic	0.31	0.36	0.27	0.19	0.18	0.19	0.19	0.17
European Union [b]	0.07	0.08	0.06	0.09	0.13	0.11	0.09	0.11
Fiji	0.44	0.38	0.26	0.35	0.32	0.30	0.27	0.30
Guatemala	0.63	0.77	1.06	0.94	0.97	1.34	1.22	1.19
Guyana	0.22	0.27	0.24	0.29	0.27	0.24	0.31	0.31
Jamaica	0.17	0.18	0.17	0.18	0.17	0.15	0.14	0.14
Mauritius	0.60	0.64	0.64	0.56	0.44	0.64	0.63	0.52
Mexico	0.02	0.00	0.00	0.19	0.01	0.51	0.35	0.12
Philippines	0.24	0.19	0.19	0.15	0.11	0.10	0.09	0.08
South Africa	0.60	0.82	0.85	0.94	0.81	1.01	1.17	0.90
Swaziland	0.22	0.27	0.29	0.17	0.29	0.33	0.24	0.27
Thailand	3.24	2.37	1.40	1.88	2.28	2.22	2.43	2.29
Other countries	1.74	1.49	1.89	1.55	1.78	2.04	1.94	1.86
Total [c]	18.22	18.57	19.62	21.67	21.52	21.82	22.97	22.65
Imports								
Algeria	0.28	0.28	0.28	0.28	0.29	0.31	0.11	0.45
Bulgaria	0.29	0.36	0.27	0.28	0.33	0.31	0.31	0.33
Canada	1.06	1.04	1.08	1.12	1.07	1.19	1.06	1.27
China	1.80	1.03	0.33	0.48	0.57	0.70	1.15	0.76
Egypt	0.46	0.90	0.96	1.04	0.83	0.72	0.92	0.98
European Union [b]	2.09	1.96	2.23	2.14	2.10	2.20	2.57	2.22
Japan	1.70	1.65	1.60	1.55	1.53	1.54	1.52	1.62
Korea, Rep. of	1.35	1.44	1.37	1.37	1.47	1.48	1.54	1.62
Malaysia	1.06	1.15	0.97	1.19	1.18	1.17	1.31	1.45
Morocco	0.48	0.62	0.55	0.49	0.58	0.51	0.54	0.54
New Zealand	0.18	0.15	0.18	0.14	0.20	0.23	0.23	0.22
Philippines	0.63	0.14	0.64	0.44	0.02	0.10	0.05	0.11
Russian Federation	1.83	1.99	4.15	5.01	5.12	4.77	5.03	4.36
Saudi Arabia	0.12	0.21	0.43	0.51	0.56	0.62	0.65	0.69
Singapore	0.18	0.19	0.21	0.17	0.18	0.13	0.24	0.25
Ukraine	0.37	0.11	0.11	0.31	0.19	0.31	0.21	0.86
United States	2.34	2.93	2.16	1.78	1.31	1.27	1.30	1.37
Other countries	3.43	3.90	3.72	4.80	5.62	6.40	6.76	6.91
Total [c]	19.64	20.05	21.23	23.10	23.16	23.96	25.50	26.01

a Raw sugar equivalent, September–August years. **b** Regarded as twelve countries until 1 January 1995, then fifteen countries. **c** Totals for exports and imports may not be equal as a result of losses in transit, sugar being at sea at the end of each year, and discrepancies in the official statistics of individual countries.

Source: F.O. Licht, *International Sugar and Sweetener Report, World Sugar Balances,* Ratzeburg, Germany.

210 World white sugar trade, by country [a]

	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt	2002-03 Mt
Exports								
Brazil	4.51	3.65	3.33	4.83	3.09	3.10	5.86	5.87
China	0.80	0.42	0.26	0.56	0.38	0.18	0.42	0.15
Colombia	0.18	0.39	0.45	0.39	0.34	0.31	0.46	0.54
Egypt	0.33	0.42	0.31	0.12	0.16	0.19	0.28	0.15
European Union [b]	6.54	7.32	8.79	7.68	8.46	9.16	6.68	7.82
Guatemala	0.25	0.28	0.22	0.20	0.15	0.09	0.10	0.08
India	0.83	0.68	0.38	0.02	0.01	1.17	1.13	1.77
Korea, Rep. of	0.28	0.25	0.36	0.32	0.36	0.31	0.32	0.33
Pakistan	0.00	0.00	0.44	0.78	0.03	0.05	0.00	0.20
Poland	0.00	0.36	0.40	0.43	0.38	0.36	0.06	0.41
Thailand	1.61	1.45	1.22	1.32	1.63	1.44	2.13	1.80
Ukraine	1.95	1.20	0.12	0.14	0.14	0.12	0.09	0.21
United States	0.43	0.52	0.23	0.14	0.10	0.10	0.08	0.12
Other countries	3.11	4.06	5.10	5.40	5.58	5.34	6.26	6.85
Total [c]	20.82	21.01	21.62	22.32	20.80	21.91	23.87	26.31
Imports								
Algeria	0.64	0.65	0.64	0.65	0.68	0.72	0.91	0.96
China	0.14	0.06	0.08	0.06	0.07	0.18	0.12	0.14
Egypt	0.46	0.23	0.24	0.26	0.21	0.18	0.23	0.24
European Union [b]	2.01	2.06	2.38	2.19	2.74	3.28	2.77	3.16
Hong Kong, China	0.21	0.28	0.33	0.23	0.18	0.19	0.21	0.19
India	0.28	0.05	0.89	1.02	0.55	0.00	0.02	0.00
Indonesia	1.29	1.28	0.45	1.73	1.04	0.96	1.60	1.17
Iran	0.85	1.09	0.81	0.69	0.67	0.75	0.76	0.72
Iraq	0.43	0.46	0.51	0.55	0.56	0.57	0.55	1.06
Israel	0.44	0.48	0.48	0.50	0.52	0.53	0.54	0.54
Kenya	0.26	0.12	0.21	0.08	0.07	0.15	0.14	0.22
Libya	0.23	0.24	0.30	0.29	0.27	0.26	0.26	0.29
Nigeria	0.60	0.63	0.90	0.83	0.63	0.42	0.61	0.66
Pakistan	0.21	0.71	0.10	0.00	0.28	0.97	0.21	0.02
Peru	0.31	0.18	0.54	0.36	0.28	0.29	0.15	0.04
Romania	0.16	0.19	0.23	0.16	0.13	0.19	0.18	0.23
Russian Federation	2.10	0.59	0.59	0.21	0.09	0.31	0.07	0.26
Saudi Arabia	0.49	0.45	0.23	0.13	0.14	0.15	0.16	0.17
Sri Lanka	0.42	0.61	0.50	0.51	0.65	0.63	0.65	0.67
Tunisia	0.18	0.21	0.19	0.16	0.21	0.23	0.24	0.24
Turkey	0.81	0.15	0.01	0.00	0.00	0.00	0.00	0.00
Other countries	6.45	6.46	7.40	7.61	7.59	8.03	9.16	9.31
Total [c]	18.96	17.19	18.00	18.21	17.57	18.98	19.56	20.29

a Raw sugar equivalent, September–August years. **b** Regarded as twelve countries until 1 January 1995, then fifteen countries. **c** Totals for exports and imports may not be equal as a result of losses in transit, sugar being at sea at the end of each year, and discrepancies in the official statistics of individual countries.

Source: F.O. Licht, *International Sugar and Swetener Report, World Sugar Balances,* Ratzeburg, Germany.

211 Summary of Australian statistics for wheat [a]

			Production		Exports [b]			
	Area [c]	Yield	Volume [c]	Unit value	Volume	Unit value [d]	Domestic use [e]	Closing stocks [f]
	'000 ha	t/ha	kt	$/t	kt	$/t	kt	kt
1962-63	6 665	1.25	8 353	53.8	6 222	52.0	1 980	638
1963-64	6 667	1.34	8 924	52.4	6 894	52.0	2 110	558
1964-65	7 251	1.38	10 037	51.6	7 268	52.0	2 662	665
1965-66	7 088	1.00	7 067	54.5	4 755	51.0	2 525	452
1966-67	8 427	1.51	12 699	54.3	8 526	55.0	2 437	2 188
1967-68	9 082	0.83	7 547	57.7	5 644	53.0	2 682	1 409
1968-69	10 845	1.37	14 804	49.4	6 585	53.0	2 370	7 258
1969-70	9 486	1.11	10 547	50.4	8 185	49.0	2 403	7 217
1970-71	6 478	1.22	7 890	51.2	9 049	48.0	2 654	3 404
1971-72	7 138	1.19	8 510	54.4	7 760	50.0	2 703	1 451
1972-73	7 603	0.87	6 590	54.1	4 137	51.0	3 426	478
1973-74	8 948	1.34	11 987	109.4	7 418	102.0	3 165	1 882
1974-75	8 308	1.37	11 357	110.6	8 550	132.0	3 031	1 658
1975-76	8 555	1.40	11 982	104.3	8 233	122.0	2 742	2 665
1976-77	8 956	1.30	11 667	90.1	9 763	109.0	2 432	2 137
1977-78	9 955	0.94	9 370	99.8	8 098	93.0	2 629	780
1978-79	10 249	1.77	18 090	126.9	11 693	116.0	2 531	4 646
1979-80	11 153	1.45	16 188	153.1	13 197	146.0	3 369	4 268
1980-81	11 283	0.96	10 856	155.1	9 614	164.0	3 466	2 044
1981-82	11 885	1.38	16 360	158.9	11 068	158.0	2 457	4 879
1982-83	11 520	0.77	8 876	176.4	7 280	168.0	4 190	2 285
1983-84	12 930	1.70	22 016	163.8	14 159	172.0	2 641	7 501
1984-85	12 079	1.55	18 665	171.6	14 659	183.0	3 081	8 426
1985-86	11 737	1.39	16 259	165.7	16 331	185.0	2 526	5 828
1986-87	11 261	1.45	16 308	151.0	15 596	147.0	2 825	3 715
1987-88	9 062	1.36	12 368	163.0	9 864	145.0	3 479	2 740
1988-89	8 903	1.58	14 061	211.6	11 404	215.0	2 888	2 509
1989-90	9 003	1.58	14 214	195.2	10 980	213.0	2 415	3 327
1990-91	9 218	1.63	15 066	132.0	11 990	137.0	3 239	3 164
1991-92	7 183	1.47	10 557	198.6	7 122	203.0	4 095	2 504
1992-93	9 101	1.78	16 184	178.8	10 345	207.0	4 186	4 157
1993-94	8 383	1.97	16 479	174.0	13 805	175.0	3 900	2 930
1994-95	7 891	1.14	8 972	237.1	6 342	234.0	3 916	1 644
1995-96	9 221	1.79	16 504	260.8	13 298	286.8	4 109	741
1996-97	10 936	2.10	22 924	212.8	19 189	227.3	3 512	964
1997-98	10 439	1.84	19 224	197.7	15 679	241.6	4 079	430
1998-99	11 543	1.86	21 464	186.9	16 391	204.0	4 306	1 198
1999-00	12 168	2.03	24 758	195.1	17 784	206.0	4 636	3 537
2000-01	12 141	1.82	22 108	232.1	16 085	247.5	4 703	4 856
2001-02	11 529	2.11	24 299	261.6	16 304	278.1	4 796	8 055
2002-03	10 831	0.87	9 385	266.5	9 068	284.2	5 279	3 093

a Crop years: up to and including 1980-81: 1 December to 30 November; 1981-82: 1 December to 30 September; 1982-83 and subsequent years: 1 October to 30 September. **b** For wheat including flour. **c** Details for establishments with an estimated value of agricultural operations (EVAO) of $2 500 or more until 1985-86; EVAO of $5 000 or more from 1986-87 to 1988-89; EVAO of $20 000 or more from 1989-90 to 1990-91; EVAO of $22 500 or more from 1991-92 to 1992-93; and EVAO of $5 000 or more from 1993-94. **d** Export unit value based on financial year exports until 1987-88 and crop year exports thereafter. **e** Calculated as production less exports plus net change in stocks. Includes wastage. **f** Includes AWB Limited Pool and Trading Division closing stocks.

Sources: ABS, *International Trade,electronic data service,* cat. no. 5464.0, Canberra; ABS, *Principal Agricultural Commodities, Australia, Preliminary,* cat. no. 7111.0, *Canberra;* ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, Agricultural Commodities, Australia, cat. no. 7121.0, Canberra; ABARE.

212 Australian wheat area, yield and production, by state

	Unit	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia a
Area b								
1989-90	'000 ha	2 123	952	894	3 476	1 557	1	9 003
1990-91	'000 ha	2 166	911	1 060	3 632	1 448	1	9 218
1991-92	'000 ha	1 499	664	492	3 230	1 297	1	7 183
1992-93	'000 ha	1 800	950	800	4 000	1 550	1	9 101
1993-94	'000 ha	1 978	780	555	3 852	1 216	2	8 383
1994-95	'000 ha	1 424	822	401	3 848	1 395	1	7 891
1995-96	'000 ha	2 328	853	627	3 892	1 519	1	9 221
1996-97	'000 ha	3 192	963	980	4 264	1 535	2	10 936
1997-98	'000 ha	2 936	857	999	4 205	1 439	3	10 439
1998-99	'000 ha	3 174	949	1 139	4 515	1 762	4	11 543
1999-00	'000 ha	3 425	1 235	1 096	4 556	1 850	6	12 168
2000-01	'000 ha	3 671	1 143	885	4 460	1 976	7	12 141
2001-02	'000 ha	3 446	1 136	604	4 350	1 987	6	11 529
2002-03	'000 ha	2 950	1 250	465	4 150	2 010	6	10 831
Yield								
1989-90	t/ha	1.61	2.06	1.59	1.38	1.67	3.00	1.58
1990-91	t/ha	1.91	1.64	1.86	1.50	1.40	2.00	1.63
1991-92	t/ha	1.46	1.73	0.70	1.47	1.65	3.00	1.47
1992-93	t/ha	2.33	2.53	0.88	1.55	1.73	4.00	1.78
1993-94	t/ha	2.57	2.59	1.00	1.74	1.74	3.00	1.97
1994-95	t/ha	0.61	1.15	0.56	1.41	1.07	2.19	1.14
1995-96	t/ha	1.94	2.25	0.83	1.75	1.79	3.86	1.79
1996-97	t/ha	2.62	2.35	2.02	1.76	1.82	4.00	2.10
1997-98	t/ha	2.01	1.75	1.39	1.84	1.87	4.00	1.84
1998-99	t/ha	2.07	1.54	1.70	1.81	1.88	4.50	1.86
1999-00	t/ha	2.51	2.14	1.74	1.98	1.40	3.33	2.03
2000-01	t/ha	2.14	2.69	1.31	1.30	2.11	3.71	1.82
2001-02	t/ha	2.33	2.46	1.49	1.78	2.40	4.17	2.11
2002-03	t/ha	0.66	0.76	1.18	0.94	1.00	5.78	0.87
Production b								
1989-90	kt	3 423	1 961	1 420	4 800	2 607	3	14 214
1990-91	kt	4 128	1 493	1 973	5 449	2 021	2	15 066
1991-92	kt	2 183	1 150	344	4 736	2 141	3	10 557
1992-93	kt	4 200	2 400	700	6 200	2 680	4	16 184
1993-94	kt	5 086	2 022	555	6 689	2 121	6	16 479
1994-95	kt	875	944	225	5 438	1 487	3	8 972
1995-96	kt	4 508	1 921	519	6 827	2 724	4	16 504
1996-97	kt	8 363	2 262	1 980	7 516	2 795	8	22 924
1997-98	kt	5 906	1 503	1 389	7 725	2 689	12	19 224
1998-99	kt	6 563	1 462	1 941	8 170	3 310	18	21 464
1999-00	kt	8 602	2 642	1 904	9 004	2 586	20	24 758
2000-01	kt	7 867	3 080	1 157	5 814	4 162	26	22 108
2001-02	kt	8 043	2 791	901	7 760	4 778	25	24 299
2002-03	kt	1 950	950	550	3 900	2 000	35	9 385

a Includes data for the Australian Capital Territory and the Northern Territory. State totals may not add to Australian totals as a result of rounding. **b** Fo 1982-83 to 1985-86, excludes establishments with an estimated value of agricultural operations (EVAO) less than $2 500; for 1986-87 to 1988-89, excludes establishments with an EVAO less than $5 000; for 1989-90 to 1990-91, excludes establishments with an EVAO less than $20 000; for 1991-92 to 1992-93, excludes establishments with an EVAO less than $22 500; from 1993-94, excludes establishments with an EVAO less than $5 000. **s** ABARE estimate.

Sources: ABS, *Principal Agricultural Commodities, Australia, Preliminary,* cat. no. 7111.0, Canberra; ABS, Agriculture, cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia,* cat. no. 7121.0, Canberra; ABARE.

213 Australian exports of wheat and flour, by destination [a]

	1995-96 kt	1996-97 kt	1997-98 kt	1998-99 kt	1999-00 kt	2000-01 kt	2001-02 kt	2002-03 kt
Africa								
Egypt	739	1 665	735	1 503	1 012	955	1 680	602
Ethiopia	35	6	41	33	20	35	10	24
South Africa	412	349	161	234	239	141	98	48
Asia								
Bangladesh	174	231	254	372	343	252	133	130
China	2 229	156	204	165	107	60	46	38
India	0	1 632	2 189	296	173	7	0	0
Indonesia	1 959	2 369	2 424	1 414	1 850	2 174	2 073	1 662
Japan	1 148	1 256	1 108	1 147	1 189	1 160	1 193	1 132
Korea, Rep. of	703	687	768	1 212	1 181	1 139	953	1 014
Malaysia	798	631	671	874	800	775	681	370
Pakistan	233	1 308	1 039	1 102	1 187	0	0	9
Singapore	88	59	86	107	92	96	94	64
Sri Lanka	326	263	80	189	155	262	209	117
Thailand	243	255	315	308	251	269	282	290
Middle East								
Bahrain	27	67	37	21	23	44	0	0
Iran	1 879	3 349	579	1 663	1 520	2 352	2 418	1 064
Iraq	50	815	1 388	1 269	2 265	2 587	2 245	1 037
Kuwait	144	202	177	219	132	180	230	175
Oman	193	287	282	248	300	136	114	27
Qatar	40	64	36	61	22	28	0	0
United Arab Emirates	226	457	289	519	462	399	226	142
Yemen	254	633	527	644	544	507	450	412
Oceania								
Fiji	55	67	66	73	88	93	102	119
New Zealand	158	146	84	94	182	189	335	306
Papua New Guinea	95	119	109	131	137	136	110	130
Total	12 056	18 348	15 245	16 384	17 274	16 570	16 406	10 806
(value, $m)	3 389	4 346	3 687	3 467	3 481	4 197	4 612	3 109

a July–June year. Exports are of wheat (including spelt, groats, meal and pellets) and meslin (mixed grain, especially rye mixed with wheat), plus plain white flour, wholemeal flour and self-raising white flour in wheat equivalent.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

214 Australian wheat supply and disposal [a]

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	kt	kt	kt	kt	kt	kt	kt	kt
Opening stocks	1 644	741	964	430	1 198	3 537	4 856	8 055
Production	16 504	22 924	19 224	21 464	24 758	22 108	24 299	9 385
Availability	18 148	23 665	20 188	21 894	25 956	25 645	29 155	17 440
Total domestic use	4 109	3 512	4 079	4 306	4 636	4 703	4 796	5 279
Food [b]	1 991	2 122	2 174	2 117	2 159	2 185	2 208	2 231
Feed [b]	1 626	904	1 385	1 641	1 930	2 000	2 100	2 500
Seed	492	486	519	548	546	519	487	548
Exports [c]								
Wheat	13 227	19 069	15 088	16 141	17 373	15 891	16 075	8 926
Flour [d]	72	166	147	250	184	194	229	143
Total	13 298	19 189	15 679	16 391	17 784	16 085	16 304	9 068
China	2 229	156	204	165	107	60	46	38
Egypt	739	1 665	735	1 503	1 012	955	1 680	602
Indonesia	1 959	2 369	2 424	1 414	1 850	2 174	2 073	1 662
Iran	1 879	3 349	579	1 663	1 520	2 352	2 418	1 064
Iraq	50	815	1 388	1 269	2 265	2 587	2 245	1 037
Japan	1 148	1 256	1 108	1 147	1 189	1 160	1 193	1 132
Closing stocks	741	964	430	1 198	3 537	4 856	8 055	3 093

a 1 October to 30 September. **b** Calculated as residual: production less exports less other domestic uses plus net change in stocks. **c** Exports to individual countries are for a July-June year. **d** Wheat equivalent (conversion 1:1.29).

Sources: ABS, *International Trade, electronic data service,* cat. no. 5464.0, Canberra; ABS, *Principal Agricultural Commodities, Australia,* Preliminary, cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, Agricultural Commodities, Australia, cat. no. 7121.0, Canberra; ABARE.

215 Australian wheat prices [a]

	AWB Limited export quote [a]		Stock feed wheat [b]	Unit GVP
	US$/t	A$/t	A$/t	A$/t
1965-66	na	na	56.25	54.46
1966-67	na	na	57.50	54.33
1967-68	na	na	60.81	57.69
1968-69	na	na	62.83	49.40
1969-70	na	na	63.38	50.36
1970-71	na	51.00	63.93	51.15
1971-72	na	49.00	65.40	54.36
1972-73	90.00	70.00	67.63	54.11
1973-74	195.00	132.00	71.10	109.44
1974-75	167.00	122.00	83.40	110.63
1975-76	146.00	116.00	99.32	104.26
1976-77	114.00	99.00	105.40	90.07
1977-78	118.00	105.00	111.16	99.78
1978-79	143.00	126.00	116.61	126.91
1979-80	169.00	152.00	140.50	153.08
1980-81	180.00	155.00	151.37	155.12
1981-82	165.00	149.00	149.78	158.92
1982-83	164.00	175.00	184.11	176.43
1983-84	154.00	170.00	175.24	163.79
1984-85	150.00	194.00	204.36	171.60
1985-86	133.00	190.00	144.30	165.69
1986-87	110.00	166.00	113.00	150.97
1987-88	125.00	172.00	138.92	163.00
1988-89	172.00	212.00	157.42	211.65
1989-90	168.00	218.00	169.08	195.24
1990-91	126.58	161.07	132.33	131.96
1991-92	160.33	208.77	159.67	198.64
1992-93	155.67	222.97	143.50	178.82
1993-94	153.75	223.70	137.58	173.97
1994-95	175.08	236.97	232.75	237.09
1995-96	230.42	304.56	236.24	260.82
1996-97	206.67	264.92	188.38	212.79
1997-98	167.00	246.22	185.93	197.75
1998-99	146.91	234.65	155.38	186.87
1999-00	147.52	220.72	153.63	195.14
2000-01	149.44	217.53	171.83	232.06
2001-02	160.33	312.31	211.97	261.59
2002-03	184.61	317.99	291.63	266.47

a Average of daily asking prices for Australian standard white wheat fob eastern states for the relevant financial year. **b** Administered pricing of domestic wheat ceased after the 1988-89 season. Sydney cash price, ASW (July–June average) from 1989-90. **na** Not available.
Sources: International Grains Council, *Grain Market Report,* London; ABARE.

216 Summary of world statistics for wheat

	Area	Production	Use	Closing stocks a World	Closing stocks a Exporters b	Stocks to use ratio	Trade c	Use per person	Price d
	million ha	Mt	Mt	Mt	Mt	%	Mt	kg	US$/t
1960-61	202	241	232	82	63	35	43	77	62.00
1961-62	202	227	236	73	54	31	47	77	63.00
1962-63	206	258	248	83	55	33	43	80	64.00
1963-64	209	241	252	72	46	29	56	79	66.00
1964-65	217	276	262	86	46	33	51	81	64.00
1965-66	219	265	284	67	34	24	62	85	58.00
1966-67	219	311	286	92	35	32	56	84	66.00
1967-68	223	300	294	98	43	33	51	85	62.00
1968-69	227	332	308	122	62	40	46	87	63.00
1969-70	220	315	329	108	65	33	51	91	52.00
1970-71	210	319	342	85	51	25	54	93	60.00
1971-72	215	354	349	90	49	26	52	93	60.00
1972-73	213	348	367	71	28	19	68	96	91.00
1973-74	221	376	360	87	26	24	63	93	177.00
1974-75	223	364	368	83	30	23	63	93	164.00
1975-76	227	359	362	80	38	22	66	90	152.00
1976-77	234	425	384	121	56	32	62	93	113.00
1977-78	228	386	409	98	53	24	72	98	116.00
1978-79	230	451	429	120	56	28	72	101	141.00
1979-80	229	429	448	101	49	23	86	103	175.00
1980-81	237	445	449	97	47	22	94	101	183.00
1981-82	240	454	447	104	59	23	101	99	170.00
1982-83	239	482	465	121	70	26	96	101	160.00
1983-84	231	494	483	132	66	27	100	104	154.00
1984-85	232	518	503	147	73	29	103	105	148.00
1985-86	231	505	495	157	85	32	84	103	128.00
1986-87	229	531	529	176	83	33	90	108	110.50
1987-88	221	505	537	150	61	28	107	108	123.40
1988-89	220	500	538	116	39	22	98	106	165.75
1989-90	226	537	532	120	36	23	95	102	160.83
1990-91	230	592	562	145	55	26	92	106	117.94
1991-92	221	543	556	133	48	24	108	103	150.96
1992-93	221	562	550	145	55	26	105	101	141.33
1993-94	222	559	562	142	45	25	93	101	141.52
1994-95	216	524	547	118	31	22	92	97	156.42
1995-96	219	538	552	104	29	19	96	97	215.33
1996-97	231	582	577	167	36	29	99	99	178.50
1997-98	228	610	582	195	41	33	99	99	141.75
1998-99	225	586	580	201	54	35	99	98	119.08
1999-00	217	585	583	203	52	35	108	97	113.17
2000-01	216	582	584	201	53	34	101	94	128.50
2001-02	214	582	587	197	47	34	107	95	127.51
2002-03	212	567	600	163	35	27	105	96	160.46

a Sum of individual closing stocks at the end of respective national crop years. China not included before 1983-84. **b** United States, European Union, Canada, Australia and Argentina. **c** July–June year. Excludes intra-EU trade. **d** For US hard red winter wheat, (0rd.), fob Gulf.
Sources: International Grains Council, *Grain Market Report,* London; International Grains Council, *World Grain Statistics,* London; ABARE.

217 World wheat production, by country

	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt	2002-03 Mt
Africa								
Algeria	1.5	3.0	0.7	2.2	1.5	0.8	2.0	1.1
Egypt	5.7	5.7	5.9	6.1	6.4	6.4	6.1	6.2
Morocco	1.1	5.9	2.3	4.4	2.2	1.4	3.3	3.4
South Africa	2.0	2.7	2.3	1.9	1.7	2.3	2.5	2.3
Americas								
Argentina	8.6	15.9	15.7	13.3	16.4	16.2	15.5	12.3
Brazil	1.5	3.2	2.4	2.2	2.4	1.7	3.3	2.9
Canada	25.0	29.8	24.3	24.1	26.9	26.5	20.6	15.7
Mexico	3.5	3.1	3.6	3.2	3.1	3.4	3.3	3.2
United States	59.4	62.0	67.5	69.3	62.6	60.8	53.3	44.0
Asia								
China	102.2	110.6	123.3	109.7	113.9	99.6	93.9	90.3
India	65.5	62.1	69.4	66.4	70.8	76.4	69.7	71.8
Japan	0.4	0.5	0.6	0.6	0.6	0.7	0.7	0.8
Kazakhstan	6.5	7.7	9.0	4.7	11.2	9.1	12.7	12.6
Pakistan	17.0	16.9	16.7	18.7	17.9	21.1	19.0	18.2
Uzbekistan	2.4	2.7	3.1	3.6	3.7	3.6	3.4	5.0
Europe								
Bulgaria	3.2	1.8	3.3	3.3	2.9	2.9	3.1	3.5
Czech Republic	3.8	3.7	3.6	3.8	4.0	4.1	4.5	3.9
European Union **a**	86.2	98.5	94.2	103.1	96.4	104.7	91.2	103.3
France	30.9	35.9	33.9	39.8	37.2	37.5	31.4	39.0
Germany	17.8	18.9	19.6	20.1	19.6	21.6	22.8	20.8
Italy	8.0	8.3	6.8	8.1	7.3	6.9	6.2	7.5
Spain	3.1	6.0	4.6	5.3	4.9	7.3	4.7	6.3
Sweden	1.6	2.0	2.1	2.3	1.7	2.4	2.3	2.1
United Kingdom	14.3	16.1	15.1	15.5	14.9	16.8	11.6	16.1
Hungary	4.6	3.9	5.3	5.0	2.6	3.7	5.2	3.9
Poland	8.7	8.6	8.2	9.5	9.1	8.5	9.3	9.3
Romania	7.7	3.2	7.2	5.2	4.8	4.6	6.7	4.3
Russian Federation	30.1	34.9	44.2	27.0	31.0	34.5	46.9	50.6
Serbia and Montenegro	2.9	1.5	2.9	3.0	2.0	1.8	2.5	2.2
Slovakia	1.9	1.7	1.9	1.8	1.2	1.3	1.9	1.6
Ukraine	16.3	13.6	18.4	14.9	13.6	10.2	21.3	20.6
Middle East								
Iran	11.3	11.0	10.0	12.0	8.5	8.0	8.5	12.0
Saudi Arabia	2.0	1.2	1.8	1.8	1.8	1.8	2.0	2.0
Syria	4.2	4.1	3.0	4.1	2.6	2.7	4.5	4.5
Turkey	15.5	16.0	16.0	18.0	16.5	18.0	15.5	16.8
Oceania								
Australia	16.5	22.9	19.2	21.5	24.8	22.1	24.3	9.4
Total **b**	538.0	582.7	610.1	589.9	585.3	581.5	581.1	564.5

a Regarded as twelve countries until 1 January 1995, then fifteen countries. Production totals for individual EU countries sourced from International Grains Council from 2000-01 onwards. **b** Includes some unspecified countries.

Sources: ABS, *Principal Agricultural Commodities, Australia, Preliminary,* cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Summary of Crops, Australia,* cat. no. 7330.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC; International Grains Council, *Grain Market Report,* London; ABARE.

218 World wheat trade, by country [a]

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt
Imports								
Africa								
Algeria	3.8	3.6	5.2	4.3	4.8	5.6	4.6	5.5
Egypt	5.9	6.9	7.1	7.5	5.9	6.1	9.8	6.3
Morocco	2.3	1.6	2.6	2.8	3.1	3.6	0.2	2.7
Nigeria	0.7	1.0	1.1	1.5	1.3	1.9	1.4	2.3
Tunisia	0.9	1.0	1.5	1.1	1.2	1.6	0.0	2.2
Americas								
Mexico	1.6	1.9	2.2	2.5	2.6	3.1	2.4	3.2
Brazil	5.8	5.1	6.2	7.1	7.7	7.2	1.1	6.5
Cuba	0.8	1.0	0.9	1.0	1.1	1.0	6.9	0.8
Peru	1.0	1.3	1.2	1.3	1.2	1.5	0.3	1.2
Venezuela	1.0	1.2	1.2	1.3	1.4	1.4	1.4	1.1
Asia								
Bangladesh	1.2	1.0	0.8	2.0	1.6	1.3	1.6	1.1
China	12.5	2.7	1.9	0.8	1.0	0.2	1.1	0.4
Chinese Taipei	1.1	1.0	1.0	1.0	1.1	1.0	1.0	1.0
India	0.1	1.4	1.7	2.2	1.4	0.4	3.7	0.0
Indonesia	3.6	4.2	3.7	3.1	3.7	4.1	5.3	4.0
Japan	6.1	6.3	6.2	6.0	6.0	5.9	4.0	5.6
Korea, Rep. of	2.6	3.5	3.9	4.7	3.8	3.1	3.2	4.1
Pakistan	1.9	3.0	4.1	3.1	2.1	0.1	2.9	0.3
Philippines	2.0	2.2	2.0	2.3	3.0	3.1	0.6	3.0
Europe								
European Union [b]	2.5	2.5	3.9	3.8	4.2	3.2	0.0	12.0
Poland	0.8	2.1	0.5	0.6	0.2	0.9	1.0	0.1
Russian Federation	5.3	2.6	3.1	2.5	5.1	1.6	1.3	0.5
Ukraine	0.2	0.1	0.1	0.1	0.5	0.7	1.1	0.8
Middle East								
Iran	3.0	5.6	5.2	2.3	7.2	6.3	3.0	2.1
Iraq	0.5	1.1	2.7	2.0	2.7	3.3	5.8	1.7
Turkey	2.1	2.6	1.8	1.9	1.5	0.5	0.1	0.6
Yemen	2.0	2.4	2.4	2.1	2.0	2.1	1.8	1.8
Exports								
Americas								
Argentina	4.5	10.2	11.2	8.6	11.6	11.3	10.1	6.0
Canada	16.3	19.5	20.1	14.7	19.2	17.3	16.3	9.4
United States	33.8	27.3	28.3	28.5	29.6	28.9	26.2	23.2
Europe								
European Union [b]	13.2	17.8	14.2	14.6	17.4	15.2	11.5	15.5
Hungary	2.2	1.0	1.5	2.4	0.7	1.0	1.9	1.3
Russian Federation	0.2	0.7	1.1	1.7	0.5	0.7	4.4	12.6
Ukraine	1.3	1.3	1.4	4.7	2.0	0.1	5.5	6.6
Asia								
China	0.5	1.0	1.2	0.5	0.5	0.6	1.5	1.7
India	1.5	2.0	0.0	0.0	0.2	1.6	3.1	4.5
Japan	0.6	0.4	0.4	0.4	0.6	0.5	0.5	0.5
Kazakhstan	4.3	2.3	3.6	2.3	6.5	3.7	3.8	5.5
Turkey	1.1	1.0	1.3	2.6	2.2	1.6	0.8	0.8
Oceania								
Australia	12.1	18.3	15.2	16.4	17.3	16.6	16.4	10.8
Total [c]	99.2	106.9	104.4	101.3	114.2	102.8	108.1	104.7

a Local marketing years; wheat equivalent. **b** Regarded as fifteen countries. Excludes intra – EU trade. **c** Includes some unspecified countries.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; US Department of Agriculture, *Production, Supply and Distribution Database,* Washington DC.

219 US wheat supply and disposal a

	Unit	1995-96	1996-97	1997-98	1998-99 b	1999-00 b	2000-01 b	2001-02 b	2002-03 b
Area									
– planted	million ha	27.9	30.4	28.5	26.6	25.4	25.3	24.1	24.4
– harvested	million ha	24.7	25.5	25.7	24.4	21.8	21.5	19.7	18.5
Yield	t/ha	2.41	2.43	2.63	2.84	2.87	2.83	2.71	2.37
Production	Mt	59.4	62.0	67.5	69.3	62.6	60.8	53.3	44.0
Opening stocks	Mt	13.8	10.2	12.1	19.7	25.7	25.8	23.8	21.1
Imports	Mt	1.8	2.5	2.6	2.8	2.6	2.4	2.9	2.1
Availability	Mt	75.0	74.7	82.2	91.8	90.9	89.0	80.0	67.2
Domestic use	Mt	31.0	35.4	34.2	37.6	35.5	36.3	32.7	30.6
– food	Mt	24.0	24.2	24.9	24.8	25.3	25.8	25.2	25.0
– feed	Mt	4.2	8.4	6.8	10.6	7.7	8.3	5.2	3.4
– seed	Mt	2.8	2.8	2.5	2.2	2.5	2.2	2.3	2.2
Exports	Mt	33.8	27.3	28.3	28.5	29.6	28.9	26.2	23.2
Closing stocks	Mt	10.2	12.1	19.7	25.7	25.8	23.8	21.1	13.4
– Commodity Credit Corporation	Mt	3.2	2.5	2.6	3.5	2.8	2.6	2.7	1.8
– Free	Mt	7.0	9.5	17.1	22.3	23.0	21.2	18.5	11.6
Farm price	US$/bus	4.55	4.30	3.38	2.65	2.48	2.62	2.78	3.56
Loan rate	US$/bus	2.58	2.58	2.58	2.58	2.58	2.58	2.58	2.80
Export price c	US$/t	215.33	178.50	141.75	119.08	113.17	128.50	127.51	160.46

a June–May year. **b** US Department of Agriculture estimate. **c** US hard red winter wheat (ordinary), fob Gulf; July–June average; for 1995-96 ABARE estimate.

Sources: US Department of Agriculture, *World Agricultural Supply and Demand Estimates,* Washington DC; US Department of Agriculture, *Agricultural Outlook,* Washington DC; US Department of Agriculture, *Wheat Yearbook,* Washington DC; ABARE.

220 Wheat export price quotations, by country and category

	Australian prime hard 14% (eastern states)	No. 1 Canadian western red spring 12.5% (Vancouver) a	Australian standard white (eastern states)	US no. 2 hard red winter (Gulf)	Argentinean bread wheat	EU standard (Rouen)	US no. 2 soft red winter (Gulf)
	US$/t	US$/t	US$/t	US$/t	US$/t	US$/t	US$/t
1980-81	209.00	230.00	181.00	183.00	204.00	170.00	175.00
1981-82	185.00	201.00	165.00	170.00	178.00	150.00	148.00
1982-83	178.00	190.00	163.00	160.00	148.00	132.00	131.00
1983-84	178.00	193.00	153.83	154.00	137.00	146.00	142.00
1984-85	169.00	188.00	150.33	148.00	125.00	131.00	139.00
1985-86	159.00	180.00	132.50	128.00	102.00	111.00	125.00
1986-87	131.00	148.00	110.00	110.50	84.00	83.00	113.00
1987-88	145.00	164.00	125.11	123.40	101.00	84.00	120.00
1988-89	193.75	224.92	171.90	165.75	151.17	146.75	161.42
1989-90	183.58	193.75	167.60	160.83	138.58	142.17	152.83
1990-91	148.58	160.67	126.73	117.94	86.75	89.92	112.67
1991-92	201.50	188.42	160.25	150.96	117.67	119.00	147.08
1992-93	191.42	192.83	157.05	141.33	124.17	132.83	142.17
1993-94	240.58	222.25	153.25	141.52	117.50	95.58	133.83
1994-95	218.86	209.17	174.37	156.42	132.83	128.11	146.75
1995-96	272.03	254.83	232.39	215.33	215.92	176.92	180.17
1996-97	224.00	216.58	207.47	178.50	153.33	155.42	159.00
1997-98	203.06	197.28	167.50	141.75	134.31	133.80	130.91
1998-99	194.10	180.78	147.43	119.08	114.15	102.08	102.93
1999-00	190.17	176.33	136.44	113.17	111.17	92.75	98.83
2000-01	192.00	183.91	153.57	128.50	125.04	100.11	102.94
2001-02	185.73	166.45	157.09	127.51	116.71	110.85	116.10
2002-03	205.79	211.80	185.22	160.46	144.54	113.50	140.16
2002							
January	188.13	151.16	160.29	130.00	115.33	113.50	126.25
February	183.25	149.57	156.28	127.00	111.00	110.25	115.75
March	179.46	146.16	153.24	125.80	110.60	104.20	116.60
April	176.43	142.77	149.86	125.25	121.50	104.00	115.25
May	173.32	143.72	147.73	123.62	132.88	102.80	113.83
June	185.13	149.31	161.28	135.75	115.25	103.00	116.81
July	200.28	190.52	167.05	151.20	130.13	105.75	125.15
August	212.74	201.89	188.89	165.22	137.80	113.60	134.11
September	241.58	247.91	216.04	191.80	156.50	120.50	156.99
October	244.05	255.55	220.48	194.36	154.50	118.00	156.89
November	226.28	245.48	205.67	182.76	137.00	118.00	161.74
December	199.80	220.10	191.27	169.15	130.25	115.50	147.27
2003							
January	190.96	205.71	175.40	154.72	137.00	111.60	140.95
February	197.25	204.21	179.03	153.83	147.00	110.10	142.75
March	191.83	200.91	170.42	144.83	148.75	106.25	128.70
April	187.59	195.54	167.15	143.25	140.75	108.25	128.66
May	190.12	192.62	170.52	146.21	157.00	114.46	134.02
June	186.98	181.12	164.59	132.72	157.75	120.00	124.73
July	186.15	176.83	161.49	133.78	139.50	137.00	129.73
August	199.39	191.02	176.14	155.13	155.50	141.80	145.63

a Prior to October 1994 export price quotation for no.1 Canadian western red spring wheat 13.5 per cent (Vancouver).

Sources: International Grains Council, *World Grains Statistics,* London; International Grains Council, *Grain Market Report,* London; US Department of Agriculture, *Wheat Yearbook,* Washington DC; ABARE.

221 Wheat supply and disposal in major exporting countries a

	Area million ha	Yield t/ha	Production Mt	Domestic use Mt	Exports b Mt	Closing stocks Mt
United States (June–May)						
1997-98	25.7	2.63	67.5	34.2	28.3	19.7
1998-99	24.4	2.84	69.3	37.6	28.5	25.7
1999-00	21.8	2.87	62.6	35.5	29.6	25.8
2000-01	21.5	2.83	60.8	36.3	28.9	23.8
2001-02	19.7	2.71	53.3	32.7	26.2	21.1
2002-03	18.5	2.37	44.0	30.6	23.2	13.4
Canada (August–July)						
1997-98	11.4	2.13	24.3	7.3	20.1	6.0
1998-99	10.7	2.26	24.1	8.1	14.7	7.4
1999-00	10.4	2.60	26.9	7.6	19.2	7.7
2000-01	11.0	2.42	26.5	8.3	17.3	9.5
2001-02	10.9	1.89	20.6	7.6	16.2	6.5
2002-03	8.6	1.82	15.7	7.4	8.9	6.1
Argentina (December–November)						
1997-98	5.7	2.76	15.7	4.8	10.7	0.8
1998-99	5.1	2.59	13.3	4.9	6.9	0.5
1999-00	5.9	2.78	16.4	4.9	10.8	0.6
2000-01	6.4	2.54	16.2	4.9	11.5	1.0
2001-02	7.1	2.18	15.5	4.9	9.8	1.2
2002-03	5.8	2.12	12.3	4.9	7.5	1.3
Australia (October–September)						
1997-98	10.4	1.84	19.2	4.1	15.7	0.4
1998-99	11.5	1.86	21.5	4.3	16.4	1.2
1999-00	12.2	2.03	24.8	4.6	17.8	3.5
2000-01	12.1	1.82	22.1	4.7	16.1	4.9
2001-02	11.5	2.11	24.3	4.8	16.3	8.1
2002-03	10.8	0.87	9.4	5.3	9.1	3.1
European Union (July–June) c						
1997-98	17.2	5.47	94.2	82.7	14.2	13.2
1998-99	17.3	5.95	103.1	88.1	14.7	18.1
1999-00	17.1	5.63	96.4	87.2	17.5	14.4
2000-01	18.0	5.81	104.7	91.2	16.0	14.6
2001-02	16.7	5.47	91.2	90.5	12.3	12.6
2002-03	17.9	5.77	103.3	96.2	17.5	14.1
Total cd						
1997-98	70.5	3.14	221.0	133.1	89.0	41.5
1998-99	69.1	3.35	231.3	143.0	81.0	53.6
1999-00	67.3	3.37	227.1	139.8	94.8	52.2
2000-01	69.0	3.34	230.3	145.4	89.0	53.1
2001-02	65.9	3.11	204.8	140.5	80.1	47.3
2002-03	61.7	2.99	184.7	144.4	64.2	35.2

a The marketing period in each country is shown in parentheses. **b** Includes wheat equivalent of flour and other wheat products. **c** Regarded as twelve countries to 1 January 1995, then fifteen countries. Excludes intra-EU trade. EU stock figures include intervention stocks. **d** Simple aggregation of different crop years.

Sources: ABS, Principal Agricultural Commodities Australia,Preliminary, cat. no. 7111.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Agricultural Commodities, Australia, Preliminary,* cat. no. 7121.0, Canberra; ABS, *Summary of Crops,* cat. no. 7330.0, Canberra; International Grains Council, *World Grain Statistics,* London; US Department of Agriculture, *World Agricultural Supply and Demand Estimates,* Washington DC; US Department of Agriculture, *Agricultural Outlook,* Washington DC; US Department of Agriculture, *Wheat Yearbook,* Washington DC; International Grains Council, *Grain Market Report,* London; ABARE.

222 Summary of Australian statistics for wool

	Sheep numbers ab	Wool production (greasy) c		Clean yield ac	Closing stocks (at 30 June) d		Average price	
		Shorn	Total				Eastern market indicator (clean) e	Auction (greasy)
	million	kt	kt	%	'000 bales	kt	c/kg	c/kg
1965-66	157.6	682.0	754.2	58.6	na	na	na	110.4
1966-67	164.2	726.8	799.4	59.1	na	na	na	104.5
1967-68	166.9	728.0	802.6	58.3	na	na	na	92.0
1968-69	174.6	804.3	883.5	59.3	na	na	na	98.5
1969-70	174.3	837.4	925.8	58.9	na	na	na	82.8
1970-71	171.7	800.2	890.0	59.0	582.2	73.9	na	64.7
1971-72	155.4	778.6	881.7	59.1	185.4	26.0	na	75.3
1972-73	134.1	643.6	735.2	58.8	205.8	29.6	na	183.8
1973-74	139.5	644.3	700.9	60.3	176.5	26.0	361.2	181.2
1974-75	145.8	725.3	793.5	62.3	1 616.2	239.2	252.8	127.0
1975-76	144.1	681.4	754.3	62.5	1 326.7	197.4	271.8	143.3
1976-77	131.3	623.9	702.7	61.8	1 094.1	162.6	348.0	182.7
1977-78	127.5	605.5	677.0	62.3	896.6	137.7	354.7	187.1
1978-79	130.5	643.6	705.7	62.9	353.8	55.8	391.7	205.2
1979-80	132.7	642.4	708.5	62.9	208.5	33.2	462.0	243.6
1980-81	131.4	637.9	701.2	62.8	188.3	30.3	478.8	256.0
1981-82	135.0	661.0	717.2	63.0	509.3	81.5	501.9	264.7
1982-83	130.5	641.5	701.7	62.3	928.1	150.0	516.3	269.9
1983-84	135.1	672.6	729.0	63.2	1 233.9	207.0	540.3	293.8
1984-85	145.7	752.7	814.4	64.2	979.6	168.1	586.0	317.8
1985-86	150.4	762.1	829.5	64.3	924.3	159.1	594.9	342.1
1986-87	153.2	813.7	890.4	64.4	381.5	65.7	697.4	395.5
1987-88	156.5	843.0	915.4	64.9	9.2	1.5	1 117.4	632.7
1988-89	164.9	898.9	959.0	65.3	188.3	31.8	1 091.7	647.3
1989-90	173.4	1 030.9	1 102.0	65.8	3 064.7	542.0	969.2	555.3
1990-91	166.6	989.2	1 066.1	65.6	4 607.4	820.1	699.6	413.8
1991-92	151.0	801.0	873.5	65.1	4 068.8	724.3	592.6	358.8
1992-93	140.5	815.1	869.4	66.0	3 950.1	703.0	519.2	313.5
1993-94	132.6	775.8	828.0	65.8	4 184.3	740.0	547.0	330.1
1994-95	120.9	682.5	731.0	64.6	3 597.4	632.2	788.0	504.4
1995-96	121.1	654.9	697.0	64.9	3 226.4	573.6	658.1	386.7
1996-97	120.2	682.0	725.0	65.1	2 556.6	452.3	669.8	403.0
1997-98	117.5	655.1	700.0	65.1	2 173.1	383.7	733.2	444.3
1998-99	115.5	641.0	687.0	65.9	2 104.0	375.6	550.2	323.4
1999-00	118.6	620.3	671.0	65.8	1 476.4	263.4	627.0	357.3
2000-01	110.9	602.0	657.0	66.3	796.5	141.4	764.0	512.0
2001-02	106.2	555.0	607.0	64.9	429.8	81.0	841.0	526.7
2002-03	98.2	490.0	535.0	64.3	123.9	105.0	1 049.0	682.0

a Sheep and lambs. **b** Before 1982, includes livestock holdings on establishments with an estimated value of agricultural operations (EVAO) of $1 500 or more. Between 1982 and 1986, includes livestock holdings on establishments with an EVAO of $2 500 or more and from 1987, an EVAO of $5 000. **c** July–June years. **d** No official stocks of wool were held between 1951-52 and 1969-70. Australian wool held by the Australian Wool Board in 1970-71 and 1971-72, by the Australian Wool Corporation from 1972-73 to 1990-91 and by the Australian Wool Realisation Commission from 1 July 1991 to December 1993. Also includes stocks of wool held under the Price Averaging Plan in 1970-71 to 1972-73. From July 1993, includes stocks held on farms and unsold wool held in brokers' stores. **e** Wool International eastern market indicator from 1973-74 to 1994-95. Australian Wool Exchange eastern market indicator from 1995-96 onward. (Original market indicators for the period 1991-92 to 1993-94 can be calculated by dividing by 1.064. For the years between 1983-84 to 1990-91, divide by 1.114. For 1982-83 and earlier years, divide by 1.136). **na** Not available.

Sources: ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat.no. 7112.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, *Livestock, Australia,* cat. no. 7203.0, Canberra; ABS, *Livestock and Livestock Products, Australia,* cat. no. 7221.0, Canberra; National Council of Wool Selling Brokers of Australia, *Statistics,* Melbourne; Australian Wool Exchange, Melbourne; ABARE.

223 Australian shorn wool production, by state

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia a
Number of sheep shorn (million)							
1992-93	61.69	33.26	14.62	43.49	21.12	4.66	178.95
1993-94	56.21	32.54	13.47	45.56	20.03	4.92	172.84
1994-95	51.41	29.50	12.64	40.53	17.29	4.85	156.32
1995-96	48.03	27.06	10.73	38.01	18.70	4.18	146.70
1996-97	55.73	30.92	10.43	37.75	17.49	4.40	156.91
1997-98	55.33	31.50	10.96	36.00	17.15	4.43	155.45
1998-99	54.45	28.96	12.94	31.37	16.22	4.27	148.21
1999-00	52.23	29.10	10.43	32.62	15.54	4.48	144.41
2000-01	52.38	27.04	12.32	28.52	15.40	3.92	136.08
2001-02	48.10	27.11	8.78	24.78	14.10	3.80	133.60
2002-03	43.00	24.90	6.95	24.55	13.55	3.65	116.60
Average cut per head (kg greasy)							
1992-93	4.44	4.44	4.21	4.63	5.31	3.89	4.55
1993-94	4.49	4.22	4.28	4.60	4.95	3.88	4.49
1994-95	4.41	4.18	4.44	4.31	4.79	3.77	4.37
1995-96	4.50	4.43	4.41	4.31	5.12	4.07	4.46
1996-97	4.37	4.18	4.91	4.07	4.86	4.35	4.35
1997-98	4.15	3.85	4.36	4.27	4.91	4.03	4.21
1998-99	4.19	4.03	4.56	4.45	4.93	3.98	4.32
1999-00	4.15	3.99	4.69	4.43	4.88	4.05	4.30
2000-01	4.12	4.40	3.82	4.52	4.94	3.82	4.42
2001-02	4.72	4.41	4.42	4.60	5.42	4.39	4.15
2002-03	4.16	4.06	3.31	4.56	4.43	3.84	4.20
Shorn wool production (kt greasy)							
1992-93	274.05	147.60	61.50	201.20	112.12	18.12	815.05
1993-94	252.61	137.42	57.64	209.36	99.19	19.12	775.77
1994-95	226.84	123.30	56.08	174.74	82.83	18.27	682.50
1995-96	216.02	119.93	47.35	163.79	95.69	17.02	654.90
1996-97	243.33	129.18	51.20	153.78	84.97	19.14	682.00
1997-98	229.62	121.34	47.78	153.90	84.16	17.86	655.10
1998-99	228.20	116.60	59.00	139.70	79.90	17.00	641.00
1999-00	216.77	116.10	48.93	144.52	75.84	18.13	620.29
2000-01	216.00	119.00	47.00	129.00	76.00	15.00	602.00
2001-02	227.09	119.44	38.79	114.04	76.44	16.70	555.00
2002-03	179.00	101.00	23.00	112.00	60.00	14.00	490.00
Clean yield (%)							
1992-93	66.26	68.38	63.31	64.03	64.81	71.53	65.97
1993-94	65.97	68.71	62.61	64.22	63.27	71.10	65.76
1994-95	64.97	68.33	61.74	61.89	61.90	70.69	64.64
1995-96	64.40	68.38	na	62.21	62.55	70.88	64.86
1996-97	65.30	68.36	na	61.69	62.10	71.82	65.07
1997-98	65.18	67.49	63.70	62.79	62.64	71.69	65.05
1998-99	66.26	67.69	64.00	62.67	62.67	71.13	65.89
1999-00	65.85	66.25	64.00	63.61	63.30	71.28	65.78
2000-01	67.39	66.53	64.00	62.45	63.00	70.86	66.27
2001-02	65.71	67.44	64.00	62.00	61.70	70.60	64.89
2002-03	66.90	65.70	63.90	60.50	60.60	71.10	64.30

a Includes the Northern Territory and the Australian Capital Territory. **na** Not available.

Sources: ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat. no. 7112.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, Shearing and Wool Production Forecast, Australia, cat. no. 7210.0, Canberra; ABS, *Livestock and Livestock Products, Australia,* cat. no. 7221.0, Canberra.

224 Australian sheep disposal and wool production

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Sheep disposal **a**								
Opening number **b**	million	121.1	120.2	117.5	115.5	118.6	110.9	106.2
Lambs marked	million	40.4	40.3	40.1	42.6	38.2	38.5	35.0
Lambs slaughtered **c**	million	14.2	15.1	15.8	16.7	18.8	17.6	17.1
Sheep slaughtered **c**	million	14.3	16.4	14.4	15.3	16.5	15.1	14.6
Live sheep exports	million	5.2	5.0	5.0	4.9	5.9	6.4	5.8
Sheep deaths	million	7.1	6.7	6.9	2.5	4.6	4.2	5.4
Closing number **d**	million	120.2	117.5	115.5	118.6	110.9	106.2	98.2
Wool production **e**								
Number shorn	million	156.9	155.5	148.2	144.4	136.1	133.6	116.6
Cut per head	kg	4.35	4.21	4.32	4.30	4.42	4.15	4.20
Wool production (greasy)								
– shorn	kt	682.0	655.1	641.0	620.3	602.0	555.0	490.0
– on skins	kt	43.0	44.9	46.0	50.7	55.0	52.0	45.0
– total	kt	725.0	700.0	687.0	671.0	657.0	607.0	535.0
– clean yield	%	65.1	65.1	65.9	65.8	66.3	64.9	64.3

a April–March years to 1998-99. From 1999-00, July–June year. **b** Sheep and lambs at 1 April on enterprises with estimated value of agricultural operations (EVAO) of $5 000 or more. From 1999-00, numbers at 1 July. **c** For human consumption only, but excludes slaughterings on farms. **d** Sheep and lambs at 31 March on enterprises with an EVAO of $5 000 or more. From 1999-00, numbers at 30 June. **e** July–June years.
Sources: ABS, *Selected Agricultural Commodities, Australia, Preliminary,* cat. no. 7112.0, Canberra; ABS, *Agriculture, Australia,* cat. no. 7113.0, Canberra; ABS, Shearing and Wool Production Forecast, Australia, cat. no. 7210.0, Canberra; ABS, *Livestock and Livestock Products, Australia,* cat. no. 7221.0, Canberra; ABARE.

225 Average auction prices for greasy wool in principal exporting countries

	Australia a	New Zealand a	South Africa a
	c/kg	c/kg	c/kg
1960-61	95.64	92.05	na
1961-62	99.45	89.44	na
1962-63	108.31	97.76	na
1963-64	128.04	125.71	na
1964-65	105.45	96.15	na
1965-66	110.41	95.03	na
1966-67	104.46	80.50	na
1967-68	92.04	54.55	na
1968-69	98.48	61.90	na
1969-70	82.78	56.50	na
1970-71	64.68	53.40	56.28
1971-72	75.25	66.50	58.72
1972-73	183.77	139.26	155.87
1973-74	181.16	134.62	160.89
1974-75	126.99	90.35	101.23
1975-76	143.25	131.57	129.61
1976-77	182.73	184.23	163.37
1977-78	187.14	168.94	168.30
1978-79	205.24	202.78	187.78
1979-80	243.57	233.98	226.13
1980-81	255.97	200.73	227.16
1981-82	264.69	186.10	237.21
1982-83	269.85	191.97	237.42
1983-84	293.84	214.40	261.05
1984-85	317.80	234.26	284.08
1985-86	342.06	268.17	276.08
1986-87	395.47	336.32	331.65
1987-88	632.69	404.01	553.61
1988-89	647.26	396.31	513.24
1989-90	555.30	359.80	433.02
1990-91	413.83	243.38	297.83
1991-92	358.82	237.39	321.09
1992-93	313.53	249.44	280.83
1993-94	330.08	209.09	251.87
1994-95	504.43	314.43	392.48
1995-96	386.73	327.08	316.71
1996-97	403.01	296.41	340.42
1997-98	444.30	279.58	365.88
1998-99	323.39	231.14	250.47
1999-00	357.28	205.29	313.79
2000-01	512.00	226.88	347.76
2001-02	526.67	252.05	386.18
2002-03	682.00	362.46	493.34

a Annual average prices for July–June years, converted to Australian cents using average exchange rates. **na** Not available.
Sources: Australian Wool Exchange, Melbourne; New Zealand Wool Board, *Statistical Handbook,* Wellington; South African Wool Board, *Annual Report,* Pretoria; National Council of Wool Selling Brokers of Australia, *Statistics,* Melbourne; International Wool Textile Organisation, *Wool Statistics,* London.

226 Average world prices for synthetic fibres

	US polyester price a USc/lb	Chinese Taipei polyester price bc USc/lb	Chinese Taipei acrylic price bd USc/lb
1981-82	82.00	na	75.00
1982-83	73.00	na	77.00
1983-84	78.00	na	79.00
1984-85	72.00	na	80.00
1985-86	64.00	na	82.00
1986-87	62.00	na	83.00
1987-88	70.00	53.54	82.80
1988-89	79.00	72.44	77.00
1989-90	88.00	61.22	72.65
1990-91	77.00	52.22	70.76
1991-92	73.00	na	77.00
1992-93	73.00	48.28	74.68
1993-94	72.00	55.08	68.06
1994-95	81.70	79.30	93.20
1995-96	88.00	76.00	88.00
1996-97	72.00	52.17	78.00
1997-98	69.00	42.00	70.00
1998-99	53.00	32.00	54.00
1999-00	54.00	42.00	57.00
2000-01	59.80	40.00	59.00
2001-02	60.30	34.00	54.00
2002-03	62.20	35.07	55.70

a Reported average market price for 1.5 denier polyester staple for cotton blending, landed group B mill points fob producing plants. Simple averages of weekly prices. **b** Simple averages of monthly prices. **c** Chinese Taipei staple, 1.5 denier. **d** Chinese Taipei staple, 3 denier. **na** Not available.

Sources: Osaka Senken Ltd, *JTN Weekly,* Osaka; US Department of Agriculture, *Cotton and Wool,* Situation and Outlook Report, Washington DC.

227 Australian wool exports, by destination, recorded trade basis

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Volume (kt greasy equivalent)								
China	161	197	174	170	269	324	272	194
Chinese Taipei	50	63	43	53	58	40	37	27
Eastern Europe **a**	5	5	7	5	4	5	5	7
European Union **b**								
France	54	61	61	49	39	35	25	21
Germany	42	44	47	42	29	37	22	17
Italy	107	132	141	118	136	133	108	79
United Kingdom	21	26	22	12	10	8	4	3
Other	29	31	28	22	22	24	16	8
Total	253	293	300	243	235	237	175	129
Japan	62	63	44	36	32	25	18	12
Korea, Rep. of	51	50	28	39	49	44	49	34
United States	36	27	34	17	14	12	7	5
Other	152	163	168	121	138	162	121	93
Total	772	860	799	683	800	850	683	502
Value ($m)								
China	697	804	842	603	925	1 360	1 451	1 423
Chinese Taipei	196	231	181	154	172	147	181	178
Eastern Europe **a**	17	19	35	22	14	23	26	52
European Union **b**								
France	228	257	292	174	137	166	138	149
Germany	197	188	231	152	103	150	124	119
Italy	485	595	739	478	589	761	595	546
United Kingdom	95	109	99	44	35	35	17	18
Other	121	113	104	70	59	86	71	57
Total	1 126	1 261	1 465	918	922	1 197	945	890
Japan	323	330	263	158	131	118	98	88
Korea, Rep. of	256	245	151	161	225	247	275	224
United States	164	118	168	82	61	56	34	36
Other	710	727	853	480	500	728	667	684
Total	3 489	3 735	3 959	2 579	2 950	3 876	3 678	3 575

a Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech and Slovak Federal Republics, Estonia, Hungary, Latvia, Lithuania, Macedonia, Poland, Romania, Slovenia and Serbia. **b** Regarded as twelve countries to 1 January 1995, then fifteen countries.
Source: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

228 Australian exports of semiprocessed shorn wool

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	kt	kt	kt	kt	kt	kt	kt	kt
Scoured								
China	10.3	9.7	6.7	4.9	4.7	7.4	5.6	5.9
Chinese Taipei	1.9	3.4	3.5	2.0	2.3	0.9	0.2	0.0
France	2.2	0.9	0.5	0.8	0.9	1.1	0.4	0.0
Italy	14.0	12.4	15.6	12.4	12.6	13.0	7.5	5.2
Korea, Rep. of	6.9	5.2	3.8	5.4	6.9	6.7	6.8	2.3
Total	92.4	91.4	85.4	67.1	70.8	74.7	51.5	38.9
Carbonised								
China	5.1	7.5	6.0	3.9	6.6	7.2	6.7	6.4
Chinese Taipei	0.3	0.2	0.5	0.3	0.6	1.2	0.5	0.3
France	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.0
Italy	3.2	3.3	3.4	5.6	5.3	5.8	3.5	1.7
Korea, Rep. of	7.4	6.0	3.7	7.3	9.2	7.4	8.5	7.1
Total	20.4	21.5	20.2	24.5	29.8	31.3	27.1	22.4
Tops and sliver								
China	17.2	17.4	17.9	15.1	15.4	11.1	9.2	6.6
Chinese Taipei	2.6	2.8	2.3	2.5	2.4	0.9	0.9	0.6
France	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
Italy	4.5	6.0	8.8	8.5	8.4	12.3	12.8	8.4
Korea, Rep. of	7.9	10.3	5.7	7.0	9.3	7.8	9.5	7.2
Total	51.1	57.6	54.7	53.4	52.8	52.0	46.9	32.7
Noils and waste								
China	0.3	0.3	0.0	0.1	0.1	0.5	0.2	0.1
Chinese Taipei	0.2	0.1	0.0	0.1	0.1	0.2	0.2	0.4
France	0.3	0.4	0.3	0.2	0.7	0.6	0.4	0.4
Italy	2.7	4.8	4.9	2.8	4.5	4.0	5.0	3.0
Korea, Rep. of	0.2	0.0	0.0	0.2	0.2	1.2	0.8	0.4
Total	6.3	8.1	7.9	5.8	6.9	7.9	7.3	5.3

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

229 World wool production, by country and type

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	kt	kt	kt	kt	kt	kt	kt	kt
Greasy								
Country or region								
Argentina	81	78	68	70	63	62	60	60
Australia	697	725	700	687	671	657	607	535
China **a**	277	298	255	277	283	291	294	296
Eastern Europe **b**	47	46	45	41	34	34	34	34
Central Asian Republics **c**	123	102	90	80	82	81	82	82
New Zealand	269	275	266	252	257	237	229	227
Russian Federation	93	77	60	48	40	38	39	39
South Africa **d**	65	59	53	55	52	50	48	48
United Kingdom	66	64	65	69	63	61	48	45
United States	33	29	28	26	24	24	23	20
Uruguay	79	82	76	60	57	59	52	51
Other producers	476	512	547	576	582	581	594	590
World	2 544	2 543	2 419	2 379	2 340	2 303	2 239	2 155
Clean								
Wool type								
Merino	643	643	610	596	583	570	551	521
Crossbred	366	365	354	325	303	306	284	269
Other	480	484	479	479	490	481	481	455
World	1 489	1 492	1 443	1 400	1 376	1 357	1 316	1 245

a Includes Manchuria, Sinkiang and Tibet. **b** Albania, Bosnia and Herzegovina, Bulgaria, Czech and Slovak Federal Republics, Hungary, Serbia, Macedonia, Poland, Romania, Croatia and Slovenia. **c** Includes Kazakhstan, Kyrgyzstan, Tajikstan, Turkmenistan and Uzbekistan. **d** Excluding Lesotho and Namibia.

Sources: International Wool Textile Organisation, *Wool Statistics,* London; International Wool Textile Organisation, *International Wool Textile Overview,* London; Australian Wool Production Forecasting Committee; ABARE.

230 Stocks of raw wool and tops, by country a

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Argentina	44	27	21	20	25	22	18	18
Australia **cd**	632	573	452.5	384	380	345	280	223
New Zealand								
Brokers' carryover **c**	8	9	10	7	7	7	7	7
Wool Board	4	0	0	0	0	0	0	0
South Africa								
Wool Board **e**	0	0	0	0	0	0	0	0
United Kingdom								
Wool Marketing Board	4	3	2	4	5	2	3	3
Uruguay	0	0	0	10	17	10	5	5
Total	692	612	486	425	434	386	313	256

a Clean equivalent stocks at 30 June except Uruguay where stocks are at 30 September. **b** Exportable balance of clip. **c** Unsold wool. **d** Australian Wool Corporation up to 1991, Australian Wool Realisation Commission for 1992 and 1993, and Wool International thereafter. **e** Includes wool offered but remaining unsold, wool yet to be offered and stocks of processed wool.

Sources: Commonwealth Secretariat, *Wool Quarterly,* London; International Wool Textile Organisation, *Wool Statistics,* London; International Wool Textile Organisation, *International Wool Textile Overview,* London; National Council of Wool Selling Brokers of Australia, *Statistics,* Melbourne.

231 Raw wool exports, by main producing countries [a]

	Australia	New Zealand	Argentina [b]	Uruguay [c]	South Africa	Total
	kt	kt	kt	kt	kt	kt
1982-83	653	378	108	91	78	1 308
1983-84	674	360	127	91	103	1 355
1984-85	750	374	115	62	100	1 401
1985-86	847	337	115	87	84	1 470
1986-87	935	364	138	101	81	1 619
1987-88	925	331	116	91	80	1 543
1988-89	872	329	85	80	83	1 448
1989-90	752	257	104	103	72	1 288
1990-91	715	254	94	107	86	1 256
1991-92	929	302	81	109	89	1 510
1992-93	867	240	81	92	66	1 346
1993-94	912	299	109	115	66	1 500
1994-95	814	291	95	68	63	1 331
1995-96	772	242	77	82	64	1 237
1996-97	860	250	83	104	20	1 316
1997-98	799	242	64	61	24	1 190
1998-99	683	211	36	59	25	1 014
1999-00	800	169	36	72	21	1 098
2000-01	850	174	36	74	21	1 155
2001-02	683	180	33	72	21	989
2002-03	502	179	31	74	20	806

a Greasy equivalent. Includes raw, semiprocessed and wool on skins. For New Zealand and South Africa, does not include wool exported on skins. **b** October–September years to 1993-94; July–June years from 1994-95. **c** October–September years.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Commonwealth Secretariat, *Wool Quarterly,* London; Federation Lanera Argentina, *Informe Mensual Estadistico,* Buenos Aires; New Zealand Wool Board, *Statistical Handbook,* Wellington; International Wool Textile Organisation, *International Wool Textile Overview,* London; Secretario Uruguayo de la Lana based on Banco de la Republica Oriental del Uruguay data; Ministry of Agriculture, *Situation and Outlook for New Zealand Agriculture,* Wellington; South African Wool Board, *Statistical Review of the Wool Season,* South Africa.

232 Market prices for Australian wool, by category [a]

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	c/kg	c/kg	c/kg	c/kg	c/kg	c/kg	c/kg	c/kg
19 micron	814.0	885.5	984.0	896.0	1 127.7	1 315.0	1 068.0	1 206.0
20 micron	700.0	763.7	842.0	683.0	754.6	784.0	850.0	1 150.9
21 micron	672.0	694.0	739.0	556.0	556.0	637.0	826.0	1 143.0
22 micron	663.0	638.4	681.0	517.0	474.6	597.0	824.0	1 133.9
23 micron	608.0	547.1	600.0	495.0	432.6	570.0	820.0	1 119.3
24 micron	580.0	521.3	581.0	486.0	423.9	554.0	815.0	1 096.2
25 micron	559.0	507.0	567.0	470.0	408.4	521.0	790.0	1 035.7
30 micron	504.0	473.4	484.0	400.0	351.4	444.0	585.0	595.6
Eastern market indicator [b]	658.1	669.8	733.2	550.2	627.0	764.0	841.0	1 049.0

a Clean basis. Micron prices are averages of the Australian Wool Exchange northern and southern region indicators from 1998-99. **b** Australian Wool Exchange eastern market indicator from 1995-96 onward. Wool international eastern market indicator form 1973-74 to 1994-95.
Sources: Wool International, *Wool Market Weekly,* Annual Price Summary, Melbourne; Australian Wool Exchange, *Weekly Wool Market Review,* Melbourne.

MINERALS AND ENERGY COMMODITIES

233 Summary of Australian statistics for bauxite and alumina

	Production		Alumina exports a		
	Bauxite	Alumina	Volume	Value	Unit value b
	kt	kt	kt	$m	$/t
1960	71	30	na	na	na
1961	16	30	na	na	na
1962	30	34	na	na	na
1963	360	47	na	na	na
1964	797	161	na	na	na
1965	1 186	202	na	na	na
1966	1 827	307	na	7	na
1967	4 244	854	na	29	na
1968	4 955	1 310	na	60	na
1969	7 921	1 931	na	72	na
1970	9 256	2 152	na	97	na
1971	12 733	2 713	2 148	115	53.5
1972	14 437	3 068	2 646	135	51.0
1973	17 596	4 089	3 507	181	51.6
1974	19 994	4 900	4 705	251	53.3
1975	21 033	5 129	4 514	344	76.2
1976	24 084	6 206	5 826	527	90.5
1977	26 086	6 659	6 119	629	102.8
1978	24 293	6 776	6 250	671	107.4
1979	27 583	7 415	6 476	775	119.7
1980	27 179	7 246	6 994	1 021	146.0
1981	25 441	7 079	6 510	1 082	166.2
1982	23 625	6 631	5 953	1 103	185.3
1983	24 372	7 231	6 378	1 185	185.8
1984	31 537	8 781	6 905	1 579	228.7
1985	31 839	8 792	7 169	1 433	199.9
1986	32 384	9 423	7 688	1 427	185.6
1987	34 008	10 109	8 301	1 545	186.1
1988	36 192	10 518	8 519	1 836	215.6
1989	38 579	10 800	8 636	2 725	315.5
1990	41 389	11 231	8 708	2 940	337.6
1991	40 504	11 713	9 275	2 490	268.5
1992	39 741	11 783	9 604	2 253	234.6
1993	41 320	12 598	9 753	2 383	244.3
1994	42 159	12 819	10 570	2 193	207.4
1995	42 655	13 161	10 727	2 504	233.4
1996	43 063	13 348	10 754	2 612	242.9
1997	44 464	13 384	10 902	2 735	250.8
1998	44 653	13 853	10 804	3 055	282.7
1999	48 416	14 532	11 130	2 879	258.6
2000	53 802	15 680	12 419	4 222	340.0
2001	53 799	16 313	12 972	4 430	341.5
2002	54 135	16 429	12 932	3 752	290.2

a Alumina (hydrate and oxide) only. **b** Average export unit value. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; International Monetary Fund, *International Financial Statistics,* Washington DC; World Bureau of Metal Statistics, *World Metal Statistics,* London.

234 Summary of Australian statistics for aluminium

	Primary aluminium		Exports		
	Production	Consumption a	Volume b	Value	Unit value c
	kt	kt	kt	$m	$/t
1960	12	39	na	na	na
1961	13	30	na	na	na
1962	16	48	na	na	na
1963	42	49	5	2	400.0
1964	80	65	15	6	400.0
1965	88	67	22	9	409.1
1966	92	76	16	7	437.5
1967	93	82	11	5	454.5
1968	97	104	6	3	500.0
1969	126	107	21	10	476.2
1970	206	123	82	38	463.4
1971	224	138	85	35	411.8
1972	206	112	95	35	368.4
1973	207	151	57	24	421.1
1974	219	176	53	28	528.3
1975	214	138	77	46	597.4
1976	232	168	65	45	692.3
1977	248	170	78	70	897.4
1978	263	184	77	72	935.1
1979	270	198	76	86	1 131.6
1980	304	267	46	62	1 347.8
1981	379	254	79	97	1 227.8
1982	381	219	156	168	1 076.9
1983	478	245	235	333	1 417.0
1984	758	265	404	637	1 576.7
1985	851	288	564	862	1 528.4
1986	882	287	579	975	1 685.4
1987	1 004	319	711	1 423	2 001.4
1988	1 150	328	816	2 218	2 719.2
1989	1 244	324	922	2 347	2 546.4
1990	1 234	288	936	1 990	2 125.6
1991	1 235	298	954	1 771	1 857.2
1992	1 245	309	930	1 618	1 739.1
1993	1 388	338	1 056	1 822	1 725.2
1994	1 317	354	948	1 804	1 902.5
1995	1 297	343	957	2 431	2 540.7
1996	1 372	322	1 068	2 140	2 003.7
1997	1 495	352	1 156	2 527	2 186.3
1998	1 627	367	1 310	2 929	2 235.6
1999	1 718	344	1 381	2 919	2 114.2
2000	1 769	346	1 402	3 785	2 700.3
2001	1 797	317	1 489	4 233	2 842.3
2002	1 817	299	1 527	3 845	2 518.4

a Apparent primary consumption. **b** Aluminium ingot metal. **c** Average export unit value. **na** Not available.

Sources: Australian Aluminium Council, *Australian Aluminium Statistical Summary,* Canberra; ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; International Monetary Fund, *International Financial Statistics,* Washington DC; World Bureau of Metal Statistics, *World Metal Statistics,* London.

235 Australian supply, disposal and prices of alumina and aluminium

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Production									
Bauxite	kt	43 308	42 989	44 483	46 444	51 046	54 560	53 949	54 472
Alumina	kt	13 326	13 252	13 581	14 207	15 037	16 098	16 417	16 408
Aluminium	kt	1 331	1 395	1 589	1 686	1 742	1 788	1 809	1 855
Secondary metal **a**	kt	85	96	101	104	108	110	127	127
Exports									
Alumina **b**	kt	10 984	11 011	10 536	11 059	11 654	12 721	13 091	13 168
– value	$m	2 717	2 604	2 887	2 910	3 471	4 507	4 114	3 660
Aluminium **a**	kt	1 042	1 060	1 233	1 365	1 364	1 471	1 490	1 551
– value	$m	2 379	2 088	2 828	2 840	3 302	4 229	3 965	3 696
Imports									
Alumina	kt	1.2	1.3	0.5	0.7	0.9	0.8	0.9	1.6
– value	$m	1.9	1.4	0.8	1.3	1.2	1.4	1.7	2.5
Aluminium **a**	kt	12.5	6.7	3.1	5.3	5.9	6.0	6.8	4.8
– value	$m	37.0	17.6	11.4	14.1	18.2	20.5	20.5	14.3
Consumption c	kt	332.5	336.9	359.5	355.6	345.3	331.5	308.0	308.8
Export unit values									
Alumina	$/t	247.36	236.49	274.06	263.13	297.80	354.29	314.25	277.97
Aluminium	$/t	2 282.32	1 970.66	2 293.69	2 080.63	2 420.53	2 875.54	2 661.38	2 382.62

a Ingot metal. **b** Includes aluminium hydroxide. **c** Estimated apparent consumption (primary and secondary).
Sources: ABARE, *Australian Mineral Statistics,* Canberra; Australian Aluminium Council, *Australian Statistical Summary,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

236 Australian exports of aluminium, by destination

	1994	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt	kt
China	1.9	10.7	11.8	11.2	4.8	17.7	18.6	20.0	46.4
Chinese Taipei	125.9	116.9	152.5	167.3	192.4	228.5	227.2	151.5	219.0
Hong Kong, China	25.1	44.9	77.5	68.5	90.4	71.8	102.1	61.6	74.3
Indonesia	46.0	34.3	51.9	50.8	31.2	52.7	51.1	47.6	51.3
Japan	397.3	389.3	426.7	520.7	562.4	528.4	610.3	610.8	577.5
Korea, Rep. of	175.0	157.1	154.2	193.9	182.3	256.3	230.5	210.2	234.8
Malaysia	38.9	47.3	48.4	27.2	39.0	41.9	24.4	52.1	53.4
Philippines	13.5	11.6	11.9	13.7	12.6	14.8	10.2	5.6	8.6
Singapore	15.5	23.3	11.4	7.1	4.9	9.0	4.1	5.3	5.4
Thailand	103.7	107.3	105.8	80.4	66.4	62.6	75.0	121.4	121.9
Other countries	5.5	14.0	15.9	15.3	123.8	97.0	48.0	203.1	133.9
Total	948.3	956.7	1 068.2	1 156.0	1 310.1	1 380.6	1 401.6	1 489.2	1 526.6

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

237 World production, consumption, stocks and prices for aluminium

	Production							
			Aluminium					
	Bauxite	Alumina a	Primary	Secondary	Total	Primary consumption	Stocks	Price b
	kt	kt	kt	kt	kt	kt	kt	US$/t
1960	27 620	na	na	755	na	na	na	511.5
1961	29 279	na	na	797	na	na	na	511.5
1962	31 220	na	3 618	948	4 566	3 237	na	498.0
1963	30 456	na	3 523	1 061	4 584	3 458	na	498.9
1964	33 185	na	3 865	1 178	5 043	3 893	na	526.0
1965	37 233	na	4 253	1 311	5 564	4 322	na	540.1
1966	41 070	11 510	4 800	1 657	6 457	4 809	na	540.1
1967	45 087	13 118	5 098	1 700	6 798	5 226	na	540.1
1968	46 571	13 983	5 592	1 946	7 538	6 137	na	552.9
1969	54 475	16 175	6 160	2 256	8 416	6 088	na	588.4
1970	59 490	20 003	6 583	2 181	8 764	7 035	na	614.2
1971	66 663	22 719	7 439	2 295	9 734	7 732	na	627.9
1972	69 215	24 539	8 056	2 451	10 507	7 935	1 687	590.2
1973	75 208	21 908	8 621	2 817	11 438	8 471	1 352	599.2
1974	84 176	22 878	9 205	2 887	12 092	9 450	2 012	764.8
1975	77 380	22 093	10 129	2 542	12 671	11 350	3 129	868.4
1976	80 662	22 663	12 863	2 781	15 644	14 077	2 321	890.0
1977	84 480	25 186	14 322	3 052	17 374	14 511	2 505	1 143.8
1978	83 927	25 146	14 776	3 240	18 016	15 329	2 052	1 325.0
1979	89 131	26 034	15 175	3 316	18 491	15 981	1 513	1 602.8
1980	93 061	28 106	16 035	3 318	19 353	15 298	2 078	1 774.9
1981	88 552	26 648	15 698	3 618	19 316	14 516	3 275	1 262.8
1982	77 896	22 230	13 990	3 583	17 573	14 161	3 185	991.6
1983	78 585	23 342	14 334	3 960	18 294	15 361	2 249	1 438.3
1984	92 299	27 055	15 941	3 950	19 891	15 574	2 775	1 251.6
1985	89 609	25 543	15 555	4 022	19 577	15 858	2 444	1 042.8
1986	92 842	26 114	15 619	4 196	19 815	16 071	1 964	1 150.0
1987	96 499	28 053	16 483	4 511	20 994	17 053	1 474	1 580.0
1988	102 588	29 155	18 575	4 943	23 518	18 867	1 619	2 603.0
1989	107 584	31 537	19 135	4 943	24 078	19 253	1 634	1 953.0
1990	114 750	40 500	19 348	5 062	24 410	19 227	1 847	1 639.0
1991	114 977	40 890	19 653	5 336	24 988	18 743	2 741	1 303.5
1992	109 468	40 783	19 459	5 476	24 935	18 558	3 244	1 254.8
1993	114 124	42 978	19 715	6 058	25 773	18 134	4 497	1 139.0
1994	112 230	41 953	19 112	6 447	25 559	19 715	3 733	1 477.8
1995	118 231	43 809	19 668	6 876	26 544	20 552	2 576	1 804.5
1996	123 717	46 329	20 838	6 923	27 762	20 659	2 642	1 505.9
1997	126 136	46 679	21 798	7 487	29 285	21 795	2 258	1 598.6
1998	122 867	48 146	22 654	7 594	30 248	21 825	2 324	1 357.2
1999	130 128	50 035	23 710	8 151	31 861	23 330	2 570	1 361.0
2000	138 810	52 366	24 465	8 199	32 664	24 903	2 109	1 549.0
2001	137 647	53 757	24 486	7 646	32 132	23 613	2 563	1 443.0
2002	142 036	55 906	26 099	7 820	33 919	24 964	2 897	1 352.0

a Western world production to 1989, total world production from 1990. **b** London Metal Exchange, 99.5 per cent purity, spot cash settlement until 1988; 99.7 per cent purity from 1989. Before 1979, UK producer price. **na** Not available.

Sources: International Monetary Fund, *International Financial Statistics,* Washington DC; Metallgesellschaft AG, *Metallstatistik,* Frankfurt; World Bureau of Metal Statistics, *World Metal Statistics,* London.

238 World primary aluminium production, by region and country

	1994	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt	kt
Africa									
Cameroon	81	79	82	91	82	92	95	81	67
Egypt	182	180	179	178	187	187	189	191	195
Ghana	141	135	137	152	56	114	156	162	132
Nigeria	na	na	na	3	26	16	na	na	na
South Africa	173	233	617	683	693	687	683	654	704
Americas									
Argentina	175	186	184	187	187	206	262	245	269
Brazil	1 185	1 188	1 197	1 189	1 208	1 250	1 271	1 132	1 318
Canada	2 255	2 172	2 283	2 327	2 374	2 390	2 374	2 583	2 709
Mexico	0	10	62	66	62	63	61	52	38
Surinam	27	28	26	23	27	7	na	na	na
United States	3 299	3 375	3 577	3 603	3 713	3 779	3 668	2 637	2 705
Venezuela	585	627	635	641	584	567	569	572	605
Asia									
China	1 462	1 676	1 771	2 035	2 336	2 599	2 794	3 371	4 358
India	472	537	531	547	542	621	649	624	671
Japan	17	18	17	17	16	11	7	7	6
Tajikistan	237	230	198	189	196	229	300	324	308
Europe									
France	384	365	380	399	424	455	441	461	463
Germany	503	575	577	572	612	634	644	652	653
Greece	138	131	131	133	146	160	163	162	164
Hungary	30	35	34	34	34	34	34	35	35
Iceland	99	100	103	123	173	222	226	243	264
Italy	176	178	184	188	187	187	190	188	190
Netherlands	219	216	227	232	264	287	302	293	284
Norway	857	847	862	919	996	1 020	1 026	1 068	1 096
Poland	50	56	52	52	52	52	52	55	46
Romania	120	141	141	162	174	174	181	182	187
Russian Federation	2 671	2 724	2 874	2 906	3 010	3 149	3 247	3 302	3 347
Slovakia	33	38	111	110	117	109	110	110	112
Slovenia	74	70	66	74	71	77	76	77	88
Spain	338	362	362	360	360	364	366	376	380
Sweden	84	95	98	98	96	99	100	102	101
Switzerland	24	21	27	27	32	34	36	36	40
Ukraine	102	95	91	101	107	115	119	121	113
United Kingdom	231	238	240	248	258	270	305	341	344
Yugoslavia	11	26	51	81	77	81	96	108	117
Middle East									
Bahrain	452	454	461	490	501	503	509	522	517
Iran	116	119	70	91	111	138	140	145	166
Turkey	60	62	62	62	62	62	62	62	63
United Arab Emirates	246	247	259	378	387	441	536	536	536
Oceania									
Australia	1 317	1 297	1 372	1 495	1 627	1 718	1 769	1 797	1 817
New Zealand	269	273	285	310	318	327	328	322	334
Total	19 112	19 668	20 838	21 798	22 654	23 710	24 465	24 486	26 099

na Not available.

Sources: ABARE, Australian Mineral Statistics, Canberra; World Bureau of Metal Statistics, World Metal Statistics, London.

239 World primary aluminium consumption, by region and country

	1994	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt	kt
Africa									
Cameroon	17	21	19	25	25	22	24	25	28
Egypt	80	77	79	98	92	83	82	97	91
Ghana	16	16	16	16	16	16	16	16	16
South Africa	123	120	101	124	143	125	186	198	180
Other Africa	11	20	27	18	24	22	30	30	32
Total	246	254	242	282	300	268	338	366	347
Americas									
Argentina	106	84	86	95	115	86	82	70	51
Brazil	414	501	497	479	521	463	514	553	578
Canada	565	612	620	644	721	777	800	760	772
Mexico	81	40	93	83	92	88	88	113	113
United States	5 407	5 055	5 348	5 390	5 814	6 158	6 050	5 122	5 198
Venezuela	152	183	207	193	180	155	183	165	173
Other Americas	58	59	52	93	74	64	85	84	97
Total	6 783	6 533	6 904	6 962	7 516	7 791	7 802	6 867	6 982
Asia									
China **a**	1 500	1 942	2 135	2 260	2 425	2 926	3 499	3 492	4 152
Chinese Taipei	355	363	310	374	301	464	502	321	407
Hong Kong, China	42	42	42	42	42	48	50	50	42
India	475	581	585	553	567	570	602	589	604
Indonesia	179	177	161	203	75	139	146	163	127
Japan	2 345	2 336	2 393	2 434	2 080	2 112	2 225	2 014	2 010
Korea, Rep. of	604	675	674	666	506	814	823	850	921
Malaysia	66	114	115	148	90	147	150	153	149
Philippines	30	31	26	34	24	34	33	25	30
Singapore	30	40	40	15	43	4	15	48	48
Thailand	183	254	220	233	129	156	195	227	250
Other Asia	73	105	116	153	116	113	125	149	173
Total	5 883	6 659	6 818	7 117	6 398	7 527	8 365	8 081	8 913
Europe									
Austria	145	150	155	162	163	143	168	201	208
Belgium	329	336	331	345	370	350	341	327	333
Croatia	25	24	21	22	24	30	28	38	39
Czech Republic	40	59	53	63	79	66	78	88	105
Denmark	26	28	27	36	39	39	41	44	56
Finland	19	31	30	33	33	37	39	37	32
France	736	744	672	724	734	774	780	761	733
Germany	1 373	1 491	1 355	1 558	1 519	1 439	1 491	1 580	1 670
Greece	143	163	156	204	213	213	231	218	220
Hungary	128	121	159	183	164	171	210	223	240
Italy	660	665	585	671	674	735	780	756	851
Netherlands	145	150	145	155	155	155	155	155	155
Norway	212	157	169	197	160	231	253	233	246
Poland	74	74	76	102	108	133	150	149	120
Portugal	64	67	58	69	68	82	78	67	78
Romania	20	46	36	63	80	98	128	113	112
Russian Federation	476	476	444	469	489	563	748	786	991
Slovakia	25	25	25	25	22	25	36	39	28
Slovenia	54	53	47	53	75	75	81	116	76
Spain	352	350	360	430	136	494	526	508	533

Continued

239 World primary aluminium consumption, by region and country *(continued)*

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt	2002 kt
Europe (continued)									
Sweden	131	116	129	142	177	133	147	119	127
Switzerland	155	148	140	144	166	157	165	161	152
Ukraine	34	50	51	60	50	50	50	50	50
United Kingdom	570	620	571	583	579	497	576	433	428
Yugoslavia	11	26	17	24	19	13	16	18	23
Total	5 995	6 215	5 836	6 520	6 359	6 740	7 339	7 265	7 659
Middle East									
Bahrain	133	199	200	270	251	226	239	261	248
Iran	105	118	105	117	103	123	117	117	117
Saudi Arabia	30	30	25	25	25	25	25	25	25
Turkey	115	144	136	161	181	169	211	176	231
Total	383	491	466	572	634	617	672	677	724
Oceania									
Australia	354	343	322	352	367	344	346	317	299
New Zealand	40	39	39	37	34	43	42	41	41
Total	394	382	361	389	401	387	388	357	340
Total	19 715	20 552	20 659	21 795	21 825	23 330	24 903	23 613	24 964

a Excludes Hong Kong.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

240 World aluminium trade, by country [a]

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt	2002 kt
Exports									
Argentina	61.0	95.2	93.9	113.5	82.0	123.4	187.0	166.0	203.4
Australia	948.3	956.7	1 068.2	1 156.0	1 310.1	1 380.6	1 401.6	1 489.2	1 526.6
Austria	68.1	74.7	75.4	67.3	87.3	88.0	91.8	102.2	108.9
Bahrain	308.4	387.0	327.5	220.5	249.3	276.5	269.8	261.1	268.8
Belgium	107.3	120.8	62.3	75.2	111.1	66.7	61.6	184.4	287.3
Brazil	777.8	703.0	709.0	716.2	692.4	788.6	760.0	587.9	749.4
Cameroon	63.2	58.8	65.0	65.6	57.4	70.7	69.8	56.8	na
Canada	1 877.5	1 718.9	1 820.4	1 884.6	1 856.4	1 862.6	1 837.3	2 046.1	2 133.3
Chinese Taipei	104.3	82.3	126.0	137.8	148.9	94.4	103.1	96.1	113.6
Denmark	17.4	23.8	20.7	29.6	28.8	25.7	23.3	26.1	23.4
Egypt	80.7	81.9	108.2	89.4	86.1	109.7	114.4	95.1	108.7
Finland	27.8	29.5	29.9	33.6	37.1	39.6	38.9	33.7	23.5
France	212.0	204.6	230.7	166.6	139.8	153.3	157.4	151.0	156.7
Germany	271.9	262.8	260.3	229.6	236.7	300.3	374.8	366.7	387.6
Ghana	153.9	111.3	120.9	119.0	na	39.4	na	68.7	na
Greece	54.2	50.2	44.5	46.7	58.5	60.8	94.5	15.8	62.9
Hong Kong, China	106.3	253.3	316.3	252.7	249.6	215.0	193.0	134.4	145.9
Hungary	na	48.6	20.4	19.2	21.7	12.7	12.2	10.9	10.6
Iceland	100.6	99.7	101.1	119.8	162.1	221.4	209.7	258.0	282.5
India	135.1	39.9	94.7	80.4	na	100.3	91.4	101.5	135.7
Indonesia	143.5	188.0	180.3	166.2	148.1	79.9	172.2	149.6	142.7
Ireland	3.9	5.9	0.0	0.3	0.3	na	na	na	na
Italy	24.8	36.6	39.4	37.3	35.7	29.6	33.8	31.5	42.0
Japan	11.7	12.8	12.0	10.3	7.1	10.5	10.0	12.6	12.4
Korea, Rep. of	59.4	90.8	43.0	97.3	70.4	31.8	11.8	8.0	24.3
Mexico	0.3	1.1	2.8	0.4	0.8	7.1	10.3	7.5	5.5
Netherlands	443.9	576.8	483.8	472.6	468.7	480.5	450.5	470.0	581.7
New Zealand	232.3	246.2	258.2	283.2	294.0	287.2	296.1	293.5	298.5
Norway	866.7	810.6	875.7	915.3	989.1	988.0	1 041.8	1 187.6	1 127.8
Russian Federation	2 293.6	2 420.1	2 618.4	2 711.6	2 794.4	3 115.7	3 177.2	3 074.4	2 782.0
Singapore	90.1	120.0	139.4	92.0	58.4	77.8	75.0	88.8	127.5
South Africa	56.9	90.0	541.4	566.8	557.0	630.6	504.4	461.0	584.6
Spain	146.1	114.5	137.3	130.7	107.7	80.4	82.1	92.2	70.9
Surinam	25.2	26.3	26.6	27.5	26.8	6.8	na	na	na
Sweden	55.2	56.9	70.7	70.1	47.6	64.8	53.3	66.2	81.2
Switzerland	7.6	7.5	8.5	8.9	8.4	11.6	15.7	5.5	7.1
Tajikistan	204.5	202.0	193.7	182.9	186.6	224.3	288.0	287.0	304.0
United Arab Emirates	254.8	247.0	264.2	378.5	372.0	441.2	515.9	452.8	377.3
United Kingdom	220.1	313.9	205.3	372.9	225.8	233.6	347.7	263.3	250.4
United States	387.3	448.2	446.6	374.0	373.4	425.0	451.4	339.3	305.2
Venezuela	462.0	382.1	439.8	414.5	410.3	429.4	388.3	398.0	437.4
Yugoslavia	72.2	na	39.1	61.0	61.4	69.5	92.5	95.8	116.5
Total	11 536.4	11 799.0	13 050.2	13 607.7	13 693.9	14 792.9	15 285.4	15 159.8	15 871.7

Continued

240 World aluminium trade, by country a *(continued)*

	1994 kt	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt	2002 kt
Imports									
Argentina	0.7	1.3	1.2	na	na	na	na	na	na
Australia	3.6	6.9	13.1	4.2	5.9	5.6	6.0	7.6	4.4
Austria	299.0	159.6	195.5	243.1	253.2	223.7	251.5	293.0	307.3
Belgium	370.4	365.9	351.5	388.3	496.7	413.2	431.9	599.8	669.7
Brazil	7.3	15.6	8.6	5.7	5.8	2.1	2.3	8.7	8.9
Canada	146.1	133.9	139.5	153.9	201.9	246.5	276.3	223.0	196.1
China	168.9	390.3	367.1	288.9	307.0	534.0	914.1	529.6	581.8
Chinese Taipei	459.5	429.2	436.3	512.1	449.6	558.5	604.7	417.4	520.8
Denmark	29.5	35.4	33.6	41.0	45.6	43.6	45.4	48.7	61.5
Finland	38.8	22.9	33.0	33.5	37.8	43.2	52.0	50.5	37.5
France	444.8	469.3	438.9	419.2	403.3	464.7	527.8	506.9	474.3
Germany	1 197.3	1 315.5	1 108.8	1 400.2	1 471.9	1 333.2	1 586.2	1 602.0	1 666.6
Greece	57.7	70.9	71.4	119.5	125.8	113.2	135.6	122.4	118.9
Hong Kong, China	147.9	362.1	465.6	479.5	401.3	262.4	242.8	162.9	188.1
Hungary	129.7	134.3	142.7	170.2	157.0	154.1	193.0	203.3	209.3
India	70.6	96.3	116.3	86.4	87.8	49.4	44.7	66.6	68.3
Ireland	10.1	5.4	4.0	11.1	13.5	16.4	12.2	11.5	6.8
Italy	577.6	574.5	484.9	575.1	608.0	652.8	704.8	670.2	781.2
Japan	2 639.1	2 802.7	2 762.0	3 027.5	2 551.8	2 657.4	2 905.2	2 611.6	2 575.1
Korea, Rep. of	689.3	783.4	728.7	771.3	584.1	880.4	889.7	880.6	973.3
Mexico	59.3	31.4	34.2	16.6	30.9	198.6	231.7	229.4	292.1
Netherlands	458.5	622.3	464.3	528.4	522.9	584.1	615.6	520.6	526.0
New Zealand	7.8	11.7	12.3	10.0	10.8	12.8	9.7	5.7	10.7
Norway	198.7	152.3	149.5	196.3	147.9	186.0	252.5	224.1	282.2
Portugal	67.8	73.0	67.7	79.8	109.2	159.7	194.9	175.0	172.9
Singapore	120.5	198.7	99.3	102.6	82.1	76.7	81.0	229.9	271.7
South Africa	2.1	0.7	1.7	3.8	7.3	6.0	8.2	5.4	4.8
Spain	116.5	125.8	127.6	188.3	177.0	220.7	231.0	216.1	222.7
Sweden	157.4	89.4	105.5	125.3	138.5	104.6	109.1	97.2	120.2
Switzerland	137.5	130.8	117.4	143.6	141.2	123.6	136.3	130.5	119.4
Thailand	184.6	254.2	220.8	238.1	195.0	159.6	356.1	232.2	259.3
Turkey	67.5	84.6	99.3	138.9	143.2	132.8	169.6	125.5	185.5
United Kingdom	477.0	388.1	651.4	436.9	495.9	444.0	277.1	346.9	371.1
United States	2 495.9	1 979.8	1 951.0	2 097.2	2 484.6	2 835.9	2 687.6	2 677.1	2 918.2
Yugoslavia	6.1	0.0	1.3	4.1	3.9	1.7	3.0	4.2	11.0
Total	12 045.0	12 318.2	12 194.2	13 350.3	13 159.5	14 308.7	15 720.8	14 686.3	15 642.8

a Covers principal imports and exports of aluminium and aluminium alloys. **na** Not available or not applicable.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

241 Australian exports of clays, by destination [a]

	Japan	New Zealand	United Kingdom	Other	Total Volume	Total Value
	t	t	t	t	t	$'000
1960	na	976	na	na	1 024	42
1961	na	759	na	na	840	36
1962	na	775	na	na	874	26
1963	na	634	na	na	801	36
1964	na	2 193	na	na	2 756	77
1965	na	552	na	na	2 560	56
1966	na	714	na	na	3 514	120
1967	na	650	na	na	4 890	223
1968	na	657	na	na	4 544	224
1969	na	614	na	na	6 145	182
1970	2 894	973	2 433	1 004	7 304	324
1971	2 271	681	2 827	598	6 377	299
1972	1 554	703	1 998	489	4 744	211
1973	2 038	1 011	3 249	332	6 630	286
1974	1 198	895	3 953	201	6 247	278
1975	1 732	175	4 816	126	6 849	294
1976	1 500	101	3 025	326	4 952	228
1977	2 115	462	5 400	1 950	9 927	679
1978	1 609	600	5 001	6 198	13 408	1 054
1979	1 939	1 175	2 597	381	6 092	525
1980	735	125	1 206	327	2 393	281
1981	1 539	313	596	577	3 025	364
1982	1 364	463	1 376	2 133	5 336	983
1983	927	365	1 601	5 025	7 918	1 041
1984	2 878	829	2 234	11 074	17 015	1 683
1985	1 549	719	1 877	4 259	8 404	1 021
1986	9 670	1 241	2 106	4 428	17 445	1 980
1987	14 990	3 908	1 059	11 401	31 358	4 743
1988	40 983	9 003	1 965	16 133	68 084	10 480
1988-89	71 466	10 044	1 808	27 281	110 599	16 315
1989-90	94 507	6 779	2 303	39 601	143 190	19 953
1990-91	119 979	7 528	1 175	32 203	160 885	24 557
1991-92	97 614	5 260	135	46 424	149 433	23 408
1992-93	115 735	5 009	100	43 774	164 618	28 090
1993-94	122 866	5 495	0	43 209	171 570	30 926
1994-95	85 853	4 987	844	60 509	152 193	24 656
1995-96	103 848	5 226	1 224	68 504	178 802	33 523
1996-97	52 775	5 671	43	47 208	105 697	20 801
1997-98	1 194	2 939	796	14 234	19 163	4 834
1998-99	4 886	6 237	2 320	30 059	43 502	10 570
1999-00	4 039	11 760	3 474	60 069	79 342	10 203
2000-01	6 152	4 768	266	21 539	32 725	7 924
2001-02	31 119	7 963	332	100 828	140 242	11 109
2002-03	12 137	11 346	231	87 538	111 252	15 862

a Excludes activated clays. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra; ABARE.

242 Australian imports of clays

	Bentonite a		Kaolin b		Refractory clays c		Other clays d	
	t	$'000	t	$'000	t	$'000	t	$'000
1960	7 387	255	9 902	214	1 065	70	6 537	213
1961	7 006	239	15 789	278	298	23	5 684	232
1962	9 353	357	15 131	280	1 491	47	6 321	303
1963	10 938	492	24 589	448	1 649	65	5 960	250
1964	14 286	569	25 089	496	4 380	171	9 578	354
1965	16 312	644	26 128	517	3 524	182	14 793	271
1966	15 346	494	31 991	686	3 705	148	9 939	406
1967	21 263	615	37 908	878	2 391	101	14 270	519
1968	44 513	984	44 603	1 030	5 071	173	12 578	548
1969	54 597	1 134	43 606	1 075	4 825	112	13 177	590
1970	66 484	1 474	56 571	1 458	7 720	285	20 245	686
1971	88 803	1 887	42 579	1 268	10 565	267	12 178	726
1972	49 861	1 540	33 314	991	5 949	174	12 442	504
1973	57 965	1 390	38 344	1 130	2 154	70	16 920	665
1974	85 363	1 649	37 535	1 028	4 880	106	25 616	1 207
1975	54 736	1 142	5 572	387	16 139	561	26 654	1 286
1976	22 204	708	8 620	426	5 054	231	25 711	1 679
1977	13 191	558	7 488	521	6 665	367	29 342	2 051
1978	30 355	1 375	11 773	750	3 652	350	57 957	3 872
1979	57 241	2 028	6 751	537	2 610	198	45 635	3 842
1980	55 917	2 424	3 624	404	15 119	1 125	25 097	2 505
1981	43 034	1 828	11 737	1 113	16 564	1 431	36 658	2 720
1982	32 571	2 067	15 668	1 780	10 874	1 141	8 649	1 836
1983	17 767	1 611	9 829	1 663	3 327	461	9 261	1 373
1984	24 419	2 617	7 652	1 580	13 408	1 485	16 216	2 606
1985	30 531	3 474	2 586	870	904	209	29 166	5 412
1986	24 942	2 643	4 785	2 892	2 719	431	21 776	4 400
1987	8 654	1 822	12 641	6 002	17 367	2 079	14 021	3 773
1988	22 269	3 530	12 487	3 113	17 324	2 253	5 217	1 946
1988-89	21 344	2 553	17 174	3 927	30 795	3 793	9 441	4 410
1989-90	28 476	4 427	11 896	3 204	10 953	1 653	24 462	5 070
1990-91	28 348	3 858	11 331	3 172	4 979	813	18 574	4 146
1991-92	12 529	2 596	7 119	3 413	13 752	1 834	8 330	2 950
1992-93	21 004	4 078	11 965	6 104	1 442	371	10 569	3 806
1993-94	16 227	3 537	12 476	4 774	2 016	464	6 875	3 155
1994-95	29 151	3 290	17 686	7 450	6 038	1 717	26 312	5 524
1995-96	4 202	2 864	17 167	5 284	5 192	927	44 704	8 194
1996-97	9 633	2 481	19 535	6 919	1 910	473	23 648	5 340
1997-98	8 998	2 363	7 507	3 997	3 051	642	14 739	3 884
1998-99	7 035	3 179	13 525	8 510	1 539	443	19 873	6 553
1999-00	15 291	4 353	9 410	6 235	3 414	819	19 988	6 875
2000-01	25 611	5 524	11 629	9 321	8 985	1 559	23 333	9 563
2001-02	28 900	6 636	10 239	9 113	2 794	754	19 963	8 068
2002-03	26 841	4 870	6 957	4 097	10 402	2 176	12 086	5 702

a Includes bentonitic clay. **b** Includes ball and china clay. **c** Includes fireclay and chamotte. **d** Includes andalusite, mullite, kyanite, sillimanite and other clays.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; ABARE.

243 Summary of Australian statistics for black coal

	Production		Domestic	Exports		Closing
	Raw	Net [a]	consumption	Volume	Unit value	stocks [b]
	Mt	Mt	Mt	Mt	$/t	Mt
1960-61	23.67	22.15	20.05	1.93	8.01	na
1961-62	25.37	23.48	20.14	3.51	7.77	na
1962-63	25.25	23.40	20.26	2.71	8.21	na
1963-64	27.86	25.49	21.32	3.86	8.39	na
1964-65	30.11	27.54	22.02	5.94	8.31	na
1965-66	34.23	31.22	22.85	8.87	8.12	na
1966-67	35.95	32.29	23.15	8.04	8.03	na
1967-68	39.06	34.71	24.04	10.48	8.21	na
1968-69	44.86	39.81	24.71	14.41	8.33	na
1969-70	50.41	44.30	25.57	17.97	9.32	na
1970-71	52.97	45.00	24.96	18.96	10.50	7.59
1971-72	58.86	49.02	25.49	21.85	10.89	9.27
1972-73	66.19	54.63	27.39	25.83	11.28	10.68
1973-74	66.58	54.74	27.68	28.39	12.50	9.35
1974-75	72.21	63.78	30.19	32.42	22.10	10.52
1975-76	77.13	62.33	29.45	30.43	34.96	12.97
1976-77	85.96	69.55	32.19	35.37	37.23	14.95
1977-78	87.79	71.01	32.56	37.91	39.14	15.50
1978-79	91.90	73.37	33.43	38.28	38.99	17.17
1979-80	90.20	73.59	35.62	43.16	39.35	11.97
1980-81	106.20	87.39	37.71	47.25	41.64	14.22
1981-82	110.20	91.08	36.79	46.12	49.64	21.34
1982-83	120.34	99.59	37.29	54.65	56.21	28.02
1983-84	129.44	105.55	38.64	64.33	51.77	27.98
1984-85	145.14	118.26	40.67	86.10	54.09	21.95
1985-86	163.62	134.31	42.56	90.30	57.49	23.93
1986-87	182.43	148.73	44.07	97.70	55.46	32.71
1987-88	167.69	136.35	46.01	102.10	46.61	20.59
1988-89	184.05	149.35	49.87	97.66	48.04	20.91
1989-90	196.85	160.41	50.68	104.58	55.74	27.37
1990-91	204.68	166.56	50.92	113.37	56.08	29.10
1991-92	218.20	176.47	52.81	123.30	55.38	29.61
1992-93	222.50	177.99	52.94	129.18	58.28	26.23
1993-94	221.50	177.98	54.18	129.06	55.49	21.81
1994-95	237.23	192.35	55.36	136.24	50.45	23.30
1995-96	243.02	194.53	57.41	138.55	56.00	21.29
1996-97	261.34	207.50	57.88	145.75	54.42	24.91
1997-98	278.64	222.37	61.26	162.61	58.62	25.77
1998-99	284.29	225.01	61.64	169.41	54.54	19.92
1999-00	298.66	239.43	61.30	175.78	47.20	20.03
2000-01	321.48	258.22	64.13	193.50	55.81	21.48
2001-02	344.44	272.59	66.16	197.87	67.37	19.80
2002-03	350.97	274.11	68.00	207.74	57.27	18.77

a Before 1980-81, net production referred to raw coal production less rejects removed at coal industry washeries plus/less unexplained stock adjustments at mines and ports. From 1980-81, net production refers to raw coal production less rejects removed at coal industry washeries plus/less unexplained stock adjustments at mines only. Thus, from 1980-81, net production is identical to salable production. **b** Calendar year basis before 1984-85. **na** Not available.

Sources: Joint Coal Board, *Black Coal in Australia 1987-88,* Sydney; Joint Coal Board and the Queensland Department of Mines and Energy, *Australian Black Coal Statistics,* Sydney; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABARE.

244 Australian raw coal production, by state

	New South Wales	Victoria a	Queensland	Western Australia	South Australia	Tasmania
	Mt	Mt	Mt	Mt	Mt	Mt
1960-61	18.45	15.98	3.07	0.75	1.02	0.29
1961-62	19.39	17.00	3.47	0.95	1.25	0.26
1962-63	19.03	18.05	3.48	0.95	1.50	0.24
1963-64	20.56	18.98	4.50	0.93	1.63	0.18
1964-65	22.16	19.87	4.86	0.97	1.94	0.13
1965-66	25.41	21.90	5.56	1.08	2.04	0.10
1966-67	26.63	22.87	6.06	1.10	2.05	0.08
1967-68	28.57	23.43	7.19	1.08	2.02	0.09
1968-69	32.24	23.50	9.20	1.12	2.18	0.11
1969-70	35.32	24.31	11.65	1.17	2.15	0.12
1970-71	35.72	23.18	14.32	1.18	1.62	0.12
1971-72	36.96	23.63	19.01	1.21	1.56	0.12
1972-73	38.66	24.12	25.27	1.15	1.58	0.13
1973-74	36.63	26.44	27.15	1.20	1.49	0.12
1974-75	42.31	27.54	32.10	1.88	1.79	0.14
1975-76	40.59	29.21	32.40	2.14	1.82	0.18
1976-77	46.79	30.99	34.66	2.38	1.95	0.20
1977-78	49.25	30.47	34.14	2.42	1.78	0.19
1978-79	50.52	32.10	37.26	2.41	1.47	0.25
1979-80	48.71	32.90	36.53	3.03	1.72	0.21
1980-81	58.29	32.10	42.76	3.12	1.73	0.30
1981-82	59.82	37.57	45.14	3.42	1.44	0.39
1982-83	67.46	34.71	46.91	3.96	1.45	0.56
1983-84	66.53	33.20	57.20	3.93	1.33	0.45
1984-85	70.03	38.38	69.21	3.65	1.75	0.49
1985-86	77.19	36.08	80.01	3.75	2.17	0.50
1986-87	88.51	41.81	87.09	3.78	2.43	0.62
1987-88	76.27	44.29	84.61	3.69	2.52	0.60
1988-89	81.27	48.65	95.48	3.89	2.76	0.65
1989-90	93.89	45.96	95.30	4.13	2.94	0.60
1990-91	96.70	49.39	99.67	5.21	2.53	0.59
1991-92	101.17	50.72	108.32	5.29	2.88	0.54
1992-93	102.91	47.90	110.93	5.40	2.79	0.48
1993-94	101.95	49.68	111.12	5.15	2.69	0.57
1994-95	107.78	49.92	119.97	5.82	3.04	0.61
1995-96	113.09	54.28	120.93	5.97	2.45	0.58
1996-97	123.68	60.79	128.92	5.59	2.59	0.56
1997-98	134.01	65.27	135.56	5.80	2.70	0.58
1998-99	131.38	66.65	143.79	5.74	2.80	0.57
1999-00	132.90	67.36	155.72	6.63	2.87	0.55
2000-01	138.78	64.96	172.88	6.19	3.16	0.47
2001-02	145.20	66.60	189.40	6.25	3.06	0.54
2002-03	142.71	66.80	198.32	6.36	3.06	0.52

a Brown coal. Between 1960-61 and 1968-69, Victoria produced small quantities of black coal which are not included in this table.
Sources: Joint Coal Board, *Black Coal in Australia 1987-88,* Sydney; Joint Coal Board and the Queensland Department of Mines and Energy, *Australian Black Coal Statistics,* Sydney; Victorian Department of Natural Resources and Environment; ABARE.

245 Australian consumption of coal, by major end use

	Black coal					Brown coal
	Electricity generation	Iron and steel a	Cement Industry	Other consumers	Total	Electricity generation
	Mt	Mt	Mt	Mt	Mt	Mt
1981-82	24.48	8.42	1.11	2.78	36.79	36.26
1982-83	26.91	6.46	1.02	2.89	37.29	33.42
1983-84	28.06	6.22	0.92	3.44	38.64	32.05
1984-85	29.74	6.25	1.02	3.67	40.67	37.09
1985-86	31.48	6.20	0.93	3.95	42.56	34.89
1986-87	32.76	6.44	0.70	4.18	44.07	40.49
1987-88	33.91	7.22	0.69	4.20	46.01	43.07
1988-89	36.82	7.92	0.79	4.34	49.87	47.35
1989-90	38.17	7.43	0.85	4.23	50.68	44.87
1990-91	38.41	7.40	0.86	4.25	50.92	48.17
1991-92	39.88	7.35	0.85	4.72	52.81	49.50
1992-93	40.68	7.11	0.87	4.28	52.94	46.78
1993-94	41.83	7.09	0.90	4.37	54.18	48.56
1994-95	42.82	7.55	0.74	4.26	55.36	48.72
1995-96	45.60	6.39	0.82	4.60	57.41	53.41
1996-97	46.15	6.24	0.80	4.68	57.88	59.75
1997-98	48.16	7.55	0.86	4.69	61.26	64.22
1998-99	49.68	6.48	0.87	4.61	61.64	65.54
1999-00	50.16	5.63	0.85	4.66	61.30	66.43
2000-01	53.54	5.20	0.74	4.66	64.13	63.98
2001-02	55.46	5.46	0.78	4.46	66.16	65.58

a As received basis.

Sources: Joint Coal Board, *Black Coal in Australia 1987-88,* Sydney; Joint Coal Board and the Queensland Department of Mines and Energy, *Australian Black Coal Statistics,* Sydney; Victorian Department of Natural Resources and Environment; ABARE.

246 Australian exports of coal, by coal type

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Coking coal, high quality									
Volume	Mt	49.83	49.34	57.01	56.00	62.78	61.96	65.46	66.45
Value	$m	3 226	3 214	4 162	3 868	3 587	4 241	5 353	5 122
Unit value	$/t	64.74	65.13	73.00	69.07	57.14	68.44	81.77	77.08
Coking coal, excluding high quality									
Volume	Mt	27.59	29.35	27.07	29.26	34.03	43.56	40.37	41.34
Value	$m	1 519	1 600	1 580	1 604	1 596	2 356	2 685	2 325
Unit value	$/t	55.08	54.53	58.38	54.82	46.92	54.07	66.51	56.25
Total coking coal									
Volume	Mt	77.41	78.69	84.07	85.26	96.81	105.53	105.83	107.79
Value	$m	4 745	4 814	5 742	5 472	5 184	6 597	8 038	7 448
Unit value	$/t	61.30	61.18	68.30	64.18	53.54	62.51	75.95	69.09
Steaming coal									
Volume	Mt	61.14	67.06	78.54	84.15	78.97	87.98	92.04	99.95
Value	$m	3 014	3 118	3 790	3 767	3 114	4 204	5 294	4 449
Unit value	$/t	49.29	46.49	48.25	44.76	39.43	47.78	57.51	44.51

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Foreign Affairs and Trade, computer database compiled from trade data supplied by the ABS.

247 Australian exports of steaming coal, by destination

	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt	2002-03 Mt
Asia								
ASEAN **a**	1.51	1.76	2.27	2.81	3.86	2.24	2.48	2.62
China **b**	1.43	1.48	1.53	1.65	0.88	0.60	2.95	3.99
Chinese Taipei	6.79	7.64	10.04	8.57	9.29	8.65	10.24	10.82
Hong Kong, China	1.58	1.90	1.87	2.06	0.73	0.42	0.26	0.73
Japan	35.02	35.29	40.29	39.28	43.01	49.99	49.62	52.44
Korea, Rep. of	9.58	11.12	15.56	13.77	11.38	12.80	13.40	14.20
Other Asia	1.27	1.45	1.46	2.38	3.31	4.92	3.45	2.79
Total	57.19	60.64	73.03	70.54	72.47	79.63	82.40	87.59
Europe								
European Union	2.81	4.55	3.89	10.63	5.06	6.49	6.25	7.37
Denmark	0.91	1.43	0.45	0.48	0.32	0.16	0.19	0.41
Germany	0.21	0.27	0.00	1.23	0.00	0.00	0.17	0.00
Netherlands	0.74	0.90	1.76	2.82	1.88	1.39	1.51	1.82
United Kingdom	0.00	0.42	0.44	1.86	1.22	1.75	0.97	1.28
Other Europe	1.15	1.87	1.62	2.98	1.44	1.86	3.38	4.98
Total all countries	61.14	67.06	78.54	84.15	78.97	87.98	92.04	99.95

a Includes Brunei Darrusalam, Indonesia, Malaysia, the Philippines, Thailand and Viet Nam. **b** Excludes Hong Kong.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Foreign Affairs and Trade, computer database compiled from trade data provided by the ABS.

248 Australian exports of high quality coking coal, by destination

	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt	2002-03 Mt
Asia								
China **a**	0.14	0.32	0.28	1.26	1.42	0.43	0.04	0.68
Chinese Taipei	3.10	3.78	4.16	2.79	2.93	3.90	4.01	3.82
India	9.87	9.46	9.27	8.03	8.57	9.09	9.67	11.08
Japan	13.22	12.88	15.16	14.94	18.54	16.76	17.37	18.22
Korea, Rep. of	5.29	5.47	5.64	5.23	5.10	6.43	6.63	7.44
Pakistan	0.39	0.48	0.53	0.48	0.41	0.42	0.49	0.44
Other Asia	2.00	2.02	2.46	2.47	1.44	1.55	2.11	1.80
Total Asia	34.02	34.41	37.50	35.22	38.40	38.57	40.33	43.50
Europe								
European Union	11.94	10.98	13.14	14.67	16.76	16.12	16.94	15.19
France	2.39	1.87	2.15	2.63	3.12	3.22	2.94	2.54
Germany	0.46	0.67	1.01	1.38	1.74	1.40	1.24	1.46
Italy	2.13	1.77	2.19	2.26	2.23	2.24	2.34	1.63
United Kingdom	3.49	3.34	4.13	3.93	4.85	4.31	3.97	3.72
Other Europe	3.87	3.95	6.36	6.11	7.62	7.28	8.19	7.76
Total all countries	49.83	49.34	57.01	56.00	62.78	61.96	65.46	66.45

a Excludes Hong Kong.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Foreign Affairs and Trade, computer database compiled from trade data provided by the ABS.

249 Australian exports of coking coal other than high quality, by destination

	1995-96 Mt	1996-97 Mt	1997-98 Mt	1998-99 Mt	1999-00 Mt	2000-01 Mt	2001-02 Mt	2002-03 Mt
Asia								
Chinese Taipei **a**	na	na	na	na	na	na	na	na
India	0.04	0.08	0.27	0.67	1.16	1.64	2.27	3.02
Japan	12.09	19.68	18.15	19.09	21.45	26.72	23.02	23.09
Korea, Rep. of	2.69	1.13	na **a**	na **a**	na **a**	na **a**	na **a**	na **a**
Pakistan	0.18	0.04	na **a**	na **a**	na **a**	na **a**	na **a**	na **a**
Europe								
European Union **b**	0.30	1.37	1.07	0.86	2.43	4.76	4.24	3.42
Americas								
Brazil	1.26	1.08	1.11	0.96	1.29	2.20	1.62	2.30
Total all countries	27.59	29.35	27.07	29.26	34.03	43.56	40.37	41.34

a Confidential. **b** Regarded as twelve countries for all years. **na** Not available.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Foreign Affairs and Trade, computer database compiled from trade data provided by the ABS.

250 World exports of coal, by coal type and major exporters

	1995 Mt	1996 Mt	1997 Mt	1998 Mt	1999 Mt	2000 Mt	2001 Mt	2002 Mt
Metallurgical coal								
Australia **a**	74.6	76.9	83.7	83.6	92.4	100.0	106.3	104.5
Canada	28.6	28.7	30.1	28.4	29.0	28.4	27.0	23.4
China	6.0	7.5	4.6	4.9	5.2	6.5	11.5	13.8
Indonesia **a**	2.4	3.0	3.9	5.2	8.7	8.7	7.9	7.4
Poland	12.3	9.9	9.1	6.5	6.6	5.3	3.8	3.5
Russian Federation	8.7	6.5	8.5	6.4	6.4	7.3	6.9	6.0
South Africa **a**	6.3	6.1	7.1	6.9	2.5	2.5	3.0	0.9
United States	47.3	48.0	47.3	42.7	29.1	30.0	23.0	18.3
World **a**	196.4	195.2	196.4	191.9	179.6	192.5	192.6	188.2
Total seaborne	176.9	177.4	182.7	177.5	168.0	179.8	184.0	175.9
Thermal coal								
Australia	62.1	63.6	73.6	83.0	79.2	87.1	88.0	99.9
Canada	5.4	5.7	6.4	5.8	4.6	3.7	3.0	3.4
China **a**	21.9	29.0	30.7	27.4	32.2	48.6	79.4	78.0
Colombia	17.2	23.7	25.4	29.4	29.2	35.0	36.5	34.4
Indonesia	30.0	34.6	39.3	41.8	45.4	48.1	56.2	65.6
Poland	19.6	19.0	20.3	21.5	17.5	18.0	19.2	19.1
Russian Federation	17.6	18.8	15.0	17.6	21.3	29.4	34.1	34.8
South Africa	59.7	60.2	64.2	61.3	63.7	67.5	65.3	67.7
United States	36.2	34.0	28.5	29.4	24.0	23.2	21.0	16.2
World	297.0	318.0	335.8	353.6	367.8	402.4	429.0	434.7
Total seaborne	252.1	276.2	284.4	293.4	309.8	347.6	391.8	402.8

a Includes pulverised coal injection – coal used for metallurgical purposes.
Sources: International Energy Agency, *Coal Information,* OECD, Paris; Joint Coal Board and Queensland Department of Mines and Energy, *Australian Black Coal Statistics,* Sydney; ABARE.

251 Japanese imports of coal, by source

	Total imports Mt	Australia %	Canada %	China %	Indonesia %	Russian Federation %	South Africa %	United States %	Other %
Steaming coal									
1994	42.14	65.6	3.3	10.7	5.2	3.3	6.2	5.7	0.0
1995	49.39	62.4	3.5	11.7	6.2	4.1	5.9	6.2	0.1
1996	52.34	60.6	4.9	12.7	5.6	4.0	5.8	6.2	0.2
1997	54.19	64.2	4.0	13.5	5.1	3.4	5.5	4.3	0.0
1998	55.08	66.0	3.5	14.4	5.0	2.4	4.0	4.8	0.0
1999	60.32	64.9	2.2	14.5	6.1	4.1	3.7	4.5	0.1
2000	65.29	64.0	2.1	17.0	5.4	4.8	2.5	4.2	0.0
2001	71.14	63.3	0.8	21.1	6.6	4.6	1.5	2.1	0.0
2002	72.83	62.2	1.2	21.5	7.4	5.2	1.2	1.2	0.1
Coking coal									
1994	72.55	49.0	21.1	3.1	7.9	4.1	4.1	10.0	0.6
1995	74.00	46.2	21.6	3.9	7.8	4.2	4.3	11.1	0.9
1996	73.84	45.5	21.9	5.0	10.3	4.0	3.4	8.7	1.2
1997	75.91	48.3	21.8	4.8	10.6	3.6	2.7	7.0	1.2
1998	73.42	47.8	20.9	4.8	13.0	3.4	2.6	6.4	1.2
1999	74.10	54.9	19.2	4.2	13.6	3.1	0.8	2.8	1.5
2000	76.30	57.9	15.7	5.6	13.8	3.1	0.4	1.9	1.7
2001	79.52	57.2	13.8	9.3	14.5	3.0	0.1	1.0	1.1
2002	80.81	55.7	10.4	12.7	16.4	3.2	na	0.4	1.2

na Not available.
Source: International Energy Agency, *Energy Prices and Taxes, OECD,* Paris.

252 European Union imports of coal, by source a

	Total imports Mt	Australia %	Canada %	Columbia %	Poland %	South Africa %	United States %	Other %
Steaming coal								
1994	74.14	10.4	0.5	14.7	13.5	34.0	13.6	13.4
1995	89.67	6.0	0.3	10.9	14.0	30.8	22.3	15.7
1996	94.42	3.3	0.4	14.1	13.8	29.4	19.0	20.1
1997	99.73	5.7	0.7	15.2	15.2	26.7	12.9	23.6
1998	96.46	6.6	0.2	15.5	14.9	29.0	8.0	25.8
1999	99.94	8.6	0.2	15.6	14.7	31.6	5.7	23.6
2000	110.21	6.7	0.2	16.6	14.7	33.0	5.5	23.2
2001	126.66	6.4	0.2	14.3	12.8	31.9	6.9	27.6
2002	120.27	6.6	0.1	15.0	13.1	36.1	3.1	26.0
Coking coal								
1994	38.54	32.1	7.1	0.5	5.9	1.6	48.8	4.1
1995	41.26	32.2	10.1	0.1	5.7	1.9	45.1	4.9
1996	39.59	29.5	11.9	0.1	5.8	2.9	45.2	4.6
1997	39.97	30.4	12.0	0.5	6.4	4.7	42.5	3.6
1998	42.99	29.4	10.5	0.1	6.8	7.0	42.7	3.5
1999	39.81	38.3	13.2	0.6	4.9	2.7	36.0	4.2
2000	38.79	44.5	13.8	0.4	3.2	2.0	33.4	2.8
2001	36.72	47.4	14.5	0.2	2.6	4.6	27.3	3.3
2002	33.10	48.3	14.4	na	4.3	2.9	25.8	4.4

a Imports from non-EU countries only. Regarded as twelve countries to 1 January 1995, then fifteen countries. **na** Not available.
Source: International Energy Agency, *Energy Prices and Taxes,* OECD, Paris.

253 Japanese and European Union coal import unit values, by country of origin a

	1994 US$/t	1995 US$/t	1996 US$/t	1997 US$/t	1998 US$/t	1999 US$/t	2000 US$/t	2001 US$/t	2002 US$/t
Japan									
Steaming coal									
Australia	44.92	48.87	50.24	45.59	40.80	36.12	34.59	38.32	37.38
Canada	42.88	44.20	45.91	42.01	38.25	33.50	34.72	36.94	37.34
China	39.05	44.48	46.52	44.73	39.96	34.89	33.69	36.95	36.25
Indonesia	39.89	43.79	45.49	41.63	36.58	32.40	31.85	35.17	34.52
South Africa	42.47	48.27	49.86	46.58	41.50	37.34	35.82	38.05	40.30
United States	49.92	52.65	54.32	49.86	47.52	45.37	45.49	45.99	48.63
All sources **b**	43.88	47.85	49.29	45.26	40.68	35.87	34.59	37.95	36.95
Coking coal									
Australia	47.89	51.15	54.07	52.73	49.47	41.83	39.01	40.96	43.32
Canada	64.66	64.49	64.44	64.84	59.73	51.05	45.46	47.30	50.50
China	47.03	49.49	51.88	49.98	46.78	40.01	37.12	39.35	38.97
Indonesia	43.03	48.29	49.01	45.51	39.73	34.07	32.36	35.13	34.12
South Africa	46.93	49.54	50.94	49.64	47.06	39.74	39.99	47.09	na
United States	59.34	61.37	61.05	61.24	59.53	55.79	52.69	47.81	52.07
All sources **b**	51.91	55.03	56.39	55.19	50.98	42.95	39.46	41.13	42.14
European Union									
Steaming coal									
Australia	40.74	45.06	48.25	46.38	40.03	36.68	39.04	44.13	43.28
Indonesia	40.41	40.67	38.96	33.61	30.79	29.35	30.05	36.06	36.48
Poland	41.44	46.78	46.50	42.62	39.61	35.03	35.30	44.41	40.75
South Africa	36.18	43.76	42.23	40.33	36.30	31.78	33.83	42.32	36.65
United States	46.05	49.12	48.03	48.47	46.99	40.67	41.07	46.52	43.48
All non-EU sources **c**	40.02	46.25	45.07	43.13	39.40	34.12	34.93	42.79	38.57
Coking coal									
Australia	55.56	57.03	59.72	57.97	54.99	47.33	45.45	51.24	55.52
Poland	53.55	59.26	61.11	61.01	52.52	47.48	50.43	51.58	50.15
South Africa	44.13	49.65	47.44	43.31	35.83	35.83	39.09	42.10	38.69
United States	58.22	61.20	62.03	60.08	58.53	54.14	52.91	58.54	61.48
All non-EU sources **c**	55.89	58.49	59.81	58.08	54.55	49.00	47.85	53.50	56.50

a Average unit value cif. **b** Average includes countries not listed separately. **c** Average includes non-EU countries not listed separately. **na** Not available.
Source: International Energy Agency, *Energy Prices and Taxes,* OECD, Paris.

254 Selected Australian–Japanese contract prices for coking and steaming coal [a]

	1996	1997	1998	1999	2000	2001	2002	2003
Coking coal								
Hard [b]								
US$/t	53.50	53.50	50.95	41.90	39.75	42.75	48.10	46.20
A$/t	68.64	72.11	81.19	64.98	68.30	80.26	88.42	73.10
Real A$/t	79.35	83.18	92.90	73.26	74.73	85.20	91.06	73.10
Other coking [c]								
US$/t	43.87	41.87	37.90	32.20	30.60	36.00	33.05	31.05
A$/t	56.29	56.44	60.40	49.94	52.58	69.50	60.75	49.13
Real A$/t	65.07	65.10	69.10	56.30	57.52	73.78	62.56	49.13
Steaming coal [d]								
US$/t	40.30	37.65	34.35	29.95	28.75	34.50	28.75	26.75
A$/t	51.71	50.75	54.70	46.43	49.40	64.72	52.85	42.33
Real A$/t	59.78	58.53	62.59	52.34	54.05	68.70	54.43	42.33

a Japanese fiscal year beginning 1 April. Prices are fob; real prices are in 2000 Australian dollar terms. **b** For example, Goonyella export coal. **c** Non-hard coking coal price based on Australian/Japanese contract settlements. **d** For steaming coal with a calorific value of 6700 kcal/kg.
Sources: International Energy Agency, *Coal Information,* OECD, Paris; ABARE.

255 Australian and US coal export unit values, by destination a

	1994 US$/t	1995 US$/t	1996 US$/t	1997 US$/t	1998 US$/t	1999 US$/t	2000 US$/t	2001 US$/t	2002 US$/t
Australia									
Steaming coal									
France	32.31	32.97	34.02	35.12	25.88	22.37	19.14	31.38	22.62
Italy	31.93	37.75	na	na	24.50	22.27	21.30	31.07	25.26
Japan	33.71	36.85	38.89	35.40	31.50	27.02	24.72	29.69	29.20
Netherlands	30.27	33.03	32.65	29.50	23.89	20.49	20.65	26.45	24.65
All destinations **b**	32.74	34.99	37.77	34.35	30.10	26.49	24.27	28.71	28.01
Coking coal									
France	41.56	43.07	47.24	46.71	42.37	36.49	33.37	37.32	41.41
Italy	39.80	42.06	48.57	48.41	44.48	40.38	34.97	42.68	45.90
Japan	40.24	43.37	46.11	45.52	42.47	34.60	31.64	34.46	36.79
Netherlands	41.02	44.75	46.36	47.94	44.03	37.73	34.10	41.09	46.17
All destinations **b**	41.39	44.23	47.56	47.37	43.97	35.99	32.86	36.93	40.16
United States									
Steaming coal									
France	41.94	38.72	39.83	38.40	39.16	42.14	28.96	30.50	na
Italy	42.21	45.97	45.41	43.31	40.12	51.13	30.67	42.50	42.91
Japan	37.13	38.61	40.02	38.55	37.00	35.40	34.90	37.70	40.41
Netherlands	39.63	40.53	36.31	35.86	32.78	28.44	28.90	35.71	na
All destinations **b**	38.22	38.94	36.94	34.84	32.24	32.02	31.84	34.51	37.70
Coking coal									
France	48.90	49.69	51.95	52.03	50.64	47.10	44.19	48.54	54.96
Italy	49.96	51.38	52.80	53.85	52.93	51.02	49.45	53.11	56.41
Japan	44.72	45.35	46.51	45.94	45.98	44.46	41.99	na	na
Netherlands	49.68	51.32	52.13	51.92	51.25	47.90	45.46	48.90	na
All destinations **b**	47.11	48.47	50.05	49.99	48.55	46.19	42.98	45.88	50.06

a Average unit value, fob. **b** Average for all countries. **na** Not available.
Source: International Energy Agency, *Energy Prices and Taxes,* OECD, Paris.

256 World hard coal production, by country a

	1995 Mt	1996 Mt	1997 Mt	1998 Mt	1999 Mt	2000 Mt	2001 Mt	2002 Mt
Australia	192.8	198.7	216.9	219.5	238.2	245.5	265.5	273.6
Brazil	5.2	4.8	5.6	5.5	5.7	6.7	5.6	5.7
Canada	38.6	40.0	41.2	38.1	36.5	33.8	34.0	29.7
China **b**	1 343.0	1 401.8	1 367.2	1 305.5	1 238.3	1 231.2	1 267.9	1 326.0
Colombia	25.7	30.0	32.5	33.7	32.7	38.1	43.4	40.4
Former Soviet Union **c**	325.9	300.5	292.6	284.5	287.8	302.4	320.0	317.3
Germany	58.9	53.2	51.2	45.3	43.8	37.4	30.7	29.2
India	268.7	277.9	283.6	288.1	300.7	310.4	324.6	333.7
Indonesia	41.1	50.2	54.9	62.0	73.8	76.6	92.5	101.2
Poland	137.2	137.9	137.8	115.7	110.2	103.3	104.0	102.6
South Africa	206.2	206.4	220.1	223.0	223.5	224.2	225.9	222.9
United Kingdom	53.0	50.2	48.5	41.2	37.1	31.2	31.9	29.5
United States	858.6	885.2	910.5	936.2	919.2	895.2	951.2	916.7
World total **d**	3 665.4	3 740.2	3 759.9	3 704.2	3 634.3	3 633.2	3 801.0	3 837.0

a Hard coal includes anthracite and bituminous coal, and for the United States and New Zealand, sub-bituminous coal. **b** Excludes Hong Kong. **c** Former Soviet Union until 1992, then total of fifteen countries. **d** Includes countries not listed separately.
Sources: International Energy Agency, *Coal Information,* OECD, Paris; Joint Coal Board and the Queensland Department of Mines and Energy, *Australian Black Coal Statistics,* Sydney.

257 Summary of Australian statistics for dimension stone

	Production a	Exports		Imports
	Volume	Volume	Value	Value
	kt	t	$'000	$'000
1960	323	na	15	363
1961	541	na	9	405
1962	385	na	8	439
1963	639	na	24	481
1964	599	na	7	613
1965	474	na	12	562
1966	245	1 629	32	440
1967	290	280	16	408
1968	280	657	32	407
1969	269	792	44	427
1970	90	1 821	84	466
1971	81 b	1 209	57	569
1972	318 b	731	42	708
1973	144 b	1 621	105	395
1974	143 b	2 347	155	440
1975	255 b	379	na	606
1976	112	112	na	489
1977	84	757	180	832
1978	115	387	133	2 371
1979	122 c	1 086	83	2 224
1980	116 c	2 762	220	4 472
1981	125 c	205	46	5 450
1982	129 d	84	33	7 768
1983	97 d	1 224	367	6 619
1984	102 d	4 244	1 861	9 980
1985	190 e	2 537	782	14 025
1986	106 e	5 226	1 893	12 097
1987	99 f	2 974	1 119	15 231
1988	149 g	1 659	776	16 295
1988-89	92 f	2 913	1 441	19 732
1989-90	198	1 665	1 520	17 455
1990-91	na	3 393	4 417	11 237
1991-92	na	11 672	2 963	11 466
1992-93	553	8 721	4 501	11 173
1993-94	na	10 007	5 829	10 604
1994-95	na	14 605	5 531	9 811
1995-96	na	17 372	6 220	8 411
1996-97	na	15 364	5 519	7 828
1997-98	na	5 074	4 223	5 377
1998-99	na	16 766	6 509	12 327
1999-00	119	21 747	6 249	14 818
2000-01	104	18 029	7 725	11 958
2001-02	na	39 651	8 716	6 902
2002-03	na	16 851	6 074	9 111

a Data incomplete because coverage differs between states. **b** Excludes the Australian Capital Territory, the Northern Territory and Queensland. **c** Excludes the Australian Capital Territory and the Northern Territory. **d** Excludes the Australian Capital Territory. **e** Excludes the Australian Capital Territory and Queensland. **f** Excludes the Australian Capital Territory, Queensland and Western Australia. **g** Excludes the Australian Capital Territory, Queensland and Tasmania. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* BMR, Canberra; state mines departments and their equivalents; ABARE.

258 Australian production of dimension stone, by state [a]

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
	kt	kt	kt	kt	kt	kt	kt
1960	160	4	5	114	39	na	323
1961	360	7	2	132	40	na	541
1962	201	9	3	130	37	1	385
1963	377	10	2	214	25	2	639
1964	387	10	3	151	32	6	599
1965	225	15	4	189	32	1	474
1966	45	10	2	149	31	1	245
1967	45	11	2	129	47	2	290
1968	42	7	5	148	42	4	280
1969	31	9	3	167	49	2	269
1970	23	8	na	4	51	2	90
1971	13	10	na	7	50	1	81 **b**
1972	27	13	na	228	47	1	318 **c**
1973	14	15	na	67	46	2	144 **c**
1974	14	11	na	67	49	2	143 **c**
1975	12	12	na	187	40	2	255 **c**
1976	15	11	na	30	36	2	112 **c**
1977	13	8	4	22	27	3	84 **b**
1978	14	13	2	45	29	4	115 **b**
1979	16	7	8	56	28	6	122 **b**
1980	14	26	12	31	32	3	116 **d**
1981	24	29	24	20	27	1	125 **d**
1982	16	20	44	24	24	1	129 **e**
1983	21	35	na	11	29	1	97 **e**
1984	22	18	na	25	35	1	102 **e**
1985	22	28	na	101	34	4	190 **f**
1986	21	19	na	32	31	2	106 **f**
1987	21	46	na	na	31	1	99 **g**
1988	32	31	na	50	34	2	149 **h**
1988-89	34	17	na	na	40	1	92 **g**
1989-90	32	52	9	72	31	2	198
1990-91	40	6	na	na	42	2	na
1991-92	35	na	na	na	61	2	na
1992-93	33	12	31	414	61	2	553
1993-94	na	na	25	na	na	na	na
1994-95	na	na	na	na	na	na	na
1995-96	29	na	na	na	31	na	na
1996-97	25	na	20	1	28	na	na
1997-98	25	na	17	3	37	na	na
1998-99	34	5	25	4	41	na	na
1999-00	32	4	20	3	52	7	119
2000-01	27	2	30	1	38	6	104
2001-02	48	2	na	1	36	na	na

a Data incomplete because coverage differs between states. Australian totals may include estimates for states for which data are not available separately. **b** Includes the Australian Capital Territory, the Northern Territory and Queensland. **c** Excludes the Australian Capital Territory, the Northern Territory and Queensland. **d** Excludes the Australian Capital Territory and the Northern Territory. **e** Excludes the Australian Capital Territory. **f** Excludes the Australian Capital Territory and Queensland. **g** Excludes the Australian Capital Territory, Queensland and Western Australia. **h** Excludes the Australian Capital Territory, Queensland and Tasmania. **na** Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

259 Australian exports of dimension stone, by destination

	Italy	New Zealand	Other	Total Volume	Total Value
	t	t	t	t	$'000
1960	na	na	na	na	15
1961	na	na	na	na	9
1962	na	na	na	na	8
1963	na	na	na	na	24
1964	na	na	na	na	7
1965	na	na	na	na	12
1966	na	na	na	1 629	32
1967	na	na	na	280	16
1968	na	na	na	657	32
1969	na	na	na	792	44
1970	na	na	na	1 821	84
1971	na	na	na	1 209	57
1972	na	na	na	731	42
1973	na	na	na	1 621	105
1974	na	na	na	2 347	155
1975	na	na	na	379	na
1976	na	na	na	112	na
1977	na	na	na	757	180
1978	na	na	na	387	133
1979	na	na	na	1 086	83
1980	1 973	40	749	2 762	220
1981	0	4	201	205	46
1982	0	31	53	84	33
1983	1 178	6	40	1 224	367
1984	3 290	26	928	4 244	1 861
1985	2 364	133	40	2 537	782
1986	4 831	259	136	5 226	1 893
1987	1 903	324	747	2 974	1 119
1988	634	272	753	1 659	776
1988-89	530	290	2 092	2 913	1 441
1989-90	249	158	1 258	1 665	1 520
1990-91	910	110	2 373	3 393	4 417
1991-92	490	57	11 125	11 672	2 963
1992-93	1 324	54	7 343	8 721	4 501
1993-94	203	199	9 604	10 007	5 829
1994-95	136	178	14 292	14 605	5 531
1995-96	2 168	23	15 180	17 372	6 220
1996-97	2 546	148	12 670	15 364	5 519
1997-98	190	27	4 857	5 074	4 223
1998-99	220	186	16 359	16 766	6 509
1999-00	1 015	106	20 626	21 747	6 249
2000-01	2 565	25	15 439	18 029	7 725
2001-02	3 400	268	35 983	39 651	8 716
2002-03	6 715	21	10 115	16 851	6 074

na Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; ABARE.

260 Australian imports of dimension stone

	Slate		Marble a		Crystalline rock b		Quartzite c		Total
	Volume	Value	Volume	Value	Volume	Value	Volume	Value	Value
	'000 m^2	$'000	t	$'000	t	$'000	t	$'000	$'000
1970	na	na	1 910	246	1 591	77	na	na	466
1971	na	na	3 372	330	2 007	110	na	na	569
1972	na	na	2 711	407	1 468	85	na	na	708
1973	na	na	1 309	206	1 898	118	na	na	395
1974	na	na	1 376	204	1 267	73	na	na	440
1975	na	na	1 634	289	1 610	133	na	na	606
1976	na	na	1 183	218	2 791	177	na	na	489
1977	na	na	1 706	397	1 862	215	na	na	832
1978	na	na	1 578	457	1 658	160	na	na	2 371
1979	na	na	1 752	507	2 479	287	na	na	2 224
1980	na	2 109	2 707	995	2 026	391	na	na	4 472
1981	na	3 728	2 800	1 205	1 982	369	207	94	5 450
1982	na	5 510	3 631	1 516	3 277	572	659	170	7 768
1983	689	4 535	3 049	1 493	1 993	420	3 521	171	6 619
1984	988	6 521	3 569	1 964	3 517	1 170	5 703	325	9 980
1985	1 266	8 911	4 449	2 999	3 859	1 956	222	159	14 025
1986	1 062	7 717	3 001	2 354	2 685	1 698	357	328	12 097
1987	1 343	9 105	3 221	2 982	8 873	2 663	349	481	15 231
1988	1 674	11 414	2 300	1 903	17 122	2 552	580	426	16 295
1988-89	2 139	14 023	2 688	2 058	28 732	3 120	905	530	19 732
1989-90	1 687	11 584	1 975	2 087	15 232	3 348	744	436	17 455
1990-91	1 255	7 598	960	784	5 291	2 598	483	257	11 237
1991-92	1 659	8 330	694	663	3 688	2 110	463	363	11 466
1992-93	1 410	7 406	557	499	4 181	2 613	1 071	655	11 173
1993-94	1 200	6 401	702	618	4 824	3 241	659	343	10 604
1994-95	1 044	5 475	689	718	6 172	3 273	364	346	9 811
1995-96	608	3 098	700	750	7 350	4 211	217	352	8 411
1996-97	509	2 778	702	675	7 915	4 160	128	215	7 828
1997-98	177	1 050	1 000	1 014	5 399	3 182	121	131	5 377
1998-99	333	2 350	1 809	2 659	10 323	7 114	112	204	12 327
1999-00	370	3 452	1 654	2 000	14 576	8 967	248	398	14 818
2000-01	269	1 406	1 368	1 648	12 018	8 660	152	244	11 958
2001-02	215	1 373	406	273	10 283	4 827	434	429	6 902
2002-03	177	1 381	947	975	13 324	6 114	880	641	9 111

a Includes calcareous stone. **b** Includes sandstone. **c** Predominantly quartzite. **na** Not available.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; ABARE.

261 Australian production of sand, by state a

	New South Wales	Victoria	Queensland	South Australia	Tasmania	Northern Territory	Australia
	kt	kt	kt	kt	kt	kt	kt
1960	3 023	1 132	na	1 843	21	na	6 030
1961	2 984	2 568	na	1 893	35	na	7 547
1962	3 005	2 842	na	1 540	99	na	7 656
1963	3 729	3 048	na	2 026	113	na	9 196
1964	5 209	3 352	na	1 884	163	na	10 929
1965	5 045	3 989	na	1 823	280	na	11 628
1966	4 246	4 356	na	1 611	232	na	10 838
1967	4 598	4 278	na	1 784	234	na	11 328
1968	6 718	5 075	na	2 110	281	na	14 637
1969	6 686	6 680	1 022	2 930	265	na	18 199
1970	6 174	5 242	2 282	2 627	271	na	16 973
1971	6 353	5 747	3 031	2 707	185	371	18 394 **b**
1972	7 603	5 619	3 619	2 387	185	471 **c**	19 884 **b**
1973	8 798	6 660	4 182	2 525	179	581 **c**	22 925 **b**
1974	8 797	7 788	4 733	2 476	252	474 **c**	24 520 **b**
1975	8 415	7 541	4 933	2 567	190	766 **c**	24 412 **b**
1976	7 793	7 766	5 172	2 575	391	568 **c**	24 264 **b**
1977	7 676	9 040	4 137	3 919	439	389 **c**	25 600 **b**
1978	7 077	8 951	3 768	2 808	349	310 **c**	23 264 **b**
1979	8 263	8 357	4 410	2 526	448	285 **c**	24 290 **b**
1980	9 553	8 400	4 800	2 287	361	293 **c**	25 694 **b**
1981	10 738	7 929	5 787	2 753	334	460 **c**	28 002 **b**
1982	10 767	7 449	6 337	2 564	332	1 268 **c**	28 718 **b**
1983	8 403	6 884	5 583	2 094	388	192	23 543 **d**
1984	8 401	6 951	5 876	2 542	450	455	24 675 **d**
1985	8 989	7 437	6 386	2 852	576	399	26 640 **d**
1986	10 239	6 653	5 949	4 145	510	396	27 892 **d**
1987	9 501	8 476	6 179	2 961	572	377	28 067 **d**
1988	10 176	7 339	7 596	3 435	713	75	29 334 **d**
1988-89	11 188	7 339	6 970	3 195	518	154	30 121 **e**
1989-90	11 605	6 633	7 561	3 646	498	146	33 856 **e**
1990-91	10 098	5 693	na	2 694	426	na	18 912 **f**
1991-92	10 035	na	na	2 745	448	na	na
1992-93	10 647	9 984	5 733	3 129	495	186	32 970
1993-94	na	na	na	3 185	na	na	na
1994-95	na	na	na	na	na	na	na
1995-96	8 902	na	na	2 225	na	na	na
1996-97	7 109	na	na	2 286	na	578	na
1997-98	9 428	na	na	2 389	na	na	na
1998-99	10 378	na	na	2 892	na	na	na
1999-00	10 498	na	na	na	423	306	na
2000-01	8 769	5 981	na	661	316	165	na
2001-02	8 262	6 984	na	2 828	364	na	na

a Data incomplete because coverage differs between states. Australian totals may include estimates for states for which data are not available separately. **b** Excludes Western Australia. **c** Includes the Australian Capital Territory. **d** Excludes the Australian Capital Territory and Western Australia. **e** Excludes the Australian Capital Territory. **f** Excludes the Australian Capital Territory, Queensland, Western Australia and the Northern Territory. **na** Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

262 Australian production of gravel, by state [a]

	New South Wales	Victoria	Queensland	South Australia	Tasmania	Northern Territory	Australia
	kt	kt	kt	kt	kt	kt	kt
1960	1 798	158	na	666	348	8	2 979
1961	1 473	3 089	na	926	622	5	6 115
1962	1 516	2 990	na	759	656	na	6 007
1963	1 883	3 743	na	1 066	929	na	7 747
1964	2 046	4 105	na	887	1 092	62	8 248
1965	2 292	3 662	na	555	1 260	59	7 884
1966	2 474	3 326	na	871	1 449	na	8 686
1967	2 329	3 683	na	935	1 468	na	9 193
1968	3 043	3 247	na	350	1 621	na	8 473
1969	3 118	2 834	1 155	918	1 531	na	10 501
1970	3 869	2 797	2 106	820	1 295	na	12 093
1971	4 021	3 599	2 392	847	915	1 074 **b**	12 849 **c**
1972	3 341	3 486	3 306	833	1 034	770 **b**	12 771 **c**
1973	3 652	3 634	4 447	694	1 093	922 **b**	14 441 **c**
1974	3 667	4 858	5 481	754	1 016	1 725 **b**	17 500 **c**
1975	3 530	4 732	4 874	458	1 063	1 524 **b**	16 181 **c**
1976	3 498	4 493	5 045	490	1 004	1 110 **b**	15 640 **c**
1977	3 224	4 743	4 126	1 098	1 219	1 073 **b**	15 483 **c**
1978	3 522	4 807	3 178	806	1 184	679 **b**	14 176 **c**
1979	4 354	4 918	3 377	394	1 176	1 786 **b**	16 005 **c**
1980	4 736	5 131	3 030	331	1 102	1 336 **b**	15 667 **c**
1981	4 612	4 740	3 525	125	1 077	561 **b**	14 639 **c**
1982	5 552	5 053	3 513	74	1 156	1 323 **b**	16 813 **c**
1983	4 080	4 478	3 205	74	1 238	857	13 931 **d**
1984	4 486	3 494	3 777	284	1 165	1 824	15 031 **d**
1985	4 666	5 206	3 297	2 258	1 171	1 793	18 393 **d**
1986	5 461	4 176	3 186	221	986	1 870	15 900 **d**
1987	4 992	4 334	2 797	207	832	2 203	15 365 **d**
1988	5 003	3 558	3 548	442	314	2 819	15 684 **d**
1988-89	5 464	3 753	4 247	213	107	2 243	16 050 **e**
1989-90	6 532	1 002	3 069	176	91	1 380	12 259 **e**
1990-91	6 091	1 131	na	415	35	na	7 672 **g**
1991-92	6 241	na	na	424	33	na	na
1992-93	5 823	1 780	2 788	555	47	1 090	12 141
1993-94	na	na	na	na	na	na	na
1994-95	na	na	na	na	na	na	na
1995-96	5 871	na	na	na	na	na	na
1996-97	7 925	na	na	na	na	2 764	na
1997-98	5 495	na	na	na	na	na	na
1998-99	5 220	3 939	na	239	61	1 097	na
1999-00	4 565	2 479	na	143	64	na	na
2000-01	3 664	3 556	na	58	41	174	na
2001-02	3 087	3 404	na	52	25	na	na

a Data incomplete because coverage differs between states. Australian totals may include estimates for states for which data are not available separately. **b** Includes the Australian Capital Territory. **c** Excludes Western Australia. **d** Excludes the Australian Capital Territory and Western Australia. **e** Excludes the Australian Capital Territory. **f** Victorian data after 1988-89 includes only establishments holding titles under the *Extractive Industries Act 1966*. Previous details represent estimates for all establishments. **g** Excludes the Australian Capital Territory, Queensland, Western Australia and the Northern Territory. **na** Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* BMR, Canberra; state mines departments and their equivalents; ABARE.

263 Australian production of crushed and broken stone, by state [a]

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Northern Territory	Australia
	kt	kt	kt	kt	kt	kt	kt	kt
1960	3 147	8 189	2 216	923	7 986	520	229	23 209
1961	3 855	11 478	1 900	964	8 747	580	216	27 741
1962	4 011	11 384	2 401	1 341	8 436	627	na	28 392
1963	3 870	12 583	2 574	1 562	8 496	937	na	30 246
1964	4 033	13 198	2 497	2 060	11 638	1 026	89	34 723
1965	6 802	15 784	2 817	2 510	10 948	1 361	na	40 810
1966	8 434	19 409	3 174	3 011	10 978	2 149	na	47 547
1967	8 590	18 301	4 762	3 107	10 709	1 176	na	47 011
1968	9 345	17 575	3 917	3 719	9 016	1 206	na	45 087
1969	9 217	15 865	4 030	4 517	12 418	1 377	na	47 830
1970	10 867	15 451	4 159	4 743	1 027	1 313	na	50 793 **b**
1971	10 020	17 505	4 665	5 234	10 817	1 365	670 **b**	50 275 **b**
1972	11 322	16 079	4 218	4 574	12 680	1 336	906 **b**	51 115
1973	11 452	15 805	6 933	4 451	10 084	1 558	999 **b**	51 281
1974	11 451	17 499	8 246	5 128	9 864	1 486	996 **b**	54 671
1975	13 196	18 382	9 454	5 166	9 242	1 495	1 278 **b**	58 213
1976	10 581	16 885	8 241	5 043	9 765	1 697	820 **b**	53 033
1977	9 728	17 884	9 411	5 031	9 618	1 621	1 104 **b**	54 398
1978	10 699	18 665	10 811	5 258	8 848	1 582	1 046 **b**	56 910
1979	12 081	19 115	12 588	5 801	4 146	1 707	1 090	56 498
1980	14 436	18 001	12 722	4 762	4 460	1 746	1 611 **b**	57 737
1981	14 543	14 073	15 784	7 397	3 759	1 562	992 **b**	58 110
1982	12 765	13 279	19 601	5 145	4 189	1 719	303	57 100 **c**
1983	10 185	13 527	16 592	4 272	2 435	1 609	495	49 115 **c**
1984	10 452	14 756	19 869	5 067	3 613	2 023	551	56 331 **c**
1985	12 641	20 539	20 692	6 596	4 066	1 981	959	67 474 **c**
1986	13 819	20 658	21 597	6 160	4 335	3 040	646	70 255 **c**
1987	13 135	19 526	20 433	5 743	3 600	2 488	353	65 278 **c**
1988	12 575	20 001	22 644	6 297	3 432	2 361	193	67 503 **c**
1988-89	14 861	22 763	22 724	na	3 567	2 525	270	66 710 **d**
1989-90	15 437	21 232	25 623	8 176	3 703	2 460	367	76 998 **d**
1990-91	15 488	14 854	na	na	3 571	2 065	na	35 977 **e**
1991-92	14 326	na	na	na	3 192	2 013	na	na
1992-93	14 725	28 517	20 189	3 839	4 402	2 533	451	74 656
1993-94	na	na	na	na	na	na	na	na
1994-95	na	na	na	na	na	na	na	na
1995-96	na	na	na	na	na	na	na	na
1996-97	16 292	na	na	na	na	na	516	na
1997-98	16 675	na	na	na	na	na	na	na
1998-99	15 171	na	na	na	na	na	na	na
1999-00	16 775	16 756	na	na	3 293	1 712	na	na
2000-01	17 620	21 864	na	na	3 445	1 548	628	na
2001-02	16 256	23 530	na	536	2 690	1 569	na	na
2002-03	15 110	23 153	na	na	2 747	1 868	na	na

a Data incomplete because coverage differs between states. Australian totals may include estimates for states for which data are not available separately. **b** Includes the Australian Capital Territory and the Northern Territory. **c** Excludes the Australian Capital Territory. **d** Excludes the Australian Capital Territory and Western Australia. **e** Excludes the Australian Capital Territory, Queensland, Western Australia and the Northern Territory. **na** Not available.

Sources: ABS, *Mineral Production, Australia* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* BMR, Canberra; state mines departments and their equivalents; ABARE.

264 Summary of Australian statistics for copper

	Production						Exports d		
			Refined						
	Mine a	Smelter b	Primary	Secondary	Total	Consumption c	Volume	Value	Price e
	kt	kt	kt	kt	kt	kt	kt	$m	$/t
1961	97	64	64	5	69	63	53	28	603.0
1962	109	91	79	5	84	77	39	28	600.0
1963	115	92	86	7	93	84	37	21	600.0
1964	106	83	80	8	88	99	33	21	645.0
1965	92	80	60	14	74	102	37	27	718.0
1966	111	97	90	10	100	108	30	36	944.0
1967	92	79	66	18	84	88	30	30	1 026.0
1968	109	103	84	17	101	105	38	40	1 099.0
1969	131	124	101	19	120	106	54	66	1 324.0
1970	158	120	104	21	125	114	70	86	1 317.0
1971	177	150	127	15	142	116	96	85	991.4
1972	186	150	139	17	156	112	109	91	942.3
1973	220	166	145	14	159	133	106	112	1 234.3
1974	251	200	162	12	174	120	133	177	1 298.2
1975	219	183	166	12	178	97	176	139	950.1
1976	218	170	161	15	176	119	139	157	1 143.3
1977	222	172	152	15	167	106	126	146	1 190.1
1978	222	167	152	14	166	127	102	114	1 189.8
1979	238	169	138	16	154	127	122	206	1 768.0
1980	242	182	145	20	165	128	120	250	1 956.6
1981	231	177	164	15	179	143	114	201	1 535.7
1982	245	180	160	11	171	131	110	156	1 474.5
1983	262	182	169	34	203	115	158	276	1 790.5
1984	236	188	171	26	197	118	126	226	1 592.5
1985	260	175	164	30	194	126	139	274	2 064.8
1986	248	179	164	21	185	117	125	248	2 111.2
1987	233	183	172	36	208	124	119	267	2 528.7
1988	238	193	196	27	223	128	157	510	3 391.2
1989	296	240	230	35	265	129	175	601	3 748.1
1990	330	235	247	24	271	118	230	765	3 519.2
1991	320	258	252	20	272	111	243	723	3 144.7
1992	378	315	300	13	313	123	258	770	3 233.0
1993	430	344	318	13	331	139	271	723	2 964.3
1994	418	337	340	20	360	150	305	816	3 222.5
1995	379	224	266	24	290	158	215	804	4 133.4
1996	548	264	311	24	314	162	363	993	3 149.8
1997	549	216	276	25	276	159	402	1 098	3 244.7
1998	619	211	279	25	279	160	488	1 298	2 823.4
1999	741	332	412	25	412	164	560	1 429	2 604.6
2000	832	387	484	25	484	165	621	1 931	3 115.3
2001	873	456	558	25	558	165	754	2 318	3 042.2
2002	883	469	543	25	545	189	683	2 000	2 870.1

a Total metallic content of minerals produced. **b** Includes both primary and secondary (scrap) production of blister copper. **c** Primary refined; producers' shipments to domestic consumers plus imports. **d** Quantities refer to total metallic content of all ores, concentrates, intermediate products or refined metal; value of metals contained in host mine and smelter products (for example, copper in lead concentrate or lead bullion) is not available separately and is included in the value of the mineral product or metal in which it is exported. **e** Mount Isa Mines, cathode, fot Townsville refinery, price discountinued end of June 2000. 2000 onwards based on average US$ LME spot calendar price converted into A$.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; Metallgesellschaft AG, *Metallstatistik,* Frankfurt.

265 Australian supply, disposal and prices of copper

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Production									
Mine **a**	kt	438	547	576	691	796	876	876	883
Smelter	kt	250	252	223	234	387	419	458	469
Refined	kt	318	334	308	331	502	542	586	562
Primary	kt	294	310	283	306	477	517	561	537
Secondary	kt	24	24	25	25	25	25	25	25
Exports b									
Ores and concentrates **c**	kt	520	890	1 097	1 227	936	1 150	1 271	1 198
Value	$m	486	655	822	968	776	1 037	1 028	1 050
Refined **d**	kt	115	128	127	160	306	366	388	359
Value	$m	442	352	372	398	840	1 249	1 131	956
Consumption e	kt	180	185	185	185	190	190	190	190
Export unit value									
Ores and concentrates	A$/t	935.6	736.6	749.1	789.3	829.1	902.0	808.7	876.3
Refined	A$/t	3 825.2	2 747.2	2 942.1	2 479.8	2 749.2	3 409.7	2 918.1	2 666.9

a Total metallic content of minerals produced. **b** Value of metals contained in host mine and smelter products is not available separately and is included in the value of the mineral product or metal in which it is exported. **c** Gross weight of ores and concentrates. **d** Refinery shapes, unworked. **e** Refined copper domestic despatches and imports.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

266 Australian exports of copper, by destination

	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt	2002 kt
Ores and concentrates								
China	121.1	191.1	168.0	317.2	225.5	285.1	453.2	370.9
Germany	15.2	53.2	63.0	71.2	8.6	0.9	0.0	14.8
India	0.0	5.5	49.9	171.8	267.0	340.4	453.7	362.5
Japan	214.3	404.7	505.3	392.0	332.6	271.5	261.9	322.2
Korea, Rep. of	40.0	57.6	62.0	189.1	111.2	39.9	20.3	38.1
Philippines	0.0	33.3	92.7	61.3	61.5	60.7	30.6	34.3
Other	0.0	42.7	39.1	31.4	29.4	16.9	25.3	11.7
Total	390.6	788.0	980.0	1 233.9	1 035.8	1 015.3	1 245.1	1 154.5
Total Cu content **s**	105.4	223.7	283.9	361.2	302.6	292.5	353.3	317.0
Refined								
Chinese Taipei	27.6	23.0	24.2	45.5	73.2	81.9	90.9	89.8
European Union **a**	38.8	32.6	25.7	14.4	34.7	40.8	72.6	34.8
Indonesia	8.8	26.6	18.2	5.3	7.6	6.0	7.3	12.4
Korea, Rep. of	0.5	0.9	0.0	6.3	31.3	39.9	51.8	57.6
Malaysia	1.1	19.1	28.7	33.4	41.9	75.0	81.7	83.8
Thailand	5.9	5.4	9.6	1.6	12.0	19.0	28.8	35.0
Other	23.4	9.7	9.7	20.3	52.9	60.9	65.4	50.5
Total	106.0	117.3	116.1	126.8	253.8	323.4	398.6	363.8

a Excluding the United Kingdom. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

267 World production, consumption, stocks and prices of copper

	Production						Price	
			Refined					
	Mine	Smelter	Secondary a	Total b	Consumption	Stocks c	US producer d	LME e
	kt	kt	kt	kt	kt	kt	USc/lb	US$t
1960	4 242	4 287	2 148	4 998	3 926	na	32.1	677.6
1961	4 394	4 364	2 173	5 144	4 271	na	29.9	632.8
1962	4 555	4 574	2 237	5 300	4 343	na	30.6	644.0
1963	4 624	4 635	2 341	5 406	4 607	na	30.6	644.0
1964	4 848	4 903	2 645	5 825	4 984	na	32.0	966.0
1965	5 070	5 119	2 850	6 181	5 033	na	35.0	1 288.0
1966	5 220	5 103	3 081	6 366	5 224	na	36.2	1 528.8
1967	5 062	4 897	2 872	6 004	5 032	na	38.2	1 135.0
1968	5 459	5 510	3 176	6 653	6 548	na	41.8	1 236.0
1969	5 935	5 965	3 452	7 205	7 136	na	47.5	1 464.0
1970	6 382	6 308	3 298	7 583	7 294	582	57.7	1 413.6
1971	6 458	6 374	3 155	7 393	7 295	610	51.4	1 080.5
1972	7 044	7 007	3 272	8 084	7 948	657	50.6	1 069.0
1973	7 498	7 286	3 639	8 525	8 754	394	58.9	1 781.1
1974	7 576	7 565	3 502	8 759	8 310	832	76.6	2 052.6
1975	7 185	7 280	2 699	8 177	7 445	1 744	63.2	1 232.2
1976	7 661	7 616	3 163	8 624	8 539	1 828	69.0	1 405.2
1977	7 856	7 810	3 109	8 878	9 057	1 985	66.2	1 308.3
1978	7 678	7 686	3 313	9 020	9 527	1 564	65.8	1 363.4
1979	7 767	7 738	3 668	9 181	9 848	1 116	92.2	1 978.1
1980	7 704	7 681	3 738	9 297	9 396	1 035	101.3	2 189.2
1981	8 164	8 036	3 671	9 545	9 522	1 133	84.2	1 740.2
1982	8 078	7 850	3 518	9 378	9 003	1 640	72.8	1 477.9
1983	8 101	8 379	3 688	9 694	9 099	1 709	76.5	1 590.1
1984	8 258	8 684	3 848	9 512	9 914	1 220	66.9	1 371.4
1985	8 365	8 933	3 837	9 689	9 665	1 074	67.0	1 415.5
1986	8 393	9 165	3 905	9 862	10 075	893	64.7	1 414.5
1987	8 747	9 287	3 996	10 160	10 449	522	81.1	1 764.9
1988	8 698	9 372	4 307	10 485	10 531	585	119.1	2 597.1
1989	9 025	9 720	4 250	10 858	10 969	636	129.5	2 838.8
1990	8 957	9 132	4 325	10 809	10 789	531	121.8	2 669.0
1991	9 099	9 066	4 317	10 688	10 695	706	107.9	2 338.1
1992	9 418	9 730	4 408	11 170	10 806	842	106.0	2 282.0
1993	9 475	9 671	4 948	11 306	10 996	1 052	91.6	1 910.8
1994	9 575	9 740	5 026	11 166	11 665	688	110.2	2 307.3
1995	10 180	9 745	5 337	11 817	12 152	640	138.3	2 935.6
1996	11 111	10 426	5 881	12 756	12 400	453	109.2	2 293.7
1997	11 482	10 759	6 146	13 599	13 080	827	106.8	2 277.1
1998	12 285	10 907	5 915	14 142	13 353	1 174	78.6	1 654.2
1999	12 789	11 480	5 932	14 463	14 038	1 280	75.9	1 572.6
2000	13 316	11 632	6 064	14 820	15 176	899	88.2	1 813.5
2001	13 747	12 134	5 714	15 687	14 674	1 725	76.9	1 577.5
2002	13 517	11 651	5 574	15 336	14 956	1 826	na	1 560.8

a Includes direct use by manufacturers. **b** Excludes copper recovered from secondary materials by simple remelting. **c** Unwrought copper. **d** Average price for US producer cathodes. **e** LME average cash settlement price, grade A copper. Before December 1981, wirebars; from 1982 to 1986, higher grade copper. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; Metallgesellschaft AG, *Metallstatistik,* Frankfurt; World Bureau of Metal Statistics, *World Metal Statistics,* London.

268 World copper production, by region and country

	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt	2002 kt
Mine production a								
Africa	640	635	617	648	502	462	530	476
Congo, Dem. Rep. of	35	40	40	35	33	33	33	0
South Africa	195	192	186	188	163	146	142	90
Zambia	342	340	331	379	271	249	312	308
Americas	5 857	6 596	6 957	7 328	7 779	7 808	8 026	7 792
Argentina	na	na	30	170	210	145	192	204
Canada	726	688	660	706	620	634	633	600
Chile	2 489	3 116	3 392	3 687	4 395	4 602	4 739	4 629
Peru	405	484	503	483	536	554	722	843
Mexico	334	341	390	384	382	365	367	334
United States	1 849	1 918	1 940	1 860	1 601	1 473	1 340	1 150
Asia	1 530	1 547	1 695	1 974	2 014	2 559	2 578	2 715
China	445	439	496	487	520	589	565	556
Indonesia	462	526	548	809	790	1 006	1 047	1 163
Kazakhstan	233	238	316	338	373	430	470	473
Malaysia	21	20	19	14	10	0	0	0
Mongolia	120	125	125	128	128	134	108	133
Philippines	108	62	49	45	38	31	20	18
Uzbekistan	80	64	74	74	66	70	70	80
Europe	1 314	1 430	1 361	1 340	1 297	1 399	1 392	1 440
Bulgaria	76	85	76	41	53	76	80	84
Poland	431	473	415	436	464	454	459	503
Portugal	130	110	107	115	100	76	83	77
Russian Federation	526	520	510	518	510	580	600	600
Sweden	84	72	87	74	71	78	74	72
Middle East	145	160	183	202	205	222	221	215
Iran	102	108	119	128	130	147	146	141
Turkey	43	52	65	74	74	75	75	75
Oceania	591	735	670	759	899	1 035	1 077	1 094
Australia	379	548	549	619	741	832	873	883
Papua New Guinea	213	187	112	152	188	203	204	211
Other countries	12	12	12	12	12	0	0	0
Total	10 180	11 111	11 482	12 285	12 789	13 316	13 747	13 517

Continued

268 World copper production, by region and country *(continued)*

	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt	2002 kt
Smelter production b								
Africa	474	489	510	470	482	530	504	469
South Africa	154	148	164	153	149	173	141	98
Zambia	238	262	264	255	289	308	306	311
Americas	4 305	4 404	4 597	4 606	4 289	3 925	4 143	3 598
Canada	613	613	627	625	609	604	604	539
Chile	1 294	1 356	1 390	1 403	1 472	1 460	1 503	1 439
Mexico	298	301	360	337	371	337	337	337
Peru	347	328	323	356	350	340	379	381
United States	1 601	1 639	1 720	1 718	1 293	999	919	683
Asia	2 688	2 829	2 991	3 134	3 787	4 149	4 342	4 362
China	538	645	657	667	837	1 019	1 145	1 187
Japan	1 169	1 233	1 350	1 304	1 390	1 481	1 445	1 499
Kazakhstan	266	269	316	336	384	415	433	446
Korea, Rep. of	151	157	151	281	390	390	390	390
Philippines	242	202	173	162	162	160	217	138
Uzbekistan	80	100	116	74	72	75	97	80
Australia	224	264	216	211	332	387	456	469
Europe	2 062	2 442	2 454	2 467	2 586	2 686	2 748	2 753
Belgium	152	157	143	138	143	145	138	126
Germany	305	385	349	320	330	330	330	330
Poland	353	415	431	432	485	485	514	516
Russian Federation	540	570	570	630	758	758	758	758
Spain	160	270.9	313	330	319	330	305	298
Total	9 745	10 426	10 759	10 907	11 480	11 632	12 134	11 651
Refined copper production								
Africa	502	501	514	478	423	374	438	478
South Africa	132	116	127	123	116	100	103	92
Zambia	314	317	328	306	259	226	308	347
Americas	5 015	5 431	6 017	6 428	6 382	6 074	6 400	5 908
Canada	573	559	561	562	549	551	568	494
Chile	1 492	1 748	2 117	2 335	2 661	2 668	2 882	2 850
Peru	282	342	384	411	434	452	472	502
United States	2 280	2 347	2 465	2 489	2 130	1 803	1 802	1 502
Asia	3 276	3 414	3 635	3 834	4 120	4 606	4 939	5 018
China	1 080	1 119	1 179	1 211	1 174	1 371	1 523	1 580
India	40	39	66	134	208	259	325	374
Japan	1 188	1 251	1 279	1 277	1 342	1 437	1 426	1 401
Kazakhstan	256	267	301	325	362	395	422	453
Korea, Rep. of	233	246	265	369	451	471	476	499
Philippines	158	156	147	152	148	139	165	144
Uzbekistan	80	80	116	90	72	75	97	80
Australia	290	314	276	279	412	484	558	545
Europe	2 760	3 078	3 162	3 120	3 112	3 276	3 337	3 388
Belgium	376	386	373	368	388	423	423	423
Germany	616	671	674	696	696	710	694	696
Poland	407	425	441	447	471	486	499	509
Russian Federation	560	599	640	656	737	824	888	858
Spain	164	264	280	304	305	316	280	322
Total	11 817	12 756	13 599	14 142	14 463	14 820	15 687	15 336

a Metal content. **b** Metal produced in the form of blister and anodes from ores, concentrates, other primary materials and secondary blister produced from scrap.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

269 World copper exports, by country

	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt	2002 kt
Concentrates (Cu content)								
Australia	105	224	284	361	303	293	353	317
Canada	256	391	498	414	264	480	622	283
Chile	831	1 123	1 107	1 169	1 532	1 780	1 798	1 553
Indonesia	353	507	429	504	485	644	649	719
Papua New Guinea	228	191	95	182	184	186	189	177
Peru	47	50	74	63	48	80	93	371
Portugal	130	123	116	112	110	81	92	49
United States	239	195	128	37	76	175	45	23
Other	81	55	176	230	388	316	413	417
World total	2 339	2 912	2 930	3 113	3 444	4 134	4 294	3 955
Blister and anode copper								
Chile	178	227	158	157	157	170	155	182
Finland	14	35	39	33	32	42	52	43
Mexico	124	117	121	39	31	22	24	18
Namibia	25	18	21	0	0	0	0	0
Peru	89	83	57	45	31	24	31	25
South Africa	27	25	28	16	0	1	35	26
Spain	27	27	34	28	26	27	35	21
Other	39	24	155	170	173	145	193	189
World total	553	576	616	489	462	448	536	507
Refined copper								
Australia	106	117	116	127	254	323	397	364
Belgium	172	129	146	145	172	199	241	201
Canada	409	460	381	356	294	289	310	242
Chile	1 401	1 604	2 032	2 248	2 548	2 518	2 696	2 767
Germany	131	243	147	110	140	94	108	108
Japan	159	165	158	293	318	299	416	378
Kazakhstan	217	262	288	322	354	393	399	391
Peru	252	320	362	348	416	377	433	415
Philippines	120	126	90	102	143	129	157	143
Poland	194	199	209	182	221	240	208	263
Russian Federation	662	493	521	543	634	650	651	505
Singapore	197	192	202	106	137	77	61	59
United States	217	170	93	87	26	97	23	29
Zambia	292	276	304	228	206	217	296	339
Other	465	597	776	1 212	884	761	847	769
World total	4 993	5 370	5 823	6 407	6 746	6 664	7 243	6 973

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

270 World copper imports, by country

	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt	2002 kt
Ores and concentrates								
Brazil	na	na	103	105	146	122	136	116
Canada	150	136	139	124	138	212	220	128
China **a**	147	214	234	296	313	453	564	516
Finland	73	127	116	136	129	114	126	125
Germany	166	172	160	151	210	177	259	259
Japan	965	958	942	994	1 062	1 111	1 040	1 063
Korea, Rep. of	117	110	130	243	292	294	293	320
Spain	117	184	222	234	251	234	226	264
United States	130	74	46	218	143	0	122	226
Other	24	77	303	216	326	455	479	413
Total	1 888	2 051	2 397	2 717	3 009	3 173	3 464	3 431
Blister and anode copper								
Belgium	131	123	101	94	140	215	149	209
Canada	35	18	27	20	28	12	21	59
China **a**	40	55	111	96	130	125	91	105
Germany	50	81	63	45	37	32	27	39
Korea, Rep. of	80	87	109	63	60	48	59	69
Mexico	2	19	7	19	128	141	126	67
United States	159	103	157	181	175	195	218	145
Other	69	81	73	146	102	107	156	140
Total	580	551	622	628	690	759	726	725
Refined copper								
Belgium	111	76	102	101	71	41	44	37
Brazil	92	103	117	138	116	158	141	103
China	102	150	88	163	405	668	835	1 181
Chinese Taipei	567	546	590	585	656	629	541	657
France	494	456	528	586	550	586	564	576
Germany	543	450	527	579	565	690	528	460
Greece	80	90	97	70	115	136	130	126
Italy	406	438	450	565	625	603	650	643
Japan	390	460	354	273	230	203	156	114
Korea, Rep. of	312	351	396	487	485	419	380	446
Malaysia	114	144	161	133	158	166	161	187
Singapore	262	191	212	198	116	58	67	40
Thailand	148	155	152	85	117	151	167	186
Turkey	39	49	81	116	141	181	137	187
United Kingdom	274	328	366	349	303	339	311	316
United States	429	620	647	725	916	1 022	1 199	1 062
Other	866	961	925	975	1 057	1 077	983	942
Total	5 011	5 362	5 600	6 125	6 300	6 712	6 620	6 813

a Imported from western world only. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

271 Summary of Australian statistics for gemstones

	Exports				Imports
	Diamonds	Opals	Sapphires a		Gem diamonds
	$m	$m	$m		$m
1960	0.24	2.07	na		2.47
1961	0.44	2.81	na		2.38
1962	0.41	6.21	na		2.37
1963	0.37	5.39	na		2.62
1964	0.35	5.40	na		2.96
1965	0.42	5.33	na		3.69
1966	0.43	7.65	na		3.94
1967	0.33	8.62	na		4.23
1968	0.37	10.65	na		4.23
1969	0.39	12.21	3.09		5.25
1970	0.51	11.97	3.21		5.45
1971	0.77	11.20	3.32		6.57
1972	0.81	13.80	2.80		7.44
1973	1.63	17.68	2.91		11.74
1974	4.86	12.70	2.63		15.01
1975	4.61	14.60	3.01		15.45
1976	4.58	22.62	3.61		20.04
1977	5.28	19.21	4.03		24.05
1978	11.99	26.69	10.31		34.25
1979	13.25	24.98	17.17		33.36
1980	12.90	25.55	10.81		50.38
1981	11.16	23.69	14.57		38.25
1982	9.86	16.73	14.46		32.59
1983	36.54	22.69	13.48		31.48
1984	25.90	22.76	9.89		36.14
1985	29.83	17.67	7.78		48.16
1986	180.00	24.41	12.86		55.38
1987	285.00	45.99	19.95		66.62
1988	349.42	67.54	23.13		42.88
1989	410.19	77.19	31.60		108.16
1990	433.13	84.87	17.49		106.68
1991	453.80	83.67	11.27		110.99
1992	574.60	77.13	11.46		105.71
1993	482.30	78.07	22.46		90.24
1994	485.40	96.24	18.27		96.40
1995	480.24	99.79	13.65		103.60
1996	442.99	101.85	10.97		112.41
1997	421.19	75.64	8.52		154.85
1998	621.78	63.20	7.70		150.88
1999	560.57	53.86	5.94		172.28
2000	714.96	75.96	8.35		223.34
2001	517.01	69.78	6.43		241.97
2002	672.26	61.75	1.37		269.90

a Excludes cut and polished sapphires from 1 July 1999, for which data are not available separately.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Minerals and Energy Western Australia, *Statistics Digest; Bureau of Mineral Resources, Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra.

272 Australian supply and disposal of gemstones

	Unit	1995	1996	1997	1998	1999	2000	2001	2002
Diamonds									
Production	'000 ct	40 692	41 993	40 175	40 843	29 784	26 647	26 176	33 648
Exports									
Unsorted **s**	'000 ct	23 357	47 441	40 387	52 218	51 703	42 386	21 722	34 442
	$m	424	388	354	559	495	630	428	569
Sorted									
Gem	'000 ct	30	28	33	32	23	48	39	43
	$m	54	53	66	62	64	85	89	103
Industrial	'000 ct	64.68	59.95	2.29	0.68	0.30	0.33	0.98	0.19
	$m	2.37	2.12	0.75	1.28	0.74	0.62	0.18	0.50
Total exports	$m	480	443	421	622	561	715	517	672
Imports									
Gem diamonds	$m	104	112	155	151	172	223	242	270
Other gemstones									
Exports									
Opals	$m	100	102	76	63	54	76	70	62
Sapphires **a**	$m	14	11	9	8	6	8	6	1
Others **b**	$m	22	20	16	14	11	15	13	14

a Excludes cut and polished sapphires from 1 July 1999, for which data are not available separately. **b** Includes cut and polished sapphires from 1 July 1999. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Department of Minerals and Energy Western Australia, *Statistics Digest,* Perth; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

273 World production of natural gem and cheap gem diamonds

	1994 million ct	1995 million ct	1996 million ct	1997 million ct	1998 million ct	1999 million ct	2000 million ct	2001 million ct
Angola	0.30	0.67	0.92	1.31	2.76	3.57	4.01	5.10
Australia	43.79	40.69	41.99	40.18	40.84	29.78	26.65	26.18
Botswana	15.55	16.80	17.71	20.11	19.64	21.26	24.64	26.19
Congo, Dem. rep. of	16.26	22.02	22.24	20.98	21.36	22.00	16.50	19.64
Namibia	1.31	1.38	1.40	1.42	1.47	1.63	1.54	1.49
Russian Federation	16.30	16.90	19.20	19.40	19.80	16.20	20.50	20.50
South Africa	10.85	9.68	9.95	10.04	10.70	10.01	10.78	11.16
Other	4.44	3.66	3.39	3.76	3.33	6.75	6.88	8.54
Total	108.80	111.80	116.80	117.20	119.90	111.20	111.50	118.80

Sources: Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; British Gelological Survey, *World Mineral Statistics,* Nottingham England.

274 Summary of Australian statistics for gold

	Mine production	Exports a		Price d	
		Volume b	Value c		
	t	t	$m	A$/oz	US$/oz
1960	34	82	79	31.23	35.00
1961	33	37	34	31.29	35.00
1962	33	12	10	31.23	35.00
1963	32	17	15	31.32	35.00
1964	30	15	13	31.41	35.00
1965	27	27	23	31.36	35.00
1966	29	29	23	31.40	35.00
1967	25	22	17	31.40	35.00
1968	24	16	13	34.71	38.68
1969	22	22	21	36.92	41.09
1970	19	12	6	32.22	35.95
1971	21	7	3	36.15	41.16
1972	23	14	13	49.02	58.44
1973	17	9	11	68.43	97.59
1974	16	12	23	111.39	159.62
1975	16	8	17	122.87	161.23
1976	16	15	40	102.30	124.94
1977	19	14	43	133.37	147.98
1978	20	8	42	168.88	193.44
1979	19	10	59	271.77	303.22
1980	17	7	90	537.37	612.52
1981	18	7	56	398.19	458.06
1982	27	13	136	371.97	375.76
1983	31	21	270	469.65	423.83
1984	40	32	418	409.94	360.29
1985	59	50	668	455.70	317.28
1986	75	56	972	554.15	367.76
1987	110	85	1 694	639.18	446.43
1988	157	139	2 642	557.34	433.45
1989	204	166	2 559	483.54	381.49
1990	244	238	3 424	493.94	384.35
1991	236	259	3 684	465.21	362.29
1992	244	298	4 458	467.74	343.67
1993	248	275	4 672	530.94	359.89
1994	255	277	4 664	527.92	384.09
1995	253	316	5 251	521.02	384.15
1996	289	325	5 223	497.98	387.72
1997	314	340	4 912	446.17	331.14
1998	310	504	7 621	469.17	294.23
1999	300	334	4 720	433.07	279.08
2000	296	296	4 634	480.37	279.28
2001	280	304	5 086	521.30	269.88
2002	266	269	4 908	570.30	310.20

a Prior to July 1999 includes exports of refined gold that was imported as unrefined bullion, thereafter includes Australian origin gold only. **b** Quantities refer to total metallic content of all ores, concentrates, intermediate products or refined metal of which gold is the predominant constituent. **c** Value of metal contained in host mine and smelter products (for example, gold in copper concentrates or lead bullion) is not separately available; this is included in the value of the mineral product or metal product in which it is exported. **d** Average London AM fix.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; London Bullion Market Association; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

275 Australian gold production, imports and exports

	Unit	1995	1996	1997	1998	1999	2000	2001	2002
Production									
Mine	t	253.1	289.0	314.1	310.3	299.7	296.4	280.1	266.1
Refined primary									
Australian origin	t	249.7	290.2	303.4	264.0	296.1	302.2	288.0	261.8
Overseas origin	t	39.3	34.9	29.3	17.6	13.2	15.1	16.8	40.5
Refined secondary									
Australian origin	t	8.4	3.6	0.8	11.0	4.6	7.6	23.3	7.2
Overseas origin	t	0.3	0.5	8.2	115.6	61.8	24.4	45.1	39.8
Exports									
Refined and unrefined bullion **a**									
Chinese Taipei	t	0.5	0.6	5.2	18.0	19.0	17.7	15.7	6.5
Hong Kong, China	t	11.0	13.3	49.7	41.5	31.6	25.5	49.1	29.6
India	t	0.1	0.0	0.4	11.5	3.3	0.5	9.8	13.8
Japan	t	71.0	28.4	14.0	25.6	21.7	23.1	16.0	24.5
Korea, Rep. of	t	86.6	180.5	128.0	82.1	39.6	58.1	45.1	50.3
Middle East	t	0.0	0.9	2.6	14.5	6.6	6.4	28.2	11.1
Switzerland	t	12.3	18.6	18.3	54.9	8.5	1.5	4.5	1.1
Thailand	t	15.0	13.3	9.4	8.5	8.9	8.3	5.1	22.5
United Kingdom	t	6.7	9.9	1.2	122.2	40.4	26.6	54.6	69.8
Other	t	30.9	28.6	30.1	118.2	26.7	12.3	13.3	4.6
Total	t	314.5	325.2	340.3	503.9	334.2	296.4	303.6	269.1
	$m	5 251.1	5 223.1	4 911.8	7 620.8	4 719.7	4 634.5	5 085.8	4 907.9
Imports									
Refined and unrefined	$m	726.7	639.9	794.9	3 158.8	1 999.7	1 643.3	2 145.6	2 503.8
Price b	$/oz	521.02	497.98	446.17	469.17	433.07	480.37	521.30	570.30

a Prior to July 1999 includes exports of refined gold that was imported as unrefined bullion, thereafter includes Australian origin gold only. **b** Average London AM fix price, expressed in Australian dollars. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; London Bullion Market Association; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

276 Australian gold production, by state

	New South Wales	Victoria	Queensland	South Australia	Western Australia	Tasmania	Northern Territory	Australia
	t	t	t	t	t	t	t	t
Mine production								
1980	0.57	0.04	0.68	na	11.23	1.31	3.19	17.02
1981	0.59	0.08	1.51	na	11.72	1.95	2.50	18.35
1982	0.61	0.10	0.58	na	20.60	1.74	3.32	26.95
1983	0.67	0.11	1.06	na	23.92	2.08	2.74	30.58
1984	1.11	0.41	1.75	na	32.11	1.93	2.99	40.30
1985	1.54	0.96	9.28	na	41.20	2.33	3.22	58.53
1986	0.96	1.15	11.12	na	53.88	2.67	5.30	75.10
1987	4.25	1.21	15.43	0.00	78.08	2.23	8.71	109.90
1988	5.63	1.77	24.78	0.01	110.75	2.03	11.97	156.95
1989	8.75	1.84	27.72	0.28	146.61	1.76	17.06	204.02
1990	8.05	3.93	29.73	0.89	180.79	1.68	19.04	244.10
1991	6.33	3.76	27.06	0.76	179.44	1.62	17.30	236.28
1992	5.65	3.35	32.61	1.05	181.29	1.15	18.64	243.74
1993	8.58	4.07	32.43	0.93	183.49	1.32	17.09	247.90
1994	8.13	3.83	30.67	1.10	192.48	1.39	17.42	255.01
1995	10.03	4.30	28.76	0.97	189.84	0.75	18.44	253.08
1996	11.31	4.52	28.65	1.25	220.19	1.74	21.89	289.03
1997	11.71	4.82	29.40	1.64	238.04	4.15	24.32	314.09
1998	14.76	4.89	32.38	1.74	231.98	4.18	20.38	310.32
1999	21.04	4.63	34.15	1.77	210.92	4.95	22.29	299.75
2000	18.58	4.23	37.10	2.95	203.74	6.68	23.14	296.41
2001	17.10	3.50	31.89	4.31	196.59	6.18	20.51	280.08
2002	23.48	3.24	25.06	3.14	187.20	6.05	17.95	266.14
Share of total	%	%	%	%	%	%	%	
1980	3.35	0.24	4.00	na	65.98	7.70	18.74	
1981	3.22	0.44	8.23	na	63.87	10.63	13.62	
1982	2.26	0.37	2.15	na	76.44	6.46	12.32	
1983	2.19	0.36	3.47	na	78.22	6.80	8.96	
1984	2.75	1.02	4.34	na	79.68	4.79	7.42	
1985	2.63	1.64	15.86	na	70.39	3.98	5.50	
1986	1.28	1.53	14.81	na	71.74	3.56	7.06	
1987	3.87	1.10	14.04	0.00	71.04	2.03	7.93	
1988	3.59	1.13	15.79	0.01	70.57	1.29	7.63	
1989	4.29	0.90	13.59	0.14	71.86	0.86	8.36	
1990	3.30	1.61	12.18	0.36	74.06	0.69	7.80	
1991	2.68	1.59	11.45	0.32	75.94	0.69	7.32	
1992	2.32	1.38	13.38	0.43	74.38	0.47	7.65	
1993	3.46	1.64	13.08	0.37	74.02	0.53	6.89	
1994	3.19	1.50	12.03	0.43	75.48	0.55	6.83	
1995	3.96	1.70	11.36	0.38	75.01	0.30	7.28	
1996	3.91	1.56	9.91	0.43	76.18	0.60	7.57	
1997	3.73	1.54	9.36	0.52	75.79	1.32	7.74	
1998	4.76	1.58	10.43	0.56	74.75	1.35	6.57	
1999	7.02	1.55	11.39	0.59	70.37	1.65	7.44	
2000	6.27	1.43	12.52	0.99	68.73	2.25	7.81	
2001	6.11	1.25	11.39	1.54	70.19	2.21	7.32	
2002	8.82	1.22	9.42	1.18	70.34	2.27	6.75	

na Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

277 World supply, demand and price of gold

	Unit	1994	1995	1996	1997	1998	1999	2000	2001	2002
Supply										
Mine production										
Australia	t	255	253	289	314	310	300	296	280	266
Asia	t	176	188	208	214	264	276	276	310	291
Canada	t	146	150	165	172	164	158	155	157	148
China	t	121	133	145	149	160	156	164	193	202
Europe	t	27	28	29	27	27	24	20	20	21
Latin America	t	256	286	308	316	339	381	378	375	386
Russian Federation	t	158	142	133	138	127	138	154	165	181
South Africa	t	584	522	495	493	464	450	428	394	395
Other Africa	t	119	132	129	146	169	185	193	221	236
United States	t	326	319	329	362	366	342	355	335	299
Other	t	115	122	133	149	146	158	164	173	162
Total mine production	t	2 282	2 276	2 361	2 479	2 538	2 567	2 584	2 623	2 587
Forward sales and option hedging	t	105	475	142	504	97	506	– 15	– 157	– 423
Net official sales	t	130	167	279	326	380	478	489	529	556
Net scrap sales	t	617	624	640	624	1 088	605	606	708	835
Net other sales	t	0	84	109	305	0	0	292	115	171
Total supply **a**	t	3 134	3 626	3 531	4 238	4 103	4 157	3 970	3 933	3 978
Demand										
Fabrication consumption										
Jewellery	t	1 627	2 805	2 856	3 350	3 157	3 154	3 232	3 038	2 689
Electronics	t	189	204	209	235	225	246	283	203	210
Dentistry	t	64	67	68	70	64	66	69	68	69
Official coins	t	72	87	63	99	127	133	48	56	69
Medals and unofficial coins	t	27	35	33	42	46	46	58	55	56
Other	t	105	110	114	115	106	100	101	101	82
Total fabrication	t	2 084	3 308	3 342	3 911	3 726	3 732	3 791	3 522	3 175
Net bullion purchases	t	1 051	318	189	327	377	424	230	248	380
Total demand **a**	t	3 134	3 626	3 531	4 238	4 103	4 157	3 970	3 933	3 978
Gold price **b**	US$/oz	384.09	384.15	387.72	331.14	294.23	279.08	279.28	269.88	310.20

a Total supply is defined as the flow of new mine output, and the net sale of aboveground stocks, while total demand is equal to net gold purchases. This classification of annual gold flows is symmetric, so that total annual supply equals total annual demand. **b** Average London AM fix price, expressed in US dollars.

Sources: ABARE, *Australian Commodities,* Canberra; Gold Fields Mineral Services Ltd, *Gold,* London; London Bullion Market Association.

278 Summary of Australian statistics for gypsum

		Exports a		
	Production	Volume	Value	Unit value
	kt	kt	$'000	$/t
1960	590.2	87.0	479	5.51
1961	619.7	90.0	570	6.33
1962	641.0	141.6	747	5.27
1963	737.1	146.1	715	4.89
1964	807.8	208.8	1 008	4.83
1965	846.9	140.9	747	5.30
1966	814.4	235.2	1 100	4.68
1967	928.8	211.0	879	4.17
1968	857.3	251.9	1 135	4.51
1969	912.1	232.8	1 006	4.32
1970	845.4	218.4	1 051	4.81
1971	889.2	258.3	1 251	4.84
1972	959.1	282.3	1 444	5.12
1973	1 165.2	437.3	2 128	4.87
1974	1 068.9	303.2	1 778	5.86
1975	932.6	215.8	1 539	7.13
1976	941.9	187.7	1 527	8.13
1977	916.0	190.5	1 624	8.52
1978	939.9	181.0	1 640	9.06
1979	1 230.2	423.0	3 105	7.34
1980	1 309.3	389.3	3 814	9.80
1981	1 752.3	645.2	6 861	10.63
1982	1 863.7	604.5	7 982	13.20
1983	1 509.8	800.0	11 044	13.81
1984	1 931.2	726.0	9 653	13.30
1985	1 744.5	516.0	8 362	16.21
1986	1 671.0	423.2	7 702	18.20
1987	1 811.9	195.4	2 968	15.19
1988	1 655.9	116.2	1 391	11.97
1988-89	1 834.6	68.1	1 048	15.39
1989-90	1 885.5	na	na	na
1990-91	1 381.7	53.2	759	14.28
1991-92	1 347.5	160.7	1 775	11.04
1992-93	1 589.5	161.6	1 807	11.19
1993-94	1 691.6	151.7	2 036	13.42
1994-95	1 995.5	231.1	2 993	12.95
1995-96	1 916.3	85.6	1 476	17.24
1996-97	2 392.6	116.9	2 134	18.25
1997-98	3 052.3	290.9	6 323	21.73
1998-99	3 465.6	988.8	18 781	18.99
1999-00	3 796.5	1 121.2	21 059	18.78
2000-01	3 225.5	724.4	16 096	22.22
2001-02	na	1 010.0	21 835	21.62
2002-03	na	1 045.0	18 788	17.98

a Raw gypsum. Bulk only to 1978; bulk and bagged thereafter. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; state mines departments and their equivalents; ABARE.

279 Australian production of gypsum, by state

	New South Wales	Victoria	Queensland	South Australia	Western Australia	Australia
	kt	kt	kt	kt	kt	kt
1960	97.0	102.0	na	346.2	44.9	590.2
1961	98.8	81.5	na	393.5	45.9	619.7
1962	73.0	80.0	na	435.6	52.5	641.0
1963	63.2	116.3	na	505.9	51.6	737.1
1964	65.6	105.9	na	590.5	45.7	807.8
1965	59.3	171.3	na	568.9	47.4	846.9
1966	45.7	113.1	na	613.1	42.6	814.4
1967	43.2	227.7	na	617.2	40.7	928.8
1968	32.8	78.7	na	640.1	105.6	857.3
1969	32.1	85.7	na	728.8	65.4	912.1
1970	39.0	47.6	na	667.4	91.4	845.4
1971	36.4	46.3	na	652.7	153.9	889.2
1972	39.1	42.1	na	721.5	156.5	959.1
1973	32.8	43.7	na	921.9	166.8	1 165.2
1974	42.6	43.0	na	769.8	213.5	1 068.9
1975	34.2	54.1	na	759.3	85.1	932.6
1976	36.2	69.0	na	721.0	115.8	941.9
1977	33.6	84.8	na	694.0	103.7	916.0
1978	18.0	107.4	na	648.1	166.3	939.9
1979	26.8	201.2	na	782.3	219.9	1 230.2
1980	25.0	269.4	na	768.6	246.3	1 309.3
1981	20.2	282.8	na	1 017.2	432.0	1 752.3
1982	17.4	235.9	na	1 159.3	451.2	1 863.7
1983	14.7	79.3	na	924.0	491.9	1 509.8
1984	38.9	236.4	na	1 018.2	637.7	1 931.2
1985	51.0	239.8	na	1 001.9	451.8	1 744.5
1986	47.3	173.4	na	1 135.8	314.5	1 671.0
1987	34.5	412.0	na	1 229.4	136.0	1 811.9
1988	33.7	233.0	na	1 277.2	112.0	1 655.9
1988-89	27.8	241.4	na	1 399.4	166.0	1 834.6
1989-90	29.0	301.5	na	1 400.0	155.0	1 885.5
1990-91	27.5	49.2	na	1 222.5	82.5	1 381.7
1991-92	18.7	53.1	na	1 173.9	101.8	1 347.5
1992-93	24.0	180.2	na	1 260.5	124.8	1 589.5
1993-94	na	176.8	3.8	1 315.8	195.2	1 691.6
1994-95	69.0	193.1	24.9	1 478.9	229.6	1 995.5
1995-96	37.3	198.7	25.6	1 401.8	252.9	1 916.3
1996-97	43.2	501.5	40.6	1 555.3	251.9	2 392.6
1997-98	105.2	479.8	36.4	1 596.0	834.9	3 052.3
1998-99	174.4	404.9	29.6	1 601.3	1 255.5	3 465.6
1999-00	161.7	462.8	11.0	1 824.1	1 336.9	3 796.5
2000-01	198.2	437.7	27.0	1 615.2	947.4	3 225.5
2001-02	284.8	600.9	na	1 776.6	1 394.0	na

na Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; state mines departments and their equivalents; ABARE.

280 Australian exports of gypsum

	Raw a						Calcined	
					Total			
	Indonesia	New Zealand	Singapore	Other	Volume	Value	Volume	Value
	kt	kt	kt	kt	kt	$'000	t	$'000
1960	0.0	72.4	0.0	14.6	87.0	479	na	na
1961	0.0	70.3	0.0	19.7	90.0	570	na	na
1962	0.0	80.4	0.0	61.3	141.6	747	na	na
1963	0.0	78.2	0.0	67.9	146.1	715	na	na
1964	0.0	106.0	0.0	102.8	208.8	1 008	na	na
1965	5.1	102.2	0.0	33.6	140.9	747	na	na
1966	5.6	109.7	0.0	119.9	235.2	1 100	na	na
1967	14.0	87.7	0.0	109.3	211.0	879	na	na
1968	10.6	85.8	0.0	155.6	251.9	1 135	na	na
1969	21.1	101.5	17.0	93.2	232.8	1 006	na	na
1970	11.7	104.8	18.8	83.2	218.4	1 051	na	na
1971	15.9	100.3	12.1	129.9	258.3	1 251	na	na
1972	23.6	107.7	26.3	124.6	282.3	1 444	na	na
1973	26.2	147.5	42.1	221.4	437.3	2 128	na	na
1974	30.6	173.1	14.9	84.6	303.2	1 778	na	na
1975	15.6	151.7	27.3	21.2	215.8	1 539	na	na
1976	34.5	122.9	27.5	2.8	187.7	1 527	na	na
1977	37.9	113.0	15.9	23.8	190.5	1 624	na	na
1978	29.7	84.5	16.2	50.6	181.0	1 640	na	na
1979	148.1	63.7	49.7	161.5	423.0	3 105	1 696	223
1980	197.9	98.3	42.9	50.2	389.3	3 814	2 003	172
1981	183.0	104.6	67.1	290.5	645.2	6 861	1 771	188
1982	173.6	124.5	88.0	218.5	604.5	7 982	2 350	263
1983	174.4	98.2	110.4	416.9	800.0	11 044	3 187	416
1984	251.4	128.2	96.9	249.5	726.0	9 653	6 196	901
1985	192.6	143.0	57.0	123.5	516.0	8 362	4 751	728
1986	148.1	118.1	38.4	118.7	423.2	7 702	5 348	893
1987	15.5	122.7	0.0	57.2	195.4	2 968	4 866	848
1988	0.0	116.2	0.0	0.0	116.2	1 391	4 704	845
1988-89	0.1	68.0	0.0	0.0	68.1	1 048	3 940	752
1989-90	0.1	na	0.0	na	na	na	10 437	1 032
1990-91	0.0	15.5	0.0	37.6	53.2	759	5 702	1 100
1991-92	0.0	97.2	0.0	63.5	160.7	1 775	6 128	1 318
1992-93	0.0	111.5	12.0	38.1	161.6	1 807	8 610	1 958
1993-94	0.0	101.6	0.0	50.1	151.7	2 036	9 986	2 408
1994-95	0.0	155.2	12.4	63.5	231.1	2 993	8 836	2 338
1995-96	0.2	32.3	0.0	53.1	85.6	1 476	11 477	3 212
1996-97	1.3	0.4	0.1	115.0	116.9	2 134	12 012	3 487
1997-98	30.3	0.6	0.1	259.9	290.9	6 323	8 279	2 722
1998-99	38.5	0.1	0.0	950.2	988.8	18 781	6 926	2 046
2000-01	0.0	0.4	0.0	724.0	724.4	16 096	2 576	916
2001-02	0.0	0.1	0.0	1 009.8	1 010.0	21 835	779	494
2002-03	0.0	0.1	0.1	1 044.8	1 045.0	18 788	36 986	941

a Bulk only to 1978; bulk and bagged thereafter. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

281 World mine production of gypsum, by country

	Australia	Canada	China a	France	Japan	Spain	United States	Other	Total
	kt	kt	kt	kt	kt	kt	kt	kt	kt
1960	590	4 620	na	3 777	735	2 487	8 913	19 520	40 642
1961	620	4 591	na	3 836	724	3 052	8 618	20 217	41 658
1962	641	4 837	na	3 997	800	3 557	8 221	22 653	44 706
1963	737	5 381	na	4 208	782	4 598	9 424	21 608	46 738
1964	808	5 770	na	4 913	751	2 854	9 692	21 951	46 738
1965	847	5 720	na	5 013	649	2 855	9 104	20 518	44 706
1966	814	5 427	na	5 272	597	2 947	8 751	20 898	44 706
1967	929	4 471	na	5 190	584	2 947	8 522	22 064	44 706
1968	857	5 664	na	5 162	572	3 963	9 235	23 064	48 516
1969	912	6 334	na	6 055	569	4 064	9 108	23 557	50 599
1970	845	5 844	na	6 088	581	4 288	8 584	24 570	50 800
1971	889	6 169	na	5 111	536	4 200	9 451	26 644	53 000
1972	959	7 200	na	5 850	465	4 100	11 840	27 236	57 650
1973	1 165	7 540	na	6 160	460	4 100	12 330	29 105	60 860
1974	1 069	7 470	na	6 220	na	4 400	10 890	31 941	61 990
1975	933	5 700	na	5 800	na	4 200	8 800	31 567	57 000
1976	942	6 002	na	5 900	na	4 200	10 868	34 858	62 770
1977	916	7 234	na	6 032	na	5 482	12 147	39 894	71 705
1978	940	8 075	1 500	6 036	na	5 369	13 509	40 280	75 709
1979	1 230	8 098	3 630	6 240	na	5 275	13 272	43 615	81 360
1980	1 309	7 209	3 360	5 889	na	5 223	11 227	43 150	77 367
1981	1 752	7 025	3 450	6 147	na	5 223	10 430	42 129	76 156
1982	1 864	5 987	3 540	6 039	6 363	5 048	9 560	33 913	72 314
1983	1 510	7 507	4 260	5 544	5 845	5 620	11 688	36 695	78 669
1984	1 931	7 756	4 810	5 400	6 100	5 365	12 990	36 378	80 730
1985	1 744	8 400	5 700	5 400	6 300	5 500	13 360	38 706	85 110
1986	1 671	8 500	6 500	5 500	6 300	5 500	14 300	39 309	87 580
1987	1 812	8 600	6 800	5 400	6 300	5 500	14 300	39 680	88 160
1988	1 656	8 500	8 100	5 400	6 300	5 500	14 870	49 534	99 860
1989	1 835	8 700	8 100	5 700	6 300	5 500	16 000	46 385	98 520
1990	1 886	8 200	8 000	5 620	6 350	5 000	14 550	48 055	97 660
1991	1 382	8 000	8 100	5 600	6 350	5 000	14 022	45 481	93 935
1992	1 348	7 054	10 977	5 715	5 443	4 990	14 759	47 257	97 791
1993	1 590	7 345	9 616	4 536	4 990	6 804	14 344	44 504	93 623
1994	1 692	8 500	10 500	5 000	5 300	7 250	17 200	45 735	101 000
1995	1 995	7 960	11 000	5 000	3 900	7 500	16 600	44 297	98 100
1996	1 916	8 330	8 000	5 000	5 350	8 000	17 500	45 802	99 700
1997	2 393	8 500	7 800	5 000	5 500	7 400	18 600	49 309	104 000
1998	3 052	8 100	9 000	4 500	5 300	7 400	19 000	51 128	107 000
1999	3 466	9 470	9 000	4 500	5 500	7 500	22 400	50 940	107 000
2000	3 796	8 550	6 800	4 500	5 600	7 500	19 500	45 233	106 000
2001	3 225	8 560	6 800	4 500	5 900	7 500	16 300	51 249	104 000
2002	na	8 600	6 800	4 500	5 800	7 500	16 100	na	103 000

a Excludes Hong Kong. **na** Not available.

Sources: Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; US Department of the Interior, US Geological Survey, *Mineral Commodity Summaries,* Washington DC; ABARE.

282 Summary of Australian statistics for iron ore and steel [a]

	Production					Exports		
	Iron ore		Pig	Crude	Iron ore	Iron ore	Pig	Crude
	Pellets	Total	iron	steel	consumption	and pellets	iron	steel [bs]
	kt	kt	kt	kt	kt	kt	kt	kt
1960	na	4 455	2 929	3 747	4 700	na	101	10
1961	0	5 463	3 211	3 844	5 700	0	301	88
1962	0	5 048	3 490	4 235	5 100	0	160	100
1963	0	5 689	3 683	4 652	5 600	0	135	32
1964	0	5 846	4 049	5 099	5 500	13	57	9
1965	0	6 805	4 252	5 464	6 500	152	46	10
1966	0	11 071	4 743	5 891	7 500	2 045	97	255
1967	0	17 314	5 058	6 268	7 900	9 164	152	344
1968	3 000	26 632	5 573	6 503	8 600	16 398	246	356
1969	5 871	38 576	6 107	7 016	9 300	26 858	375	545
1970	5 957	51 188	6 148	6 822	9 400	41 112	310	226
1971	6 800	62 063	6 128	6 737	9 600	52 796	519	122
1972	6 424	64 401	6 491	6 743	9 600	54 079	582	597
1973	10 153	84 828	7 658	7 682	11 300	74 181	853	771
1974	10 066	96 950	7 250	7 755	10 700	83 654	753	775
1975	9 469	97 651	7 475	7 843	11 000	80 363	520	1 636
1976	9 594	93 255	7 417	7 774	10 900	81 231	698	1 534
1977	10 226	95 932	6 753	7 313	9 900	78 908	647	1 280
1978	9 471	83 134	7 337	7 589	10 800	75 264	711	1 008
1979	9 303	91 717	7 811	8 125	11 500	78 447	643	611
1980	5 329	95 534	6 959	7 594	11 585	80 375	515	306
1981	3 887	84 661	6 830	7 635	11 810	71 729	158	378
1982	3 321	87 694	5 956	6 371	10 853	72 567	101	218
1983	3 043	71 040	5 045	5 657	8 923	74 088	469	384
1984	3 497	94 406	5 329	6 303	9 380	85 477	71	294
1985	3 725	92 900	5 607	6 578	8 673	84 746	26	583
1986	3 338	94 015	5 889	6 703	9 680	79 523	26	496
1987	3 309	101 748	5 569	6 125	9 319	77 829	165	523
1988	3 400	96 064	5 730	6 399	9 570	94 855	25	843
1989	3 600	105 810	6 094	6 735	8 836	101 681	24	948
1990	4 537	110 509	6 125	6 666	8 881	95 928	1	1 740
1991	3 475	117 673	5 647	6 017	8 188	111 557	0	1 934
1992	1 437	112 115	6 388	6 990	9 263	103 487	0	2 315
1993	1 512	120 534	7 284	7 837	10 926	111 527	0	2 621
1994	1 507	128 766	7 855	8 455	11 783	119 093	0	3 069
1995	1 596	142 964	7 861	8 431	11 791	130 369	0	2 950
1996	1 608	152 138	7 381	8 379	11 662	128 274	22	3 130
1997	168	156 286	7 884	8 837	12 131	146 757	4	3 188
1998	3 618	160 731	7 724	8 886	11 605	136 418	0	3 364
1999	1 932	151 558	7 147	8 162	10 782	139 278	3	3 253
2000	2 200	171 508	6 115	7 297	9 950	157 368	3	2 815
2001	2 060	181 435	6 029	7 076	10 572	156 718	0	3 187
2002	2 100	188 760	6 466	7 550	10 606	165 869	0	3 385

a Iron ore figures expressed in dry weight. **b** Series up to and including 1987 do not include flat rolled products, bars and rods, and wire and steel sections. Subsequent series include all items in ABS, *Australian Harmonized Export Commodity Classification,* chapter 72, 'Iron and steel', excluding ferrous waste, scrap and ferroalloys. **s** ABARE estimate. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

283 Australian exports of iron and steel, by destination a

	1995	1996	1997	1998	1999	2000 b	2001 b	2002 b
	kt	kt	kt	kt	kt	kt	kt	kt
Africa	1	2	4	18	18	16	59	8
Americas								
North	310	636	456	1 123	986	544	88	270
Other	21	16	53	129	96	93	44	44
Total	330	652	509	1 252	1 082	637	132	314
Asia								
China	57	155	58	56	55	93	698	877
Chinese Taipei	624	576	445	287	230	183	78	39
Hong Kong, China	109	133	195	154	86	45	16	9
India	82	11	4	154	62	20	4	41
Indonesia	213	211	296	51	165	82	75	36
Japan	210	204	127	76	72	53	25	175
Korea, Rep. of	373	363	474	302	598	302	343	149
Malaysia	223	248	270	87	115	66	48	17
Philippines	149	84	232	88	56	11	19	2
Singapore	93	89	116	57	45	19	7	51
Thailand	188	152	181	154	194	124	29	51
Other	66	48	52	47	82	52	37	78
Total	2 386	2 274	2 451	1 512	1 760	1 049	1 379	1 525
Europe	24	50	59	464	230	212	73	224
New Zealand	95	103	111	90	138	92	91	137
Other	113	49	53	29	26	501	13	65
Total	2 950	3 130	3 188	3 364	3 253	2 507	1 747	2 275

a Includes all items in ABS, *Australian Harmonized Export Commodity Classification,* chapter 72, 'Iron and steel', excluding ferrous waste, scrap and ferroalloys. **b** Data for slab, hot rolled, cold rolled and coated steel products became confidential in 2000. Estimates or export volumes are included in 'other' category.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

284 Australian supply and disposal of iron ore and steel

	Unit	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Production								
Iron ore and concentrate	kt	153 345	161 146	153 478	159 750	175 555	185 302	198 870
Pig iron	kt	7 545	7 928	7 453	6 489	6 096	6 154	6 634
Raw steel	kt	8 467	9 143	8 549	8 053	8 003	8 311	9 399
Exports								
Iron ore and pellets	kt	137 557	142 208	135 185	149 436	157 320	156 130	181 481
	$m	3 155	3 791	3 844	3 779	4 903	5 160	5 342
Iron and steel **s**	kt	3 212	3 347	3 332	2 941	2 931	3 297	3 599
	$m	1 382	1 607	1 311	1 265	1 484	1 484	1 853
Scrap	kt	668	647	697	754	1 063	934	890
	$m	129	149	125	155	212	177	211
Export unit value								
Iron ore and pellets	$/t	22.94	26.66	28.44	25.29	31.16	33.05	29.44

s ABARE estimate.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

285 Australian iron ore exports, by destination a

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Asia								
China	22 922	23 231	31 510	26 840	26 219	33 293	38 023	44 018
Chinese Taipei	4 906	5 418	7 788	7 306	8 017	9 089	9 904	9 347
Japan **b**	57 575	57 843	64 215	60 633	64 889	69 362	66 830	70 492
Korea, Rep. of	17 515	16 732	16 867	17 793	19 154	21 203	23 810	25 120
Other	1 088	1 193	1 137	725	830	828	922	865
United States	635	483	628	1 038	618	609	436	628
Western Europe	24 060	22 551	23 788	21 333	18 890	21 484	15 867	14 450
Other **c**	1 668	822	825	750	662	1 501	926	949
Total	130 369	128 274	146 757	136 418	139 278	157 368	156 718	165 869

a Dry weight. **b** Includes exports to the Philippines which were subsequently re-exported to Japan. **c** Includes data for which details of export destinations are not available.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

286 Summary of world statistics for iron ore and steel

	Production				
	Iron ore a				
	Pellets	Total	Iron b	Crude steel	Iron ore exports a
	Mt	Mt	Mt	Mt	Mt
1960	16.1	522.0	241.5	347.1	151.9
1961	17.9	503.8	251.1	347.2	149.2
1962	22.0	523.4	257.2	353.6	157.9
1963	29.6	516.2	272.4	379.2	164.7
1964	40.5	568.9	307.9	429.9	198.7
1965	46.5	624.3	326.3	452.4	211.7
1966	58.0	625.9	335.8	471.3	214.9
1967	71.5	629.2	352.4	493.3	223.7
1968	94.5	687.7	378.4	523.9	256.7
1969	104.3	720.3	408.4	570.9	278.8
1970	117.9	773.9	426.5	595.3	323.1
1971	122.2	780.5	423.1	582.3	318.0
1972	127.5	781.7	447.1	630.2	311.4
1973	150.7	845.6	493.5	696.4	377.0
1974	153.6	896.3	503.4	703.5	411.8
1975	161.5	888.8	469.9	643.5	381.0
1976	174.5	922.9	489.4	675.1	379.8
1977	163.3	880.8	485.8	675.3	358.0
1978	182.6	891.3	506.7	716.5	350.6
1979	205.4	947.6	528.3	746.7	398.1
1980	186.3	917.9	508.1	716.3	384.6
1981	195.2	894.6	497.2	707.1	372.9
1982	155.1	818.2	452.6	644.9	329.3
1983	171.0	782.1	458.1	663.4	315.1
1984	192.8	882.2	490.7	710.3	372.4
1985	201.9	909.6	499.6	718.9	375.8
1986	196.5	920.7	496.3	714.0	370.0
1987	211.5	945.5	509.0	735.5	367.8
1988	230.2	964.4	538.4	780.1	400.9
1989	237.1	991.0	544.8	785.9	424.3
1990	225.3	980.6	531.6	770.1	397.1
1991	211.5	952.1	508.6	736.2	398.9
1992	205.9	907.8	476.4	719.6	365.9
1993	205.3	933.1	477.4	727.6	396.2
1994	218.7	965.5	482.6	725.1	421.5
1995	245.3	1 024.0	491.5	750.2	445.5
1996	238.9	1 019.3	486.6	749.6	432.5
1997	249.5	1 064.7	515.2	798.6	472.3
1998	242.6	991.2	502.6	777.4	457.8
1999	233.5	964.9	510.7	786.5	438.6
2000	259.1	1 084.2	541.3	844.6	489.0
2001	235.9	1 053.8	553.2	847.0	476.5
2002	259.4	1 130.0	581.1	900.2	512.4

a Natural weight. **b** Total production of primary iron less total production of directly reduced iron.

Sources: Association of Iron Ore Exporting Countries, *Iron Ore Statistics,* Geneva; International Iron and Steel Institute, *Steel Statistical Yearbook,* Brussels; United Nations Conference on Trade and Development, Trust Fund on Iron Ore, *Iron Ore Statistics,* Geneva; United Nations Conference on Trade and Development, *Review of Iron Ore Statistics, Iron Ore Statistics,* Geneva; United Nations Conference on Trade and Development, *Statistical Issues: Statistics on Iron Ore,* Geneva; United Nations Conference on Trade and Development, Trust Fund Project on Iron Ore Information, *The Iron Ore Market 1999-2000,* Geneva.

287 World iron ore production, by country [a]

	1995 Mt	1996 Mt	1997 Mt	1998 Mt	1999 Mt	2000 Mt	2001 Mt	2002 Mt
Australia	146.2	154.6	165.0	163.3	153.0	176.3	180.5	187.2
Brazil [b]	178.4	179.9	188.0	183.1	188.7	208.8	208.7	239.4
Canada	37.6	36.5	38.2	38.7	34.0	35.9	27.9	30.8
China [c]	250.4	250.5	267.0	246.9	237.2	224.0	217.0	230.1
CIS [d]	144.0	132.9	136.9	132.1	138.1	157.2	151.3	158.6
France	1.5	1.5	0.5	0.0	0.0	0.0	0.0	0.0
India	66.8	67.3	69.4	71.7	70.2	76.0	79.2	86.4
South Africa	32.0	30.8	33.2	33.0	29.5	33.7	34.8	36.5
Sweden	21.7	21.3	21.9	20.9	18.9	20.6	19.5	20.3
United States	62.5	62.1	63.0	62.9	57.8	63.1	45.8	51.5
Venezuela	19.0	18.7	18.7	17.2	17.0	17.4	19.0	20.9
Other	64.1	63.4	63.0	66.4	64.9	67.2	63.9	68.3
Total	1 024.0	1 019.3	1 064.7	991.2	964.9	1 084.2	1 053.8	1 130.0

a Natural weight. **b** Pellets not included. **c** Low Fe content. **d** Commonwealth of Independent States (CIS). Members of the former Soviet Union that are not part of the CIS are Lithuania, Latvia, Estonia and Georgia.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; United Nations Conference on Trade and Development, Trust Fund on Iron Ore, *Iron Ore Statistics,* Geneva; United Nations Conference on Trade and Development, *Review of Iron Ore Statistics,* Geneva.

288 World iron ore exports, by country [a]

	1995 Mt	1996 Mt	1997 Mt	1998 Mt	1999 Mt	2000 Mt	2001 Mt	2002 Mt
Australia	137.1	135.5	155.5	144.7	146.2	165.2	164.4	175.6
Brazil	131.4	129.7	140.4	143.2	140.2	160.1	155.7	170.0
Canada	28.7	27.9	32.3	30.6	26.9	26.5	22.0	25.6
Former Soviet Union [b]	30.0	28.3	30.4	28.0	22.3	27.4	25.3	33.8
India	32.3	31.7	32.9	32.8	31.0	32.9	37.3	31.4
Mauritania	11.5	11.2	11.7	11.4	11.0	11.1	10.1	10.5
South Africa	21.8	19.3	20.7	22.1	21.1	21.4	23.5	24.3
Sweden	17.1	16.1	18.3	16.0	13.9	16.0	13.7	14.5
Venezuela	10.6	9.6	9.3	8.6	6.6	6.9	6.9	6.7
Other	24.9	23.2	20.7	20.3	19.4	21.5	17.6	20.0
Total	445.5	432.5	472.3	457.8	438.6	489.0	476.5	512.4

a Natural weight. **b** Commonwealth of Independent States (CIS). Members of the former Soviet Union that are not part of the CIS are Lithuania, Latvia, Estonia and Georgia.
Sources: Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; United Nations Conference on Trade and Development, Trust Fund on Iron Ore Information, *Iron Ore Market 1999-2000,* Geneva; United Nations Conference on Trade and Development, *Review of Iron Ore Statistics,* Geneva.

289 World iron ore imports, by region and country [a]

	1994 Mt	1995 Mt	1996 Mt	1997 Mt	1998 Mt	1999 Mt	2000 Mt	2001 Mt	2002 Mt
Africa and Middle East									
Qatar	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.4	0.3
Saudi Arabia	2.7	2.7	3.2	2.7	3.3	3.5	4.5	3.9	4.7
Other	8.3	8.7	8.0	9.3	7.8	7.3	11.1	9.4	8.1
Total	11.6	12.0	11.8	12.6	11.7	11.3	16.1	13.7	13.1
Americas									
Argentina	3.8	4.4	4.9	5.3	5.4	4.5	5.4	4.5	5.2
Canada	5.3	6.0	6.9	7.1	7.2	7.3	6.5	5.9	6.8
Mexico	0.7	1.7	2.2	2.8	4.0	3.9	3.2	2.1	2.7
United States	17.5	17.5	18.4	18.6	16.9	14.3	15.7	10.7	12.5
Other	1.6	1.5	1.9	1.8	2.0	2.2	2.7	3.3	3.2
Total	28.9	31.1	34.3	35.6	35.5	32.2	33.5	26.6	30.4
Asia and Oceania									
China	37.3	41.2	43.9	55.1	51.8	55.3	70.0	92.3	111.5
Chinese Taipei	8.3	9.2	10.1	14.0	14.2	13.3	14.9	15.6	15.2
Indonesia	2.0	2.5	2.5	1.9	1.3	2.4	2.2	1.3	1.5
Japan	116.1	120.4	119.2	126.6	120.8	120.1	131.7	126.3	129.1
Korea, Rep. of	34.3	35.1	34.8	38.6	33.6	35.5	39.0	45.9	43.3
Malaysia	1.4	1.8	1.7	2.6	1.1	1.4	1.7	1.6	1.3
Pakistan	1.9	1.7	1.6	1.7	1.4	1.6	1.5	1.4	1.5
Other	1.2	1.7	1.8	1.6	1.4	1.7	1.8	1.4	4.2
Total	202.5	213.6	215.6	242.1	225.6	231.3	262.8	285.8	307.6
Europe									
Austria	3.9	4.3	4.5	5.1	5.2	4.4	5.4	5.3	5.8
Belgium–Luxembourg	17.4	15.8	13.0	11.2	13.5	12.1	11.6	9.8	12.1
Bulgaria	1.8	2.3	2.1	2.2	2.1	1.7	1.8	1.3	1.5
Finland	3.5	3.0	3.3	3.7	3.9	3.8	3.9	3.9	3.7
Former Czechoslovakia	11.6	14.0	12.3	11.9	11.4	9.7	11.7	10.7	11.9
Former Yugoslavia	0.0	0.0	1.0	1.1	0.3	1.3	0.9	0.0	0.1
France	20.1	20.2	18.4	20.2	19.8	20.2	19.7	16.7	19.0
Germany	43.7	44.1	39.8	46.4	46.8	39.2	47.6	40.1	44.3
Hungary	2.2	2.1	2.3	1.5	2.1	1.7	2.1	1.7	1.7
Italy	16.4	18.3	16.0	16.7	15.7	15.6	17.6	15.8	14.9
Netherlands	8.6	8.7	8.4	8.6	8.8	7.9	8.9	6.3	7.4
Norway	na	0.2	0.5	0.5	0.4	0.0	0.0	0.0	0.0
Poland	8.4	10.5	9.5	10.3	9.7	7.3	9.7	7.7	7.0
Portugal	0.6	0.7	0.6	0.6	0.6	0.5	0.6	0.7	0.1
Romania	5.5	6.3	5.8	6.6	6.6	4.2	4.5	3.9	6.2
Spain	7.6	7.3	6.1	5.9	6.6	6.3	6.3	6.6	6.2
Turkey	2.0	3.2	3.0	3.0	3.9	3.0	4.1	4.7	5.1
United Kingdom	19.5	20.8	20.4	21.0	20.8	17.0	16.7	15.4	13.3
Other	0.4	10.0	10.0	10.0	10.0	0.1	0.1	0.0	0.0
Total	173.2	181.9	167.1	176.6	178.3	156.0	173.3	150.8	160.3
Total	417.2	439.5	429.8	469.1	452.5	432.1	486.7	479.1	511.4

a Natural weight.

Sources: United Nations Conference on Trade and Development, Trust Fund on Iron Ore, *Iron Ore Statistics,* Geneva; United Nations Conference on Trade and Development, *Review of Iron Ore Statistics,* Geneva.

290 Iron ore prices [a]

	Australian export unit value [b]		Spot [c]		Negotiated [e]	
			Nominal	Real [d]	Fines	Lump
	A$/t	US$/t	US$/t	US$/t	USc/dltu	USc/dltu
1960	na	na	17.08	81.00	na	na
1961	na	na	17.79	83.44	na	na
1962	na	na	16.75	77.71	na	na
1963	na	na	15.69	71.79	na	na
1964	6.09	6.82	15.69	71.01	na	na
1965	8.26	9.25	15.69	69.82	na	na
1966	8.38	9.39	15.25	65.82	12.00	15.50
1967	8.36	9.36	13.50	56.79	12.00	15.50
1968	8.67	9.71	12.62	50.95	12.00	15.50
1969	8.69	9.73	11.68	44.65	12.00	15.10
1970	8.04	9.00	15.22	54.95	11.90	15.00
1971	7.69	8.69	13.40	46.43	11.80	14.90
1972	7.29	8.68	12.79	42.81	11.70	14.80
1973	6.19	8.79	17.13	53.99	13.30	17.30
1974	7.04	10.14	19.00	54.00	15.40	19.30
1975	9.32	12.21	22.81	59.37	17.40	21.20
1976	10.23	12.58	22.72	55.89	17.70	21.70
1977	12.06	13.39	21.59	49.92	20.20	24.70
1978	12.06	13.75	19.39	41.67	21.20	24.30
1979	12.87	14.41	23.44	45.21	23.10	26.10
1980	14.59	16.63	28.09	47.83	27.60	31.20
1981	15.79	18.16	28.09	43.36	29.70	34.20
1982	19.88	20.28	32.50	47.26	34.80	40.00
1983	21.23	19.11	29.00	40.85	30.45	34.85
1984	18.87	16.61	26.15	35.32	26.67	30.87
1985	22.98	16.06	26.56	34.65	27.05	31.55
1986	24.33	16.26	26.26	33.62	25.97	30.29
1987	21.54	15.04	24.50	30.25	24.67	28.78
1988	18.68	14.60	23.50	27.88	23.68	28.78
1989	20.53	16.21	26.50	29.99	26.76	33.76
1990	23.55	18.34	30.80	33.08	31.03	39.15
1991	25.92	20.12	33.25	34.26	33.49	41.48
1992	27.18	19.90	31.60	31.60	31.85	38.84
1993	25.93	17.53	28.11	27.30	28.35	35.34
1994	21.75	15.83	25.47	24.11	25.66	33.26
1995	22.49	16.60	27.00	24.86	27.15	35.89
1996	22.68	17.67	28.60	25.59	28.78	37.68
1997	24.29	18.02	28.71	25.09	29.10	37.68
1998	29.23	18.34	29.69	25.55	29.92	38.79
1999	25.63	16.53	26.96	22.70	26.63	34.83
2000	28.14	16.38	27.67	22.54	27.79	36.84
2001	33.38	17.30	28.92	22.92	28.98	38.03
2002	31.33	17.04	28.62	22.33	28.28	36.13

a Nominal values, except where indicated. **b** Australia commenced commercial exports of iron ore in 1964. **c** Before 1965, Liberia Nimba, 27 per cent fines, cif North Sea ports; after 1965, Brazilian Itabira standard sinterfeed, 61.5 per cent iron, cif German ports. **d** In 1992 dollar terms. **e** Negotiated Japanese fiscal year hematite ores, fob. **na** Not available.

Sources: ABARE, *Australian Mineral Staistics,* Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; International Monetary Fund, *International Financial Statistics,* Washington DC; TEX Report Co. Ltd, *Iron Ore Manual,* Tokyo.

291 Summary of Australian statistics for lead

	Production				Exports d		
	Mine a	Bullion b	Refined c	Consumption	Volume	Value	Price e
	kt	kt	kt	kt	kt	$m	$/t
1960	313	54	190	54	253	41	196.8
1961	274	49	162	52	282	41	195.5
1962	376	74	190	50	388	50	161.6
1963	416	82	225	64	380	53	166.5
1964	381	80	203	63	350	73	235.5
1965	368	68	193	64	340	86	276.6
1966	371	75	193	65	354	79	248.8
1967	382	103	191	66	335	80	217.5
1968	389	118	175	66	334	87	218.6
1969	453	156	186	71	342	97	259.2
1970	457	171	180	62	401	123	282.1
1971	404	162	163	63	338	87	239.1
1972	396	139	180	63	320	87	241.3
1973	403	150	190	74	329	107	275.2
1974	375	144	193	72	315	155	389.4
1975	408	152	158	72	298	126	324.2
1976	397	161	182	75	359	157	358.6
1977	432	156	182	77	339	226	531.8
1978	400	152	204	74	369	236	563.2
1979	422	169	215	72	351	437	1 031.2
1980	398	160	200	79	344	570	843.3
1981	388	163	208	66	329	315	662.5
1982	455	182	219	56	397	334	622.4
1983	481	183	196	56	409	383	592.2
1984	441	179	199	59	427	358	515.3
1985	498	183	200	59	430	358	568.1
1986	445	188	156	60	412	361	604.5
1987	489	197	202	62	388	512	867.6
1988	462	191	193	60	420	490	885.7
1989	495	183	212	61	338	382	892.8
1990	565	195	212	58	398	464	1 123.6
1991	579	182	220	56	425	331	801.6
1992	580	231	232	59	542	460	813.6
1993	510	221	221	67	496	334	670.7
1994	505	197	212	78	465	368	810.8
1995	455	164	215	77	479	429	912.6
1996	527	191	204	67	488	489	1 074.7
1997	526	179	203	63	517	431	919.2
1998	618	164	173	55	578	544	914.3
1999	677	162	239	56	696	571	860.2
2000	699	139	223	41	656	576	854.9
2001	759	195	237	41	717	709	1 017.8
2002	694	188	268	39	751	706	1 025.6

a Total metallic content of minerals produced. **b** Metal content. **c** Primary lead production (excludes scrap). **d** Quantities refer to the total metallic content of all ores and concentrates, intermediate products and refined metal; the value of lead contained in other mine and smelter products (for example, in zinc concentrates) is included in the value of the metal in which it is exported. **e** BHAS, 99.97–99.99 per cent, fob/for Port Pirie.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

292 Australian supply and disposal of lead

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Production									
Mine **a**	kt	506	516	571	663	648	724	744	690
Bullion **b**	kt	181	191	171	157	165	153	201	181
Refined									
Primary	kt	224	202	185	199	233	215	275	267
Secondary	kt	26	25	26	30	33	33	34	36
Exports									
Ores and concentrates	kt	139	178	253	397	436	433	380	366
	$m	50.3	54.3	140.2	213.0	264.1	318.2	323.3	288.7
Bullion	kt	169	164	167	140	135	119	153	150
	$m	168.7	214.5	179.1	143.9	155.1	151.5	194.8	167.8
Refined metal	kt	193	177	177	201	258	199	236	269
	$m	209.1	200.7	172.9	180.0	187.5	167.2	210.6	203.4
Consumption c	kt	75	70	64	60	55	55	60	60
Export unit value									
Ores and concentrates	A$/t	362.4	305.3	554.8	536.2	605.3	735.1	850.2	788.9
Bullion	A$/t	1 000.8	1 311.6	1 075.5	1 026.6	1 150.9	1 276.4	1 276.7	1 117.1
Refined	A$/t	1 083.5	1 136.4	978.9	894.2	727.4	841.2	891.2	755.5

a Total metallic content of minerals produced. **b** Metal content. **c** Refined metal only.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

293 Australian exports of lead, by destination [a]

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Ores and concentrates [b]								
Belgium	2	4	0	52	58	73	64	57
China	2	19	29	26	35	70	74	42
Germany	2	3	3	8	4	0	2	0
Italy	2	0	3	11	12	4	0	0
Japan	38	34	40	46	36	39	48	31
Korea, Rep. of	30	10	10	64	72	81	100	130
United States	3	0	6	14	15	9	6	0
Other	3	14	12	10	25	9	10	4
Total	82	84	103	231	257	285	304	264
Bullion								
Korea, Rep. of	24	17	15	0	0	0	0	0
United Kingdom	137	151	156	134	138	109	148	151
Other	6	0	0	0	0	0	0	0
Total [c]	167	168	171	134	138	109	148	151
Refined metal								
Chinese Taipei	36	25	32	25	34	44	30	30
Hong Kong, China	0	0	0	0	15	9	12	13
India	15	14	17	14	13	24	21	20
Indonesia	28	28	23	16	19	21	16	13
Japan	12	7	3	3	2	2	1	0
Korea, Rep. of	36	37	32	23	28	26	28	33
Malaysia	14	9	14	12	43	16	13	15
South Africa	10	7	13	12	11	9	11	12
Thailand	13	22	8	5	7	10	16	21
United Kingdom	0	0	0	0	11	0	0	0
United States	0	0	0	0	41	31	37	53
Other	25	20	27	25	31	27	22	53
Total	189	169	169	135	255	219	207	263

a Excludes slags and residues and scrap. **b** Lead content of lead ores and concentrates only. **c** Includes a substantial amount of contained silver, for which separate details are not available.
Source: International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

294 World production, consumption, stocks and prices of lead

	Production						
		Refined metal					
	Mine a	Primary	Secondary b	Total	Consumption	Stocks b	Price c
	kt	kt	kt	kt	kt	kt	US$/t
1960	2 372	2 479	748	3 227	3 080	457	195.7
1961	2 392	2 573	726	3 299	3 153	551	174.4
1962	2 531	2 568	728	3 296	3 275	478	153.0
1963	2 543	2 664	796	3 460	3 429	411	172.2
1964	2 604	2 695	910	3 605	3 633	370	275.0
1965	2 784	2 756	958	3 714	3 670	365	312.5
1966	2 937	2 885	940	3 825	3 847	368	258.5
1967	2 961	2 925	959	3 884	3 861	459	224.7
1968	3 034	3 094	1 044	4 138	4 200	338	236.9
1969	3 295	3 894	1 148	4 542	4 431	414	285.6
1970	3 443	3 616	1 287	4 688	4 502	500	303.8
1971	3 476	3 388	1 261	4 614	4 671	479	252.9
1972	3 585	3 491	1 324	4 803	4 863	470	303.8
1973	3 673	3 580	1 426	4 991	5 218	375	428.2
1974	3 642	3 593	1 462	5 042	5 173	523	591.5
1975	3 570	3 442	1 410	4 828	4 742	576	412.4
1976	3 464	3 539	1 487	5 049	5 146	482	452.8
1977	3 646	3 662	1 707	5 372	5 449	466	618.1
1978	3 622	3 697	1 738	5 459	5 546	396	658.0
1979	3 589	3 716	1 903	5 622	5 609	458	1 204.4
1980	3 495	3 600	1 815	5 417	5 392	525	910.3
1981	3 342	3 560	1 798	5 309	5 308	518	736.9
1982	3 366	3 641	1 649	5 210	5 142	560	543.9
1983	3 265	3 637	1 561	5 198	5 152	560	425.1
1984	3 126	3 470	1 829	5 299	5 275	535	444.3
1985	3 248	3 539	1 835	5 374	5 278	427	394.2
1986	3 082	3 345	1 891	5 236	5 343	480	406.9
1987	3 152	3 386	2 047	5 433	5 427	400	596.1
1988	3 151	3 475	2 102	5 577	5 482	443	656.3
1989	3 110	3 362	2 348	5 710	5 599	356	677.4
1990	3 110	3 087	2 369	5 456	5 432	402	820.0
1991	3 134	3 071	2 262	5 333	5 226	442	559.0
1992	3 037	3 238	2 268	5 506	5 194	592	541.0
1993	2 700	3 176	2 303	5 479	5 225	659	406.0
1994	2 707	2 968	2 483	5 451	5 488	626	549.0
1995	2 750	3 091	2 649	5 740	5 849	455	631.0
1996	3 006	3 074	2 784	5 858	6 004	438	774.0
1997	3 030	3 127	2 905	6 032	6 041	440	624.0
1998	2 988	3 095	2 918	6 013	6 070	413	528.6
1999	2 966	3 297	2 983	6 280	6 246	467	502.6
2000	3 046	3 557	3 093	6 650	6 527	435	453.9
2001	2 998	3 498	3 048	6 546	6 484	437	475.9
2002	2 759	3 570	3 086	6 656	6 685	492	452.6

a Metal content. **b** Western world refined metal. **c** Average London Metal Exchange cash price, midday, standard grade, minimum 99.97 per cent.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

295 World lead production, by region and country [a]

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Mine								
Africa	185	189	180	182	179	178	150	130
Morocco	68	74	77	80	80	82	77	62
South Africa	88	89	83	84	80	75	51	50
Americas	1 047	1 157	1 129	1 146	1 111	1 053	1 080	1 022
Canada	210	257	186	190	162	149	154	97
Mexico	164	174	174	166	126	138	136	139
Peru	238	249	262	258	271	271	289	297
United States	394	436	459	491	513	458	463	449
Asia	714	819	858	721	688	805	728	701
China	520	643	712	581	549	660	599	568
India	34	35	33	38	38	36	32	35
Kazakhstan	40	28	29	26	31	39	43	43
Korea, Dem. Rep. of	50	40	35	25	16	12	9	10
Other	70	73	49	51	54	58	45	45
Australia	424	475	486	584	633	650	714	658
Europe	380	366	377	357	355	360	326	247
Bulgaria	33	28	32	22	14	14	16	24
Ireland	46	45	45	36	39	57	45	32
Poland	55	59	55	60	63	51	53	57
Sweden	100	99	109	112	118	107	88	44
Other	146	135	136	127	121	131	124	90
Total	2 750	3 006	3 030	2 988	2 966	3 046	2 998	2 759
Refined [b]								
Africa	141	131	124	127	131	125	125	144
Americas	2 082	2 122	2 182	2 182	2 135	2 216	2 072	2 078
Canada	281	311	271	266	266	284	231	251
Mexico	238	232	259	259	199	241	236	234
Peru	90	94	98	104	111	116	118	120
United States	1 358	1 372	1 431	1 436	1 447	1 457	1 376	1 364
Other	115	113	123	117	112	118	111	109
Asia	1 476	1 539	1 602	1 643	1 882	2 163	2 185	2 367
China	608	706	708	757	918	1 100	1 172	1 325
India	62	67	60	66	64	67	63	78
Japan	288	287	297	302	293	312	302	286
Kazakhstan	93	69	82	92	159	208	159	158
Korea, Rep. of	181	141	182	180	190	220	211	243
Other	244	269	243	246	258	256	278	277
Australia	237	228	229	200	271	259	271	302
Europe	1 796	1 796	1 890	1 852	1 855	1 882	1 889	1 763
France	297	301	283	289	273	262	230	203
Germany	314	238	329	353	353	387	375	378
Italy	189	210	212	199	215	231	222	193
Spain	75	86	90	94	98	120	122	116
United Kingdom	366	381	399	370	372	338	382	368
Other	555	580	577	547	544	544	558	505
Other countries	6	6	6	6	6	5	5	2
Total	5 740	5 858	6 032	6 013	6 280	6 650	6 546	6 656

a Lead content by analysis of lead ores and concentrates plus the lead content of other ores and concentrates known to be intended for lead recovery. **b** Includes primary and secondary lead.
Source: International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

296 World lead trade, by major countries

	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt	2002 kt
Exports								
Ores and concentrates a								
Australia	82	84	103	231	257	285	304	264
Belgium	76	91	na	na	59	63	60	64
Canada	71	114	74	37	49	60	58	42
Ireland	46	48	43	35	40	57	49	31
Peru	137	138	142	142	148	145	151	179
South Africa	86	90	86	21	66	77	38	45
Sweden	43	45	51	79	71	73	68	36
United States	65	60	42	72	93	117	185	245
Refined lead								
Australia	189	169	169	135	255	219	207	263
Belgium	76	91	98	87	69	104	81	62
Bulgaria	57	59	65	na	70	72	na	na
Canada	151	167	159	157	166	166	144	156
China	163	246	186	236	450	443	448	399
France	84	92	74	86	76	74	61	61
Germany	59	51	74	93	80	114	145	133
Mexico	95	78	102	72	28	20	13	9
Morocco	53	54	52	59	54	56	52	na
Peru	81	na	na	100	101	111	115	109
Sweden	48	51	56	57	57	65	52	58
United Kingdom	79	67	79	100	81	84	89	100
United States	46	44	37	24	23	21	17	31
Imports								
Ores and concentrates a								
Belgium	52	60	37	58	58	71	63	69
Canada	43	69	35	23	56	47	53	68
China	19	42	71	127	93	158	255	216
France	118	123	123	120	115	148	109	88
Germany	62	50	37	85	111	115	146	122
Italy	40	63	55	59	110	95	66	63
Japan	119	113	116	118	122	128	117	117
Korea, Rep. of	84	75	52	99	90	126	145	138
United Kingdom	47	47	39	33	25	14	8	0
Refined lead								
Austria	46	37	44	50	36	40	40	42
Chinese Taipei	104	98	114	101	121	126	121	122
France	47	51	50	47	67	70	74	73
Germany	123	107	87	95	87	112	157	136
Italy	93	93	95	75	91	68	77	107
Korea, Rep. of	119	159	140	90	117	113	131	147
Malaysia	34	na	39	na	100	79	74	114
Singapore	17	44	23	36	96	80	89	86
Spain	54	63	81	95	100	104	114	171
Thailand	45	62	35	21	161	51	48	65
United Kingdom	47	33	17	29	38	105	31	29
United States	262	268	265	267	311	357	270	211

a Metal content. **na** Not available.
Source: International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

297 Summary of Australian statistics for limestone

	Production	Exports		Imports	
		Volume	Value	Volume	Value
	kt	t	$'000	kt	$'000
1970	9 996	na	na	511	708
1971	10 335	na	na	713	1 018
1972	10 494	na	na	605	1 001
1973	11 224	na	na	1 130	1 890
1974	11 046	na	na	1 432	2 572
1975	10 854	na	na	1 490	3 775
1976	10 583	na	na	1 527	4 475
1977	10 552	na	na	1 100	4 433
1978	10 924	na	na	1 380	7 085
1979	11 450	na	na	1 317	6 522
1980	11 730	na	na	1 077	4 928
1981	11 983	na	na	1 323	6 345
1982	12 698	15	1	977	4 344
1983	10 131	80	6	833	4 393
1984	9 608 **a**	35	8	940	5 381
1985	8 570 **b**	76	8	1 022	7 292
1986	10 747 **a**	21	10	996	10 794
1987	10 803 **a**	63	7	859	10 065
1988	10 614 **a**	30	6	1 004	11 480
1988-89	12 915	24	8	1 038	10 656
1989-90	13 283	15	17	na	9 382
1990-91	12 566	65	16	971	10 194
1991-92	na	258	49	1 161	12 412
1992-93	15 895	1 729	165	819	11 859
1993-94	na	18 893	1 145	1 011	17 156
1994-95	na	463	206	1 038	14 618
1995-96	na	133 080	1 889	991	14 777
1996-97	na	178 758	2 241	1 027	12 712
1997-98	na	130 256	1 559	636	8 182
1998-99	na	170 795	2 500	1 066	15 881
1999-00	15 853	229 934	4 515	705	10 540
2000-01	na	213 469	4 101	665	10 835
2001-02	na	241 526	4 683	595	9 995
2002-03	na	242 446	5 132	582	9 170

a Excludes Western Australia. **b** Excludes Queensland and Western Australia. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; state mines departments and their equivalents; ABARE.

298 Australian production of limestone, by state

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia
	kt	kt	kt	kt	kt	kt	kt
1960	2 439	1 176	531	315	1 081	218	5 760
1961	2 617	1 263	645	390	1 123	206	6 245
1962	2 471	1 233	706	361	1 422	324	6 518
1963	2 565	1 248	711	356	1 599	351	6 829
1964	2 743	1 415	803	462	1 567	358	7 348
1965	2 850	1 483	818	555	1 587	343	7 637
1966	2 738	1 831	886	571	1 478	350	7 854
1967	2 749	2 024	1 038	710	1 617	351	8 489
1968	2 729	1 849	1 198	745	1 583	504	8 608
1969	2 955	2 058	1 240	996	1 801	559	9 608
1970	3 155	2 022	1 242	1 201	1 853	523	9 996
1971	3 224	2 200	1 470	1 175	1 782	486	10 335
1972	3 403	2 127	1 590	1 301	1 484	581	10 494
1973	3 656	2 248	1 740	1 227	1 719	634	11 224
1974	3 779	2 192	1 758	1 157	1 562	599	11 046
1975	3 295	2 255	1 872	1 378	1 508	545	10 854
1976	3 096	2 068	1 959	1 104	1 720	635	10 583
1977	2 787	2 105	1 952	1 221	1 827	659	10 552
1978	2 903	2 245	1 802	1 365	1 890	718	10 924
1979	3 315	1 653	2 224	1 369	2 136	754	11 450
1980	3 496	2 211	1 951	1 232	1 120	720	11 730
1981	3 620	2 249	1 842	1 382	2 119	771	11 983
1982	3 417	2 303	2 235	1 762	2 061	910	12 698 **a**
1983	2 881	2 143	1 478	1 203	1 826	581	10 131 **b**
1984	3 234	2 507	1 634	na	1 469	763	9 608 **c**
1985	3 222	2 749	na	na	1 798	800	8 570 **d**
1986	3 420	2 776	1 687	na	2 012	852	10 747 **c**
1987	3 429	2 463	2 160	na	1 942	809	10 803 **c**
1988	3 411	2 580	1 880	na	1 918	826	10 614 **c**
1988-89	3 667	2 684	1 987	1 739	1 918	920	12 915
1989-90	3 972	2 639	2 121	1 699	1 889	963	13 283
1990-91	3 318	2 346	2 309	1 738	1 903	951	12 566
1991-92	3 410	na	2 369	2 054	2 014	na	na
1992-93	3 529	4 566	2 432	2 104	2 429	835	15 895
1993-94	na	na	2 485	2 147	2 666	na	na
1994-95	na	na	2 596	2 195	2 456	na	na
1995-96	3 746	na	na	2 612	1 729	na	na
1996-97	3 953	na	2 127	2 353	2 760	na	na
1997-98	3 887	na	1 994	2 280	2 476	na	na
1998-99	4 194	na	2 407	3 046	2 272	na	na
1999-00	4 164	2 127	2 552	3 008	2 580	1 843	15 853
2000-01	4 031	2 552	na	3 835	2 399	1 894	na
2001-02	4 077	1 716	na	2 910	2 041	1 934	na

a Includes 10 000 tonnes for the Northern Territory. **b** Includes 18 000 tonnes for the Northern Territory. **c** Excludes Western Australia. **d** Excludes Queensland and Western Australia. **na** Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; state mines departments and their equivalents; ABARE.

299 Australian imports of limestone and lime

	Limestone				Lime	
			Total			
	Japan	Other	Volume	Value	Volume	Value
	kt	kt	kt	$'000	t	$'000
1970	511	0	511	708	na	na
1971	713	0	713	1 018	na	na
1972	605	0	605	1 001	na	na
1973	1 130	0	1 130	1 890	na	na
1974	1 432	0	1 432	2 572	na	na
1975	1 449	41	1 490	3 775	na	na
1976	1 526	0	1 527	4 475	na	na
1977	1 099	0	1 100	4 433	na	na
1978	1 332	48	1 380	7 085	na	na
1979	1 269	48	1 317	6 522	na	na
1980	978	99	1 077	4 928	na	na
1981	1 275	48	1 323	6 345	3 445	355
1982	946	31	977	4 344	8 158	1 050
1983	833	0	833	4 393	1 999	273
1984	940	0	940	5 381	28 026	2 145
1985	1 022	0	1 022	7 292	16 927	1 556
1986	996	0	996	10 794	230	103
1987	859	0	859	10 065	511	322
1988	1 004	0	1 004	11 480	470	211
1988-89	1 038	0	1 038	10 656	467	275
1989-90	na	na	na	9 382	478	372
1990-91	969	3	971	10 194	189	105
1991-92	1 120	41	1 161	12 412	369	114
1992-93	777	42	819	11 859	449	182
1993-94	948	63	1 011	17 156	334	125
1994-95	916	122	1 038	14 618	1 659	374
1995-96	986	5	991	14 777	342	103
1996-97	1 010	17	1 027	12 712	3 444	431
1997-98	580	57	636	8 182	135	32
1998-99	943	123	1 066	15 881	426	102
1999-00	680	25	705	10 540	289	74
2000-01	615	50	665	10 835	2 786	397
2001-02	553	42	595	9 995	2 848	435
2002-03	525	56	582	9 170	307	106

na Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

300 Summary of Australian statistics for manganese

	Mine production (ore)	Exports		Prices a
		Ore	Ferromanganese b	
	kt	kt	kt	US$/t
1960	62	46	0	28.00
1961	89	53	0	26.00
1962	73	64	0	31.00
1963	37	17	0	29.00
1964	62	54	0	24.00
1965	102	67	0	23.00
1966	318	144	0	23.00
1967	558	320	0	22.00
1968	744	565	0	19.00
1969	903	664	0	18.12
1970	751	631	0	18.85
1971	1 051	794	0	17.82
1972	1 165	na	0	25.00
1973	1 522	1 513	na	30.20
1974	1 522	1 203	1	39.00
1975	1 555	1 132	na	58.00
1976	2 154	1 711	1	64.00
1977	1 389	811	13	65.00
1978	1 257	936	19	59.00
1979	1 724	1 157	32	57.00
1980	2 020	1 328	23	65.00
1981	1 449	900	16	67.00
1982	1 127	906	17	63.00
1983	1 370	1 004	29	54.00
1984	1 849	1 460	19	56.00
1985	2 003	1 403	20	57.00
1986	1 649	1 145	44	55.00
1987	1 854	1 306	47	50.00
1988	1 986	1 553	41	68.64
1989	2 119	1 620	27	108.00
1990	1 950	1 600	43	160.80
1991	1 390	1 075	20	160.80
1992	1 239	902	46	141.60
1993	1 887	1 720	59	108.00
1994	1 985	1 590	76	99.96
1995	2 177	1 630	73	97.92
1996	2 109	1 740	59	105.12
1997	2 136	1 541	41	99.86
1998	1 501	1 067	57	97.92
1999	1 900	1 213	na	91.20
2000	1 613	1 411	na	97.44
2001	2 084	1 591	na	101.28
2002	2 187	1 830	na	94.56

a Before 1970, average unit export value in A$/t; subsequently, high grade ore (48 per cent Mn) to Japan in US$/t for Japanese fiscal year commencing 1 April. **b** Data became confidential in 1999. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

301 Australian supply and disposal of manganese

		1995	1996	1997	1998	1999	2000	2001	2002
Production									
Manganese ore	kt	2 177	2 109	2 136	1 501	1 900	1 613	2 084	2 187
Exports									
Manganese ore **s**	kt	1 630	1 740	1 541	1 067	1 213	1 411	1 591	1 830
Ferromanganese **b**	kt	73	59	41	57	na	na	na	na
	$m	38	31	18	37	na	na	na	na
Imports									
Ferromanganese	kt	10.6	14.8	7.8	11.7	6.1	4.7	5.8	6.0
	$m	10.1	16.4	7.8	12.2	6.2	4.7	6.3	5.4
Ferrosilicon and silicomanganese	kt	37.9	50.3	36.1	34.2	33.1	29.1	28.1	30.7
	$m	35.0	36.8	40.1	37.4	32.5	30.8	33.2	34.5
Prices									
Japanese negotiated **a**	US$/t	97.92	105.12	99.86	97.92	91.20	97.44	101.28	94.56

a High grade ore (48 per cent Mn) to Japan for Japanese fiscal year commencing 1 April. **b** Data became confidential in 1999. **s** ABARE estimate. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

302 World production of manganese ore, by country

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Australia	2 177	2 109	2 136	1 501	1 900	1 613	2 084	2 187
Brazil	2 398	2 400	2 400	1 940	1 656	1 925	1 863	1 850
China	8 000	7 700	6 000	5 300	5 300	5 300	5 300	5 300
Gabon	1 930	2 092	1 904	2 092	1 908	1 743	1 791	1 856
Georgia	1 200	1 200	1 200	1 200	1 200	1 200	1 200	1 200
Ghana	187	266	332	384	612	895	813	1 136
India	1 797	1 782	1 751	1 583	1 490	1 604	1 483	1 625
Kazakhstan	492	473	426	634	944	1 202	1 150	1 000
Mexico	141	173	193	203	169	156	99	66
South Africa	3 225	3 264	3 112	3 051	3 050	3 635	3 271	3 082
Ukraine	4 500	3 000	3 000	2 200	1 985	2 741	2 740	2 740
Others	386	333	337	335	309	314	291	272
Total	26 433	24 793	22 790	20 422	20 523	22 329	22 086	22 314

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; World Bureau of Metal Statistics, *World Metal Statistics Yearbook,* London.

303 Summary of Australian statistics for nickel

	Production a							
		Smelter and refinery b						
	Mine	Intermediate products c	Refined nickel class 2 d	Refined nickel class 1 e	Exports fs	Exports s	Imports	Price g
	kt	kt	kt	kt	kt	$m	$m	A$/t
1968	4.6	0.0	0.0	0.0	na	na	9.9	1 852.7
1969	11.2	0.0	0.0	0.0	na	na	9.8	2 109.8
1970	29.8	0.0	0.0	9.0	na	na	23.3	2 541.1
1971	35.5	0.0	0.0	15.0	na	na	11.9	2 594.7
1972	35.5	0.0	0.0	16.5	na	na	8.3	2 588.2
1973	40.1	5.8	0.0	19.8	na	na	13.3	2 375.4
1974	45.9	14.6	0.0	20.5	na	96.0	12.8	2 656.2
1975	75.8	32.2	10.3	22.6	na	172.6	12.1	3 488.5
1976	82.5	32.0	18.0	21.8	na	260.9	18.5	4 043.1
1977	85.9	33.2	17.4	16.7	na	252.5	21.0	4 687.4
1978	82.4	32.7	18.7	18.6	na	222.1	25.1	4 043.0
1979	69.7	38.7	17.4	21.9	na	327.2	21.6	5 344.6
1980	74.3	32.5	17.9	17.4	na	427.0	30.4	5 728.3
1981	74.3	32.9	19.3	23.2	na	388.1	21.4	5 194.1
1982	87.6	49.4	20.6	25.3	na	393.7	19.7	4 753.4
1983	76.6	49.8	12.3	29.5	na	321.6	7.2	5 213.3
1984	76.9	51.1	13.1	25.6	na	386.0	15.2	5 410.8
1985	85.8	51.6	17.9	23.0	na	498.6	17.5	7 023.9
1986	76.7	49.1	20.4	21.6	na	440.3	22.3	5 809.0
1987	74.6	47.8	19.9	24.6	na	390.0	24.1	6 977.3
1988	58.0	40.0	21.1	20.3	62.1	633.5	7.4	18 154.8
1989	63.1	41.6	21.9	18.3	65.0	851.7	20.2	16 886.4
1990	67.8	49.2	22.3	25.2	73.7	666.5	30.2	11 422.9
1991	67.6	54.8	24.9	27.8	82.7	682.5	37.6	10 511.2
1992	57.9	47.8	25.9	29.5	75.4	768.7	48.5	9 566.7
1993	65.4	43.9	26.0	35.4	95.3	574.3	49.4	7 893.2
1994	75.9	68.4	23.0	43.5	111.4	765.0	57.3	8 711.1
1995	102.7	75.9	18.6	58.3	122.9	1 188.6	71.8	11 153.1
1996	113.0	76.8	12.6	61.4	132.0	1 081.0	70.0	9 630.5
1997	123.9	85.8	14.8	58.9	144.4	1 094.4	66.0	9 336.4
1998	143.9	100.1	15.3	64.3	171.6	985.7	66.0	7 380.0
1999	119.6	79.7	10.2	73.4	149.9	1 117.9	60.4	9 326.8
2000	166.5	100.9	13.5	98.7	198.6	2 366.8	80.8	14 858.7
2001	205.0	96.7	11.2	116.9	207.9	2 076.2	88.1	11 470.4
2002	207.8	98.3	11.4	120.8	209.7	2 199.4	89.8	12 447.8

a Total metallic content of minerals produced. **b** Includes imported ores for processing at the Yabulu refinery in Queensland. **c** Includes matte and speiss for further refining. **d** Product with a nickel content of less than 99 per cent. Includes ferronickel, oxides and oxide sinter. Excludes nickel–cobalt sulphides. **e** Products with a nickel content of 99 per cent or more. **f** Total metallic content. **g** London Metal Exchange average cash settlement price for refined nickel melting grade, in Australian dollar equivalent. **s** ABARE estimate. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* AGPS, Canberra; International Nickel Study Group, *World Nickel Statistics,* The Hague, Netherlands; World Bureau of Metal Statistics, *World Metal Statistics,* London.

304 World production, consumption and prices of nickel

	Production				
	Mine s	Smelter/refinery s	Stocks a	Consumption s	Price b
	kt	kt	kt	kt	US$/t
1960	361	345	na	321	1 631.0
1961	404	384	na	357	1 711.0
1962	398	395	na	358	1 761.0
1963	393	374	na	384	1 742.0
1964	422	411	na	441	1 742.0
1965	462	440	na	473	1 735.0
1966	443	429	na	512	1 739.0
1967	508	493	na	524	1 936.0
1968	580	524	na	537	2 075.0
1969	547	517	na	549	2 363.0
1970	702	645	na	625	2 846.0
1971	718	655	na	577	2 932.0
1972	662	624	na	618	3 080.0
1973	719	703	na	696	3 373.0
1974	792	765	na	751	3 825.0
1975	794	741	171	627	4 570.0
1976	814	790	179	728	4 973.0
1977	830	767	247	701	5 203.0
1978	684	651	149	755	4 609.0
1979	721	720	87	811	5 986.0
1980	786	788	204	774	6 530.3
1981	765	762	218	718	5 973.3
1982	687	695	202	722	4 848.5
1983	718	745	183	761	4 692.0
1984	815	822	126	852	4 761.5
1985	879	850	131	834	4 910.3
1986	844	829	126	838	3 883.0
1987	889	875	92	909	4 871.3
1988	928	917	85	930	14 191.8
1989	970	935	97	911	13 334.8
1990	983	931	88	926	8 895.0
1991	946	921	113	886	8 158.3
1992	897	886	176	809	7 004.3
1993	908	809	226	785	5 337.5
1994	877	825	236	871	6 342.1
1995	1 007	919	148	984	8 228.8
1996	1 051	953	144	943	7 506.0
1997	1 073	1 012	156	1 016	6 926.4
1998	1 117	1 034	157	1 009	4 631.0
1999	1 059	1 028	124	1 082	6 014.8
2000	1 174	1 084	93	1 123	8 649.2
2001	1 224	1 160	100	1 104	5 943.6
2002	1 249	1 174	97	1 171	6 771.6

a Commercial stocks excluding those held by the former Soviet Union. **b** London Metal Exchange cash settlement price for refined nickel, melting grade. Prior to 1980, US producer price for electrolytic cathodes. **s** ABARE estimates prior to 1989. **na** Not available.
Sources: International Nickel Study Group, *World Nickel Statistics,* The Hague, Netherlands; World Bureau of Metal Statistics, *World Metal Statistics,* London; ABARE.

305 World nickel smelter/refinery production, by region and country a

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Africa	45.3	50.1	52.5	53.9	53.4	50.2	52.9	51.4
South Africa **b**	29.8	33.9	34.8	36.4	36.2	36.6	33.4	38.5
Zimbabwe	15.5	16.2	17.6	17.4	17.2	13.6	19.5	12.9
Americas	226.4	242.0	257.5	264.1	238.5	252.9	274.1	289.4
Brazil	15.7	16.4	18.2	21.1	22.9	23.2	22.5	23.7
Canada	125.3	130.1	131.6	146.7	124.3	134.2	140.6	144.5
Colombia	24.6	22.9	25.2	28.1	28.3	27.7	38.4	44.0
Cuba	21.6	27.0	34.0	38.7	38.5	40.0	41.2	40.5
Dominican Republic	30.9	30.4	32.5	25.2	24.5	27.8	21.7	23.6
United States	8.3	15.1	16.0	4.3	0.0	0.0	0.0	0.0
Venezuela	0.0	0.0	0.0	0.0	0.0	0.0	9.7	13.2
Asia	183.8	184.1	178.3	175.1	187.7	221.8	213.5	220.5
China	38.1	44.2	39.9	40.1	44.8	50.9	49.5	53.6
Indonesia	10.7	9.4	10.0	8.5	9.2	10.1	10.3	8.9
Japan	135.0	130.5	128.4	126.5	133.7	160.7	153.7	158.0
Europe	344.2	360.9	406.0	417.3	419.2	403.1	445.5	432.2
Austria	2.0	2.0	2.0	1.8	1.5	1.3	1.5	1.5
Finland	21.2	33.3	39.2	46.0	52.8	54.3	54.6	55.3
France	10.3	11.2	10.7	11.8	11.7	12.3	13.0	11.4
Greece	17.2	17.8	17.6	15.0	13.0	17.5	17.7	19.2
Macedonia **c**	2.0	3.0	5.3	5.8	0.0	0.0	3.0	3.0
Norway	53.2	61.6	62.7	70.2	74.1	58.7	68.2	68.5
United Kingdom	35.2	38.6	36.1	39.1	38.1	38.0	33.8	33.8
Serbia	0.9	2.6	2.4	0.7	0.0	0.0	0.0	0.0
Russian Federation	200	190.0	230.0	227.0	228.0	221.0	252.2	239.3
Ukraine	2.2	0.9	0.0	0.0	0.0	0.0	1.5	0.0
Oceania	119.1	116.2	118.0	124.1	128.9	156.1	174.0	180.9
Australia	76.9	74.0	73.6	79.6	83.6	112.2	128.1	132.2
New Caledonia (Fr)	42.2	42.2	44.3	44.5	45.3	43.9	45.9	48.7
World total	918.8	953.2	1 012.3	1 034.4	1 027.7	1 084.1	1 160.1	1 174.4

a Includes the metal content of smelter/refinery production of electrolytic nickel, nickel pellets, briquettes, steel making powder, nickel salts, chemical grade nickel oxide, ferronickel, nickel oxide sinter and utility nickel. **b** Includes Bophuthatswana production. **c** Former Yugoslavian Republic of Macedonia.

Sources: International Nickel Study Group, *World Nickel Statistics,* The Hague, Netherlands; World Bureau of Metal Statistics, *World Metal Statistics,* London; ABARE.

306 World nickel mine production, by region and country a

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Africa	62.6	69.6	68.8	74.0	73.1	69.3	67.7	72.9
Botswana	21.1	24.2	22.9	24.8	25.8	24.4	23.9	26.7
South Africa **b**	29.8	33.9	34.8	36.4	36.2	36.6	36.4	38.5
Zimbabwe	11.7	11.6	11.2	12.7	11.1	8.3	7.4	7.8
Americas	300.4	326.1	336.3	363.1	349.5	386.9	391.5	398.6
Brazil **c**	19.2	20.5	20.5	32.5	32.5	35.6	34.2	36.0
Canada	181.8	192.6	190.5	208.2	186.2	190.7	194.1	188.1
Colombia	24.2	27.7	31.2	29.4	39.3	58.9	53.0	58.2
Cuba	42.7	53.6	61.5	67.8	67.0	71.4	76.5	77.3
Dominican Republic **c**	30.9	30.4	32.5	25.2	24.5	27.8	22.3	23.5
United States	1.6	1.3	0.0	0.0	0.0	0.0	0.0	0.0
Venezuela	0.0	0.0	0.0	0.0	0.0	2.5	11.4	15.5
Asia	152.9	149.8	140.0	146.1	151.6	173.1	176.7	200.6
China	41.8	43.8	46.7	47.7	50.1	51.0	51.5	54.8
Indonesia	86.6	87.9	71.1	74.1	89.1	98.2	102.1	121.6
Kazakhstan	9.9	3.5	4.0	3.6	0.0	3.6	0.0	0.0
Philippines	14.7	14.5	18.1	20.7	12.4	20.2	23.1	24.1
Europe	267.9	267.9	267.1	264.9	254.7	260.2	265.8	269.0
Finland	4.4	3.9	3.3	2.0	0.7	3.3	2.7	2.5
Greece **c**	19.9	21.6	18.4	17.0	16.1	19.5	20.8	22.7
Macedonia **d**	2.0	3.0	5.3	7.2	0.0	0.0	3.0	5.2
Norway	3.4	3.1	2.5	3.0	2.9	2.3	2.8	1.7
Russian Federation	235	232.0	235.0	235.0	235.0	235.0	235.0	237.0
Serbia	0.9	2.6	2.7	0.8	0.0	0.0	0.0	0.0
Ukraine	2.2	1.7	0.0	0.0	0.0	0.0	1.5	0.0
Oceania	223.4	237.8	261.0	269.2	229.7	284.1	322.6	307.5
Australia	102.7	113.0	123.9	143.9	119.6	166.5	205.0	207.8
New Caledonia (Fr)	120.7	124.8	137.1	125.3	110.1	117.6	117.6	99.6
World total	1 007.1	1 051.2	1 073.2	1 117.3	1 058.5	1 173.6	1 224.3	1 248.6

a Nickel content of all ores and concentrates. **b** Includes Bophuthatswana production. **c** Figures refer to nickel content of ferronickel. **d** Former Yugoslavian Republic of Macedonia.

Sources: International Nickel Study Group, *World Nickel Statistics,* The Hague, Netherlands; World Bureau of Metal Statistics, *World Metal Statistics,* London; ABARE.

307 World primary refined nickel consumption, by region and country [a]

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Africa	20.6	24.8	31.0	31.2	33.2	32.2	31.2	35.9
South Africa	20.0	24.0	30.0	30.0	32.0	31.0	30.0	34.7
Other	0.6	0.8	1.0	1.2	1.2	1.2	1.2	1.2
Americas	186.1	185.5	185.1	183.0	193.2	192.4	169.7	153.7
Argentina	0.2	0.3	0.5	0.3	0.3	0.3	0.5	0.5
Brazil	15.3	14.8	14.4	15.7	19.6	21.7	21.1	23.6
Canada	12.4	14.2	10.6	11.5	15.0	15.0	14.8	11.0
Mexico	1.2	1.5	2.0	2.8	3.2	2.2	2.0	1.6
United States	155.2	153.1	155.6	150.0	152.0	150.0	129.1	115.0
Other	1.8	1.6	2.0	2.7	3.1	3.2	2.2	2.0
Asia	367.2	362.0	408.6	376.3	429.6	463.9	440.4	499.8
China	40.2	42.0	43.0	42.0	46.5	62.0	83.0	91.6
Chinese Taipei	48.0	50.0	68.0	70.0	89.0	90.0	81.0	91.0
Hong Kong, China	1.2	1.5	1.8	1.8	1.8	1.3	4.5	4.7
India	20.0	18.5	16.0	16.0	19.2	22.5	25.0	27.6
Japan	205.1	190.2	202.4	169.2	182.7	200.1	161.5	190.9
Korea, Rep. of	44.0	50.0	66.0	67.8	80.7	78.0	75.4	83.2
Thailand	2.5	2.4	2.0	1.6	2.1	2.0	2.2	2.2
Turkey	0.9	1.5	1.8	2.4	2.4	2.2	1.9	1.8
Other	5.3	6.0	7.6	5.5	5.2	5.8	5.9	6.8
Europe	408.4	368.2	389.8	416.6	423.5	432.0	460.5	480.0
Austria	3.5	3.0	3.0	3.3	3.3	4.2	5.6	4.8
Belgium–Luxembourg	28.0	25.4	28.0	30.0	28.0	28.5	28.2	32.5
Czech Republic	2.0	1.2	1.2	1.6	1.6	2.3	2.4	2.0
Finland	31.9	30.1	36.0	37.1	40.8	43.3	38.6	40.6
France	48.5	45.9	49.8	55.0	52.3	49.8	51.0	53.0
Germany	93.1	74.9	91.0	97.4	101.2	103.5	110.2	109.5
Italy	49.0	44.0	49.5	53.3	55.0	52.6	57.0	67.4
Norway	0.5	0.4	0.6	0.8	0.4	0.4	0.4	0.4
Poland	1.8	1.6	2.4	2.5	2.5	2.3	2.4	2.4
Romania	1.0	2.6	0.5	0.6	1.2	1.2	0.7	0.5
Russian Federation	36.2	35.0	20.0	18.0	17.0	21.0	28.0	27.0
Spain	27.2	28.5	30.0	31.0	37.8	37.8	43.8	47.0
Sweden	28.3	24.5	29.8	33.9	34.6	36.8	36.6	37.9
Switzerland	0.6	0.8	1.0	1.5	1.1	0.5	0.5	0.5
Ukraine	1.1	1.0	1.2	2.7	3.6	4.5	4.8	4.8
United Kingdom	40.9	38.7	33.0	31.5	29.2	32.4	37.5	34.4
Other	6.7	10.6	12.8	16.4	13.9	10.9	12.7	15.3
Oceania	1.8	1.9	1.9	2.1	2.1	2.0	2.0	2.0
Australia	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6
New Zealand	0.3	0.3	0.3	0.5	0.5	0.4	0.4	0.4
World total	984.1	942.5	1 016.4	1 009.2	1 081.6	1 122.6	1 103.8	1 171.4

a Metal content. The consumption of primary unwrought nickel including refined nickel and nickel contained in other smelter/refinery products.
Sources: International Nickel Study Group, *World Nickel Statistics,* The Hague, Netherlands; World Bureau of Metal Statistics, *World Metal Statistics,* London; ABARE.

308 Summary of Australian statistics for primary petroleum [a]

	Production of crude oil condensate and LPG	Exports of crude oil and other refinery feedstocks [b]	Exports of liquefied petroleum gas	Imports of crude oil and other refinery feedstocks	Production of natural gas and ethane [c]	Exports of liquefied natural gas [ds]
	ML	ML	ML	ML	Gm^3	Mt
1960-61	na	na	na	14 127	na	0
1961-62	na	na	na	14 895	0.00	0
1962-63	na	na	na	16 766	0.00	0
1963-64	80	na	na	17 561	0.00	0
1964-65	347	na	na	18 665	0.00	0
1965-66	504	na	na	19 965	0.00	0
1966-67	645	na	na	22 543	0.00	0
1967-68	1 902	na	na	23 013	0.01	0
1968-69	2 236	na	na	23 897	0.06	0
1969-70	4 919	na	na	23 176	0.78	0
1970-71	15 688	241	661	13 913	1.96	0
1971-72	20 266	1 090	1 193	11 174	2.63	0
1972-73	22 464	330	1 672	10 004	3.74	0
1973-74	25 223	305	1 984	10 469	4.45	0
1974-75	25 306	234	2 000	10 171	4.88	0
1975-76	26 059	243	1 950	9 702	5.45	0
1976-77	27 128	206	2 253	10 116	6.50	0
1977-78	28 287	221	2 855	11 214	7.18	0
1978-79	28 067	371	3 031	10 407	8.01	0
1979-80	26 823	127	2 764	11 263	9.24	0
1980-81	26 077	86	2 569	11 450	10.66	0
1981-82	25 419	44	2 622	12 460	11.80	0
1982-83	24 978	61	2 334	11 780	11.92	0
1983-84	29 960	1 056	2 851	8 553	12.49	0
1984-85	34 820	5 819	2 620	7 294	13.37	0
1985-86	35 750	5 051	2 977	6 186	14.69	0
1986-87	35 431	5 702	2 675	7 724	15.08	0
1987-88	35 187	6 453	2 402	9 577	15.68	0
1988-89	32 080	4 789	2 177	12 058	16.15	0
1989-90	36 003	7 202	1 983	11 603	20.27	2.01
1990-91	35 755	8 830	1 507	13 389	21.23	3.40
1991-92	35 171	8 967	1 568	15 332	23.49	4.66
1992-93	34 776	10 098	1 483	19 421	24.61	4.98
1993-94	32 960	9 538	1 290	20 296	26.76	6.03
1994-95	35 158	11 445	1 189	20 639	29.47	7.02
1995-96	34 365	10 899	1 469	23 703	30.24	7.48
1996-97	35 302	12 401	2 421	24 768	30.66	7.49
1997-98	38 862	14 785	2 824	25 017	31.92	7.65
1998-99	32 265	14 291	2 486	29 729	32.78	7.82
1999-00	42 279	20 877	2 857	26 936	34.04	7.92
2000-01	42 761	24 044	2 785	26 343	34.82	7.53
2001-02	40 747	23 936	3 211	27 308	36.41	7.60
2002-03	37 941	20 949	3 194	27 958	37.44	7.90

a Export volumes for primary petroleum up to June 1977 are direct from ABS overseas trade reports. As a result of changes in ABS classifications from July 1977, other statistics are taken from Department of Resources and Energy and ABARE publications. **b** Before 1983 exports were principally semiprocessed and re-export feedstocks. **c** Includes ethane, methane and noncommercial natural gas. **d** 1 million tonnes (Mt) of LNG is approximately equal to 1.31 billion cubic metres (Gm^3) of gas; production began in 1989-90. **s** ABARE estimate. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *Overseas Trade, Part 1 – Exports and Imports,* cat. no. 5409.0, Canberra; DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra; Department of Resources and Energy, *Australian Energy Statistics,* AGPS, Canberra.

309 Summary of Australian statistics for refined petroleum products [a]

	Production	Domestic consumption [b]	Imports		Exports [c]		Bunkers [d]
			Volume	Value	Volume	Value	
	ML	ML	ML	$m	ML	$m	$m
1960-61	14 082	13 614	2 005	na	2 106	na	na
1961-62	14 931	14 320	1 869	na	2 420	na	na
1962-63	16 522	15 490	2 148	na	2 809	na	na
1963-64	17 514	17 479	2 066	na	2 285	na	na
1964-65	18 821	19 268	2 013	na	1 459	na	na
1965-66	20 353	20 953	1 899	na	1 099	na	na
1966-67	23 110	22 734	1 227	na	1 365	na	na
1967-68	25 229	24 837	1 123	na	1 374	na	na
1968-69	26 651	27 423	1 741	na	970	na	na
1969-70	27 884	29 317	2 860	na	1 440	na	na
1970-71	28 846	30 355	3 256	63	1 740	23	43
1971-72	29 524	31 754	3 978	78	2 321	46	44
1972-73	30 575	32 518	4 126	75	1 846	42	42
1973-74	33 853	36 587	4 422	133	2 488	96	70
1974-75	34 066	36 637	4 083	247	1 954	146	136
1975-76	34 106	36 991	4 009	290	2 192	144	137
1976-77	35 744	39 042	4 193	347	1 904	190	190
1977-78	36 992	39 813	4 104	360	1 956	224	na
1978-79	36 671	38 921	4 215	450	2 344	306	na
1979-80	36 654	39 315	4 540	710	1 882	427	na
1980-81	35 292	37 937	3 748	770	1 990	577	na
1981-82	35 877	37 676	2 939	629	1 955	539	na
1982-83	34 692	35 511	2 666	608	2 427	707	438
1983-84	35 586	36 929	2 526	559	2 925	803	394
1984-85	35 924	37 204	2 823	683	2 207	641	460
1985-86	35 171	36 260	2 761	712	2 383	673	437
1986-87	34 826	37 713	4 078	732	2 270	459	338
1987-88	37 579	39 395	3 319	629	2 738	563	406
1988-89	38 210	41 173	4 863	664	2 769	520	371
1989-90	39 424	41 678	5 855	930	2 422	520	416
1990-91	40 487	41 468	3 821	727	2 952	787	631
1991-92	41 440	41 804	3 131	455	3 819	769	522
1992-93	42 933	43 349	3 940	634	3 711	830	568
1993-94	43 104	44 561	3 057	606	3 507	747	512
1994-95	44 421	46 746	3 479	676	3 289	719	511
1995-96	46 343	48 193	3 522	765	4 101	933	586
1996-97	46 872	47 829	4 286	955	5 041	1 147	547
1997-98	47 400	48 395	3 263	766	4 941	1 097	505
1998-99	47 030	48 973	4 129	868	4 236	866	397
1999-00	47 630	50 450	4 632	1 375	4 116	1 202	666
2000-01	47 690	50 010	4 746	1 816	4 564	1 844	899
2001-02	46 677	50 608	4 655	1 625	3 409	1 234	760
2002-03	46 976	51 761	5 497	2 050	3 140	1 198	775

a Export and import values up to June 1977 are direct from ABS overseas trade reports. As a result of changes in ABS classifications from July 1977, other statistics are taken from Department of Resources and Energy and ABARE publications, with ABARE estimates of import values used from 1977-78 to 1980-81. **b** Includes fuels not marketed commercially and domestic sales of all ships and aircraft stores. **c** Excludes LPG. **d** Ships' and aircraft stores. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *Overseas Trade, Part 1 – Exports and Imports,* cat. no. 5409.0, Canberra; DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Department of Resources and Energy, *Australian Energy Statistics,* AGPS, Canberra.

310 Australian production of primary petroleum

	Crude oil	Condensate b	Crude oil and condensate	Liquefied petroleum gas	Natural gas c	Ethane
	ML a	ML	ML	ML	Gm^3	Gm^3
1965-66	504	na	504	na	0.00	0.00
1966-67	645	na	645	na	0.00	0.00
1967-68	1 902	na	1 902	na	0.01	0.00
1968-69	2 236	na	2 236	na	0.06	0.00
1969-70	4 882	na	4 882	37	0.78	0.00
1970-71	14 936	na	14 936	752	1.96	0.00
1971-72	19 038	na	19 038	1 228	2.63	0.00
1972-73	20 668	na	20 668	1 796	3.71	0.03
1973-74	23 193	na	23 193	2 030	4.40	0.05
1974-75	23 134	na	23 134	2 172	4.82	0.06
1975-76	23 827	na	23 827	2 232	5.38	0.07
1976-77	24 598	na	24 598	2 530	6.40	0.10
1977-78	25 369	na	25 369	2 918	7.05	0.13
1978-79	24 896	na	24 896	3 171	7.86	0.14
1979-80	23 711	na	23 711	3 112	9.09	0.15
1980-81	23 093	na	23 093	2 984	10.52	0.14
1981-82	22 386	na	22 386	3 033	11.65	0.15
1982-83	21 085	984	22 069	2 909	11.75	0.17
1983-84	25 732	1 096	26 828	3 132	12.31	0.18
1984-85	29 241	1 715	30 956	3 864	13.17	0.20
1985-86	29 782	1 952	31 734	4 016	14.50	0.20
1986-87	29 457	2 047	31 504	3 927	14.90	0.18
1987-88	28 551	2 713	31 264	3 923	15.48	0.20
1988-89	25 574	2 681	28 255	3 825	15.96	0.19
1989-90	28 744	3 250	31 994	4 009	20.08	0.19
1990-91	28 661	3 294	31 955	3 800	21.05	0.18
1991-92	27 780	3 529	31 309	3 862	23.30	0.19
1992-93	27 037	3 666	30 703	4 073	24.42	0.19
1993-94	25 216	3 730	28 945	4 015	26.57	0.19
1994-95	26 795	4 395	31 190	3 969	29.26	0.20
1995-96	24 058	6 193	30 251	4 113	30.04	0.20
1996-97	24 164	6 885	31 049	4 253	30.23	0.43
1997-98	25 779	8 183	33 961	4 901	31.35	0.57
1998-99	19 937	7 960	27 897	4 368	32.22	0.56
1999-00	29 594	7 861	37 447	4 832	33.43	0.61
2000-01	31 664	7 041	38 705	4 056	34.34	0.48
2001-02	28 933	7 167	36 100	4 647	35.80	0.62
2002-03	25 816	7 503	33 319	4 622	36.81	0.63

a 58 030 million litres equals 1 million barrels a day. **b** Before 1982-83, condensate production is included in crude oil. **c** Includes noncommercial natural gas and methane from other than natural gas fields. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Resource Economics, *Australian Energy Projections, Australia: 1961-62 to 1998-99,* AGPS, Canberra; DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra.

311 Australian production of refined petroleum products

	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	ML	ML	ML	ML	ML	ML	ML	ML	ML
Automotive gasoline	17 911	18 358	18 084	18 589	18 705	18 652	17 887	18 000	17 984
Automotive diesel oil	11 365	12 200	12 968	13 183	12 968	12 737	13 212	13 064	13 335
Aviation turbine fuel	4 410	4 882	5 284	5 423	5 218	5 539	5 836	5 390	5 149
Fuel oil	2 431	1 998	1 796	1 662	1 634	1 839	1 951	1 684	1 441
Liquefied petroleum gas **a**	1 205	1 448	1 605	1 518	1 691	1 674	1 795	1 718	1 657
Industrial and marine diesel fuel	129	78	45	48	32	60	98	105	117
Bitumen	621	635	638	689	695	719	693	725	751
Lubricants	776	810	788	771	680	649	641	564	521
Aviation gasoline	156	169	137	152	174	158	137	147	134
Heating oil	190	219	243	216	167	217	194	192	195
Other **a**	5 228	5 545	5 284	5 147	5 065	5 387	5 245	5 088	5 887
Total products	44 421	46 343	46 872	47 400	47 030	47 630	47 690	46 677	46 976

a Includes byproducts of petrochemical and downstream processing.
Sources: ABARE, *Australian Energy Projections 1961-62 to 1998-99,* Canberra; DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra.

312 Australian consumption of petroleum

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Crude oil and other refinery feedstock									
Stock	days **a**	23	24	23	22	23	24	27	24
Refinery input	ML	43 203	44 444	45 591	44 401	44 500	44 708	42 911	44 548
Refined products									
Automotive gasoline	ML	17 884	17 905	17 950	18 230	18 477	18 168	18 669	18 872
Automotive diesel oil	ML	11 939	12 321	12 564	12 825	13 245	12 952	13 441	13 888
Aviation turbine fuel	ML	4 665	4 848	4 863	4 791	5 023	5 319	4 603	4 250
Fuel oil	ML	2 131	2 016	1 774	1 861	2 200	1 705	1 777	1 423
Liquefied petroleum gas	ML	4 448	4 160	4 362	4 570	4 456	3 893	4 154	3 851
Industrial and marine diesel fuel	ML	56	72	62	14	18	22	46	18
Bitumen	ML	700	733	714	716	781	716	755	671
Lubricants	ML	517	517	517	502	526	532	555	693
Aviation gasoline	ML	102	103	104	106	103	101	97	90
Heating oil	ML	113	118	106	77	81	63	50	48
Other **b**	ML	5 639	5 037	5 355	5 450	5 540	6 467	6 935	6 912
Total products	ML	48 193	47 829	48 371	49 143	50 450	49 938	51 082	50 716

a Days of forward consumption. **b** Includes petrochemical and noncommercial use of all products plus refinery fuel, but petroleum products produced from the conversion of other petroleum products have been netted off.
Sources: ABARE, *Australian Energy Projections 1961-62 to 1998-99,* Canberra; DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra.

313 Australian production of primary petroleum, by basin

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	ML	ML	ML	ML	ML	ML	ML	ML
Crude oil								
Adavale	0	0	0	0	0	0	0	2
Amadeus	169	159	131	107	91	80	72	59
Bonaparte	1 377	981	804	663	6 177	8 898	5 985	5 131
Bowen–Surat	53	68	80	64	35	45	39	28
Canning	17	10	8	8	5	6	4	4
Carnarvon								
Barrow Island	757	776	744	711	683	646	580	547
North West Shelf	2 039	4 154	3 552	1 883	5 495	6 815	8 609	8 317
Other	6 840	5 502	6 439	6 261	5 191	5 739	4 855	4 284
Cooper–Eromanga								
Queensland	723	695	609	585	512	474	432	450
South Australia	696	673	629	559	422	439	490	413
Gippsland	11 365	11 128	12 769	9 088	10 987	8 523	7 860	6 676
Otway	0	0	0	0	0	0	0	0
Perth	23	17	13	9	6	1	5	119
Total	24 058	24 163	25 779	19 938	29 604	31 664	28 933	26 030
Condensate								
Adavale	0	0	0	0	0	0	0	1
Amadeus	0	0	0	0	0	0	0	0
Bonaparte	0	0	0	0	0	0	0	0
Bowen–Surat	76	45	28	18	18	18	13	12
Canning	0	0	0	0	0	0	0	0
Carnarvon								
Barrow Island	0	81	185	202	300	365	366	349
North West Shelf	4 568	5 349	6 545	6 346	6 038	5 121	5 224	5 705
Other	75	83	72	71	205	118	110	101
Cooper–Eromanga								
Queensland	164	139	142	181	198	141	203	239
South Australia	421	386	412	490	447	467	378	349
Gippsland	882	795	789	644	652	805	859	743
Otway	4	4	6	7	2	4	12	2
Perth	3	3	2	1	2	2	1	2
Total	6 193	6 885	8 183	7 960	7 861	7 041	7 167	7 503
Liquefied petroleum gas								
Adavale	0	0	0	0	0	0	0	0
Amadeus	0	0	0	0	0	0	0	0
Bonaparte	0	0	0	0	0	0	0	0
Bowen–Surat	119	81	54	25	20	22	18	18
Canning	0	0	0	0	0	0	0	0
Carnarvon								
Barrow Island	0	0	0	0	0	0	0	0
North West Shelf	386	780	1 280	1 355	1 564	1 493	2 028	1 911
Other	0	0	0	0	0	0	0	0
Cooper–Eromanga								
Queensland	0	0	0	0	0	0	0	0
South Australia	897	803	810	890	895	816	768	724
Gippsland	2 247	2 125	2 292	1 634	1 889	1 725	1 799	1 970
Otway	0	0	0	0	0	0	0	0
Perth	0	0	0	0	0	0	0	0
Total	3 649	3 789	4 437	3 904	4 368	4 056	4 612	4 622

Continued

313 Australian production of primary petroleum, by basin (continued)

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	GL	GL	GL	GL	GL	GL	GL	GL
Naturally occurring ethane and natural gas **a**								
Adavale	53	54	43	28	21	19	15	9
Amadeus	399	443	461	459	476	459	471	452
Bonaparte	0	0	0	0	0	0	0	0
Bowen–Surat	1 185	948	723	682	713	614	518	647
Canning	0	0	0	0	0	0	0	0
Carnarvon								
Barrow Island	35	214	500	606	942	929	452	1 116
North West Shelf	15 334	14 861	15 837	16 343	16 357	16 042	16 561	17 753
Other	1 045	1 221	1 031	1 171	1 027	1 384	1 359	1 113
Cooper–Eromanga								
Queensland	0	0	0	0	0	0	0	0
South Australia	5 124	5 540	5 829	6 274	6 456	5 764	6 308	5 753
Gippsland	6 526	5 916	5 971	5 308	5 329	6 304	6 355	6 432
Otway	135	139	154	157	209	203	316	103
Perth	352	416	339	215	263	286	188	197
Total	30 187	29 752	30 889	31 243	31 792	32 004	32 543	33 576

a Does not include methane or ethane produced from other than natural gas fields.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra.

314 Volume of Australian trade in petroleum

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Exports									
Automotive gasoline	ML	1 127	1 293	1 521	1 533	1 371	1 288	1 186	1 058
Diesel fuel	ML	1 201	1 363	1 305	1 231	1 070	1 276	948	1 052
Automotive diesel oil	ML	1 109	1 306	1 266	1 218	1 018	1 157	449	0
Industrial and marine diesel fuel	ML	92	56	39	13	51	119	60	0
Aviation turbine fuel	ML	552	708	658	547	579	755	549	645
Fuel oil	ML	629	928	633	253	585	724	293	95
Aviation gasoline	ML	69	43	56	74	79	28	71	52
Kerosene	ML	18	31	33	31	10	10	2	0
Lubricants	ML	351	363	401	319	258	278	163	163
Other	ML	154	312	335	249	164	203	197	75
Total refined products	ML	4 101	5 041	4 941	4 236	4 116	4 564	3 409	3 140
Liquefied petroleum gas **a**	ML	1 469	2 421	2 824	2 486	2 857	2 785	3 211	3 194
Bunkers **b**	ML	2 565	2 294	2 203	2 305	2 314	2 291	2 267	2 238
Crude oil and other refinery feedstock	ML	10 899	12 401	14 785	14 291	20 877	24 044	23 936	20 949
Liquefied natural gas **cs**	MT	7.482	7.486	7.650	7.819	7.923	7.530	7.600	7.900
Imports									
Automotive gasoline	ML	421	1 074	483	890	1 065	1 189	1 436	1 673
Diesel fuel	ML	1 110	952	770	1 435	1 400	1 129	1 280	1 627
Automotive diesel oil	ML	1 027	927	na	na	na	na	na	na
Industrial and marine diesel fuel	ML	83	25	na	na	na	na	na	na
Aviation turbine fuel	ML	301	306	111	140	171	387	225	429
Fuel oil	ML	720	809	795	596	799	814	557	611
Lubricants	ML	30	21	39	57	82	33	57	216
Liquefied petroleum gas	ML	415	588	511	496	519	633	588	299
Other	ML	525	537	555	514	597	561	511	643
Total refined products	ML	3 522	4 286	3 263	4 129	4 632	4 746	4 655	5 497
Crude oil and other refinery feedstock	ML	23 703	24 768	25 017	29 729	26 936	26 343	27 308	27 958

a Mostly naturally occurring. **b** Ship and aircraft stores. **c** 1 tonne of LNG is approximately equal to 2174 litres of LNG. **s** ABARE estimate. **na** Not available.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra.

315 Value of Australian trade in petroleum

	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
	$m	$m	$m	$m	$m	$m	$m	$m
Exports								
Automotive gasoline	217	264	304	262	366	500	389	367
Diesel fuel	252	313	256	198	268	498	308	366
Automotive diesel oil	224	295	242	193	251	446	146	0
Industrial and marine diesel fuel	28	18	14	5	17	52	21	0
Aviation turbine fuel	123	167	135	93	169	301	184	228
Fuel oil	79	129	86	28	116	183	70	29
Aviation gasoline	19	14	20	24	34	17	33	29
Kerosene	5	8	6	5	2	5	1	0
Lubricants	192	181	214	196	184	238	164	141
Other products	46	71	76	60	65	103	226	405
Total refined products	933	1 147	1 097	866	1 202	1 844	1 234	1 198
Liquefied petroleum gas	189	356	367	297	648	830	721	855
Bunkers **a**	586	547	505	397	666	899	760	775
Crude oil and other refinery feedstock	1 675	2 119	2 251	1 881	5 292	8 137	6 390	6 402
Liquefied natural gas	1 372	1 537	1 599	1 425	1 949	2 671	2 613	2 607
Imports								
Automotive gasoline	85	225	93	134	321	432	448	569
Diesel fuel	219	208	149	225	377	438	414	561
Automotive diesel oil	202	201	94	0	0	0	202	561
Industrial and marine diesel fuel	17	7	4	0	0	0	0	0
Aviation turbine fuel	62	66	22	24	48	154	68	146
Fuel oil	89	104	96	59	150	222	143	180
Lubricants	56	52	81	107	111	60	126	190
Liquefied petroleum gas	55	87	68	64	108	160	116	76
Other products	199	213	257	255	262	350	310	328
Total refined products	765	955	766	868	1 375	1 816	1 625	2 050
Crude oil and other refinery feedstock	3 562	4 233	3 707	3 794	6 313	8 753	7 458	8 610

a Ships and aircraft stores.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra.

316 Australian exports of petroleum, by destination [a]

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Quantity									
Crude oil and other refinery feedstock									
China	ML	315	204	317	758	1 676	912	1 051	1 704
Chinese Taipei	ML	2 336	2 163	2 066	2 200	2 561	3 712	1 920	580
Japan	ML	2 490	2 451	2 832	2 954	3 528	4 068	3 168	3 402
Korea, Rep. of	ML	702	1 214	1 564	2 005	4 338	4 358	5 521	4 012
New Zealand	ML	639	1 145	880	779	556	613	1 426	786
Singapore	ML	1 342	949	1 613	1 691	3 831	6 079	6 215	6 564
United States	ML	938	2 231	3 558	2 768	3 462	2 962	2 674	2 944
Other	ML	544	492	586	1 139	2 177	1 839	1 989	2 195
Total	ML	9 307	10 849	13 414	14 294	22 128	24 544	23 965	22 186
Liquefied petroleum gas									
China	ML	124	992	771	778	605	416	441	154
Japan	ML	1 058	1 093	1 541	1 167	1 844	2 241	2 572	2 786
Korea, Rep. of	ML	na	0	0	215	188	61	127	234
Other	ML	80	57	237	161	219	67	71	21
Total [b]	ML	1 469	2 421	2 824	2 486	2 857	2 785	3 211	3 194
Refined products									
Fiji	ML	565	613	633	576	624	748	473	384
Japan	ML	50	283	197	219	67	18	220	26
New Zealand	ML	1 079	1 165	1 206	1 305	1 245	1 086	1 247	1 250
Singapore	ML	710	1 059	906	319	561	697	367	246
Other Pacific	ML	208	129	195	239	120	150	151	738
United States	ML	92	196	256	184	380	331	153	99
Other	ML	1 398	1 597	1 549	1 394	1 119	1 534	798	397
Total	ML	4 101	5 041	4 941	4 236	4 116	4 564	3 409	3 140
Value [c]									
Crude oil and other refinery feedstock									
China	$m	51	31	51	106	432	317	283	530
Chinese Taipei	$m	344	354	304	287	629	1 284	508	179
Japan	$m	370	420	443	400	899	1 394	854	1 058
Korea, Rep. of	$m	106	224	226	253	1 117	1 486	1 490	1 217
New Zealand	$m	109	212	155	115	142	213	406	256
Singapore	$m	204	148	243	211	943	1 973	1 597	1 956
United States	$m	146	370	517	367	892	1 012	693	883
Other	$m	345	360	312	141	238	458	558	322
Total	$m	1 675	2 119	2 251	1 881	5 292	8 137	6 390	6 402
Liquefied petroleum gas									
China	$m	13	148	94	97	128	125	96	35
Japan	$m	139	76	196	136	425	666	579	755
Korea, Rep. of	$m	na	0	0	26	42	19	30	59
Other	$m	10	113	37	21	54	19	16	6
Total [b]	$m	189	356	367	297	648	830	721	855
Refined products									
Fiji	$m	118	140	128	99	165	293	161	140
Japan	$m	14	60	41	48	23	9	68	13
New Zealand	$m	241	280	273	262	379	461	437	460
Singapore	$m	133	174	165	58	117	201	112	95
Other Pacific	$m	48	33	42	44	36	40	55	270
United States	$m	21	40	54	42	114	154	56	39
Other	$m	358	420	393	314	368	686	345	181
Total	$m	933	1 147	1 097	866	1 202	1 844	1 234	1 198

a Does not include LNG exports or ships and aircraft stores. **b** Includes confidential exports. **c** Actual values are used and aggregated for each category.
na Not available.
Sources: DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra; ABS; ABARE.

317 Australian imports of petroleum, by source

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Quantity									
Crude oil and other refinery feedstock									
Indonesia	ML	4 713	5 435	7 131	9 648	4 176	3 788	6 795	5 380
Malaysia	ML	839	314	888	1 576	2 811	2 249	2 290	2 299
New Zealand	ML	1 093	2 069	1 544	1 792	1 251	1 104	1 089	990
Other Middle East	ML	340	711	432	1 751	985	453	42	334
Papua New Guinea	ML	4 667	3 951	2 987	3 228	3 549	2 772	2 208	1 683
Qatar	ML	1 273	614	854	211	470	439	646	191
Saudi Arabia	ML	4 469	3 681	3 706	2 828	3 294	4 016	3 004	3 680
Singapore	ML	983	529	622	257	61	287	554	719
United Arab Emirates	ML	3 153	4 595	3 081	1 197	1 642	3 170	2 305	2 294
Viet Nam	ML	1 451	1 901	3 259	6 086	6 157	6 282	5 652	6 699
Other	ML	723	968	512	1 156	2 538	1 784	2 724	3 690
Total	ML	23 703	24 768	25 017	29 729	26 936	26 343	27 308	27 958
Refined products									
Indonesia	ML	125 **s**	63 **s**	84	56	41	121	87	57
Korea, Rep. of	ML	50	35	47	139	0	141	289	156
Malaysia	ML	77 **s**	36 **s**	64	42	69	6	29	45
Middle East	ML	569 **s**	913 **s**	375	666	555	775	474	140
New Zealand	ML	50	72	115	51	83	19	42	18
Singapore	ML	1 387	1 460	943	1 726	1 730	1 688	2 124	2 907
United States	ML	871 **s**	409 **s**	430	365	379	367	462	105
Other **a**	ML	394	1 299	1 206	1 084	1 779	1 610	1 169	1 776
Total	ML	3 522	4 286	3 263	4 129	4 637	4 726	4 676	5 204
Value									
Crude oil and other refinery feedstock									
Indonesia	$m	723	951	1 109	1 266	942	1 295	1 846	1 671
Malaysia	$m	133	61	134	214	666	770	647	735
New Zealand	$m	168	364	231	234	307	379	309	316
Other Middle East	$m	47 **s**	116 **s**	59 **s**	214	227	138	12	101
Papua New Guinea	$m	736	730	463	435	867	974	601	527
Qatar	$m	167	92	116	27	90	141	191	58
Saudi Arabia	$m	617	563	493	317	751	1 201	758	1 074
Singapore	$m	160	86	96	32	13	98	149	224
United Arab Emirates	$m	447	766	442	146	363	1 041	674	664
Viet Nam	$m	225	312	477	765	1 454	2 115	1 528	2 095
Other	$m	139	192	86	143	633	601	743	1 145
Total	$m	3 562	4 233	3 707	3 794	6 313	8 753	7 458	8 610
Refined products									
Indonesia	$m	18	26	13	11	11	41	23	17
Korea, Rep. of	$m	13	9	18	23	121	64	101	56
Malaysia	$m	13	12	12	11	18	3	11	18
Middle East	$m	91 **s**	170	64	91	112	243	94	39
New Zealand	$m	8	10	19	7	19	8	12	6
Singapore	$m	277	315	194	281	481	655	684	1 000
United States	$m	189	200	256	251	240	255	321	277
Other **a**	$m	156	211	190	194	374	547	379	637
Total	$m	765	955	766	868	1 375	1 816	1 625	2 050

a Includes confidential imports of refined products. **s** ABARE estimate.

Sources: DITR, *Australian Petroleum Statistics* (previously *Major Energy Statistics),* Canberra; ABS; ABARE.

318 World crude oil supply and demand a

	Unit	1995	1996	1997	1998	1999	2000	2001	2002
Supply									
OPEC **b**	mbd	27.7	28.5	29.9	30.8	29.4	30.8	30.1	28.6
Non-OPEC									
Asia Pacific	mbd	2.8	2.8	2.8	3.0	3.0	3.2	3.2	3.1
China	mbd	3.0	3.1	3.2	3.2	3.2	3.2	3.3	3.4
Europe	mbd	7.6	8.0	8.0	8.1	8.3	8.4	8.4	8.5
Mexico	mbd	3.1	3.3	3.4	3.5	3.4	3.5	3.6	3.6
Middle East Africa	mbd	4.4	4.6	4.6	4.6	4.7	4.8	4.9	5.1
North America	mbd	11.0	11.1	11.2	11.0	10.7	10.8	10.9	11.0
Russian Federation	mbd	6.2	6.0	6.1	6.1	6.2	6.5	7.0	7.7
South America	mbd	3.0	3.3	3.4	3.6	3.8	3.8	3.8	3.9
Total **c**	mbd	70.1	72.0	74.3	75.5	74.1	76.7	76.7	76.6
Demand									
Africa	mbd	2.2	2.2	2.3	2.4	2.3	2.4	2.5	2.6
China	mbd	3.3	3.7	4.1	4.2	4.5	4.8	4.9	5.0
Japan and Korea, Rep. of	mbd	7.7	7.9	8.0	7.4	7.6	7.6	7.5	7.5
Latin America	mbd	6.0	6.2	6.3	6.7	6.8	6.9	6.8	6.8
Middle East	mbd	4.1	4.2	4.2	4.2	4.3	4.7	4.9	5.1
North America	mbd	19.8	20.3	20.9	21.2	21.9	22.1	21.9	22.2
Russian Federation	mbd	3.0	2.6	2.9	2.4	2.4	2.4	2.5	2.5
Western Europe 4 **d**	mbd	8.6	8.6	8.6	8.7	8.5	8.4	8.4	8.3
Other Asia Pacific	mbd	6.9	7.3	7.8	7.7	8.0	8.3	8.4	8.7
Other Europe	mbd	8.5	8.7	8.7	8.8	8.5	8.6	8.7	8.7
Total	mbd	70.1	71.8	73.8	73.5	74.7	76.2	76.5	77.4
OECD stocks **e**	days	54	54	56	56	51	52	54	50

a Includes crude oil, marine bunkers, refinery fuel, nonconventional oil and natural gas liquids. **b** Includes natural gas liquids produced by OPEC (around 3 million barrels a day). **c** Includes around 1.7 million barrels a day net gain in the processing of primary fuels other than crude oil. **d** France, Germany, Italy and United Kingdom. **e** Industry stocks measured in days of forward consumption at 31 December.

Sources: BP Statistical Review of World Energy; International Energy Agency, *Monthly Oil Market Report,* OECD, Paris; Energy Information Administration, US Department of Energy, Washington DC.

319 Prices for crude oil, by origin [a]

	World trade weighted [b] US$/bbl	Dubai [c] US$/bbl	Brent [d] US$/bbl	WTI [e] US$/bbl	Gippsland [f] US$/bbl	
1985 quarter						
March	28.16	27.2	27.00	26	na	(Australian IPP)
June	27.60	25.97	27.35	27.22	na	
September	27.20	26.13	27.18	27.48	43.75	(Australian IPP)
December	27.41	26.69	28.42	28.97	42.25	
1986 quarter						
March	21.88	16.25	17.54	17.03	38.17	(Australian IPP)
June	12.57	10.58	12.78	13.93	19.98	(Australian IPP)
Start of non-transparent price calculations						
September	11.86	11.06	12.56	13.98	19.76	(Australian IPP)
December	13.58	13.91	14.88	15.65	25.94	(Australian IPP)
1987 quarter						
March	17.28	16.91	18.46	17.28	28.59	(Australian IPP)
June	17.57	17.07	18.53	19.3	28.34	(Australian IPP)
September	17.73	17.40	19.11	20.47	28.63	(Australian IPP)
December	17.12	16.34	17.97	18.65	27.44	(Australian IPP)
1988 quarter						
March	15.20	14.66	15.53	16.68	16.47	(Australian IPP)
June	15.00	14.55	15.90	17.52	16.23	(Australian IPP)
September	13.34	12.09	13.78	14.54	14.36	(Australian IPP)
December	11.72	11.09	13.45	14.70	13.18	(Australian IPP)
1989 quarter						
March	15.49	15.00	17.39	18.46	17.80	
June	17.33	15.72	18.20	20.25	19.17	
September	16.26	15.32	17.54	19.85	17.75	
December	17.42	16.18	19.04	20.02	18.86	
1990 quarter						
March	18.14	16.63	19.76	21.75	19.97	
June	14.43	14.01	16.35	17.84	16.50	
September	24.12	25.58	26.64	26.57	24.29	
December	29.15	27.53	32.27	31.88	34.08	
1991 quarter						
March	17.98	15.85	20.37	21.12	21.50	
June	16.56	15.57	18.93	20.86	19.05	
September	17.61	16.91	19.91	21.66	20.33	
December	18.57	17.54	20.48	21.75	22.45	
1992 quarter						
March	16.37	15.55	17.89	18.86	18.78	
June	18.49	17.94	20.15	21.17	20.10	
September	19.04	18.42	20.27	21.33	22.15	
December	18.08	17.26	19.20	20.46	20.27	
1993 quarter						
March	16.87	15.84	18.29	19.83	19.25	
June	16.95	15.93	18.16	19.74	19.25	
September	15.16	14.32	16.46	17.63	17.61	
December	14.02	13.54	14.86	16.83	15.67	
1994 quarter						
March	13.34	12.75	14.00	14.83	14.86	
June	15.28	14.74	16.17	17.81	15.74	
September	16.45	15.85	16.95	18.50	17.43	
December	16.15	15.63	16.57	17.66	16.38	

Continued

319 Prices for crude oil, by origin a *(continued)*

	World trade weighted b US$/bbl	Dubai c US$/bbl	Brent d US$/bbl	WTI e US$/bbl	Gippsland f US$/bbl
1995 quarter					
March	16.90	16.34	17.04	18.40	17.80
June	17.80	16.96	18.12	19.38	18.36
September	15.98	15.33	16.15	17.87	17.01
December	16.55	15.87	17.03	18.17	17.62
1996 quarter					
March	18.13	16.49	18.64	19.78	19.53
June	19.09	17.24	19.24	21.72	19.26
September	20.22	19.51	21.10	22.43	20.08
December	22.75	21.64	23.30	24.65	23.68
1997 quarter					
March	20.69	20.93	19.94	22.81	22.68
June	17.53	18.04	17.83	19.98	19.56
September	17.59	17.73	18.73	19.80	19.46
December	17.80	17.97	18.93	19.92	20.23
1998 quarter					
March	12.78	12.59	14.54	16.01	15.01
June	11.95	12.30	13.86	14.72	14.62
September	11.87	11.69	12.75	13.59	12.85
December	11.11	11.56	11.73	13.00	12.57
1999 quarter					
March	10.93	11.13	11.53	13.11	11.57
June	15.33	15.28	15.85	17.67	16.15
September	20.10	19.68	20.89	21.63	20.00
December	23.46	23.55	24.51	26.72	24.34
2000 quarter					
March	26.33	25.57	26.72	29.05	26.75
June	26.31	24.17	25.29	27.33	27.98
September	28.79	25.72	26.95	28.97	31.89
December	28.58	28.56	30.77	32.28	31.10
2001quarter					
March	24.33	23.63	26.14	28.60	26.81
June	25.57	25.15	27.28	27.93	28.18
September	24.24	24.16	25.40	26.78	25.26
December	18.40	18.52	19.40	20.50	20.27
2002 quarter					
March	19.78	20.32	21.29	21.82	21.03
June	23.95	24.33	25.06	26.29	25.49
September	25.54	25.49	26.81	28.26	26.95
December	25.41	25.03	26.76	28.18	27.86
2003 quarter					
March	29.71	28.62	31.58	34.17	32.40
June	24.37	24.47	26.14	29.06	27.05

a Based on daily prices unweighted and averaged over the period using posted or official selling prices with Rotterdam spot prices for Middle East and North Sea crudes after 1980. **b** Quarterly averages of weekly rates; average contract selling prices fob of internationally traded crude oils only, weighted by estimated export volume. **c** Middle East crude, 32 API gravity. **d** North Sea crude, 38 API gravity. **e** North American crude, 40 API gravity. **f** Australian crude, 42 API gravity. Price series discontinued in 1988.

Sources: ABARE averaging of daily prices using: Middle East Petroleum and Economic Publications, *International Crude Oil and Product Prices,* London; Department of Resources and Energy, *Australian Energy Statistics,* AGPS, Canberra; Energy Information Administration, US Department of Energy, Washington DC; *Platts Oilgram Price Reports,* London; Reuterlink.

320 Summary of Australian statistics for salt

	Production	Exports		
		Volume	Value	Unit value [a]
	kt	kt	$m	$/t
1960	471	19	0.3	15.79
1961	517	61	0.7	11.48
1962	545	76	0.7	9.21
1963	591	122	0.8	6.56
1964	554	119	0.8	6.72
1965	665	115	0.6	5.22
1966	655	95	0.5	5.26
1967	714	89	0.5	5.62
1968	914	228	0.9	3.95
1969	1 680	775	2.1	2.71
1970	3 071 [b]	2 331	8.2	3.52
1971	3 788 [b]	2 815	9.0	3.20
1972	3 340 [b]	2 417	7.0	2.90
1973	4 204	3 475	10.6	3.05
1974	5 009	4 211	15.4	3.66
1975	4 660	3 652	17.5	4.79
1976	5 489	4 258	26.9	6.32
1977	4 716	4 057	29.5	7.27
1978	5 873	4 654	32.9	7.07
1979	5 215	4 513	33.3	7.38
1980	5 665	4 515	44.3	9.81
1981	6 716	3 964	44.0	11.10
1982	4 811	4 144	55.2	13.32
1983	5 170	4 535	69.4	15.30
1984	5 695	4 783	74.7	15.62
1985	5 835	5 166	97.4	18.85
1986	6 131	5 213	102.0	19.57
1987	6 486	2 745 [c]	56.0 [c]	20.40
1988	6 958 [b]	6 206	117.2	18.89
1989	7 070 [d]	6 194	121.5	19.61
1990	7 229 [d]	6 466	136.3	21.08
1991	7 768 [d]	7 061	165.6	23.46
1992	7 693 [d]	7 028	174.9	24.89
1993	7 553 [d]	6 982	185.5	26.56
1994	7 792 [d]	7 259	174.1	23.99
1995	8 298 [d]	7 649	176.5	23.08
1996	7 993 [d]	7 651	166.6	21.77
1997	8 883 [d]	8 187	190.9	23.32
1998	9 033 [d]	8 701	233.4	26.82
1999	9 888 [d]	8 418	213.7	25.38
2000	8 847 [d]	8 257	221.7	26.85
2001	9 244 [d]	8 817	267.1	30.29
2002	9 884 [d]	9 504	259.6	27.32

a Average export unit value of all salt, bulk, bagged and table. **b** Excludes Victoria. **c** Excludes salt, common, in bulk from 1 January to 30 June.
d Excludes Victoria and the Northern Territory.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

321 Australian supply and disposal of salt

	Unit	1996	1997	1998	1999	2000	2001	2002
Production								
Queensland	kt	208	175	342	249	137	140	140
South Australia	kt	585	592	501	587	1 004	693	577
Western Australia **a**	kt	7 200	8 116	8 191	9 052	7 706	8 410	9 167
Total **b**	kt	7 993	8 883	9 033	9 888	8 847	9 244	9 884
Exports (all types) **c**								
Total	kt	7 651	8 187	8 701	8 418	8 257	8 817	9 504
	$m	167	191	233	214	222	267	260
Imports								
Common salt	t	10 936	12 522	12 310	14 070	14 988	14 869	17 285
	$'000	2 660	2 978	3 299	3 327	3 447	3 591	4 445

a Sales. **b** Excludes Victoria and Northern Territory. **c** Individual country data not available from 1993 as a result of confidentiality restrictions.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

322 World production of salt, by country

	1995 Mt	1996 Mt	1997 Mt	1998 Mt	1999 Mt	2000 Mt	2001 Mt	2002 Mt
Argentina	1.0	1.1	0.8	0.8	1.3	1.0	1.0	1.0
Australia	8.3	8.0	8.9	9.0	9.9	8.8	9.2	9.9
Brazil	5.8	5.4	6.5	6.8	6.0	6.1	5.6	5.6
Canada	10.9	12.2	13.3	13.3	12.7	12.2	13.7	12.3
Chile	3.5	4.0	5.5	6.2	6.1	5.1	6.0	6.0
China **a**	29.8	29.0	30.8	22.4	28.1	31.3	34.1	32.8
Egypt	1.2	1.1	1.2	2.4	2.4	2.4	2.4	2.4
France	7.9	7.9	7.1	7.0	7.0	7.0	7.0	7.0
Germany	12.4	15.9	15.8	15.7	15.7	15.7	15.7	15.7
India	12.5	14.5	14.3	12.0	14.5	14.5	14.5	14.5
Iran	1.0	1.0	1.4	1.9	1.6	1.6	2.0	2.0
Italy	4.4	3.5	3.5	3.6	3.6	3.6	3.6	3.6
Japan	1.4	1.4	1.3	1.3	1.3	1.4	1.4	1.4
Mexico	7.7	8.5	7.9	8.4	8.2	8.9	8.5	8.5
Netherlands **b**	5.4	5.3	5.6	5.5	5.0	5.0	5.0	5.0
Poland	3.4	4.2	3.9	4.0	4.2	4.2	4.2	4.3
Romania	2.5	2.7	2.6	2.2	2.2	2.3	2.2	2.3
Russian Federation	3.1	2.1	2.1	2.2	3.2	3.2	2.8	2.8
Spain	3.7	4.0	4.0	3.5	3.2	3.2	3.2	3.2
Turkey	1.4	2.0	2.3	2.2	2.1	2.1	2.1	2.1
Ukraine	2.9	2.8	2.5	2.5	2.2	2.3	2.3	2.3
United Kingdom	6.6	6.6	6.6	6.6	5.8	5.8	5.8	5.8
United States	40.7	42.3	41.5	41.3	45.0	45.6	44.8	40.3
Other	19.2	18.5	17.6	19.2	18.7	18.7	19.9	19.2
Total	196.7	204.0	207.0	200.0	210.0	212.0	217.0	210.0

a Marketable salt. **b** Includes the Antilles.
Sources: Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; British Geological Survey, *World Mineral Statistics,* Nottingham, England; US Department of the Interior, US Geological Survey, *Mineral Yearbook,* Washington DC; ABARE.

323 Summary of Australian statistics for silica

	Production	Exports a		Imports	
	Volume	Volume	Value	Volume	Value
	kt	kt	$'000	t	$'000
1960	213	na	na	96	20
1961	218	na	na	49	6
1962	234	na	na	24	10
1963	247	na	na	46	38
1964	330	na	na	97	25
1965	337	na	na	44	55
1966	354	na	na	533	33
1967	446	na	na	478	na
1968	550	na	na	438	31
1969	652	na	na	624	37
1970	879	178 b	575 b	785 b	53 b
1971	1 112	211 b	736 b	1 126 b	85 b
1972	1 058	219 b	658 b	1 000 b	86 b
1973	1 259	557 b	1 836 b	696	259
1974	1 443 c	555 b	1 838 b	846	74
1975	1 219	513 b	2 193 b	1 121	119
1976	1 381	389 b	1 867 b	343	52
1977	1 224	495 b	3 030 b	441	77
1978	1 290	467 b	3 112 b	283	45
1979	1 768	647	4 896	368	77
1980	1 828	649	5 762	199	49
1981	1 743	383	4 075	569	169
1982	1 813	519	5 399	3 678	589
1983	1 928	670	6 879	2 464	647
1984	2 242	686	7 430	3 087	550
1985	2 091	895	9 972	1 267	648
1986	2 091	1 137	13 590	852	567
1987	2 361	1 094	13 249	535	397
1988	2 667	1 577	20 973	3 633	609
1988-89	2 795 d	1 660	23 319	3 473	523
1989-90	3 116 d	2 226	34 848	2 029	282
1990-91	3 835 d	2 398	37 685	6 835	667
1991-92	3 347 e	2 547	40 175	9 025	1 205
1992-93	3 570 e	2 488	41 825	2 231	906
1993-94	na	2 600	43 083	1 130	631
1994-95	4 576	3 007	49 163	2 431	989
1995-96	na	3 227	49 538	1 731	1 153
1996-97	na	3 074	52 062	4 237	2 681
1997-98	na	1 447	27 460	811	483
1998-99	na	2 986	58 401	2 704	975
1999-00	4 266	3 232	64 567	2 427	1 159
2000-01	3 997	3 213	75 376	2 658	1 455
2001-02	na	2 629	57 598	4 084	1 933
2002-03	na	2 794	59 900	4 330	2 004

a Includes quartz sand from July 1999, data not available separately. **b** Year ended 30 June. **c** Excludes Western Australia. **d** Excludes Victoria. **e** Excludes Tasmania and Victoria. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

324 Australian production of silica, by state

	New South Wales	Victoria	Queensland	Western Australia	South Australia	Tasmania	Australia	
	kt	kt	kt	kt	kt	kt	kt	
1960	168.1	na	16.1	8.8	14.8	5.3	213.2	
1961	153.3	na	29.7	8.3	23.1	1.4	218.0	
1962	173.4	na	26.0	10.5	23.8	0.5	234.2	
1963	176.7	na	32.5	10.1	25.3	2.7	247.3	
1964	241.9	na	38.2	10.2	25.4	13.8	329.6	
1965	234.9	na	46.2	9.4	36.4	10.1	337.0	
1966	234.1	na	39.4	28.7	46.2	5.5	353.9	
1967	289.1	na	70.2	42.4	35.1	8.7	445.6	
1968	283.6	na	164.5	20.9	67.1	14.3	550.4	
1969	315.4	na	208.9	49.7	49.4	28.3	651.7	
1970	335.2	114.5	295.0	39.3	43.2	51.8	879.1	
1971	430.2	108.1	405.7	57.8	74.0	36.7	1 112.4	
1972	464.2	98.8	395.4	20.9	60.5	18.1	1 058.0	
1973	459.7	109.0	568.1	27.4	66.2	28.1	1 258.5	
1974	474.9	141.8	712.4	na	75.2	38.4	1 442.8	a
1975	392.9	142.6	544.1	28.3	77.6	33.3	1 218.8	
1976	511.7	166.3	516.5	40.6	118.7	27.7	1 381.4	
1977	410.3	199.4	458.7	78.1	104.4	51.5	1 224.3	
1978	417.3	184.3	520.2	91.2	114.8	53.1	1 289.7	
1979	544.9	196.2	627.3	217.7	91.7	89.9	1 767.6	
1980	588.1	255.3	670.7	148.1	99.9	65.5	1 827.6	
1981	548.5	288.2	581.4	168.1	120.4	36.5	1 743.1	
1982	557.5	361.0	563.7	144.0	146.8	40.1	1 813.2	
1983	471.5	348.5	627.4	322.8	114.5	43.3	1 927.8	
1984	448.4	406.9	866.7	352.6	124.4	43.1	2 242.1	
1985	338.5	273.7	924.6	373.1	143.4	37.1	2 090.5	
1986	412.3	267.0	839.4	390.4	141.3	40.9	2 091.3	
1987	464.8	224.0	1 079.2	386.0	147.2	59.5	2 360.7	
1988	457.6	218.7	1 467.0	348.9	96.8	78.0	2 667.0	
1988-89	480.2	na	1 682.6	364.5	109.7	158.0	2 794.9	b
1989-90	574.0	na	1 802.0	478.0	112.0	150.0	3 116.0	b
1990-91	551.1	na	2 145.1	861.7	104.4	172.3	3 834.6	b
1991-92	552.5	na	2 019.8	654.6	119.8	na	3 346.7	c
1992-93	495.0	na	2 421.0	518.0	136.0	na	3 570.0	c
1993-94	na	na	2 494.2	568.4	na	na	na	
1994-95	565.0	220.0	2 828.7	614.5	174.0	174.0	4 576.0	
1995-96	636.2	na	na	741.9	132.0	na	na	
1996-97	699.1	na	2 680.5	700.2	157.0	na	na	
1997-98	489.4	na	2 851.1	821.5	131.0	na	na	
1998-99	438.4	na	2 087.2	583.0	126.1	na	na	
1999-00	442.2	443.0	2 637.0	599.6	114.8	139.9	4 265.8	
2000-01	433.5	78.0	2 619.0	557.3	145.3	163.4	3 996.5	
2001-02	604.7	na	na	653.0	185.0	163.3	na	

a Excludes Western Australia. **b** Excludes Victoria. **c** Excludes Tasmania and Victoria. **na** Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

325 Australian imports of silica based products

	Silicon		Ferrosilicon		Ferrosilicomanganese		Piezoelectric crystals
	Volume	Value	Volume	Value	Volume	Value	Value
	t	$'000	t	$'000	t	$'000	$'000
1960	na	188	3 968	na	na	na	na
1961	na	210	8 308	1 217	na	na	na
1962	797	168	6 307	1 004	na	na	na
1963	830	249	5 720	710	na	na	na
1964	1 593	466	10 348	1 167	na	na	na
1965	638	194	13 211	1 747	na	na	na
1966	na	142	7 620	1 061	na	na	na
1967	na	422	9 440	1 379	na	na	na
1968	na	na	6 327	923	na	na	na
1969	na	625	7 722	1 180	na	na	na
1970	na	621	13 603	2 272	na	na	na
1971	3 403	1 192	12 281	2 073	na	na	112
1972	1 950	688	9 771	1 794	na	na	259
1973	2 366	777	9 202	1 526	na	na	159
1974	2 496	1 047	14 286	3 048	na	na	330
1975	2 602	2 723	21 578	8 528	na	na	558
1976	1 845	1 229	14 258	5 249	na	na	467
1977	3 896 **a**	2 982 **a**	6 437	3 114	390 **a**	200 **a**	738 **a**
1978	2 006 **a**	1 492 **a**	6 363	2 893	414	271	536 **a**
1979	2 573 **a**	2 950 **a**	7 149	3 640	488	392	819 **a**
1980	4 888 **a**	5 749 **a**	14 598	8 856	532	376	971 **a**
1981	3 093 **a**	3 553 **a**	9 716	4 675	217	180	1 040 **a**
1982	2 961	3 685	10 761	6 222	193	127	1 886
1983	2 695	4 064	7 174	4 280	336	300	1 859
1984	4 572	7 422	9 461	5 273	774	709	2 402
1985	4 914	9 447	13 890	7 153	940	1 183	3 782
1986	5 852	10 461	11 469	6 873	392	558	3 407
1987	5 083	11 853	12 897	8 894	656	913	4 106
1988	3 759	6 592	9 095	7 533	433	571	3 444
1988-89	3 714	8 062	14 100	12 065	293	401	4 347
1989-90	2 908	10 160	21 507	18 566	205	308	4 470
1990-91	2 443	10 545	19 330	13 929	231	316	3 475
1991-92	2 301	11 469	13 229	11 460	913	922	8 486
1992-93	3 611	11 910	24 738	21 091	932	832	4 423
1993-94	3 025	11 393	35 732	31 342	510	548	6 114
1994-95	2 863	15 083	32 593	25 699	377	375	6 607
1995-96	4 899	14 862	34 506	38 060	288	482	7 951
1996-97	3 226	10 408	52 952	38 258	279	468	6 305
1997-98	1 391	4 607	18 597	19 732	80	128	3 077
1998-99	4 110	15 289	32 044	33 968	451	752	9 431
1999-00	4 887	14 683	29 189	27 749	329	474	12 066
2000-01	5 966	23 530	29 004	33 006	468	723	20 325
2001-02	3 857	13 719	28 965	34 115	259	439	8 509
2002-03	6 437	21 935	29 692	30 695	240	368	8 863

a Year ended 30 June. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra.

326 Summary of Australian statistics for silver

	Production		Exports a		
	Mine	Refinery	Volume	Value	Price b
	t	t	t	$m	$/kg
1970	808	374	304	na	59.39
1971	678	328	203	na	47.92
1972	681	313	219	na	49.75
1973	707	261	115	na	60.08
1974	670	256	112	na	104.75
1975	726	283	134	na	109.17
1976	779	255	100	na	115.17
1977	856	280	136	na	135.00
1978	813	299	76	na	153.00
1979	832	320	85	na	319.25
1980	777	355	85	na	598.00
1981	744	376	90	na	297.17
1982	907	357	234	na	253.67
1983	1 033	329	222	na	411.33
1984	972	302	164	na	299.75
1985	1 086	329	167	na	285.33
1986	1 023	336	192	na	264.58
1987	1 119	362	178	na	325.83
1988	1 134	359	26 c	26 d	275.75
1989	1 075	376	23 c	28 d	229.67
1990	1 173 s	419	16 c	43 d	205.92
1991	1 180 s	387	106 c	38 d	175.58
1992	1 218 s	369	200 c	49 d	181.25
1993	1 152 s	357	257 c	60 d	212.25
1994	1 045 s	363	190 c	53 d	240.92
1995	939 s	346	192 c	52 d	234.06
1996	974 s	220	316 c	73 d	222.42
1997	1 107 s	174	215 c	54 d	220.70
1998	1 473 s	292	365 c	123 d	291.56
1999	1 715 s	437	428 c	117 d	268.62
2000	2 059	404	427	138	285.31
2001	1 970	555	524	159	287.72
2002	2 077	644	540	154	290.78

a Refined silver only. **b** Pasminco Metals, fob/fot Port Pirie. **c** Refined bullion only. **d** Includes refined bullion, powder, unwrought silver and semi-manufactured forms. **s** ABARE estimate. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

327 Australian supply and disposal of silver

	Unit	1995	1996	1997	1998	1999	2000	2001	2002
Production									
Mine									
New South Wales	t	232	211	200	151	147	146	133	89
Queensland	t	419	442	574	985	1 187	1 576	1 545	1 760
Western Australia	t	76	81	83	99	133	137	107	68
South Australia	t	14	14	15	15	25	34	34	32
Tasmania	t	174	179	168	147	171	118	104	78
Northern Territory	t	24	47	68	76	54	47	48	50
Total **s**	t	939	974	1 107	1 473	1 715	2 059	1 970	2 077
Refinery	t	346	220	174	292	437	404	555	644
Exports									
Refined silver									
India	t	0	5	29	54	140	131	190	192
Japan	t	104	141	102	131	162	185	178	143
Korea, Rep. Of	t	0	0	11	19	39	53	42	34
Singapore	t	22	75	1	40	1	17	72	5
United Kingdom	t	6	10	0	67	10	0	0	42
Other	t	60	85	71	54	76	42	41	125
Total	t **a**	192	316	215	365	428	427	524	540
	$m **b**	52	73	54	123	117	138	159	154
Silver content of lead bullion	t	411	463	494	405	419	332	411	455
Prices									
World **c**	USc/troy oz	518.88	518.67	487.96	553.74	524.97	499.91	434.98	460.04
Australia **d**	A$/kg	234.06	222.42	220.70	291.56	268.62	285.31	287.72	290.78

a Refined bullion only. **b** Includes refined bullion, powder, unwrought silver and semimanufactured forms. **c** Handy and Harman price. **d** Pasminco Metals, fob/fot Port Pirie. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

328 World mine production of silver

	1994	1995	1996	1997	1998	1999	2000	2001	2002
	t	t	t	t	t	t	t	t	t
Australia **s**	1 045	939	974	1 107	1 473	1 715	2 059	1 970	2 077
Bolivia	352	425	385	386	404	424	434	410	409
Brazil	150	145	140	135	130	130	130	130	130
Canada	768	1 285	1 309	1 224	1 196	1 246	1 204	1 276	1 320
Chile	959	1 036	1 130	1 088	1 337	1 380	1 245	1 357	1 205
China	812	1 000	1 100	1 265	1 260	1 330	1 330	1 330	2 000
Indonesia	107	251	255	279	349	292	335	197	222
Japan	134	100	85	87	95	94	104	81	81
Kazakhstan	408	371	414	389	536	816	816	816	816
Korea, Dem. Rep. of	200	200	200	200	200	200	200	200	200
Mexico	2 215	2 334	2 528	2 679	2 688	2 483	2 483	2 628	2 682
Morocco	328	204	200	262	307	270	290	240	240
Peru	1 667	1 881	1 912	2 059	2 004	2 231	2 438	2 670	2 672
Poland	1 064	1 001	935	1 038	1 097	1 093	1 088	1 088	1 221
Russian Federation	250	250	250	250	240	240	240	240	240
South Africa	196	174	168	153	145	152	144	112	111
Spain	136	102	103	66	66	66	66	66	66
Sweden	275	245	256	283	280	284	304	277	294
United States	1 480	1 565	1 570	2 182	2 060	1 952	2 017	1 606	1 419
Uzbekistan	150	150	150	150	150	150	150	150	150
Other	733	721	737	677	663	658	665	783	921
Total	13 428	14 379	14 802 **a**	15 959 **a**	16 677 **a**	17 208 **a**	17 743 **a**	17 629 **a**	18 477 **a**

a Excludes countries for which data are not available. **s** ABARE estimate.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

329 Summary of Australian statistics for talc

	Production b	Exports a			Imports a	
		Volume	Value	Unit value	Volume	Value
	t	t	$'000	$/t	t	$'000
1960	15 794	3 968	129	32.56	504	24
1961	13 664	4 258	149	35.05	1 489	45
1962	13 754	5 068	164	32.34	2 156	72
1963	12 790	4 090	142	34.63	2 591	81
1964	15 439	5 264	177	33.69	2 351	75
1965	19 695	6 887	234	33.98	2 404	68
1966	21 616	7 758	231	29.78	2 903	62
1967	20 431	8 787	277	31.52	2 199	74
1968	37 860	24 875	661	26.57	3 590	117
1969	52 259	34 134	863	25.28	1 823	77
1970	47 517	31 037	791	25.49	3 441	164
1971	41 280	32 662	861	26.36	4 091	197
1972	43 849	32 051	897	27.99	1 186	69
1973	50 850	36 179	996	27.53	1 109	66
1974	63 992	51 325	1 428	27.82	1 606	10
1975	67 242	45 457	1 527	33.59	947	72
1976	77 447	62 306	2 425	38.92	370	62
1977	112 920	87 271	4 052	46.43	335	65
1978	137 553	107 177	5 338	49.81	527	103
1979	138 266	107 849	6 330	58.69	420	86
1980	159 962	83 059	5 286	63.64	382	82
1981	74 840	82 641	5 529	66.90	329	105
1982	143 325	80 512	5 428	67.42	93	30
1983	167 009	131 914	8 401	63.69	147	68
1984	179 709	163 370	10 810	66.17	215	111
1985	132 074	122 306	9 577	78.30	352	196
1986	179 467	183 357	15 028	81.96	151	85
1987	206 865	129 656	11 012	84.93	266	189
1988	201 740	168 758	13 073	77.47	509	223
1988-89	208 998	126 597	9 447	74.62	578	216
1989-90	234 579	200 870	18 158	90.39	631	297
1990-91	173 803	137 260	12 770	93.03	528	237
1991-92	179 678	152 009	13 717	90.24	563	298
1992-93	172 273	119 830	14 184	118.36	629	372
1993-94	154 073	152 297	15 440	101.38	534	328
1994-95	125 701	133 060	12 672	95.23	1 053	353
1995-96	176 163	182 600	17 388	95.22	1 066	423
1996-97	185 601	143 227 c	12 861 c	89.80	1 262	451
1997-98	199 315	714 c	251 c	351.70	384	201
1998-99	190 037	3 333 c	1 053 c	315.82	886	695
1999-00	178 545	184 559	20 391	110.48	1 115	893
2000-01	173 446	135 771	24 298	178.96	1 234	707
2001-02	160 741	144 216	21 768	150.94	1 058	630
2002-03	na	148 281	22 040	148.63	1 742	856

a Includes pyrophyllite. **b** Excludes pyrophyllite. **c** Excludes uncrushed product from 1 June 1997 to 31 May 1999. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

330 Australian production of talc and pyrophyllite, by state

	Talc				Pyrophyllite
	New South Wales	South Australia	Western Australia	Australia	New South Wales
	t	t	t	t	t
1960	1 154	9 082	5 558	15 794	509
1961	838	7 594	5 232	13 664	1 309
1962	732	7 962	5 061	13 754	1 303
1963	878	7 168	4 744	12 790	1 176
1964	1 388	8 533	5 518	15 439	723
1965	1 710	10 783	7 202	19 695	0
1966	1 426	6 611	13 580	21 616	266
1967	2 169	7 303	10 958	20 431	564
1968	2 153	10 586	25 121	37 860	985
1969	2 925	12 459	36 876	52 259	3 165
1970	1 162	14 559	31 796	47 517	7 707
1971	698	11 506	29 076	41 280	6 596
1972	650	11 336	31 863	43 849	12 299
1973	765	14 088	35 997	50 850	12 820
1974	430	12 773	50 789	63 992	15 845
1975	280	12 975	53 987	67 242	15 145
1976	305	16 892	60 250	77 447	14 650
1977	90	16 391	96 439	112 920	16 039
1978	105	14 070	123 378	137 553	9 401
1979	150	15 565	122 551	138 266	19 209
1980	77	16 414	143 471	159 962	11 002
1981	76	21 046	53 718	74 840	8 146
1982	0	20 497	122 828	143 325	9 467
1983	63	14 913	152 033	167 009	9 569
1984	145	18 588	160 976	179 709	7 051
1985	239	16 804	115 031	132 074	7 317
1986	38	18 061	161 368	179 467	8 588
1987	120	17 471	189 274	206 865	6 036
1988	126	18 840	182 774	201 740	3 932
1988-89	155	13 536	195 307	208 998	3 436
1989-90	88	14 228	220 263	234 579	2 965
1990-91	136	12 107	161 560	173 803	1 032
1991-92	0	10 787	168 891	179 678	1 260
1992-93	0	13 484	158 789	172 273	1 175
1993-94	na	13 016	141 057	154 073	na
1994-95	27	12 950	112 724	125 701	777
1995-96	0	14 751	161 412	176 163	595
1996-97	0	8 061	177 540	185 601	337
1997-98	0	8 018	191 297	199 315	702
1998-99	0	8 428	181 609	190 037	347
1999-00	0	9 410	169 135	178 545	1 727
2000-01	0	9 126	164 320	173 446	na
2001-02	0	8 372	152 369	160 741	868

na Not available.

Sources: ABS, *Mineral Production, Australia,* cat. no. 8405.0, Canberra; ABS, *The Australian Mining Industry,* cat. no. 8414.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Kalix, Z., Fraser, L.M. and Rawson, R.I., *Australian Mineral Industry: Production and Trade, 1842–1964,* Bureau of Mineral Resources, Canberra; state mines departments and their equivalents; ABARE.

331 Australian exports of talc, by destination [a]

		Belgium	Japan	Nether-lands	New Zealand	Korea, Rep. of	United States	Other	Total Volume	Total Value
		t	t	t	t	t	t	t	t	$'000
1960		na	na	na	1 161	na	na	na	3 968	129
1961		na	na	na	957	na	na	na	4 258	149
1962		na	na	412	1 116	na	na	na	5 068	164
1963		na	na	0	1 259	na	na	na	4 090	142
1964		na	na	217	1 049	na	na	na	5 264	177
1965		na	na	1 852	1 421	na	na	na	6 887	234
1966		na	na	4 864	1 198	na	na	na	7 758	231
1967		na	78	6 971	1 235	na	na	503	8 787	277
1968		na	190	19 026	1 285	na	na	4 374	24 875	661
1969		na	9 976	22 236	1 474	na	na	448	34 134	863
1970		na	16 445	12 786	1 567	na	na	239	31 037	791
1971		na	20 754	10 048	1 740	na	na	120	32 662	861
1972		na	14 953	14 991	2 029	na	na	78	32 051	897
1973		na	20 061	14 346	1 661	na	na	111	36 179	996
1974		na	30 889	18 703	1 644	na	na	89	51 325	1 428
1975		na	28 329	12 163	2 060	na	na	2 905	45 457	1 527
1976		na	39 050	15 107	2 802	na	na	5 347	62 306	2 425
1977		na	66 557	13 422	2 461	na	na	4 831	87 271	4 052
1978		na	90 577	11 291	1 860	na	na	3 449	107 177	5 338
1979		na	85 511	12 868	3 099	na	na	6 371	107 849	6 330
1980		3 150	64 152	13 500	1 868	na	na	389	83 059	5 286
1981		6 096	60 406	6 215	2 917	na	na	7 007	82 641	5 529
1982		12 597	51 096	10 063	2 419	na	na	4 337	80 512	5 428
1983		5 004	93 988	14 655	1 325	5 023	9 990	1 929	131 914	8 401
1984		11 213	119 678	14 327	1 988	14 167	0	1 997	163 370	10 810
1985		20 051	66 765	14 980	1 848	15 420	0	3 242	122 306	9 577
1986		15 007	120 312	15 252	1 069	15 745	14 003	1 969	183 357	15 028
1987		8 084	84 701	5 001	1 079	9 311	15 472	6 008	129 656	11 012
1988		12 112	124 843	11 960	669	0	18 030	1 144	168 758	13 073
1988-89		5 000	107 482	5 507	548	0	7 019	1 041	126 597	9 447
1989-90		21 754	137 648	13 565	366	4 648	18 510	4 379	200 870	18 158
1990-91		6 000	87 984	35 167	476	0	6 003	1 630	137 260	12 770
1991-92		5 255	103 279	30 200	421	0	4 728	8 126	152 009	13 717
1992-93		17 002	70 331	14 630	686	0	8 166	9 015	119 830	14 184
1993-94		6 317	94 451	37 356	689	0	10 911	2 573	152 297	15 440
1994-95		6 300	68 657	46 800	679	0	9 300	1 324	133 060	12 672
1995-96		12 803	85 375	48 300	797	680	30 100	4 545	182 600	17 388
1996-97	b	6 300	69 029	45 625	669	4 815	5 262	11 527	143 227	12 861
1997-98	b	0	0	0	427	3	0	284	714	251
1998-99	b	0	1 200	0	944	99	0	1 090	3 333	1 053
1999-00		2 501	65 101	78 939	1 013	43	12 400	24 562	184 559	20 391
2000-01		0	62 567	57 550	1 138	129	0	14 387	135 771	24 298
2001-02		0	55 436	61 767	2 574	178	4 200	20 061	144 216	21 768
2002-03		0	42 547	78 318	1 625	21	6 300	19 470	148 281	22 040

a Includes pyrophyllite. **b** Excludes uncrushed product from 1 June 1997 to 31 May 1999. **na** Not available.
Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

332 Australian imports of talc, by source [a]

	Norway	United Kingdom	United States	Other	Total Volume	Total Value
	t	t	t	t	t	$'000
1960	na	na	na	na	504	24
1961	na	na	na	na	1 489	45
1962	34	na	64	na	2 156	72
1963	41	na	119	na	2 591	81
1964	61	na	135	na	2 351	75
1965	82	na	139	na	2 404	68
1966	19	na	256	na	2 903	62
1967	13	na	381	na	2 199	74
1968	40	na	469	na	3 590	117
1969	9	na	442	na	1 823	77
1970	23	na	560	2 858	3 441	164
1971	31	na	732	3 328	4 091	197
1972	65	na	765	356	1 186	69
1973	86	na	647	376	1 109	66
1974	97	na	355	1 154	1 606	10
1975	2	na	244	701	947	72
1976	62	na	188	120	370	62
1977	26	na	186	123	335	65
1978	51	na	236	240	527	103
1979	41	na	168	211	420	86
1980	23	na	187	172	382	82
1981	60	na	228	41	329	105
1982	22	na	49	22	93	30
1983	27	29	82	9	147	68
1984	39	61	111	4	215	111
1985	46	47	248	11	352	196
1986	43	61	36	11	151	85
1987	66	47	107	46	266	189
1988	31	17	431	30	509	223
1988-89	45	34	338	161	578	216
1989-90	25	23	571	13	631	297
1990-91	58	75	368	28	528	237
1991-92	17	65	451	29	563	298
1992-93	30	99	354	146	629	372
1993-94	35	50	297	152	534	328
1994-95	20	46	287	700	1 053	353
1995-96	4	24	305	733	1 066	423
1996-97	11	44	185	1 022	1 262	451
1997-98	8	20	119	237	384	201
1998-99	6	24	224	632	886	695
1999-00	8	5	280	822	1 115	893
2000-01	39	0	250	945	1 234	707
2001-02	59	0	168	830	1 058	630
2002-03	16	4	185	1 537	1 742	856

a Includes pyrophyllite. **na** Not available.

Sources: ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

333 World mine production of talc, by country [a]

	Australia	Brazil	China [b]	Japan	Korea, Rep. of	United States	Other	Total
	kt	kt	kt	kt	kt	kt	kt	kt
1960	16	na	150	592	na	666	833	2 520
1961	15	na	150	635	na	692	914	2 708
1962	15	na	150	589	na	700	931	2 712
1963	14	na	150	654	na	730	993	2 857
1964	16	na	150	1 055	na	807	1 032	3 485
1965	20	na	150	1 008	na	783	1 038	3 444
1966	22	na	150	1 109	na	812	1 003	3 526
1967	21	na	150	1 370	na	819	1 003	3 831
1968	39	na	150	1 689	na	869	1 058	4 298
1969	55	112	150	1 705	180	934	1 280	4 490
1970	55	130	150	1 676	204	932	1 413	4 940
1971	48	130	150	1 895	212	932	1 203	4 950
1972	56	130	150	1 507	236	1 005	1 290	4 764
1973	64	90	150	1 564	417	1 131	1 457	5 272
1974	80	201	150	1 542	443	1 170	1 276	5 272
1975	82	221	270	1 192	416	841	1 430	4 872
1976	92	247	300	1 345	496	963	1 532	5 415
1977	129	254	150	1 359	605	1 093	1 601	5 641
1978	147	240	150	1 272	665	1 202	1 577	5 723
1979	157	366	150	1 709	778	1 318	1 889	6 847
1980	171	413	916	1 749	719	1 125	1 946	7 529
1981	83	503	898	1 545	565	1 218	1 912	7 224
1982	153	384	898	1 492	591	1 030	1 780	6 838
1983	177	396	950	1 466	632	967	1 982	7 070
1984	187	413	952	1 498	848	1 023	2 177	7 615
1985	139	425	1 000	1 434	932	1 151	2 257	7 855
1986	188	425	1 000	1 334	900	1 181	2 190	7 735
1987	213	600	na	1 260	900	1 120	3 763	7 856
1988	206	400	na	1 266	850	1 249	3 678	7 649
1989	212	620	1 000	1 286	800	1 253	2 279	7 980
1990	238	720	1 000	1 293	910	1 267	2 823	8 251
1991	175	570	2 300	1 295	840	1 037	2 715	8 932
1992	181	480	2 650	1 123	760	997	2 673	8 864
1993	173	440	2 700	1 090	750	968	2 579	8 700
1994	na	440	2 400	999	710	935	2 396	7 880
1995	126	460	2 400	994	730	1 060	1 380	7 150
1996	177	510	2 400	965	820	994	2 324	8 190
1997	186	625	2 350	1 010	810	1 050	2 439	8 470
1998	200	452	2 300	965	822	971	2 340	8 050
1999	190	452	3 900	800	875	925	2 526	9 470
2000	180	452	3 500	743	776	851	2 294	9 640
2001	173	450	3 500	668	1 100	853	2 176	8 920
2002	162	450	3 500	650	1 100	830	3 258	9 120

a Includes pyrophyllite. **b** Excludes Hong Kong. **na** Not available.

Sources: BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; US Department of the Interior, US Geological Survey, *Mineral Commodity Summaries,* Washington DC; ABARE.

334 Summary of Australian statistics for tin

	Production		Exports		
	Mine a	Refinery	Volume b	Value	Price
	t	t	t	$m	A$/t
1960	2 202	2 254	0	0	2 196.0
1961	2 745	2 546	0	0	2 450.0
1962	2 715	2 704	0	0	2 470.0
1963	2 860	2 626	97	0	2 506.0
1964	3 642	3 021	253	1	3 416.0
1965	3 849	3 179	633	2	3 892.0
1966	4 807	3 640	1 327	4	3 570.0
1967	5 586	3 594	1 690	5	3 339.0
1968	6 537	3 692	3 238	8	3 125.0
1969	8 177	4 156	4 075	10	3 427.0
1970	8 828	5 211	4 681	14	3 669.0
1971	10 035	6 333	5 249	14	3 497.0
1972	11 997	7 027	8 129	23	3 761.0
1973	10 801	6 904	7 414	21	4 802.0
1974	10 481	6 714	6 755	30	8 167.0
1975	9 577	5 254	6 977	32	6 841.0
1976	10 611	5 603	5 670	30	7 650.0
1977	10 634	5 561	7 405	60	10 788.0
1978	11 864	5 129	9 071	89	12 867.0
1979	12 571	5 423	8 450	103	15 419.0
1980	11 588	4 819	8 919	118	16 795.0
1981	12 233	4 286	8 622	98	14 244.0
1982	12 093	3 105	7 779	92	12 764.0
1983	9 252 d	2 913	6 692	120	12 995.0
1984	7 923 d	2 899	6 577	83	12 217.0
1985	6 363 d	2 683	5 667	85	12 161.0
1986	8 508 d	1 399	7 512	58	11 581.0
1987	7 691	563	7 163	60	12 004.0
1988	7 009	439	7 376	60	11 299.0
1989	7 709	424	7 511	85	13 352.0
1990	7 425	312	6 187	55	9 913.0
1991	5 380	268	5 770	35	9 054.0
1992	6 609	240	6 569	45	4 663.2
1993	8 057	222	8 161	53	7 589.8
1994	7 400	320	7 234	44	7 502.4
1995	8 656	570	8 574	59	8 432.0
1996	8 733	481	8 779	56	7 892.3
1997	10 326	646	10 160	63	7 611.5
1998	10 306	684	10 066	73	8 831.9
1999	10 040	586	10 556	70	8 373.8
2000	9 070	733	9 057	67	9 335.9
2001	9 983	1 094	9 325	66	8 646.7
2002	7 078	791	6 995	43	7 469.4

a Metallic content. **b** Tin content of all ores, concentrates, slags, residues and refined tin. **c** London Metal Exchange cash settlement price for refined tin, 99.75 per cent purity, expressed in Australian dollars; between 1 January 1986 and 31 May 1989, Kuala Lumpur Tin Market. **d** Excludes content of copper–tin concentrate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

335 Australian supply and disposal of tin

	Unit	1995	1996	1997	1998	1999	2000	2001	2002
Production									
Mine **a**									
New South Wales	t	34	30	30	30	0	0	0	750
Queensland	t	21	79	70	40	40	40	0	0
Tasmania	t	8 046	8 337	9 602	9 566	9 414	8 329	8 961	5 609
Western Australia	t	555	378	466	568	557	777	1 022	719
Total	t	8 656	8 733	10 326	10 306	10 040	9 070	9 983	7 078
Refinery	t	570	481	646	684	586	733	1 094	791
Exports									
Tin ore and concentrate									
Malaysia	t	11 098	11 109	11 115	11 542	9 548	8 067	5 728	1 199
Thailand	t	4 767	4 616	5 951	3 834	6 626	6 076	9 426	10 342
Other	t	12	0	0	0	0	0	0	0
Total	t	15 877	15 725	17 066	15 376	16 174	14 143	15 154	11 541
	$m	54.27	52.32	59.94	73.03	69.55	67.43	66.08	43.36
Refined									
Malaysia	t	16	133	35	0	20	50	1	0
Thailand	t	484	0	0	0	109	27	0	0
United States	t	20	281	500	480	199	1	0	0
Other	t	36	85	3	62	165	217	96	12
Total	t	556	498	537	542	493	295	97	12
	$m	4.35	3.73	3.63	4.36	3.01	0.97	0.53	0.17
Tin content of primary materials exported **b**	t	8 574	8 779	10 160	10 066	10 556	9 057	9 325	6 995
Prices **c**									
World	US$/t	6 220.4	6 152.5	5 644.3	5 542.4	5 399.9	5 434.8	4 483.6	4 062.0
Australia	A$/t	8 432.0	7 892.3	7 611.5	8 831.9	8 373.8	9 335.9	8 646.7	7 469.4

a Metallic content. **b** Tin content of all ores, concentrates, slags, residues and refined tin. **c** London Metal Exchange cash settlement price for refined tin, 99.75 per cent purity, expressed in US and Australian dollars. **na** Not available.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

336 World mine production of tin in concentrates, by country a

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Australia	8.7	8.7	10.3	10.3	10.0	9.1	10.0	7.1
Bolivia	14.4	14.8	12.9	10.5	12.4	12.5	12.4	13.2
Brazil	19.4	20.3	19.1	14.2	13.2	14.2	13.8	13.8
China	61.8	69.6	67.5	70.1	80.1	97.1	93.0	61.8
Indonesia	46.1	51.0	55.2	55.9	47.8	51.6	56.3	83.3
Kazakhstan	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Laos	1.2	1.5	1.0	0.6	0.4	0.4	0.8	1.1
Malaysia	6.4	5.2	5.1	5.8	7.3	6.3	5.0	4.2
Myanmar	0.7	0.4	0.1	0.1	0.2	1.6	1.9	1.2
Nigeria	0.3	2.5	2.8	1.9	1.5	2.0	1.3	0.9
Peru	22.3	27.0	28.0	25.7	30.6	37.4	38.2	38.8
Portugal	4.6	4.8	3.5	3.1	2.2	1.2	1.2	0.3
Rwanda	0.2	0.2	0.2	0.4	0.4	0.4	0.4	0.2
Russian Federation	9.0	9.0	7.5	7.0	5.2	6.6	5.5	7.2
Thailand	1.8	1.3	0.7	1.7	2.7	2.2	2.5	1.1
United Kingdom	2.0	2.1	2.3	0.4	0.0	0.0	0.0	0.0
Viet Nam	4.0	4.5	4.8	4.5	4.5	4.5	4.5	4.5
Other s	0.0	7.6	0.0	11.3	8.9	0.1	0.0	0.2
Total s	201.5	223.6	221.3	213.4	219.1	247.7	246.8	234.8

a Recoverable tin content of ores and concentrates produced. **s** ABARE estimate; excludes some small producer countries.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; World Bureau of Metal Statistics, *World Metal Statistics,* London.

337 Summary of Australian statistics for titanium

	Ilmenite concentrate				Rutile concentrate			
	Production a	Exports			Production a	Exports		
	Volume	Volume	Value	Unit value	Volume	Volume	Value	Unit value
	kt	kt	$m	$/t	kt	kt	$m	$/t
1960	108	77	1	7.8	90	95	8.1	85.3
1961	169 b	146	1	8.9	103	101	6.4	63.4
1962	182 b	158	1	8.9	121	119	7.3	61.3
1963	205 b	155	2	9.7	185	157	10.6	67.5
1964	309 b	250	2	9.2	185	197	14.1	71.6
1965	448 b	367	4	9.5	221	243	17.1	70.4
1966	522	362	4	10.2	251	235	17.8	75.7
1967	554	391	4	10.0	270	263	19.7	74.9
1968	562	402	4	10.2	293	290	21.9	75.5
1969	721	576	6	10.4	326	304	25.5	83.9
1970	886	648	7	10.2	371	374	34.8	93.0
1971	814	657	7	10.2	375	325	35.8	110.2
1972	707	410	4	10.7	313	354	41.1	116.1
1973	720	650	7	11.1	335	336	40.5	120.5
1974	817	739	9	11.9	319	345	48.2	139.7
1975	991	534	7	12.7	348	319	60.0	188.1
1976	959	951	14	14.2	390	347	72.5	208.9
1977	1 033	1 083	18	16.2	325	247	53.5	216.6
1978	1 255	994	16	16.2	257	371	69.2	186.5
1979	1 181	907	15	16.8	275	318	69.3	217.9
1980	1 385	1 059	20	19.0	312	315	88.8	281.9
1981	1 321	908	21	23.6	231	216	64.1	296.8
1982	1 149	879	22	25.4	221	199	50.9	255.8
1983	893	817	23	28.2	163	218	54.0	247.7
1984	1 493	1 173	34	28.9	170	192	58.0	302.1
1985	1 419	1 152	40	34.5	212	212	83.5	393.9
1986	1 238	1 034	49	46.9	216	230	116.4	506.1
1987	1 349	1 046	61	58.3	249	257	149.9	583.7
1988	1 610	1 046	68	65.3	231	238	137.5	576.9
1989	1 690	1 001	73	72.5	243	252	165.0	655.0
1990	1 616	1 041	83	79.5	244	186	143.9	775.3
1991	1 466	977	82	84.0	192	175	124.1	708.8
1992	1 787	945	77	81.1	183	196	111.6	568.5
1993	1 795	962	79	82.6	187	182	98.9	543.3
1994	1 777	1 084	90	82.8	233	209	113.4	541.3
1995	1 980	1 075	98	91.1	204	221	132.1	598.0
1996	2 030	1 062	103	97.4	192	169	128.5	761.3
1997	2 233	1 350	137	101.6	245	208	150.3	724.1
1998	2 413	1 286	141	110.0	233	218	176.1	807.9
1999	1 976	1 051	135	128.4	182	157 s	117.7 s	747.2 s
2000	2 146	1 148	160	139.2	207	189 s	146.4 s	776.4 s
2001	2 019	915	144	157.6	207	188 s	165.8 s	880.2 s
2002	2 092	969	139	143.1	219	203 s	171.0 s	840.6 s

a Ex mine. **b** Despatches. **s** ABARE estimate.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

338 Australian exports of ilmenite, by destination

	Japan	Spain	United Kingdom	United States	Other	Total Volume	Total Value
	kt	kt	kt	kt	kt	kt	$m
1960	23	na	32	18	na	77	0.6
1961	29	na	70	32	na	146	1.3
1962	28	na	77	53	na	158	1.4
1963	23	na	73	37	na	155	1.5
1964	51	na	124	16	na	250	2.3
1965	46	na	205	66	na	367	3.5
1966	45	na	197	49	na	362	3.7
1967	63	na	169	49	na	391	3.9
1968	68	na	157	30	na	402	4.1
1969	121	na	235	37	na	576	6.0
1970	227	na	208	83	na	648	6.6
1971	180	9	294	44	130	657	6.7
1972	68	na	193	2	na	410	4.4
1973	112	na	239	45	na	650	7.2
1974	134	na	199	94	na	739	8.8
1975	110	na	134	62	na	534	6.8
1976	178	24	214	226	309	951	13.5
1977	131	68	232	329	323	1 083	17.5
1978	74	56	227	260	377	994	16.1
1979	51	94	196	150	416	907	15.2
1980	56	35	184	340	444	1 059	20.1
1981	36	88	176	250	358	908	21.4
1982	61	80	162	329	247	879	22.3
1983	65	89	93	284	286	817	23.0
1984	214	106	145	425	283	1 173	33.9
1985	240	96	128	489	199	1 152	39.7
1986	152	79	165	453	185	1 034	48.5
1987	162	105	198	384	197	1 046	61.0
1988	100	105	203	455	183	1 046	68.3
1989	95	97	143	431	236	1 001	72.6
1990	152	50	238	384	217	1 041	82.8
1991	164	75	178	293	266	977	82.0
1992 **a**	36	27	26	23	832	945	76.6
1993 **a**	na	na	na	na	na	962	79.4
1994 **a**	na	na	na	na	na	1 084	89.7
1995 **a**	na	na	na	na	na	1 075	98.0
1996 **a**	na	na	na	na	na	1 062	103.4
1997 **a**	na	na	na	na	na	1 350	137.2
1998 **a**	na	na	na	na	na	1 286	141.4
1999 **a**	na	na	na	na	na	1 051	135.0
2000 **a**	na	na	na	na	na	1 148	159.8
2001 **a**	na	na	na	na	na	915	144.2
2002 **a**	na	na	na	na	na	969	138.6

a Confidentiality provisions prevent full reporting after 1991. **na** Not available.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

339 Australian exports of rutile, by destination

	Japan	Netherlands	United Kingdom	United States	Other	Total Quantity	Total Value
	kt	kt	kt	kt	kt	kt	$m
1960	8	10	13	27	37	95	8.1
1961	12	12	15	24	38	101	6.4
1962	8	16	17	32	46	119	7.3
1963	11	10	15	80	41	157	10.6
1964	16	14	16	98	53	197	14.1
1965	21	11	17	138	56	243	17.1
1966	22	9	16	124	64	235	17.8
1967	30	19	16	132	66	263	19.7
1968	31	17	17	149	76	290	21.9
1969	29	22	32	153	68	304	25.5
1970	34	37	38	196	69	374	34.8
1971	30	31	22	184	58	325	35.8
1972	31	30	48	168	77	354	41.1
1973	33	27	65	132	79	336	40.5
1974	24	29	57	157	78	345	48.2
1975	20	19	45	167	68	319	60.0
1976	17	30	60	155	85	347	72.5
1977	17	29	40	101	60	247	53.5
1978	26	28	48	195	74	371	69.2
1979	27	22	81	121	67	318	69.3
1980	35	35	55	130	60	315	88.8
1981	31	13	41	83	48	216	64.1
1982	29	8	59	71	32	199	50.9
1983	27	12	56	85	38	218	54.0
1984	19	27	38	83	25	192	58.0
1985	34	14	48	88	28	212	83.5
1986	26	25	69	79	31	230	116.4
1987	14	46	67	86	44	257	149.9
1988	21	25	45	104	43	238	137.5
1989	28	29	51	111	33	252	165.0
1990	29	20	20	89	28	186	143.9
1991	26	26	26	71	25	175	124.1
1992 **a**	na	na	na	na	na	196	111.6
1993 **a**	na	na	na	na	na	182	98.9
1994 **a**	na	na	na	na	na	209	113.4
1995 **a**	na	na	na	na	na	221	132.1
1996 **a**	na	na	na	na	na	169	128.5
1997 **a**	na	na	na	na	na	208	150.3
1998 **a**	na	na	na	na	na	218	176.1
1999 **a**	na	na	na	na	na	157 **s**	117.7 **s**
2000 **a**	na	na	na	na	na	189 **s**	146.4 **s**
2001 **a**	na	na	na	na	na	188 **s**	165.8 **s**
2002 **a**	na	na	na	na	na	203 **s**	171.0 **s**

a Confidentiality provisions prevent full reporting after 1991. **s** ABARE estimate. **na** Not available.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

340 World ilmenite production, by country

	Australia a	India	Malaysia	Norway	Ukraine s	United States	Other s	Total s
	kt	kt	kt	kt	kt	kt	kt	kt
1960	108	250	120 b	246	127	714	1 015	2 580
1961	169	174	109 b	311	135	710	1 217	2 825
1962	182	138	103 b	245 c	144	727	923	2 470
1963	205	26	149 b	242	153	806	1 079	2 660
1964	309	11	131 b	272	163	908	1 516	3 310
1965	448	30	124 b	284	174	879	1 591	3 530
1966	522	34	118 b	370	185	876	1 635	3 740
1967	554	42	91 b	427	197	874	1 565	3 750
1968	562	59	126 b	402	210	888	1 723	3 970
1969	721	48	133 b	491	224	845	1 728	4 190
1970	886	79	223 b	579	238	787	2 537	5 340
1971	814	140 c	156 b	595	254	618	2 559	5 150
1972	707	165 c	153 b	610	270	659	2 195	4 770
1973	720	185 c	154 b	750	288	735	2 247	5 090
1974	817	132 c	154 b	844	307	685 c	2 246	5 200
1975	991	140 c	112 b	516 c	327	632	1 990	4 725
1976	959	150 c	180 b	759	381	590	2 249	5 280
1977	1 033	185 c	185 b	823	399	576	1 988	5 200
1978	1 255	185 c	187 b	763	408	535	2 141	5 490
1979	1 181	160	187 b	820	408	580	2 162	5 520
1980	1 385	160	189 b	828	417	498	2 439	5 940
1981	1 321	189	173 b	656	426	462	2 954	6 200
1982	1 149	190	77 b	552	431	239	2 642	5 300
1983	893	180	223 b	544	435	235	1 777	4 300
1984	1 493	150	177 b	661	440	240	2 906	6 100
1985	1 419	143	247 b	736	445	240	3 756	7 000
1986	1 238	140	415	804	450	240	3 599	6 900
1987	1 349	140	509	852	454	240	4 496	8 200
1988	1 610	140 d	506 d	898 d	460	240 d	4 164	8 030
1989	1 690	160 d	520 d	930 d	460	240 d	5 116	9 140
1990	1 616	305 d	250 d	814 d	350	255 d	4 109	7 699
1991	1 466	270 d	200 d	625 d	350	220 d	3 641	5 306
1992	1 787	215 d	338 d	708 d	200	240 d	4 296	7 784
1993	1 795	260	279	713	180	240	4 030	7 497
1994	1 777	290	155	826	150	315	4 139	7 652
1995	1 980	290	179	833	180	330	4 201	7 993
1996	2 030	330	101	747	270	300	4 653	8 431
1997	2 233	305	167	558	162	270	4 815	8 510
1998	2 413	368	67	590	192	360	5 247	9 237
1999	1 976	395	100	590	230	389	5 091	8 771
2000	2 146	425	110	750	260	418	5 108	9 217
2001	2 019	470	170	750	319	437	5 458	9 623
2002	2 092	635	175	750	360	475	5 234	9 721

a Includes leucoxene. **b** Exports to 1985. **c** Bureau of Mineral Resources estimate. **d** DEMA Pty Ltd estimates. **s** ABARE estimate.

Sources: British Geological Survey, *World Mineral Statistics,* Keyworth, Nottingham, United Kingdom; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; Metal Bulletin, *Prices and Data,* Surrey, England; Mining Journal, *Mining Annual Review,* London; TZ Minerals International, *Mineral Sands Annual Review,* Surrey, England; TZ Minerals International, *Mineral Sands Report,* Surrey, England; US Department of the Interior, Bureau of Mines, *Mineral Commodity Summaries,* Washington DC; ABARE.

341 World rutile concentrate and titaniferous slag production, by country

	Rutile concentrate						Titaniferous slag	
	Australia	Sierra Leone	South Africa	United States	Other s	Total s	Canada	South Africa
	kt	kt	kt	kt	kt	kt	kt	kt
1960	90	0	0	8	26	124	312	0
1961	103	0	0	8	25	136	374	0
1962	121	0	0	9	26	156	273	0
1963	185	0	0	11	24	220	344	0
1964	185	0	0	7	22	214	494	0
1965	221	0	0	5	22	248	495	0
1966	251	0	0	5	22	278	476	0
1967	270	24 a	0	5	23	322	547	0
1968	293	14 a	0	2	24	333	610	0
1969	326	28 a	0	0	26	380	680	0
1970	371	44 a	0	0	25	440	766	0
1971	375	12	0	0	25	412	774	0
1972	313	0	0	0	28	341	835	0
1973	335	0	0	8 a	27	370	855	0
1974	319	0	0	6 a	26	351	845	0
1975	348	0	0	10 a	28	386	748	0
1976	390	0	0	8 a	26	424	812	0
1977	325	0	0	7	30	362	691	0
1978	257	0	20	4	35	316	848	100
1979	275	7	42	0	40	364	476	316
1980	312	47	48	10	38	456	875	379
1981	231	51	50	15	40	387	762	408
1982	221	48	47	15	33	364	653	420
1983	163	72	56	18	34	343	612	420
1984	170	91	56	20	33	371	726	417
1985	212	81	55	30 a	35	413	844	435
1986	216	97	60	30 a	37	440	850	435
1987	249	113	56	30 a	35	480	915	632
1988	231	126	55	25 s	38	475	1 025	700
1989	243	128	61	25 s	42	499	1 035	692
1990	244	144	60	29 s	39	516	1 046	672
1991	192	155	90	27 s	79	543	701	808
1992	183	149	95	29 s	65	521	753	884
1993	187	150	100	21	64	522	653	892
1994	233	144	90	24	56	547	765	772
1995	204	0	92	19	50	365	816	988
1996	192	0	108	32	55	387	954	1 065
1997	245	0	108	35	32	420	914	1 075
1998	233	0	108	35	45	421	1 033	1 083
1999	182	0	118	37	46	383	928	1 100
2000	207	0	123	38	52	420	893	1 090
2001	207	0	122	30	59	418	990	1 030
2002	219	na	138	22	64	443	864	975

a Bureau of Mineral Resources estimate. **s** ABARE estimate.

Sources: British Geological Survey, *World Mineral Statistics,* Keyworth, Nottingham, United Kingdom; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; TZ Minerals International, *Mineral Sands Annual Review,* Surrey, England; TZ Minerals International, *Mineral Sands Report,* Surrey, England; US Department of the Interior, Bureau of Mines, *Mineral Commodity Summaries,* Washington DC.

342 Summary of Australian statistics for uranium

	Production a	Exports		
		Volume b	Value	Unit value
	t	t	$m	$/kg U_3O_8
1960-61	1 557	na	na	na
1961-62	1 362	na	na	na
1962-63	1 193	na	na	na
1963-64	367	na	na	na
1964-65	na	na	na	na
1965-66	na	na	na	na
1966-67	na	na	na	na
1967-68	na	na	na	na
1968-69	na	na	na	na
1969-70	na	na	na	na
1970-71	na	na	na	na
1971-72	na	na	na	na
1972-73	na	na	na	na
1973-74	na	na	na	na
1974-75	na	na	na	na
1975-76	484	na	na	na
1976-77	480	750	26.9	35.87
1977-78	696	1 452	87.0	59.92
1978-79	951	1 317	102.3	77.68
1979-80	1 837	1 210	98.4	81.32
1980-81	3 944	1 625	120.0	73.85
1981-82	5 968	5 460	415.0	76.01
1982-83	4 334	3 233	296.0	91.56
1983-84	5 836	3 259	312.1	95.77
1984-85	4 327	3 441	317.0	92.12
1985-86	4 450	3 210	296.0	92.21
1986-87	4 505	4 364	389.0	89.14
1987-88	4 193	4 552	411.0	90.29
1988-89	4 507	5 061	402.6	79.54
1989-90	4 089	4 812	314.8	65.42
1990-91	4 367	6 129	331.7	54.12
1991-92	4 329	4 729	244.8	51.76
1992-93	2 686	2 289	122.6	53.55
1993-94	2 733	3 992	193.3	48.42
1994-95	2 622	4 069	187.9	46.18
1995-96	5 088	5 286	241.8	45.75
1996-97	5 975	5 701	245.2	43.01
1997-98	5 788	6 415	288.2	44.93
1998-99	6 387	5 989	287.8	48.05
1999-00	8 217	8 025	366.6	45.68
2000-01	9 549	9 722	497.3	51.15
2001-02	8 029	7 367	360.7	48.96
2002-03	10 392	9 593	427.0	44.52

a Tonnes of uranium oxide (U_3O_8). **b** Before 1983-84, exports are tonnes of concentrate; from 1983-84, exports are tonnes of U_3O_8. **na** Not available.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra.

343 World uranium production, by country [a]

	Australia	Canada	Gabon	Namibia	Niger	South Africa	United States	Total [b]
	kt	kt	kt	kt	kt	kt	kt	kt
1970	0.25	3.52	0.40	0.00	0.00	3.17	9.90	18.90
1971	0.00	3.83	0.54	0.00	0.43	3.22	9.40	19.10
1972	0.00	4.00	0.21	0.00	0.87	3.20	9.90	20.11
1973	0.00	3.71	0.40	0.00	0.95	2.74	10.20	20.00
1974	0.00	3.42	0.44	0.00	1.12	2.71	8.90	18.70
1975	0.00	3.56	0.80	0.00	1.31	2.49	8.90	19.35
1976	0.36	4.85	0.85	0.65	1.46	2.76	9.80	23.17
1977	0.36	5.79	0.91	2.34	1.61	3.36	11.50	28.58
1978	0.52	6.80	1.02	2.70	2.06	3.96	14.20	34.12
1979	0.71	6.82	1.10	3.84	3.62	4.80	14.40	38.34
1980	1.56	7.15	1.03	4.04	4.13	6.15	16.80	44.24
1981	2.92	7.72	1.02	3.97	4.36	6.13	14.80	44.20
1982	4.42	8.08	0.97	3.78	4.26	5.82	10.30	41.46
1983	3.21	7.14	1.01	3.72	3.43	6.06	8.20	36.99
1984	4.32	11.17	0.92	3.70	3.28	5.73	5.70	38.85
1985	3.21	10.88	0.94	3.40	3.18	4.88	4.30	34.87
1986	4.15	11.72	0.90	3.30	3.11	4.60	5.20	37.21
1987	3.78	12.44	0.80	3.50	2.97	3.96	5.00	36.96
1988	3.53	12.29	0.93	3.51	2.97	3.80	5.04	36.43
1989	3.66	11.32	0.87	3.08	2.96	2.94	5.32	34.09
1990	3.53	8.73	0.70	3.21	2.83	2.49	3.42	28.36
1991	3.78	8.16	0.54	2.45	2.96	1.71	3.06	26.99
1992	2.33	9.30	0.54	1.68	2.96	1.67	2.20	23.88
1993	2.24	9.12	0.68	1.65	2.92	1.69	1.23	23.48
1994	2.20	9.69	0.65	1.90	2.98	1.69	1.40	23.64
1995	3.70	10.52	0.63	2.01	2.97	1.42	1.36	26.22
1996	4.96	11.40	0.56	2.45	3.16	1.44	1.81	29.32
1997	5.48	11.17	0.47	2.91	3.50	1.10	1.81	29.72
1998	4.89	10.92	0.73	2.78	3.71	0.97	1.81	27.57
1999	5.98	8.21	0.29	2.69	2.91	0.93	1.77	24.15
2000	7.58	10.68	0.00	2.72	2.90	0.84	1.46	27.75
2001	7.67	12.52	0.00	2.24	2.92	0.87	1.01	28.05
2002	7.50	11.60	0.00	2.33	3.08	0.82	0.92	26.50

a Uranium (U); excludes current and former centrally planned economies. **b** Includes other Western producers not listed.
Sources: International Atomic Energy Agency, *Uranium: Resources, Production and Demand,* Vienna; Nuexco, *Annual Review,* Denver, Colorado; World Nuclear Association.

344 World uranium consumption, by country [a]

	Canada	France	Germany [b]	Japan	United Kingdom	United States	Other	Total
	kt	kt	kt	kt	kt	kt	kt	kt
1980	1.00	3.70	2.76	4.00	1.90	7.40	3.59	24.35
1981	1.10	4.40	1.95	4.70	1.30	8.30	4.84	26.59
1982	1.30	6.00	3.20	4.70	2.20	11.80	6.90	36.10
1983	1.40	6.50	2.70	3.50	1.50	8.90	5.85	30.35
1984	1.30	6.00	3.40	5.00	1.50	10.50	6.50	34.20
1985	1.30	6.00	3.20	4.70	2.20	11.80	6.90	36.10
1986	1.40	6.20	3.30	4.80	1.50	11.85	7.22	36.27
1987	1.60	6.20	3.30	6.00	1.55	11.15	7.70	37.50
1988	1.70	6.50	3.30	6.40	1.70	14.19	6.77	40.56
1989	1.80	7.20	3.30	6.60	1.90	14.50	7.39	42.69
1990	1.90	7.20	3.30	6.90	2.00	11.40	7.64	40.34
1991	1.90	7.30	3.30	7.10	2.00	16.00	8.30	45.90
1992	1.90	7.80	3.20	7.60	2.33	17.30	7.31	47.44
1993	1.90	7.90	3.20	8.10	2.04	17.30	9.34	49.77
1994	1.90	8.90	3.00	7.70	2.43	15.60	9.90	49.43
1995	1.90	8.90	3.30	7.70	2.51	18.40	9.74	52.45
1996	1.80	8.90	3.20	8.70	2.62	17.40	9.81	52.43
1997	1.80	8.60	2.90	7.50	2.62	21.30	8.41	53.13
1998	1.20	8.20	3.10	7.81	2.36	17.70	12.33	52.69
1999	1.30	8.20	3.10	9.29	2.36	18.10	12.19	54.54
2000	1.80	8.88	3.35	7.50	2.25	20.57	12.84	57.19
2001	1.80	8.57	3.20	11.10	2.25	18.42	12.32	57.66
2002	na	na	na	na	na	na	na	na

a Annual reactor related requirements; excludes current and former centrally planned economies. **b** West Germany until 1991; unified Germany from 1992.
na Not available.
Source: International Atomic Energy Agency, *Uranium: Resources, Production and Demand,* Vienna.

345 Uranium prices

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Av.
1971	6.20	6.20	6.20	6.20	6.15	6.05	6.00	5.95	5.95	5.95	5.95	5.95	6.06
1972	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95	5.95
1973	5.95	6.00	6.10	6.20	6.45	6.50	6.50	6.50	6.50	6.50	6.75	7.00	6.41
1974	7.70	7.90	8.00	9.00	9.50	10.50	11.50	12.00	12.50	14.00	14.75	15.00	11.03
1975	16.00	16.00	18.00	20.00	21.00	23.00	24.70	26.00	26.00	28.50	30.00	35.00	23.68
1976	35.20	37.00	39.25	40.00	40.00	40.00	40.00	40.40	41.00	41.00	41.50	41.00	39.70
1977	41.35	41.50	41.60	41.60	42.00	42.25	42.25	42.25	42.40	42.75	43.20	43.20	42.20
1978	42.90	43.25	43.25	43.25	43.40	43.40	43.40	43.10	43.25	43.00	43.25	43.25	43.23
1979	43.25	43.25	43.25	43.25	43.25	43.00	42.70	42.70	42.20	42.20	41.00	40.75	42.57
1980	40.00	38.00	35.00	32.00	32.00	31.50	31.50	30.00	28.50	28.00	28.00	27.00	31.79
1981	25.00	25.00	25.00	25.00	25.00	24.25	23.50	23.50	23.50	23.50	23.50	23.50	24.19
1982	23.00	23.00	22.50	20.75	20.50	19.25	18.25	17.00	17.00	17.50	19.75	20.25	19.90
1983	21.50	21.75	22.25	23.25	23.50	23.50	24.00	24.00	24.00	23.50	22.50	22.00	22.98
1984	20.50	17.50	17.00	17.75	17.75	17.50	17.50	17.50	17.50	16.00	15.50	15.25	17.27
1985	15.00	15.00	15.00	14.25	15.00	15.00	15.75	16.00	16.00	16.50	16.75	17.00	15.60
1986	17.00	17.00	17.25	17.25	17.00	17.00	17.00	17.00	17.00	17.00	16.75	16.75	17.00
1987	16.65	16.75	17.00	17.00	17.00	16.90	16.75	16.65	16.65	16.75	16.65	16.55	16.78
1988	16.30	16.15	15.90	15.75	15.40	15.10	14.75	14.15	13.75	13.15	12.50	11.75	14.55
1989	11.60	11.20	10.70	10.10	9.85	9.80	9.80	9.70	9.60	9.40	9.20	9.00	10.00
1990	8.85	8.70	8.80	8.80	9.25	11.60	11.70	11.45	10.10	8.35	9.80	9.70	9.76
1991	9.10	9.50	9.30	9.10	9.20	9.05	8.55	8.75	8.40	7.25	7.40	8.75	8.70
1992	8.00	8.00	7.85	7.75	7.75	7.75	7.75	8.05	8.75	10.50	10.30	9.95	8.53
1993	9.70	10.00	10.00	10.05	10.05	10.00	9.90	10.00	10.20	10.15	9.90	9.85	9.98
1994	9.50	9.45	9.45	9.30	9.25	9.25	9.25	9.10	9.05	9.05	9.45	9.60	9.31
1995	9.65	10.40	11.15	11.60	11.80	11.90	11.85	11.70	11.70	11.70	11.85	12.20	11.46
1996	13.00	15.40	15.75	16.10	16.50	16.50	16.50	16.40	16.00	15.55	15.00	14.75	15.62
1997	14.45	13.75	13.50	12.45	11.70	10.80	10.55	10.30	10.35	11.85	12.75	12.35	12.07
1998	11.90	11.15	10.65	10.80	10.80	10.75	10.50	10.35	10.10	9.45	8.95	8.80	10.35
1999	9.75	10.55	10.70	10.90	10.65	10.55	10.30	10.10	9.90	9.75	9.65	9.53	10.20
2000	9.45	9.35	9.20	9.00	8.40	8.20	8.10	7.80	7.50	7.30	7.00	7.10	8.20
2001	7.15	7.60	8.30	8.60	8.65	8.90	8.90	9.10	9.30	9.40	9.45	9.55	8.74
2002	9.70	9.90	9.90	9.90	9.90	9.90	9.85	9.85	9.75	9.90	9.90	10.20	9.89
2003	10.20	10.20	10.20	10.75	11.00	10.90	na	na	na	na	na	na	na

a Restricted exchange value after 1993, using Nuexco's exchange value up to 1996 and an average of four prices after 1996, US$/lb U_3O_8. **na** Not available.

Sources: TradeTech, *The Nuclear Review,* Denver, Colorado (previously Nuexco, *Monthly Report);* Uranium Exchange Company, *The Ux Report,* Danbury, Connecticut.

346 Nuclear power reactors in operation

	1999 Reactors in operation a		2000 Reactors in operation a		2001 Reactors in operation a		2002 Reactors in operation a	
	No. of Units	Capacity MW(e) b	No. of Units	Capacity MW(e) b	No. of Units	Capacity MW(e) b	No. of Units	Capacity MW(e) b
Argentina	2	935	2	935	2	935	2	935
Armenia	1	376	1	376	1	376	1	376
Belgium	7	5 712	7	5 712	7	5 712	7	5 760
Brazil	1	626	2	1 855	2	1 901	2	1 901
Bulgaria	6	3 538	6	3 538	6	3 538	4	2 722
Canada	14	9 998	14	9 998	14	10 018	14	10 018
China	3	2 167	3	2 167	3	2 167	7	5 318
Czech Republic	4	1 648	5	2 569	5	2 560	6	3 468
Finland	4	2 656	4	2 656	4	2 656	4	2 656
France	59	63 103	59	63 073	59	63 073	59	63 073
Germany	19	21 122	19	21 122	19	21 283	19	21 283
Hungary	4	1 729	4	1 755	4	1 755	4	1 755
India	11	1 897	14	2 503	14	2 503	14	2 503
Japan	53	43 691	53	43 491	54	44 289	54	44 287
Korea, Rep. Of	16	12 990	16	12 990	16	12 990	18	14 890
Lithuania	2	2 370	2	2 370	2	2 370	2	2 370
Mexico	2	1 360	2	1 360	2	1 360	2	1 360
Netherlands	1	449	1	449	1	450	1	450
Pakistan	1	125	2	425	2	425	2	425
Romania	1	650	1	650	1	655	1	655
Russia	29	19 843	29	19 843	30	20 793	30	20 793
South Africa	2	1 842	2	1 800	2	1 800	2	1 800
Slovakia	6	2 408	6	2 408	6	2 408	6	2 408
Slovenia	1	632	1	676	1	676	1	676
Spain	9	7 470	9	7 512	9	7 524	9	7 574
Sweden	11	9 432	11	9 432	11	9 432	11	9 432
Switzerland	5	3 182	5	3 192	5	3 200	5	3 200
United Kingdom	35	12 968	35	12 968	33	12 498	31	12 252
Ukraine	14	12 115	13	11 207	13	11 207	13	11 207
United States	104	97 156	104	97 411	104	97 860	104	98 230
Total	433	349 074	438	351 327	438	353 298	441	358 661

a At end of year. **b** Annual electricity generating capacity in megawatts.
Source: International Atomic Energy Agency, *annual press release: IAEA releases nuclear power statistics,* Vienna.

347 Summary of Australian statistics for zinc

	Production			Exports d		
	Mine a	Refined b	Consumption c	Volume	Value	Price e
	kt	kt	kt	kt	$m	$/t
1960	323	122	92	175	17	222.8
1961	316	141	79	169	19	202.5
1962	343	171	86	210	23	196.8
1963	357	183	94	216	26	200.8
1964	350	189	110	184	37	284.2
1965	355	202	98	194	39	286.0
1966	375	198	90	241	47	270.5
1967	407	198	104	254	43	260.7
1968	416	198	102	267	44	262.0
1969	510	253	117	331	59	277.8
1970	487	268	115	390	71	295.0
1971	453	266	109	359	68	314.8
1972	507	304	114	346	80	339.8
1973	480	306	121	418	102	385.9
1974	464	284	120	374	139	543.2
1975	510	200	82	295	117	627.0
1976	462	249	86	388	159	655.7
1977	492	256	81	327	148	657.7
1978	473	295	92	465	157	533.6
1979	529	310	102	382	165	712.5
1980	495	306	100	481 f	251 f	713.1
1981	518	300	97	406	235	798.5
1982	665	296	81	521	323	849.0
1983	699	298	83	645	392	952.3
1984	677	302	77	661	469	1 187.7
1985	759	289	87	633	515	1 255.2
1986	712	303	81	662	489	1 242.2
1987	778	310	82	663	526	1 249.3
1988	760	302	90	674	631	1 560.7
1989	803	294	88	670	962	2 298.9
1990	933	303	82	825	1 159	2 094.7
1991	1 023	324	71	915	900	1 569.8
1992	1 019	332	71	995	1 135	1 816.9
1993	990	316	75	987	851	1 568.2
1994	955	323	79	978	785	1 499.9
1995	937	320	77	907	797	1 559.7
1996	1 070	326	73	983	808	1 478.4
1997	1 011	307	81	965	953	1 889.8
1998	1 063	311	93	1 002	1 025	1 806.6
1999	1 162	344	96	1 109	1 105	1 752.6
2000	1 419	493	85	1 333	1 718	2 046.7
2001	1 517	556	83	1 484	1 669	1 921.2
2002	1 469	565	87	1 544	1 485	1 614.4

a Metal content. **b** Excludes secondary (scrap) and zinc dust production. **c** Refined metal only. **d** Quantities refer to the total metallic content of all ores and concentrates, intermediate products and refined metal. The value of zinc contained in other mine and smelter products (for example, zinc in lead concentrates) is included in the value of the product in which it is exported. **e** EZ Industries, Prime Western, 98.5 per cent purity. Before 1968, Prime Western grade zinc at Cockle Creek. **f** Zinc export code classifications changed substantially between 1979 and 1980, creating a break in the continuity of the series.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

348 Australian supply and disposal of zinc

	Unit	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
Production									
Mine **a**	kt	1 039	1 060	1 038	1 142	1 265	1 483	1 490	1 529
Refined									
Primary	kt	330	319	304	323	405	534	572	570
Secondary **b**	kt	10	11	10	7	5	5	6	6
Exports									
Ores and concentrates	kt	1 438	1 555	1 450	1 729	1 496	1 903	1 849	1 914
	$m	434	491	581	690	682	977	735	667
Refined metal	kt	244	228	198	274	317	452	496	486
	$m	383	353	407	444	550	905	794	757
Consumption **c**	kt	82	78	90	90	90	90	90	90
Export unit value									
Ores and concentrates	A$/t	301.4	315.7	400.9	399.0	456.2	513.5	397.5	348.6
Refined metal	A$/t	1 565.7	1 550.3	2 048.7	1 617.8	1 734.0	2 000.5	1 600.8	1 558.2

a Metal content. **b** Includes remelted zinc and direct use of secondary materials. **c** Refined metal only.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat. no. 5464.0, Canberra.

349 Australian exports of zinc, by destination a

	1995 kt	1996 kt	1997 kt	1998 kt	1999 kt	2000 kt	2001 kt	2002 kt
Ores and concentrates **b**								
Belgium	29	116	102	103	100	40	27	89
China	19	70	57	16	0	5	94	63
Germany	35	7	29	17	6	22	33	28
India	38	30	30	36	27	14	0	18
Italy	24	31	20	22	34	33	21	67
Japan	292	258	231	239	226	217	216	185
Korea, Rep. of	181	170	170	239	257	173	252	173
Netherlands	13	11	5	10	23	238	188	219
Thailand	42	44	25	27	43	52	32	25
United Kingdom	5	3	28	46	43	31	42	65
Other	16	6	43	21	57	65	119	84
Total	694	746	740	776	816	890	1 024	1 016
Metal								
Bangladesh	2	15	19	10	3	12	18	22
Chinese Taipei	40	36	36	49	67	72	63	61
Hong Kong, China	41	55	45	50	66	74	87	92
India	3	11	12	5	4	9	13	12
Indonesia	54	49	46	34	37	39	32	33
Malaysia	26	20	24	35	55	33	33	30
Netherlands	na	na	na	na	13	3	18	21
Saudi Arabia	1	2	1	1	6	11	15	21
Thailand	10	13	9	4	3	4	9	15
United States	11	7	7	6	5	124	89	58
Other	46	49	40	34	21	46	80	118
Total	234	257	239	228	280	427	457	483

a Excluding slags, residues and scrap. **b** Metal content. **na** Not available.
Source: International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

350 World production, consumption, stocks and prices of zinc

	Production						
		Refined metal					
	Mine a	Primary	Secondary b	Total	Consumption c	Stocks b	Price d
	kt	kt	kt	kt	kt	kt	US$/t
1960	3 384	2 993	163	3 156	3 114	448	246.9
1961	3 476	3 199	149	3 348	3 282	478	214.3
1962	3 600	3 322	155	3 477	3 438	477	186.5
1963	3 660	3 426	167	3 593	3 644	392	211.8
1964	4 083	3 683	177	3 860	3 986	390	324.0
1965	4 352	3 848	215	4 063	4 099	433	310.6
1966	4 550	4 045	242	4 287	4 292	461	280.4
1967	4 958	4 142	222	4 364	4 323	479	271.9
1968	5 113	4 613	224	4 837	4 701	452	261.7
1969	5 472	5 073	205	5 278	5 092	519	285.2
1970	5 590	4 975	259	5 234	5 013	682	294.5
1971	5 675	4 862	248	5 110	5 164	614	310.0
1972	5 866	5 247	269	5 516	5 679	586	378.4
1973	6 070	5 543	283	5 826	6 195	457	846.8
1974	6 129	5 720	274	5 994	6 000	759	1 237.5
1975	6 176	5 219	264	5 483	5 062	1 185	746.0
1976	6 249	5 545	266	5 811	5 779	1 140	711.7
1977	6 567	5 710	279	5 989	5 857	1 194	590.0
1978	6 401	5 801	237	6 038	6 329	833	593.3
1979	6 299	6 169	287	6 456	6 444	868	741.2
1980	6 108	5 958	285	6 243	6 289	787	761.3
1981	6 004	5 969	318	6 287	6 199	875	859.6
1982	6 275	5 701	355	6 056	6 043	800	745.7
1983	6 289	6 016	368	6 384	6 370	668	765.5
1984	6 523	6 327	351	6 678	6 539	626	891.0
1985	6 651	6 545	325	6 870	6 532	606	763.9
1986	6 534	6 085	295	6 380	6 747	615	753.1
1987	6 885	6 330	293	6 623	6 959	568	816.2
1988	6 714	6 579	299	6 878	6 848	496	1 240.5
1989	6 785	6 426	368	6 794	6 726	572	1 719.6
1990	6 965	6 296	395	6 691	6 666	534	1 520.0
1991	7 165	6 427	428	6 855	6 627	650	1 116.0
1992	7 260	6 605	425	7 030	6 550	989	1 240.0
1993	6 758	6 755	455	7 210	6 605	1 474	961.0
1994	6 806	6 628	503	7 167	6 982	1 669	998.0
1995	6 981	6 850	497	7 347	7 509	1 160	1 031.0
1996	7 287	6 919	524	7 443	7 570	913	1 025.0
1997	7 226	7 016	500	7 516	7 752	900	1 313.0
1998	7 563	7 503	518	8 021	7 921	768	1 023.0
1999	8 068	7 830	538	8 368	8 496	734	1 076.3
2000	8 839	8 389	592	8 981	9 000	654	1 128.4
2001	8 934	8 651	613	9 264	8 933	932	885.5
2002	8 770	9 107	618	9 725	9 415	1 095	778.9

a Metal content. **b** Excludes former Soviet Union, eastern Europe and China. **c** Refined primary metal only. **d** Average London Metal Exchange cash, midday settlement price, registered brands, minimum 98 per cent purity.

Sources: BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London; Metallgesellschaft AG, *Metallstatistik,* Frankfurt.

351 World zinc mine production, by region and country [a]

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Africa								
Algeria	27	30	30	29	5	6	7	10
Morocco	80	82	90	112	112	105	89	73
Namibia	30	35	37	42	35	40	37	41
South Africa	74	77	71	70	70	63	61	64
Tunisia	42	32	3	28	45	41	41	37
Total	234	232	208	257	267	256	236	225
Americas								
Argentina	32	31	33	36	34	35	40	37
Bolivia	146	145	154	151	145	151	145	142
Brazil	136	128	124	88	99	100	111	133
Canada	1 121	1 223	1 077	1 062	1 021	1 002	1 065	916
Chile	35	35	34	16	32	31	33	36
Honduras	27	37	40	37	41	43	48	46
Mexico	364	378	379	395	363	393	429	446
Peru	692	761	868	869	900	910	1 056	1 219
United States	644	628	632	755	852	852	842	784
Total	3 197	3 366	3 341	3 408	3 486	3 517	3 769	3 759
Asia								
China	1 011	1 121	1 210	1 273	1 476	1 780	1 572	1 499
India	154	154	142	195	185	208	222	248
Iran	78	76	77	86	98	102	105	121
Japan	95	79	72	68	64	64	45	43
Kazakhstan	155	157	223	224	283	322	320	376
Korea, Dem. Rep. of	90	80	60	44	37	34	28	32
Korea, Rep. of	8	9	9	11	10	12	5	0
Thailand	14	19	15	25	24	27	24	25
Turkey	65	68	64	58	57	48	36	43
Viet Nam	na	na	na	na	18	22	32	42
Total	1 699	1 792	1 890	2 005	2 258	2 623	2 400	2 437
Australia	882	1 008	972	1 020	1 110	1 379	1 476	1 444
Europe								
Bulgaria	30	28	21	18	11	10	11	14
Finland	16	27	32	31	20	16	20	35
Greece	14	7	18	20	18	17	32	35
Ireland	184	163	193	180	200	263	298	253
Italy	23	12	8	5	0	0	0	0
Macedonia	21	22	21	24	21	25	20	10
Norway	10	9	7	1	0	0	0	0
Poland	155	159	158	158	154	157	153	152
Romania	37	31	29	25	27	27	30	25
Russian Federation	131	126	121	114	161	163	164	162
Spain	172	140	147	128	154	204	161	70
Sweden	169	160	155	161	175	177	159	149
Total	970	898	925	880	947	1 063	1 053	906
Total	6 981	7 287	7 226	7 563	8 068	8 839	8 934	8 770

a Recovered metal zinc content by analysis of zinc ores and concentrates, plus the zinc content of other ores and concentrates known to be intended for zinc recovery. **na** Not available.
Source: International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

352 World zinc metal production, by region and country [a]

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Africa								
Algeria	27	30	30	27	27	26	26	34
South Africa	99	101	110	107	108	103	109	111
Other	0	0	0	0	0	0	0	2
Total	126	131	140	134	135	129	135	147
Americas								
Argentina	36	36	39	39	40	36	40	39
Brazil	194	187	186	177	187	192	193	255
Canada	720	716	704	745	777	780	661	793
Mexico	223	222	230	229	219	235	304	302
Peru	159	173	173	184	191	200	190	170
United States	363	366	366	368	372	371	329	344
Total	1 695	1 700	1 698	1 741	1 785	1 814	1 717	1 904
Asia								
China	1 077	1 185	1 434	1 486	1 703	1 957	2 078	2 155
India	159	149	166	180	189	204	234	246
Iran	2	5	14	23	24	47	65	82
Japan	664	599	603	608	633	654	644	640
Kazakhstan	169	169	185	240	243	262	277	286
Korea, Dem. Rep. of	100	90	55	43	40	37	31	34
Korea, Rep. of	279	287	335	390	430	477	508	608
Thailand	60	73	84	89	95	101	105	105
Uzbekistan	70	45	53	52	27	34	35	30
Total	2 599	2 626	2 959	3 143	3 412	3 774	3 977	4 186
Australia	322	327	307	311	344	494	556	567
Europe								
Belgium	211	207	203	205	232	264	256	239
Bulgaria	80	80	82	86	84	84	88	82
Finland	177	179	176	199	225	223	249	249
France	314	324	317	320	318	318	329	334
Germany	356	362	348	361	361	357	357	378
Italy	260	269	268	232	145	170	179	176
Macedonia	41	38	53	57	49	58	52	38
Netherlands	208	207	203	217	221	217	206	203
Norway	131	135	136	138	144	138	145	145
Poland	165	163	171	175	179	173	175	159
Romania	29	27	30	30	29	52	52	48
Russian Federation	166	172	189	197	232	242	250	257
Spain	364	363	378	385	383	391	443	512
United Kingdom	100	99	93	79	89	76	90	98
Other	15	34	31	10	1	7	9	2
Total	2 617	2 659	2 678	2 691	2 692	2 770	2 880	2 920
Total	7 347	7 443	7 516	8 021	8 368	8 981	9 264	9 725

a Total production by smelters and refineries of zinc in marketable form or used directly for alloying, including production on toll in the reporting country, regardless of the type of source material. Remelted zinc and zinc dust are excluded.
Source: International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

353 World zinc trade, by country [a]

	1995	1996	1997	1998	1999	2000	2001	2002
	kt	kt	kt	kt	kt	kt	kt	kt
Exports								
Ores and concentrates [b]								
Australia	694	746	740	776	816	890	1 024	1 016
Canada	604	669	473	391	327	304	472	399
China	77	55	191	95	119	70	7	2
Ireland	192	167	185	169	214	257	305	249
Mexico	127	na	135	155	141	138	117	131
Peru	488	580	618	592	601	620	747	906
Sweden	148	155	158	145	163	169	130	140
United States	424	425	461	552	531	523	698	827
Metal								
Australia	234	257	239	228	280	427	457	483
Belgium	161	145	143	105	86	99	91	107
Canada	533	582	547	577	611	603	495	598
China	181	218	544	354	507	561	544	472
Finland	126	128	129	156	187	168	175	189
CIS	164	135	167	253	255	264	275	275
France	209	227	177	144	128	111	127	143
Korea, Rep. of	37	25	97	159	154	177	209	261
Mexico	97	73	na	na	74	130	151	161
Netherlands	144	165	193	263	245	223	284	206
Norway	112	113	124	117	122	117	113	133
Peru	78	109	109	125	124	125	121	127
Spain	165	183	180	114	136	96	94	79
Imports								
Ores and concentrates [b]								
Belgium	277	149	238	221	505	442	412	409
Canada	177	182	182	210	266	208	140	276
China	51	148	83	26	22	39	384	393
Finland	211	146	146	193	203	216	204	218
CIS	60	60	90	207	130	141	92	70
France	310	302	317	282	301	318	284	279
Germany	330	245	166	208	120	156	175	176
Italy	229	259	259	248	126	158	156	141
Japan	545	463	512	486	564	531	575	559
Korea, Rep. of	267	308	330	400	441	480	537	582
Netherlands	186	133	172	209	221	213	152	190
Spain	na	141	258	255	287	283	344	451
United Kingdom	74	97	102	73	114	160	108	115
Metal								
Belgium	153	221	248	232	189	237	242	237
Chinese Taipei	206	196	225	241	273	294	277	304
France	138	108	114	117	129	128	127	127
Germany	229	192	240	265	252	251	260	231
Italy	114	102	97	149	198	213	176	202
Japan	117	135	181	113	57	81	64	17
Korea, Rep. Of	58	89	69	72	113	130	97	115
Netherlands	130	74	118	154	125	172	178	137
Singapore	39	46	240	167	131	158	204	142
United Kingdom	145	132	137	161	112	119	111	106
United States	856	827	876	882	1 070	923	827	878

a Metal content. **b** Metal content of zinc ores and concentrates only. **na** Not available.
Source: International Lead–Zinc Study Group, *Lead and Zinc Statistics,* London.

354 Summary of Australian statistics for zircon and monazite

	Zircon concentrate				Monazite concentrate			
	Production a	Exports b			Production a	Exports		
	Volume	Volume	Value	Unit value	Volume	Volume	Value	Unit value
	kt	kt	$m	$/t	kt	kt	$m	$/t
1960	101	103	2.7	26.2	0.4	0.2	0.0	0.0
1961	134	138	3.4	24.6	1.6	1.8	0.1	61.1
1962	132	130	3.3	25.4	0.8	1.5	0.1	80.0
1963	181	177	4.4	24.9	2.1	2.4	0.2	79.2
1964	181	196	5.1	26.0	2.1	2.1	0.2	85.7
1965	223	213	6.8	31.9	2.3	2.3	0.2	95.7
1966	232	207	9.0	43.5	2.0	2.1	0.2	114.3
1967	290	243	10.7	44.0	2.4	1.9	0.2	126.3
1968	292	262	11.0	42.0	2.1	2.6	0.4	134.6
1969	363	306	12.4	40.5	3.9	2.7	0.3	125.9
1970	389	380	13.9	36.6	4.4	4.8	0.6	129.2
1971	406	366	13.3	36.3	4.4	4.6	0.7	145.7
1972	357	386	13.8	35.8	5.1	4.6	0.6	121.7
1973	375	431	15.9	36.9	4.2	5.1	0.7	127.5
1974	368	384	32.2	83.9	3.6	3.8	0.5	142.1
1975	382	299	58.2	194.6	4.5	2.5	0.4	172.0
1976	420	345	54.5	158.0	5.3	3.2	0.5	165.6
1977	398	323	36.2	112.1	9.4	7.5	1.2	161.3
1978	392	390	29.4	75.4	15.0	11.6	2.4	205.2
1979	445	479	33.1	69.1	16.3	13.2	3.1	233.3
1980	492	502	35.1	69.9	14.1	10.3	3.4	329.1
1981	434	444	37.0	83.3	13.3	14.0	5.4	382.1
1982	462	405	43.1	106.4	9.6	15.3	6.1	400.0
1983	382	380	44.7	117.6	15.1	17.7	7.2	406.8
1984	458	438	51.8	118.3	16.3	18.1	7.6	421.5
1985	501	496	63.9	128.8	18.7	18.0	9.2	512.2
1986	452	446	74.5	167.0	14.8	14.1	9.2	651.1
1987	466	465	108.4	233.1	12.8	10.5	7.7	735.2
1988	480	464	189.6	409.0	12.2	9.7	7.6	787.5
1989	479	474	303.7	641.2	12.8	15.9	13.6	855.3
1990	443	332	205.0	616.7	11.1	11.1	9.9	894.0
1991	288	324	136.0	419.4	6.6	8.7	3.3	383.2
1992	355	310	71.6	230.8	5.6	5.7	1.7	300.0
1993	413	348	62.9	180.7	6.5	6.5	1.9	296.5
1994	511	504	124.1	246.2	2.3	2.7	0.8	290.3
1995	505	514	190.1	370.2	0.2	0.0	0.0	na
1996	460	424	248.3	585.8	0.0	0.0	0.0	na
1997	416	342	204.9	599.4	0.0	0.0	0.0	na
1998	401	399	225.9	566.6	0.0	0.0	0.0	na
1999	359	370 s	174.4 s	471.6 s	0.0	0.0	0.0	na
2000	374	372 s	198.0 s	532.2 s	0.0	0.0	0.0	na
2001	393	391 s	262.6 s	671.6 s	0.0	0.0	0.0	na
2002	412	407 s	281.1 s	690.7 s	1.6	1.6	0.4	249.8

a Ex mine. **b** All grades, bulk and bagged, before January 1992; standard grade only until June 1993; all grades until August 1999. **s** ABARE estimate. **na** Not available.

Sources: ABARE, *Australian Mineral Statistics,* Canberra; Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

355 Australian exports of zircon, by principal destination

	Italy	Japan	Netherlands	United States	Other	Total a Volume	Total a Value
	kt	kt	kt	kt	kt	kt	$'000
1960	4	13	12	29	45	103	2.7
1961	6	25	21	33	53	138	3.4
1962	11	17	24	25	53	130	3.3
1963	16	22	24	55	60	177	4.4
1964	14	32	29	46	75	196	5.1
1965	17	28	29	52	87	213	6.8
1966	17	31	20	62	77	207	9.0
1967	21	57	22	64	79	243	10.7
1968	21	60	21	58	102	262	11.0
1969	25	72	31	75	103	306	12.4
1970	33	116	33	84	114	380	13.9
1971	24	91	27	71	153	366	13.3
1972	32	141	33	54	126	386	13.8
1973	41	155	38	88	109	431	15.9
1974	38	154	29	48	115	384	32.2
1975	31	102	16	41	109	299	58.2
1976	43	125	27	52	98	345	54.5
1977	32	89	38	60	104	323	36.2
1978	43	109	39	59	140	390	29.4
1979	65	188	35	66	125	479	33.1
1980	81	176	51	94	100	502	35.1
1981	57	156	53	64	114	444	37.0
1982	59	156	38	61	91	405	43.1
1983	44	163	45	20	108	380	44.7
1984	58	169	50	46	115	438	51.8
1985	60	197	48	30	161	496	63.9
1986	67	160	34	35	150	446	74.5
1987	56	171	30	59	149	465	108.4
1988	83	138	72	54	117	464	189.6
1989	63	139	65	68	139	474	303.7
1990	46	103	60	12	107	332	205.0
1991	41	122	29	19	113	324	136.0
1992 b	36	97	27	17	133	310	71.6
1993 b	6	47	4	16	275	348	62.9
1994 b	na	na	na	na	na	504	124.1
1995 b	na	na	na	na	na	514	190.1
1996 b	na	na	na	na	na	424	248.3
1997 b	na	na	na	na	na	342	204.9
1998 b	na	na	na	na	na	399	225.9
1999 b	na	na	na	na	na	370 s	174.4 s
2000 b	na	na	na	na	na	372 s	198.0 s
2001 b	na	na	na	na	na	391 s	262.6 s
2002 b	na	na	na	na	na	407 s	281.1 s

a All grades, bulk and bagged, before January 1992; standard grade only until June 1993; all grades until August 1999. **b** Confidentiality provisions prevent full reporting after 1991. Confidential country data included under Other. **s** ABARE estimate**. na** Not available.
Sources: ABARE, *Australian Mineral Statistics,* Canberra; ABS, *International Trade,* electronic data service, cat no. 5464.0, Canberra; BMR, *Australian Mineral Industry Annual Review,* AGPS, Canberra; BMR, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra.

356 World zircon production, by major producing country

	Australia	South Africa a	Ukraine	United States a	Other a	Total a
	kt	kt	kt	kt	kt	kt
1960	101	na	na	na	na	na
1961	134	na	na	na	na	na
1962	132	7	na	45	11	195
1963	181	2	na	45	12	240
1964	181	0	na	54	10	245 b
1965	223	0	na	54	8	286 b
1966	232	0	na	70	18	320 b
1967	290	0	na	60	6	356 b
1968	292	0	na	60	8	360 b
1969	363	0	na	63	9	435 b
1970	389	0	na	56	7	452 b
1971	406	1	na	60	12	479 b
1972	357	1	na	75	52	485 b
1973	375	2	na	90	33	500 b
1974	368	12	na	110	30	520 b
1975	382	12	na	100	16	510 b
1976	420	11	na	80	9	520 b
1977	398	17	na	90	15	520 b
1978	392	50	na	75	33	550 b
1979	445	50	na	70	45	610 b
1980	492	80	na	60	28	660 b
1981	434	100	73	70	36	713
1982	462	125	82	78	33	780
1983	382	127	82	64	48	703
1984	458	153	82	67	44	804
1985	501	161	86	70	67	885
1986	452	140	86	85	60	823
1987	466	140	86	90	64	837
1988	480	130	86	115	103	918
1989	479	150	85	118	111	975
1990	443	150	50	102	111	856
1991	288	200	50	103	60	701
1992	355	220	50	108	56	789
1993	413	220	50	105	47	835
1994	511	205	50	114	51	931
1995	505	245	50	115	56	971
1996	460	302	53	117	57	989
1997	416	297	55	123	64	955
1998	401	279	57	152	69	958
1999	359	310	60	188	79	996
2000	374	317	60	181	90	1 022
2001	393	377	60	173	87	1 090
2002	412	420	60	132	99	1 123

a Bureau of Mineral Resources estimates until 1987; other sources thereafter. **b** Excludes former centrally planned economies. **na** Not available.
Sources: Bureau of Mineral Resources, *Australian Mineral Industry Annual Review,* AGPS, Canberra; Bureau of Mineral Resources, *Australian Mineral Industry, Quarterly Summary Statistics,* Canberra; TZ Minerals International, *Mineral Sands Report,* Surrey, England; TZ Minerals International, *Mineral Sands Annual Review,* Surrey, England; US Department of the Interior, Bureau of Mines, *Mineral Commodity Summaries,* Washington DC; ABARE.

This list is designed to help you locate some commonly used or difficult to find general items

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