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The next issue of *Australian crop report* is scheduled to be released on 13 June 2018.

In the next issue:

2018–19 winter crop area and production forecasts

2017–18 summer crop area and production estimates updated

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Prospects for summer crop production in 2017–18 have deteriorated over the last two months. Below average rainfall and above average temperatures in summer cropping regions curtailed crop planting in the latter part of the planting window and lowered yield prospects for dryland crops. Soil moisture levels are well below average in many regions and sufficient and timely rainfall over the remainder of the season will be critical for the development of dryland crops in these regions. However prospects for irrigated crops are good. Supplies of irrigation water are lower than at the same time last year but are sufficient for the area planted and seasonal conditions have been favourable for irrigated crops, particularly cotton.

According to the latest three-month rainfall outlook (February to April), issued by the Bureau of Meteorology on 25 January 2018, there is no strong tendency toward either higher or lower than average rainfall in summer cropping regions over the remainder of the summer crop season so ABARES has assumed average rainfall. However, there is a risk that rainfall will be below average.

Planting of **summer crops** is largely complete and planted area is estimated to have increased by 2 per cent to 1.3 million hectares. This is a 9 per cent downward revision from the forecast ABARES published in the December 2017 *Australian crop report* because forecast planting of grain sorghum late in the planting window did not eventuate because of unfavourable seasonal conditions. Total summer crop production is forecast to increase by 12 per cent to around 4.3 million tonnes.

Area planted to **grain sorghum** is estimated to have increased by 26 per cent to 501,000 hectares. Area planted to grain sorghum in 2016–17 was low because of higher expected returns from producing cotton. Production is forecast to increase by 44 per cent to around 1.5 million tonnes.

Area planted to **cotton** in 2017–18 is estimated to have fallen by 10 per cent to 500,000 hectares. Area planted to irrigated cotton is estimated to have fallen by 8 per cent to 394,000 hectares because of lower supplies of irrigation water available to cotton growers. As at 29 January 2018 the average storage level of public irrigation dams serving cotton-growing regions was around 43 per cent of capacity, down from 63 per cent at the same time last year. Area planted to dryland cotton is estimated to have fallen by 17 per cent to 106,000 hectares due to low levels of soil moisture during the planting window (August to December). Production is forecast to rise by 12 per cent to 995,000 tonnes of cotton lint and 1.4 million tonnes of cottonseed because of a forecast rise in irrigated cotton yields from the below average yields of last year.

Area planted to **rice** is estimated to have decreased by 2 per cent to 80,000 hectares. Supplies of irrigation water have been sufficient to realise rice planting intentions. Rice production is forecast to decrease by 1 per cent to around 800,000 tonnes.

Table 1 Summer crop area and production, Australia, 2007–08 to 2017–18

Year	New South Wales		Queensland		Australia	
	'000 ha	kt	'000 ha	kt	'000 ha	Kt
2007–08	398	1,668	791	2,877	1,199	4,567
2008–09	402	1,430	746	2,350	1,156	3,794
2009–10	381	1,405	514	1,342	903	2,764
2010–11	713	2,514	790	1,901	1,514	4,446
2011–12	757	3,064	783	2,379	1,558	5,494
2012–13	711	3,205	686	2,250	1,412	5,506
2013–14	568	2,317	559	1,469	1,139	3,847
2014–15	435	2,044	696	2,134	1,149	4,262
2015–16	412	1,656	624	1,821	1,054	3,563
2016–17 **s**	687	2,259	594	1,478	1,296	3,809
2017–18 **f**	634	2,473	685	1,789	1,327	4,282
% change 2016–17to 2017–18	–8	9	15	21	2	12

f ABARES forecast. **s** ABARES estimate.

Notes: State production includes cottonseed, grain sorghum, corn (maize), mung beans, rice, peanuts, soybeans and sunflower. Total for Australia also includes navy beans, and small areas and volumes of summer crops in other states. Due to a change in scope by the ABS of its agricultural data collections, crop production is shown for establishments with an estimated value of agricultural operations (EVAO) of $5,000 or more until 2014–15, and an EVAO of $40,000 or more from 2015–16.

Table 2 Winter crop production, Australia, 2007–08 to 2017–18

Year	Unit	New South Wales	Victoria	Queensland	South Australia	Western Australia	Australia
2007–08	kt	3,999	4,692	1,194	4,706	10,761	25,415
2008–09	kt	9,438	3,887	2,326	4,863	13,785	34,378
2009–10	kt	7,787	5,889	1,617	7,035	12,943	35,344
2010–11	kt	14,784	7,625	1,821	9,316	8,044	41,672
2011–12	kt	11,952	7,352	2,329	7,371	16,600	45,670
2012–13	kt	11,123	6,886	2,156	6,470	11,243	37,934
2013–14	kt	9,773	6,773	1,516	7,221	16,510	41,878
2014–15	kt	10,445	5,117	1,464	7,439	14,662	39,197
2015–16	kt	11,624	3,568	2,104	6,105	14,206	37,687
2016–17 **s**	kt	16,093	10,180	3,304	11,157	18,041	58,846
2017–18 **s**	kt	7,181	7,634	1,390	6,945	14,619	37,824
% change 2016–17 to 2017–18	–	–55	–25	–58	–38	–19	–36

s ABARES estimate.

Notes: Includes barley, canola, chickpeas, faba beans, field peas, lentils, linseed, lupins, oats, safflower, triticale and wheat. Due to a change in scope by the ABS of its agricultural data collections, crop production is shown for establishments with an estimated value of agricultural operations (EVAO) of $5,000 or more until 2014–15, and an EVAO of $40,000 or more from 2015–16.

Table 3 Winter crop area, Australia, 2007–08 to 2017–18

Year	Unit	New South Wales	Victoria	Queensland	South Australia	Western Australia	Australia
2007–08	'000 ha	6,312	3,375	873	4,131	7,265	21,978
2008–09	'000 ha	6,295	3,492	1,208	3,979	7,899	22,901
2009–10	'000 ha	6,106	3,488	1,173	3,783	8,271	22,844
2010–11	'000 ha	6,158	3,457	1,217	3,821	7,715	22,392
2011–12	'000 ha	5,969	3,411	1,205	3,838	8,252	22,693
2012–13	'000 ha	5,852	3,457	1,222	3,776	8,097	22,421
2013–14	'000 ha	5,314	3,283	1,105	3,448	8,249	21,420
2014–15	'000 ha	5,491	3,304	995	3,639	8,313	21,760
2015–16	'000 ha	5,375	2,915	1,049	3,152	7,771	20,283
2016–17 **s**	'000 ha	5,739	3,340	1,337	3,523	8,442	22,400
2017–18 **s**	'000 ha	5,496	3,333	1,309	3,505	8,441	22,101
% change 2016–17 to 2017–18	–	–4	–0	–2	–1	0	–1

s ABARES estimate.

Notes: Includes barley, canola, chickpeas, faba beans, field peas, lentils, linseed, lupins, oats, safflower, triticale and wheat. Due to a change in scope by the ABS of its agricultural data collections, crop production is shown for establishments with an estimated value of agricultural operations (EVAO) of $5,000 or more until 2014–15, and an EVAO of $40,000 or more from 2015–16.

Harvesting of 2017–18 winter crops is largely complete and better than expected harvest results in some key growing regions boosted production following a mixed season. Favourable seasonal conditions during spring in some regions of Western Australia and South Australia and during most of the winter crop season in Victoria lifted production above the forecast ABARES published in the December 2017 edition of *Australian crop report*. However, crop yields in Queensland and New South Wales are estimated to be well below average because of unfavourable seasonal conditions during much of the winter crop season.

Total **winter crop** production is estimated to have decreased by 36 per cent to 37.8 million tonnes in 2017–18. This is an upward revision of 8 per cent from the forecast ABARES published in December. Estimated production is 6 per cent above the 10-year average to 2015–16.

For the major crops, **wheat** production is estimated to have decreased by 38 per cent to 21.2 million tonnes, **barley** by 33 per cent to 8.9 million tonnes and **canola** by 15 per cent to 3.7 million tonnes. Amongst other crops, **chickpea** production is estimated to have decreased by 49 per cent to 1.0 million tonnes and **oats** production by 40 per cent to 1.1 million tonnes.

Differences between ABS and ABARES crop estimates for 2016–17

On January 8 2018, the Australian Bureau of Statistics (ABS) released its preliminary estimates of planted area and production of wheat, barley, canola, oats and grain sorghum. These were released in the publication *Principal Agricultural Commodities, Australia, Preliminary, 2016–17* (cat. no. 7111.0).

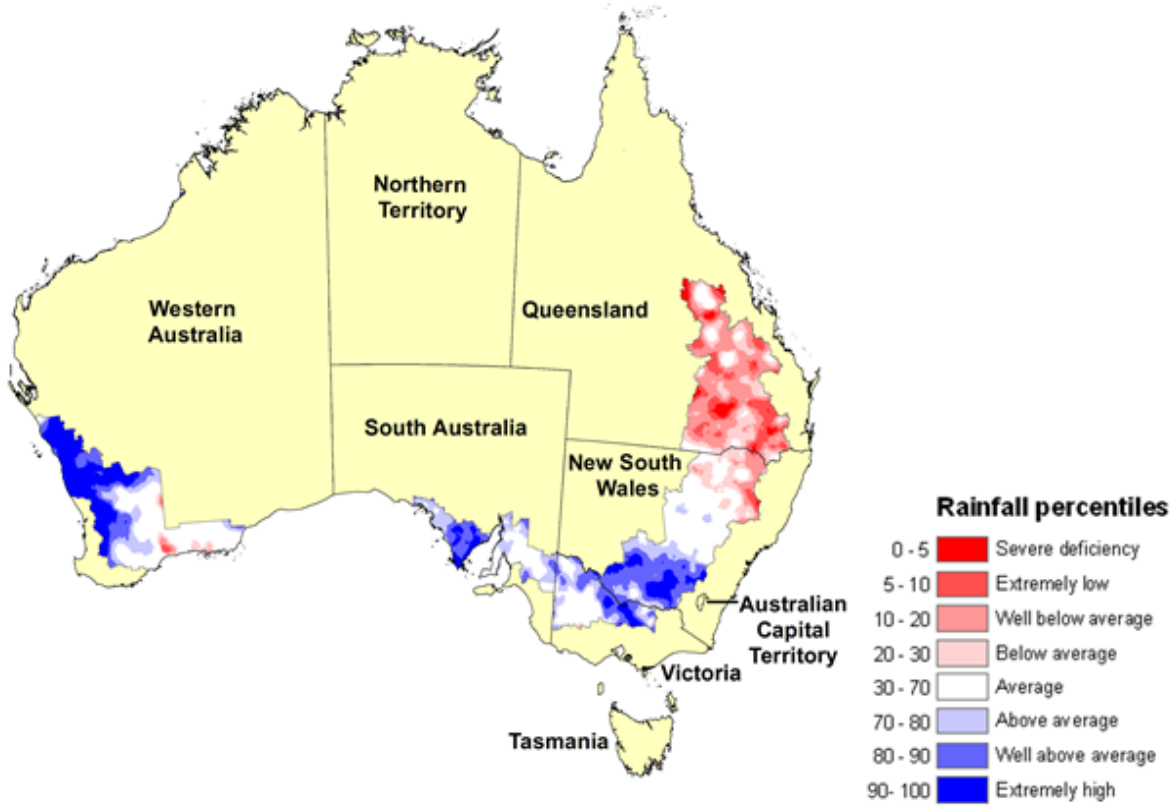
These estimates are preliminary and subject to review before the ABS releases final estimates later this year. The ABS has met with ABARES as part of the review and has indicated that there are a number of factors that could cause its final estimates to be different to the preliminary estimates. In past years, final crop estimates released by the ABS have often been higher than its preliminary estimates.

ABARES has reviewed and amended its own estimates of 2016–17 crop production taking into account the latest available information, including export data and information obtained through industry resources. Area planted to wheat in New South Wales in 2016–17 was revised down from 3.5 million hectares to 3.3 million hectares and area planted to canola was revised up from 510,000 hectares to 580,000 hectares. As a result the national wheat production estimate has been revised down from 35.0 million tonnes to 34.4 million tonnes and the canola production estimate revised up from 4.1 million tonnes to 4.3 million tonnes.

Climatic and agronomic conditions

During the period November 2017 to January 2018, rainfall was well below average to extremely low in the cropping regions in Queensland and below average in northern New South Wales. Rainfall was mostly average in cropping areas in central New South Wales, western Victoria, eastern South Australia and south-east Western Australia. In the remainder of cropping regions rainfall was above average to extremely high (Map 1).

Map 1 Australian rainfall percentiles, 1 November 2017 to 31 January 2018



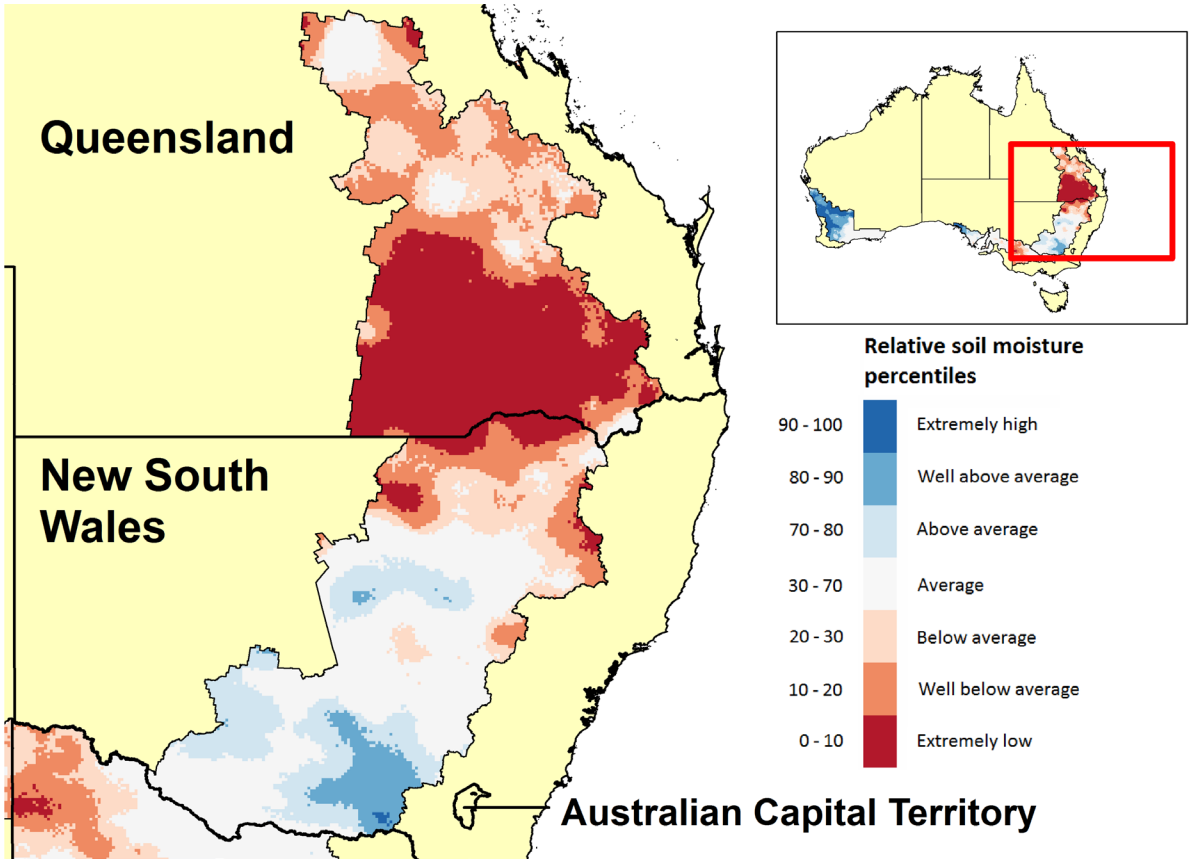
Note: Rainfall percentiles are displayed for cropping regions only.
Source: Bureau of Meteorology

Map 2 and Map 3 show the relative levels of modelled upper layer (~0.1 metres) and lower layer (~0.1 to ~1 metres) soil moisture for cropping zones across Australia for January 2018. Soil moisture estimates are relative to the historical long-term average (1911 to 2015) and presented in percentiles.

Upper layer soil moisture responds quickly to seasonal conditions and often shows a pattern that reflects rainfall and temperature events in the days leading up to the analysis date. Lower layer soil moisture is a larger, deeper store that is slower to respond to seasonal conditions and tends to reflect the accumulated effects of events that have occurred over longer periods.

Relative upper layer soil moisture for January 2018 (Map 2) in Queensland was generally extremely low to well below average for central and northern summer cropping regions. In New South Wales, relative upper layer soil moisture was generally average to above average in the southern cropping regions and generally well below average to extremely low in the northern cropping regions.

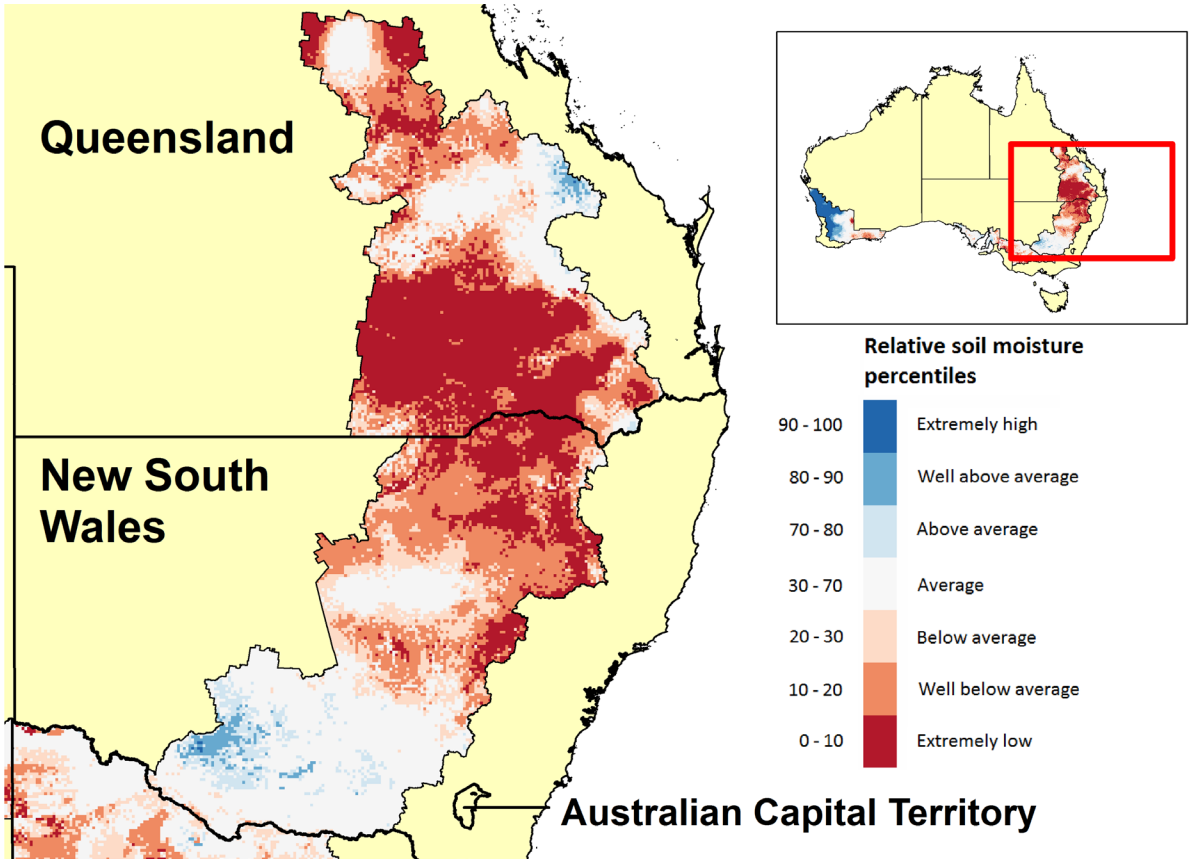
Map 2 Upper layer soil moisture, January 2018



Note: Relative upper layer soil moisture is displayed for cropping regions only. The extremely high band indicates where the estimated soil moisture level for January 2018 fell into the wettest 10 per cent of estimated soil moisture levels on that day each year between 1910 and 2015. The extremely low band indicates where the estimated soil moisture levels for January 2018 fell into the driest 10 per cent of estimated soil moisture levels on that day between 1910 and 2015.
Source: Bureau of Meteorology.

Relative soil moisture in the lower layer for January 2018 for summer cropping regions in New South Wales was generally well below average but was average in some areas in the south and centre of the state's cropping region. In Queensland cropping regions, relative lower layer soil moisture was generally below average to average in central regions and well below average to extremely low in areas in the north and south (Map 3).

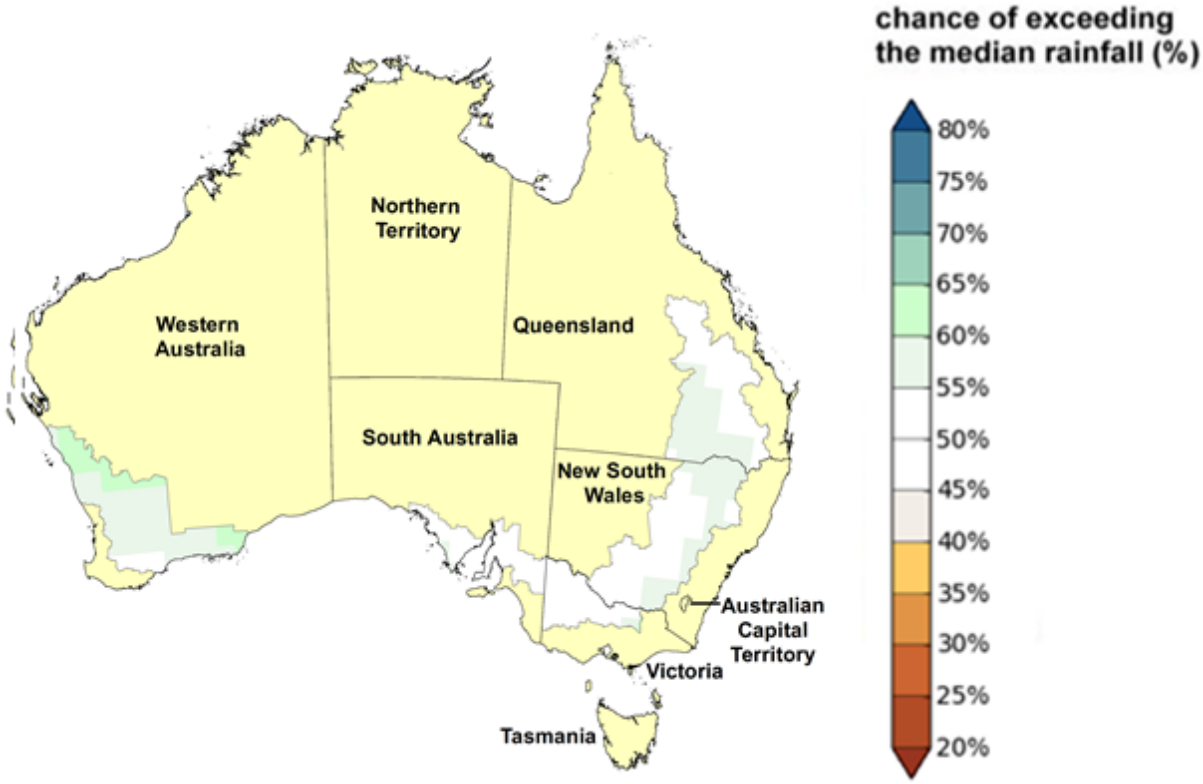
Map 3 Lower layer soil moisture, January 2018



Note: Relative lower layer soil moisture is displayed for summer cropping regions only. The extremely high band indicates where the estimated soil moisture level for January 2018 fell into the wettest 10 per cent of estimated soil moisture levels on that day each year between 1910 and 2015. The extremely low band indicates where the estimated soil moisture levels for January 2018 fell into the driest 10 per cent of estimated soil moisture levels on that day between 1910 and 2015.
Source: Bureau of Meteorology.

There is no strong tendency for rainfall to be higher or lower than average (Map 4) and for temperatures to be warmer or cooler than average for the remainder of the summer crop season in Queensland and northern New South Wales, according to the Bureau of Meteorology climate outlook for February to April 2018 (issued 25 January 2018).

Map 4 Rainfall outlook, February to April 2018

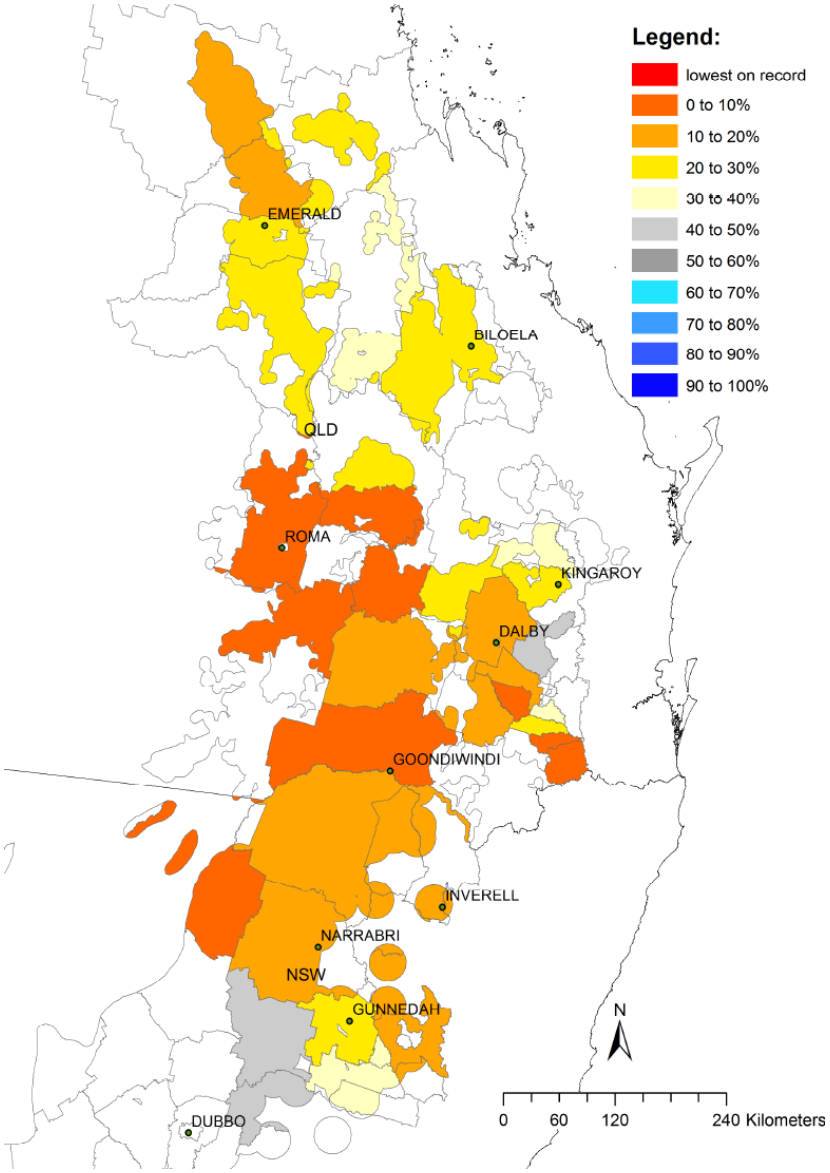


Note: Rainfall outlook is displayed for cropping regions only.
Source: Bureau of Meteorology

Map 5 shows the shire-scale forecast of grain sorghum yields obtained from the University of Queensland's Queensland Alliance for Agriculture and Food Innovation (QAAFI). These forecasts are based on soil moisture conditions and the seasonal outlook, including the most recent trend in the Southern Oscillation Index (SOI). It is important to note that final sorghum crop yield is affected more by in-crop rainfall and temperatures during crop growth than by the soil moisture at time of sowing.

At the beginning of February 2018, the forecast indicated a generally poor outlook for the 2017–18 sorghum crop. Forecast yield outcomes in central Queensland are low and falling into the 20th to 30th percentile when compared to the historical median. In southern Queensland and areas of northern New South Wales forecast yield outcomes are even lower, falling into the 0 to 20th percentile when compared to the historical median.

Map 5 Forecast median grain sorghum yield ranked relative to all years



Note: Forecast median grain sorghum yield ranked relative to all years (%), given SOI phase was "rapidly rising" in the December to January period.
Source: Queensland Alliance for Agriculture and Food Innovation

Table 4 Rainfall in major cropping districts, median and actual, November 2017 to January 2018

District	District no.	November median	November 2017	December median	December 2017	January median	January 2018
		mm	mm	mm	mm	mm	mm
New South Wales							
NW Plains (W)	52	38	44	47	48	49	21
NW Plains (E)	53	51	61	60	50	62	29
NW Slopes (N)	54	63	62	78	64	78	31
NW Slopes (S)	55	66	66	75	59	71	34
N Tablelands (N)	56	82	71	97	93	97	53
CW Plains (S)	50	30	35	36	71	33	26
CW Plains (N)	51	33	36	42	54	42	46
CW Slopes (N)	64	50	44	47	75	61	62
CW Slopes (S)	65	43	51	46	89	45	33
C Tablelands (N)	62	61	64	58	67	59	30
C Tablelands (S)	63	62	67	66	81	74	46
Riverina (W)	75	22	33	24	85	18	22
Riverina (E)	74	34	46	31	97	22	38
SW Slopes (N)	73	48	71	45	128	36	46
SW Slopes (S)	72	74	94	68	162	56	86
Victoria							
N Mallee	76	20	39	16	44	13	6
S Mallee	77	24	42	19	36	13	8
N Wimmera	78	26	37	20	27	15	10
S Wimmera	79	32	47	27	29	20	14
Lower North	80	29	50	21	69	22	25
Upper North	81	34	46	27	73	26	28
Lower North East	82	66	64	63	165	46	61
North Central	88	55	58	50	115	37	54
Western Plains	89	48	62	36	34	28	15
West Coast	90	53	70	44	43	30	15
Queensland							
Central Highlands	35	54	43	77	50	90	44
Maranoa	43	54	60	61	46	62	9
W Darling Downs	42	50	62	70	55	65	14
E Darling Downs	41	58	37	80	80	68	20
Moreton S Coast	40	79	82	109	124	118	58

continued ...

Table 4 Rainfall in major cropping districts, median and actual, September 2017 to November 2017 (continued)

District	District no.	November median	November 2017	December median	December 2017	January median	January 2018
		mm	mm	mm	mm	mm	mm
South Australia							
Upper South East	25B	28	50	22	27	15	8
Murray Mallee	25A	21	45	17	24	12	6
Murray River	24	21	36	16	28	13	9
East Central	23	30	30	24	38	16	13
Yorke Peninsula	22A	20	14	16	39	9	8
Lower North	21	24	27	20	41	14	12
Upper North	19	17	29	18	30	13	20
Western Agricultural	18	18	35	13	34	9	22
Western Australia							
North Coast	8	6	9	5	15	6	46
Central Coast	9	16	7	8	31	4	71
Northern Central	10	9	14	7	10	8	50
South Central	10A	16	16	10	16	8	31
South East	12	13	21	17	11	13	43

Note: Median rainfall is calculated over the period 1900 to January 2018. Australian rainfall districts are shown in Map 6 of the Australian crop report.
Source: Bureau of Meteorology monthly district rainfall reports

Map 6 Rainfall districts, Australia

Note: Displayed for major cropping districts only. See Table 4 for district names and observed district rainfall.
Source: Bureau of Meteorology.

Crop conditions and production forecasts, by state

New South Wales

Seasonal conditions during December and early January were generally not favourable for summer crop planting. Below average January rainfall and very much above average temperatures depleted soil moisture levels and reduced yield prospects for dryland summer crops. Sufficient and timely rainfall over the remainder of the season will be critical for ongoing crop development.

According to the latest three-month rainfall outlook (February to April), issued by the Bureau of Meteorology on 25 January 2018, there is no strong tendency toward either higher or lower rainfall in northern New South Wales. ABARES has assumed average rainfall.

Area planted to **summer crops** in New South Wales is estimated to have decreased by 8 per cent in 2017–18 to 634,000 hectares, reflecting lower supplies of irrigation water and insufficient soil moisture in some regions for planting dryland crops. Total summer crop production in New South Wales is forecast to increase by 9 per cent to around 2.5 million tonnes as a result of an increase in average yields, particularly for irrigated cotton.

Area planted to **grain sorghum** in 2017–18 is estimated to have increased by 11 per cent to 150,000 hectares. Although area planted has increased from last year, it is below initial planting intentions. Soil moisture levels were well below average at the start of summer and significant widespread rainfall was needed for planting intentions to be realised. However, December and January rainfall was below average. Very much above average maximum temperatures further depleted soil moisture levels, particularly around Moree and Narrabri. Yields are forecast to be below average and grain sorghum production is forecast to increase by 28 per cent to around 465,000 tonnes.

Area planted to **cotton** in 2017–18 is estimated to have fallen by 16 per cent to 310,000 hectares. Area planted to irrigated cotton is estimated to have declined by 12 per cent to 262,000 hectares and area planted to dryland cotton is estimated to have fallen by 33 per cent to 48,000 hectares. Production is forecast to increase by 16 per cent to 667,000 tonnes of cotton lint and around 943,000 tonnes of cottonseed because of a forecast increase in yields for irrigated cotton from the below average yields of last year.

Rice production is forecast to be 790,000 tonnes in 2017–18. Area planted to rice is estimated to have decreased by 2 per cent to 78,000 hectares. Seasonal conditions have been generally favourable for crop development.

Table 5 Summer crop forecasts, New South Wales, 2017–18

Crop	Area	Yield	Production	Area change	Prod. change
	'000 ha	t/ha	kt	%	%
Grain sorghum	150	3.10	465	11	28
Cotton lint	310	2.15	667	–16	16
Cottonseed	310	3.04	943	–16	16
Rice	78	10.14	790	–2	–1

Note: Yields are based on area planted, except Cotton which is based on area harvested.

ABARES reviewed its 2016–17 production estimates published in the December 2017 edition of *Australian crop report* to incorporate the latest available information. As a result of the review, estimated wheat production was revised down by 6 per cent to 10.7 million tonnes and estimated canola production was revised up by 21 per cent to 1.0 million tonnes, largely because of revisions to planted area estimates. Area planted to wheat in New South Wales in 2016–17 was revised down from 3.5 million hectares to 3.3 million hectares and area planted to canola was revised up from 510,000 hectares to 580,000 hectares.

Total **winter crop** production in New South Wales is estimated to have decreased by 55 per cent to around 7.2 million tonnes in 2017–18, driven by significant falls in yields due to unfavourable seasonal conditions and a reduction in area planted to wheat and barley.

Wheat production in 2017–18 is estimated to have fallen by 58 per cent to around 4.5 million tonnes, reflecting a 55 per cent fall in the average yield from the record high achieved in 2016–17 to 1.45 tonnes a hectare. Area planted to wheat fell by 6 per cent to 3.1 million hectares.

Barley production is estimated to have decreased by 56 per cent in 2017–18 to around 1.2 million tonnes. The average barley yield is estimated to be 1.5 tonnes a hectare, around half of the record high achieved in 2016–17. Area planted to barley fell by 9 per cent to 790,000 hectares.

Canola production is estimated to have fallen by 39 per cent in 2017–18 to around 618,000 tonnes, despite a 12 per cent increase in planted area to 650,000 hectares. The average yield is estimated to have fallen by 46 per cent to 0.95 tonnes a hectare, reflecting unfavourable seasonal conditions.

Table 6 Winter crop estimates, New South Wales, 2017–18

Crop	Area	Yield	Production	Area change	Prod. change
	'000 ha	t/ha	kt	%	%
Wheat	3,100	1.45	4,495	–6	–58
Barley	790	1.50	1,185	–9	–56
Canola	650	0.95	618	12	–39

Note: Yields are based on area planted.

Queensland

Rainfall in most summer cropping regions in Queensland was below to very much below average from November 2017 to January 2018 and maximum temperatures were above average. These conditions reduced soil moisture levels to below or very much below average. Upper layer soil moisture in parts of the south-west cropping region was in the lowest 1 per cent on record for January. These unfavourable seasonal conditions reduced the planting of dryland summer crops late in the planting window and are expected to constrain the increase in average yields from last year. The forecast increase in yields will only be achieved if rainfall is timely and sufficient over the rest of the growing season.

According to the latest three-month rainfall outlook (February to April), issued by the Bureau of Meteorology on 25 January 2018, there is no strong tendency toward either higher or lower than average rainfall in summer cropping regions in Queensland but maximum temperatures are likely to be above average in northern parts of Central Queensland.

Area planted to **summer crops** in Queensland is forecast to rise by 15 per cent in 2017–18 to around 685,000 hectares, driven by an increase in area planted to grain sorghum. Total summer crop production is forecast to rise by 21 per cent to around 1.8 million tonnes.

Area planted to **grain sorghum** is forecast to be around 350,000 hectares. While this represents a 35 per cent rise from 2016–17, it is still well below the ten year average of around 435,000 hectares. This reflects the unfavourable seasonal conditions that are expected to constrain the planting of grain sorghum late in the planting window, particularly in Central Queensland. Production is forecast to rise by 53 per cent to just under 1.0 million tonnes from the below average production in 2016–17.

Area planted to **cotton** is estimated to have risen by 2 per cent to 190,000 hectares in 2017–18. Area planted to irrigated cotton is estimated to have increased by 1 per cent to 132,000 hectares and area planted to dryland cotton is estimated to have risen by 4 per cent to 58,000 hectares. Cotton production is forecast to increase by 4 per cent to 328,000 tonnes of cotton lint and around 464,000 tonnes of cottonseed in 2017–18. The average yield is forecast to increase by 2 per cent.

Table 7 Summer crop forecasts, Queensland, 2017–18

Crop	Area	Yield	Production	Area change	Prod. Change
	'000 ha	t/ha	kt	%	%
Grain sorghum	350	2.85	998	35	53
Cotton lint	190	1.73	328	2	4
Cottonseed	190	2.44	464	2	4

Note: Yields are based on area planted, except Cotton which is based on area harvested.

Total **winter crop** production in Queensland is estimated to have fallen by 58 per cent in 2017–18 to 1.4 million tonnes. This reflects a fall in all winter crops as a result of below average yields.

Wheat production in 2017–18 is estimated to have fallen by 62 per cent to around 683,000 tonnes. While this represents the lowest Queensland wheat crop since 2002–03, crop quality was generally better than expected and a higher proportion of the crop met high-quality milling wheat standards than in 2016–17.

Chickpea production is estimated to have fallen by 51 per cent to around 565,000 tonnes in 2017–18. A 5 per cent rise in the area planted to chickpeas was more than offset by an estimated 53 per cent fall in the average yield.

Barley production is estimated to have fallen by 60 per cent in 2017–18 to around 120,000 tonnes. This was driven by a combination of a 7 per cent fall in area planted and a 57 per cent fall in average yield.

Table 8 Winter crop estimates, Queensland, 2017–18

Crop	Area	Yield	Production	Area change	Prod. change
	'000 ha	t/ha	kt	%	%
Wheat	610	1.12	683	–6	–62
Barley	88	1.37	120	–7	–60
Chickpeas	575	0.98	565	5	–51

Note: Yields are based on area planted.

Victoria

Seasonal conditions in Victoria over most of the winter crop season were generally favourable for winter crop production but crops in some regions were adversely affected by frost events and rainfall during harvest. The adverse effects of the frost events were largest for pulse production. However, the generally favourable seasonal conditions were the dominant influence on crop production and yields were better than anticipated across the state.

Total **winter crop** production in Victoria is estimated to have fallen by 25 per cent to 7.6 million tonnes in 2016–17. Average yields fell from the record highs of 2016–17 but remained above average. Planted area is estimated to have remained unchanged at 3.3 million hectares.

Wheat production is estimated to have decreased by 23 per cent to 4.0 million tonnes, driven by a fall in the average yield from the record high of 2016–17. Planted area is estimated to have remained unchanged at 1.6 million hectares.

Barley production in 2017–18 is estimated to have fallen by 34 per cent to 2.1 million tonnes. Average yields are estimated to have decreased by 23 per cent to 2.63 tonnes per hectare. Planted area is estimated to have decreased by 15 per cent to 800,000 hectares.

Canola production is estimated to have increased by 7 per cent to 750,000 tonnes, driven by an estimated 27 per cent increase in planted area. The average yield is estimated to have decreased by 15 per cent to 1.67 tonnes per hectare.

Table 9 Winter crop estimates, Victoria, 2017–18

Crop	Area	Yield	Production	Area change	Prod. Change
	'000 ha	t/ha	kt	%	%
Wheat	1,550	2.58	4,000	0	–23
Barley	800	2.63	2,100	–15	–34
Canola	450	1.67	750	27	7

Note: Yields are based on area planted.

South Australia

Seasonal conditions in South Australia were variable during the winter crop season. There was below average rainfall in northern cropping regions while there was above average rainfall in southern regions, including parts of the Yorke Peninsula, the southern Murray Mallee and the South East. Crop prospects in regions where there was below average in-crop rainfall were boosted by high soil moisture levels that were established by above average summer rainfall and the timeliness of rainfall events. Harvest was delayed in November and December due to rainfall but crop quality was not significantly affected.

Total **winter crop** production in South Australia is estimated to have fallen by 38 per cent in 2017–18 to just under 7.0 million tonnes, reflecting large declines in yields from the high yields of 2016–17. This production estimate is a 12 percent upward revision from the forecast published in the December edition of *Australian crop report*. As harvest progressed after the release of the December report, it became clear that wheat crops in many regions had yielded much higher than previously expected. Total area planted is estimated to have fallen by around 1 per cent to 3.5 million hectares.

Wheat production is estimated to have fallen by 38 per cent to 4.1 million tonnes. Area planted to wheat is estimated by have fallen by 2 per cent, while the average yield is estimated to have fallen substantially from the record of 2016–17.

Barley production is estimated to have fallen by around 40 per cent to 1.8 million tonnes, driven by a large decline in the average yield from 2016–17. Barley yields in some major cropping regions were adversely affected by strong winds and hail damage in late October.

Canola production is estimated to have fallen by 18 per cent to 320,000 tonnes, driven by a large fall in the average yield. However, the effect of the lower average yield was partially offset by an estimated 19 per cent increase in planted area.

Table 10 Winter crop estimates, South Australia, 2017–18

Crop	Area	Yield	Production	Area change	Prod. change
	'000 ha	t/ha	kt	%	%
Wheat	1,970	2.08	4,090	–2	–38
Barley	795	2.26	1,800	–1	–40
Canola	250	1.28	320	19	–18

Note: Yields are based on area planted.

Western Australia

Winter crop production in Western Australia is estimated to have reached 14.6 million tonnes in 2017–18, following a good finish to the season. Favourable seasonal conditions during the grain fill period boosted yields in the southern half of the state and allowed crops in central east and northern regions to yield much better than was expected at the start of spring.

Publically reported winter crop receivals were at 13.2 million tonnes after harvesting had concluded.

Wheat production is estimated to have decreased by 21 per cent to 7.9 million tonnes in 2017–18. Quality was generally good, although some late harvested wheat was affected by sprouting following rainfall during harvest.

Barley production is estimated to have decreased by 12 per cent to 3.7 million tonnes in 2017–18. Barley crops were boosted by the favourable finish to the season, particularly in the southern half of the state's cropping region.

Canola production is estimated to have decreased by 10 per cent to 2.0 million tonnes. The favourable finish boosted production in the northern and central east regions where crops were generally in poor condition at the start of spring with a very high chance of failing.

Table 11 Winter crop estimates, Western Australia, 2017–18

Crop	Area	Yield	Production	Area change	Prod. change
	'000 ha	t/ha	kt	%	%
Wheat	5,000	1.59	7,945	–2	–21
Barley	1,400	2.65	3,705	6	–12
Canola	1,376	1.44	1,978	11	–10
Lupins	350	1.26	441	–3	–45

Note: Yields are based on area planted.

Statistical tables

Table 12 Winter crop production and area, Australia, 2015–16 to 2017–18

Crop	Area			Production		
	2015–16	**2016–17 s**	**2017–18 s**	**2015–16**	**2016–17 s**	**2017–18 s**
	'000 ha	'000 ha	'000 ha	kt	kt	kt
Wheat	11,282	12,634	12,237	22,275	34,369	21,244
Barley	4,108	4,035	3,878	8,992	13,414	8,928
Canola	2,091	2,388	2,729	2,775	4,309	3,669
Chickpeas	677	1,069	1,116	875	2,004	1,028
Faba beans	220	233	220	301	484	330
Field peas	238	230	222	205	415	289
Lentils	225	276	353	182	680	465
Lupins	534	515	518	652	1,031	631
Oats	821	914	742	1,300	1,873	1,119
Triticale	78	99	77	127	255	114

s ABARES estimate.
Notes: Crop year refers to crops planted during the 12 months to 31 March. Slight discrepancies may appear between tables as a result of including the Northern Territory and Australian Capital Territory in Australian totals.
Sources: ABARES; Australian Bureau of Statistics; Pulse Australia

Table 13 Summer crop production and area, Australia, 2015–16 to 2017–18

Crop	Area			Production		
	2015–16	**2016–17 s**	**2017–18 f**	**2015–16**	**2016–17 s**	**2017–18 f**
	'000 ha	'000 ha	'000 ha	kt	kt	kt
Grain sorghum	521	396	501	1,791	1,017	1,465
Cottonseed **a**	270	557	500	890	1,260	1,407
Cotton lint **a**	270	557	500	629	891	995
Rice	27	81	80	274	809	800
Corn (maize)	53	63	56	400	514	383
Soybeans	21	29	33	40	48	63
Sunflower	23	27	25	25	36	31

a Cotton area is estimated harvested area. **f** ABARES forecast. **s** ABARES estimate.
Notes: Crop year refers to crops planted during the 12 months to 31 March. Slight discrepancies may appear between tables as a result of including the Northern Territory and Australian Capital Territory in Australian totals.
Sources: ABARES; Australian Bureau of Statistics; Cotton Australia.

Table 14 Production, major crops, Australian states, 2015–16 to 2017–18

Winter crops	New South Wales		Victoria		Queensland		South Australia		Western Australia		Tasmania	
	Area '000 ha	Prod. kt	Area '000 ha	Prod. kt	Area '000 ha	Prod. kt	Area '000 ha	Prod. kt	Area '000 ha	Prod. kt	Area '000 ha	Prod. kt
Wheat												
2017–18 **s**	3,100	4,495	1,550	4,000	610	683	1,970	4,090	5,000	7,945	7	30
2016–17 **s**	3,300	10,725	1,550	5,200	650	1,800	2,000	6,600	5,125	10,000	9	44
2015–16	2,933	6,898	1,342	1,815	611	1,316	1,770	3,679	4,616	8,511	11	53
Five-year average to 2016–17	3,231	7,647	1,502	3,293	704	1,351	1,972	4,563	4,961	8,811	8	43
Barley												
2017–18 **s**	790	1,185	800	2,100	88	120	795	1,800	1,400	3,705	5	17
2016–17 **s**	870	2,697	940	3,200	95	300	800	3,000	1,325	4,200	5	17
2015–16	966	2,528	844	1,107	138	372	769	1,719	1,384	3,248	6	16
Five-year average to 2016–17	811	1,973	895	1,934	111	255	816	2,069	1,298	3,290	5	18
Canola												
2017–18 **s**	650	618	450	750	2	1	250	320	1,376	1,978	1	1
2016–17 **s**	580	1,015	355	700	2	3	210	390	1,240	2,200	1	1
2015–16	568	937	277	287	2	3	149	219	1,094	1,328	1	2
Five-year average to 2016–17	709	1,076	429	624	2	2	262	354	1,272	1,662	1	2
Oats												
2017–18 **s**	280	252	120	270	24	8	45	105	270	478	3	6
2016–17 **s**	322	477	154	440	30	25	63	175	341	750	4	7
2015–16	278	383	140	185	36	23	65	103	300	601	2	4
Five-year average to 2016–17	293	354	130	250	41	16	61	108	278	615	4	7

continued ...

Summer crops	New South Wales		Victoria		Queensland		South Australia		Western Australia		Tasmania	
	Area	Prod.	Area	Prod.	Area	Prod.	Area	Prod.	Area	Prod.	Area	Prod.
	'000 ha	kt	'000 ha	kt	'000 ha	kt	'000 ha	kt	'000 ha	kt	'000 ha	kt
Grain sorghum												
2017–18 **f**	150	465	0	0	350	998	0	0	1	2	0	0
2016–17 **s**	135	365	0	0	260	650	0	0	1	2	0	0
2015–16	155	604	1	3	363	1,177	0	0	2	5	0	0
Five-year average to 2016–17	173	544	0	2	391	1,156	0	0	1	3	0	0
Cottonseed a												
2017–18 **f**	310	943	0	0	190	464	0	0	0	0	0	0
2016–17 **s**	370	814	0	0	187	446	0	0	0	0	0	0
2015–16	163	559	0	0	107	331	0	0	0	0	0	0
Five-year average to 2016–17	239	725	0	0	132	392	0	0	0	0	0	0
Rice												
2017–18 **f**	78	790	0	1	2	9	0	0	0	0	0	0
2016–17 **s**	80	800	0	1	2	9	0	0	0	0	0	0
2015–16	25	262	0	0	2	11	0	0	0	0	0	0
Five-year average to 2016–17	72	744	0	3	1	4	0	0	0	0	0	0

a Cotton area is estimated harvested area. **f** ABARES forecast. **s** ABARES estimate.
Note: Zero is used to denote nil or less than 500 tonnes or 500 hectares.
Sources: ABARES; Australian Bureau of Statistics

Table 15 Production, other crops, Australian states, 2015–16 to 2017–18

Winter crops	New South Wales		Victoria		Queensland		South Australia		Western Australia		Tasmania	
	Area '000 ha	Prod. kt	Area '000 ha	Prod. kt	Area '000 ha	Prod. kt	Area '000 ha	Prod. kt	Area '000 ha	Prod. kt	Area '000 ha	Prod. kt
Chickpeas												
2017–18 **s**	450	360	55	60	575	565	30	35	6	8	0	0
2016–17 **s**	480	792	16	28	550	1,150	19	27	4	7	0	0
2015–16	398	489	13	3	252	371	11	7	4	4	0	0
Five-year average to 2016–17	317	439	31	37	280	475	18	20	4	5	0	0
Field peas												
2017–18 **s**	52	52	60	70	0	0	90	125	20	42	0	0
2016–17 **s**	50	85	49	100	0	0	100	175	31	55	0	0
2015–16	48	73	54	21	0	0	114	82	22	29	0	0
Five-year average to 2016–17	50	68	51	64	0	0	110	140	34	43	0	0
Lentils												
2017–18 **s**	22	29	150	180	0	0	175	250	6	6	0	0
2016–17 **s**	5	10	110	200	0	0	160	470	0	0	0	0
2015–16	1	3	107	40	0	0	115	137	1	1	0	0
Five-year average to 2016–17	2	3	92	102	0	0	111	203	1	1	0	0
Lupins												
2017–18 **s**	75	75	35	40	0	0	58	75	350	441	0	0
2016–17 **s**	51	66	33	60	0	0	70	100	361	805	0	0
2015–16	95	111	46	31	0	0	62	53	331	457	0	0
Five-year average to 2016–17	63	73	34	35	0	0	63	76	306	480	0	0

continued ...

Table 16 Production, other crops, Australian states, 2015–16 to 2017–18 (continued)

Summer crops	New South Wales		Victoria		Queensland		South Australia		Western Australia		Tasmania	
	Area '000 ha	Prod. kt	Area '000 ha	Prod. kt	Area '000 ha	Prod. kt	Area '000 ha	Prod. kt	Area '000 ha	Prod. kt	Area '000 ha	Prod. kt
Corn (maize)												
2017–18 **f**	20	178	1	7	35	195	0	0	0	4	0	0
2016–17 **s**	21	189	5	55	37	266	0	0	0	3	0	0
2015–16	17	170	5	61	30	164	0	1	0	4	0	0
Five-year average to 2016–17	24	215	4	48	33	193	0	0	1	4	0	0
Soybeans												
2017–18 **f**	20	40	1	1	13	22	0	0	0	0	0	0
2016–17 **s**	16	29	1	1	13	19	0	0	0	0	0	0
2015–16	13	26	1	1	7	12	0	0	0	0	0	0
Five-year average to 2016–17	20	31	0	1	8	13	0	0	0	0	0	0
Sunflower												
2017–18 **f**	16	21	0	0	9	10	0	0	0	0	0	0
2016–17 **s**	15	20	0	0	9	14	0	0	3	3	0	0
2015–16	11	13	0	0	9	9	0	0	3	3	0	0
Five-year average to 2016–17	13	18	1	0	9	9	0	0	2	2	0	0

f ABARES forecast. **s** ABARES estimate.

Note: Zero is used to denote nil or less than 500 tonnes or 500 hectares.

Sources: ABARES; Australian Bureau of Statistics; Pulse Australia

Table 16 Supply and disposal of wheat, canola and pulses, Australia, 2011–12 to 2016–17

Crop	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17 s
	kt	kt	kt	kt	kt	kt
Wheat						
Production	29,905	22,855	25,303	23,743	22,275	34,369
Apparent domestic use	6,334	6,451	6,785	7,154	7,263	7,582
– seed	649	631	619	564	642	622
– other **a**	5,685	5,820	6,165	6,590	6,621	6,960
Exports **b**	24,656	18,644	18,612	16,587	16,116	22,636
Imports **b**	14	17	20	22	25	25
Canola						
Production	3,427	4,142	3,832	3,540	2,775	4,309
Apparent domestic use **a**	871	631	969	915	1,088	972
Exports	2,557	3,512	2,863	2,626	1,857	3,458
Pulses						
Production						
– lupins	982	459	626	549	652	1,031
– field peas	342	320	342	290	205	415
– chickpeas	673	813	629	555	875	2,004
Apparent domestic use **a**						
– lupins	416	290	286	306	398	793
– field peas	130	145	175	124	72	148
– chickpeas	93	1	0	1	1	1
Exports						
– lupins	565	169	340	243	254	239
– field peas	215	177	169	168	134	269
– chickpeas	581	853	629	663	1,145	2,293

a Calculated as a residual: production plus imports less exports less any observed or assumed change in stocks and, for wheat only, less seed use. **b** Includes grain and grain equivalent of wheat flour. **s** ABARES estimate.
Notes: Production, use, trade and stock data are on a marketing year basis: October–September for wheat; November–October for canola and pulses. Export data on a marketing year basis are not comparable with financial year export figures published elsewhere. Zero is used to denote nil or less than 500 tonnes. Due to a change in scope by the ABS of its agricultural data collections, crop production is shown for establishments with an estimated value of agricultural operations (EVAO) of $5,000 or more until 2014–15, and an EVAO of $40,000 or more from 2015–16.
Sources: ABARES; Australian Bureau of Statistics; Pulse Australia

Table 17 Supply and disposal of coarse grains, Australia, 2011–12 to 2016–17

Crop	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17 s
	kt	kt	kt	kt	kt	kt
Barley						
Production	8,221	7,472	9,174	8,646	8,992	13,414
Apparent domestic use	2,075	2,182	2,218	2,714	2,651	3,541
– seed	164	172	184	185	180	169
– other **a**	1,911	2,011	2,035	2,529	2,471	3,373
Export	6,146	5,289	6,957	5,932	6,342	9,873
– feed barley	3,758	2,972	3,944	3,070	4,351	6,364
– malting barley	1,619	1,512	2,273	2,149	1,394	2,826
– malt (grain equivalent)	770	805	740	713	596	683
Oats						
Production	1,262	1,121	1,255	1,198	1,300	1,873
Apparent domestic use	1,049	884	1,001	960	1,026	1,508
– seed	35	34	41	39	44	36
– other **a**	1,014	850	960	921	982	1,472
Export	213	237	253	238	274	365
Triticale						
Production	285	171	126	143	127	255
Apparent domestic use	285	171	126	143	127	255
– seed	5	4	4	6	5	3
– other **a**	280	167	122	137	123	252
Export	0	0	0	0	1	0
Grain sorghum						
Production	2,239	2,229	1,282	2,209	1,791	1,017
Apparent domestic use **b**	984	1,060	1,083	885	571	878
– seed	3	3	3	4	3	2
– other **a**	981	1,056	1,080	881	568	875
Export **b**	950	1,179	1,146	397	1,638	913
Corn (maize)						
Production	451	506	390	495	400	514
Apparent domestic use **b**	312	347	401	331	432	343
– seed	1	1	1	1	1	1
– other **a**	311	346	400	330	431	342
Export **b**	46	106	106	60	64	63

a Calculated as a residual: production plus imports less exports less any observed or assumed change in stocks less seed use. **b** For summer crops, export and apparent domestic use volumes are shown in year of actual export and consumption, which is typically in the year following production. Export data are on a marketing year basis and are not comparable with financial year export figures published elsewhere. **s** ABARES estimate.

Notes: Production, use and export data are on a marketing year basis: November—October for barley, oats and triticale; March—February for grain sorghum and corn (maize). Zero is used to denote nil or less than 500 tonnes. Due to a change in scope by the ABS of its agricultural data collections, crop production is shown for establishments with an estimated value of agricultural operations (EVAO) of $5,000 or more until 2014–15, and an EVAO of $40,000 or more from 2015–16.

Sources: ABARES; Australian Bureau of Statistics; UN Commodity Trade Statistics Database (UN Comtrade)

Table 18 Grain, oilseed and pulse prices, first quarter 2016 to third quarter 2017

Crop	2016 Q2	2016 Q3	2016 Q4	2017 Q1	2017 Q2	2017 Q3	2017 Q4
	A$/t	A$/t	A$/t	A$/t	A$/t	A$/t	A$/t
Wheat							
Domestic: feed, del. Sydney	264	240	238	209	226	260	262
International: US no. 2 hard red winter, fob Gulf **a**	265	249	253	268	274	277	283
Barley							
Domestic: 2 row feed, del. Sydney	227	191	183	183	210	243	252
Export: feed **b**	248	248	232	225	225	235	252
Export: malting **b**	292	275	267	243	261	244	265
International: feed, fob Rouen **a**	218	204	204	214	217	222	241
Grain sorghum							
Domestic: feed, del. Sydney	244	219	234	245	265	306	313
Export **b**	261	272	284	333	331	323	324
Oats							
Domestic: feed, del. Sydney	231	239	194	152	165	190	188
International: CME oats nearby contract	181	168	200	224	221	229	230
Corn (maize)							
Domestic: feed, del. Sydney	366	367	346	360	352	375	382
International: US no. 2 yellow corn, fob Gulf **a**	231	204	204	213	211	193	195
Oilseeds							
Domestic: canola, del. Melbourne	537	508	548	539	529	523	543
International: Europe rapeseed, cif Hamburg	557	544	578	586	563	539	561
International: US no. 2 soybeans, fob Gulf **a**	547	544	521	518	481	479	492
Pulses							
Domestic: lupins, del. Kwinana	270	278	272	234	267	296	289
Domestic: chickpeas, del. Melbourne	1,139	1,108	776	827	1,034	869	763
Domestic: field peas, del. Melbourne	602	413	355	343	362	318	298
Export: chickpeas **b**	1,055	1,272	968	942	1,024	1,012	943
Export: field peas **b**	646	634	506	444	458	416	410

a Average of daily offer prices made in US dollars and converted to Australian dollars using quarterly average of daily exchange rates. **b** Export unit values reflect the average price received for grain exported over the quarter, not current market prices. These prices are the average unit value (free on board) of Australian exports recorded by the Australian Bureau of Statistics. A long lag time can exist between when exporters negotiate prices and when the product is exported. Note: Q1 refers to the period January–March; Q2 refers to April–June; Q3 refers to July–September; Q4 refers to October–December. Prices used in these calculations exclude GST.
Sources: ABARES; Australian Bureau of Statistics; CME Group; Farm Weekly; International Grains Council; The Land; The Weekly Times; US Department of Agriculture