Summary of key issues

- During the week ending 11 October 2017 rainfall totals between 5 and 50 millimetres were recorded across parts of southern, central and northern New South Wales, eastern Victoria, southern Queensland, and central parts of South Australia. Similar totals were recorded in south-western, central and northern Western Australia, south-western and northern parts of the Northern Territory, and western Tasmania.

- For the week ending 10 October 2017 maximum temperatures were above average (2°C to 6°C) across much of eastern Australia and below average (-2°C to -6°C) in Western Australia and western South Australia. Minimum temperatures were above average (2°C to 8°C) across north-eastern Australia and below average (-2°C to -6°C) across south-western Western Australia.

- At the four month timescale (June to September 2017) serious to severe rainfall deficiencies are present across much of New South Wales, parts of southern, central and eastern Queensland, central southern South Australia, north-western and northern Western Australia and the western Top End of the Northern Territory, eastern Victoria, and eastern coastal areas of Tasmania.

- Unfavourable seasonal conditions in key cropping regions since the release of the September 2017 edition of *Australian crop report* mean that ABARES is likely to downgrade its forecast of 2017–18 winter crop production in the December edition of the report. At this stage, after the downgrade to forecast winter crop production in New South Wales in 2017–18, we expect the December forecast for winter crop production in Australia in 2017–18 will still be around the 10 year average to 2015–16.

- The mid-month climate outlook for November 2017 to January 2018 indicates that there are roughly equal chances of wetter or drier three months for most of Australia except eastern Victoria—which is likely to record a wetter than median three months.

- For the next eight days, rainfall is forecast for north-eastern New South Wales and most of Queensland except far western parts, with totals between 5 and 150 millimetres.

- Water storage levels in the Murray–Darling Basin (MDB) decreased during the week ending 12 October 2017 by 160 gigalitres (GL) to 16,502 GL and are at 73 per cent of total capacity. This is 7 percentage points or 1,618 GL less than at the same time last year.

- Allocation prices in the southern Murray–Darling Basin remained flat in the week ending 12 October 2017 at $141 per ML. This is a decrease of $2 from the same time last week.
1. Climate

1.1. Rainfall this week

During the week ending 11 October 2017 rainfall was recorded in all states and territories. Rainfall totals between 5 and 50 millimetres were recorded across parts of southern, central and northern New South Wales, eastern Victoria, southern Queensland, and central parts of South Australia. Similar totals were recorded in south-western, central and northern Western Australia, south-western and northern parts of the Northern Territory and western Tasmania.

Higher totals (between 50 and 100 millimetres) were recorded in isolated parts of north-eastern New South Wales, central South Australia, central Western Australia and south-western parts of the Northern Territory. The highest recorded weekly total was 83 millimetres at Mount Read in western Tasmania.
1.2. Temperature anomalies this week

During the week ending 10 October 2017 maximum temperatures were above average (2°C to 6°C) across much of eastern Australia and below average (-2°C to -6°C) in Western Australia and parts of western South Australia. Minimum temperatures were above average (2°C to 8°C) across north-eastern Australia and below average (-2°C to -6°C) across south-western Western Australia. Minimum temperatures were close to average for the remainder of the country.

Maximum temperature anomalies for the week ending 10 October 2017

Minimum temperature anomalies for the week ending 10 October 2017

Note: Spatial temperature analyses are based on historical weekly temperature data provided by the Bureau of Meteorology. These temperature anomaly maps show the departure of the maximum and minimum temperatures from the average over the 1961 to 1990 reference period. For further information go to: http://www.bom.gov.au/jsp/awap/temp/index.jsp.
1.3. **Rainfall deficiencies**

Compared to last month, deficiencies at the four month timescale (June to September 2017) have increased in both extent and severity in South Australia, Victoria, New South Wales and Queensland. The dry conditions were exacerbated by unseasonable warmth across most of the country in September, following the warmest winter mean maximum temperature on record for Australia as a whole. Deficiencies decreased in extent and severity in northern parts of Western Australia.

At the four month timescale serious to severe rainfall deficiencies are present across much of New South Wales, parts of southern, central and eastern Queensland, a large area of central southern South Australia, coastal parts of north-western and northern Western Australia and the western Top End of the Northern Territory, eastern Victoria, and eastern coastal areas of Tasmania (Bureau of Meteorology ‘Drought Statement’, 4 October 2017).

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**Rainfall deficiencies for the 4 month period 1 June to 30 September 2017**

[Map showing rainfall deficiencies across Australia]
1.4. Recent hot dry seasonal conditions in the eastern states – an update on the condition of winter crops

In our September 2017 edition of *Australian crop report* total winter crop production was forecast to decrease by 39 per cent in 2017–18 to 36.3 million tonnes, largely reflecting an expected fall in average yields from the exceptionally high yields of 2016–17. Production in 2017–18 was forecast to be 2 per cent above the 10-year average to 2015–16. However, we noted this forecast production would only be achieved if spring rainfall was sufficient and timely, especially in central west New South Wales and the Eyre Peninsula and Yorke Peninsula in South Australia.

We also noted that at the start of spring there were already some areas in which crops were generally in very poor condition at the end of winter and it was likely many would not be harvested, even if seasonal conditions during spring were favourable. These areas were the north-west cropping region in New South Wales, the south-west cropping region in Queensland and the northern cropping region in Western Australia.

Since the September crop report was published seasonal conditions were generally unfavourable for crop development in the eastern states in September with well below average rainfall, above average day time temperatures and significant frost events in many regions.

As a result of these unfavourable seasonal conditions, crop conditions in the central west cropping region of New South Wales deteriorated significantly. Many crops that were moisture stressed at the end of winter and in need of favourable seasonal conditions in early spring failed and will not be harvested. There may be some places in the central west where the recent rainfall might make it possible to harvest crops, but yields would likely be well below average.

Crops in the eastern and southern parts of the New South Wales cropping zone were generally in good condition at the end of winter. The unfavourable seasonal conditions in September adversely affected the condition and yield prospects of these crops but the rainfall this week will provide a timely boost for many crops in these regions. The likely benefit will be greatest for crops furthest from harvest and therefore be greatest for crops in the south and diminish the further north crops are situated.

Crops on Eyre Peninsula and Yorke Peninsula in South Australia were between six and eight weeks behind normal development at the end of winter and crop development was adversely affected by the adverse seasonal conditions in September. However, the seasonal conditions outlook for these regions in October (issued by the Bureau of Meteorology on the 28th of September) is favourable with higher than average rainfall and lower than average day time temperatures likely.

The downside risk for winter crop production in New South Wales that were identified in the September 2017 edition of *Australian crop report* eventuated and because of this, the September forecast for 2017-18 winter crop production in New South Wales will be downgraded in the December 2017 edition of *Australian crop report*.

Although crops on Eyre Peninsula and Yorke Peninsula in South Australia were adversely affected by the adverse seasonal conditions in early September, these crops are still in good enough condition to benefit from the favourable seasonal conditions the Bureau of Meteorology have indicated are likely in October. If this outlook is realised, ABARES does not envisage a significant change between the September 2017 and December 2017 forecasts of winter crop production in South Australia.

At this stage, after the downgrade to forecast winter crop production in New South Wales in 2017–18, we expect the December forecast for winter crop production in Australia in 2017–18 will still be around the 10 year average to 2015–16.

This assessment is preliminary. A more certain picture, particularly of the benefit to crops of the rainfall this week, will emerge as harvesting gets underway.
1.5. Mid-month National Climate Outlook

The rainfall and temperature outlooks presented below show the likelihood, represented as a percentage, of experiencing wetter or drier (and warmer or cooler) than median climatic conditions for the given outlook periods. Climate outlooks are generated by the Predictive Climate Ocean Atmosphere Model for Australia (POAMA), a dynamical (physics-based) climate model developed by the Bureau of Meteorology and CSIRO Marine and Atmospheric research division.

For further information, go to http://www.bom.gov.au/climate/ahead/about/

The tropical Pacific Ocean is likely to continue to cool over the coming months, and sea surface temperatures may approach or even exceed La Niña levels during the next three months. However, the corresponding warm sea surface temperatures that typically emerge to the north and northwest of Australia during La Niña events are less likely to develop. In addition, ocean temperatures are near to slightly below average around the coast of Western Australia. Without above average sea surface temperatures in these areas that normally influence weather patterns and feed extra moisture into the atmosphere, Australia does not have significantly increased chances of a wetter than average during the next three months.

November 2017 rainfall is likely to be drier than the median for most of northern Western Australia, with the highest chances of dry conditions near the Pilbara and Gascoyne coastlines. For the remainder of Australia there are roughly equal chances of above or below median rainfall during November 2017 (Bureau of Meteorology ‘National Climate Outlook’, 12 October 2017).

Chance of exceeding the median rainfall November 2017

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Issued: 12/10/2017
Model Run: 08/10/2017
Base Period: 1981-2010
The rainfall outlook for November 2017 to January 2018 indicates that there are roughly equal chances of wetter or drier three months for most of Australia except eastern Victoria—which is likely to record a wetter than median three months (Bureau of Meteorology ‘National Climate Outlook’, 12 October 2017).

**Chance of exceeding the median rainfall November 2017 to January 2018**
The temperature outlook for November 2017 to January 2018 indicates that maximum temperatures are likely to be warmer than average for the far north coastline of Australia, southern Victoria and Tasmania. The remainder of Australia has roughly equal chances of warmer or cooler than average maximum temperatures. Minimum temperatures are more likely to be above average in northern and south-eastern Australia. Chances are highest in Tasmania—with a greater than 80 per cent chance of warmer than average minimum temperatures for this period. The remainder of the country shows no strong tendency toward above or below median minimum temperatures (Bureau of Meteorology ‘National Climate Outlook’, 12 October 2017).

**Chance of exceeding the median maximum temperature November 2017 to January 2018**

**Chance of exceeding the median minimum temperature November 2017 to January 2018**
1.6. **Australian Plague Locust**

The Australian Plague Locust Commission (APLC) produces a monthly Locust Bulletin during the periods of locust activity (spring, summer and autumn). The bulletin gives regional summaries of the locust situation and weather events of potential significance for locust development. It also provides a forecast of likely developments for the next two months (or from autumn to spring) for the Australian plague locust (*Chortoicetes terminifera*), spur-throated locust (*Austracris guttulosa*), and the migratory locust (*Locusta migratoria*).

According to the APLC, Australian plague locust populations declined to low densities in most regions of New South Wales, Victoria, Queensland and South Australia during autumn 2017. With little winter rainfall and a dry September in all regions, habitat conditions are unsuitable for nymph survival in most areas. Surveys during September identified only low density adults and occasional nymphs.

Current locust distributions are at low background population densities. Dry habitat conditions will limit the survival of spring generation nymphs. Low soil moisture may also have left some eggs in quiescence, which could hatch after moderate rainfall. The outlook for the remainder of spring is for population densities to remain low in all regions of inland eastern Australia. Spring hatchings have been reported in parts of the Western Australian wheatbelt, including Katanning and Wongan-Ballidu Shires.

The probability of population increases during November and summer is dependent on the distribution of moderate–heavy rainfall during the next three months. Given the current very low population densities, rapid development of widespread regional infestations is unlikely during summer. However, seasonal rainfall forecast models suggest average rainfall over coming months and even isolated heavy rainfall events can result in localised large population increases.


![Australian Plague Locust Distribution 1 to 30 September 2017](image)
1.7. Rainfall forecast for the next eight days

Rainfall is forecast for north-eastern Australia and isolated areas of western, southern and northern Australia during the next eight days. A low pressure trough is expected to bring rainfall totals between 5 and 150 millimetres to north-eastern New South Wales and most of Queensland except far western parts. Higher totals of up to 300 millimetres are forecast around Brisbane, Bundaberg and Cairns. For the remainder of the country, rainfall totals between 5 and 25 millimetres are forecast for alpine regions of New South Wales and Victoria, parts of western Victoria, and northern, central and south-western Western Australia. Similar totals are expected in western Tasmania and across the Top End.

This rainfall forecast is produced from computer models. As it contains no input from weather forecasters, it is important to check local forecasts and warnings issued by the Bureau of Meteorology.

Total forecast rainfall (mm) for the period 12 to 19 October 2017
2. Water

2.1. Water availability

Water storage levels in the Murray–Darling Basin (MDB) decreased during the week ending 12 October 2017 by 160 gigalitres (GL) to 16,502 GL and are at 73 per cent of total capacity. This is 7 percentage points or 1,618 GL less than at the same time last year.

Information on water available in dams used for irrigation the Murray–Darling Basin from 1 January 2001 to 12 October 2017 is shown above. The top horizontal (short dash) line indicates the storage level during a similar time last year. The bottom horizontal (long dash) line indicates the amount of ‘dead’ or unusable storage.
2.2. **Water allocations**

Select water allocation percentages in the southern Murray–Darling Basin

![Graphs showing water allocations for different regions and security levels over time.](image-url)
2.3. Water markets

Allocation prices in the southern Murray-Darling Basin remained flat in the week ending 12 October 2017 at $141 per ML. This is a decrease of $2 from the same time last week. This contrasts with an average price of $123 in September across the whole southern MDB, and $88 during the same time last year.

The trades shown reflect market activity and do not encompass all register trades. The price line reflects locally fitted price values for the entire southern Murray-Darling Basin. Data shown is current until Thursday 12 October 2017. Trade activity is shown as colour density.

| Allocation trade prices, southern Murray–Darling Basin trade zones (price per ML) |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                 | Southern MDB    | Victoria Goulburn | SA Murray       | NSW Murrumbidgee | Victoria Murray | NSW Murray       |
| Current week: 06/10/17 - 12/10/17 | $141.27         | $117.06          | $133.94         | $149.84         | $156.15         | $148.15         |
| Last week: 29/09/17 - 05/10/17   | $142.85         | $116.08          | $194.79         | $145.55         | $132.65         | $146.21         |
| September 2017                   | $123.20         | $102.41          | $148.68         | $126.22         | $130.26         | $130.78         |
| September 2016                   | $87.72          | $119.58          | $172.27         | $65.09          | $119.94         | $109.43         |
3. Commodities

### Selected World Indicator Prices

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Week ended</th>
<th>Unit</th>
<th>Latest price</th>
<th>Price week prior</th>
<th>Weekly change</th>
<th>Price 12 months prior</th>
<th>Year on year change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australian Dollar – AUD/USD Exchange Rate</td>
<td>11-Oct</td>
<td>US$/A$</td>
<td>0.78</td>
<td>0.78</td>
<td>0%</td>
<td>0.76</td>
<td>3%</td>
</tr>
<tr>
<td>Wheat – US no. 2 hard red winter wheat, fob Gulf</td>
<td>10-Oct</td>
<td>US$/t</td>
<td>214</td>
<td>219</td>
<td>-2%</td>
<td>192</td>
<td>11%</td>
</tr>
<tr>
<td>Coarse Grains – US no. 2 yellow corn, fob Gulf</td>
<td>11-Oct</td>
<td>US$/t</td>
<td>150</td>
<td>153</td>
<td>-2%</td>
<td>150</td>
<td>0%</td>
</tr>
<tr>
<td>Canola – Rapeseed, Europe, fob Hamburg</td>
<td>10-Oct</td>
<td>US$/t</td>
<td>436</td>
<td>428</td>
<td>2%</td>
<td>426</td>
<td>2%</td>
</tr>
<tr>
<td>Cotton – Cotlook 'A' Index</td>
<td>11-Oct</td>
<td>USc/lb</td>
<td>78.7</td>
<td>78.3</td>
<td>-1%</td>
<td>76.9</td>
<td>2%</td>
</tr>
<tr>
<td>Sugar – Intercontinental Exchange, nearby futures, no.11 contract</td>
<td>11-Oct</td>
<td>USc/lb</td>
<td>14.2</td>
<td>13.8</td>
<td>3%</td>
<td>23.2</td>
<td>-39%</td>
</tr>
<tr>
<td>Wool – Eastern Market Indicator</td>
<td>05-Oct</td>
<td>Ac/kg clean</td>
<td>1,550</td>
<td>1,522</td>
<td>2%</td>
<td>1,300</td>
<td>19%</td>
</tr>
<tr>
<td>Wool – Western Market Indicator</td>
<td>06-Oct</td>
<td>Ac/kg clean</td>
<td>1,608</td>
<td>1,572</td>
<td>2%</td>
<td>1,363</td>
<td>18%</td>
</tr>
</tbody>
</table>

### Selected domestic crop indicator prices

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Week ended</th>
<th>Unit</th>
<th>Latest price</th>
<th>Price week prior</th>
<th>Weekly change</th>
<th>Price 12 months prior</th>
<th>Year on year change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milling Wheat – ASW1, track quote, Port Adelaide, SA</td>
<td>03-Oct</td>
<td>A$/t</td>
<td>241</td>
<td>228</td>
<td>6%</td>
<td>208</td>
<td>16%</td>
</tr>
<tr>
<td>Feed Wheat – General purpose, Sydney, NSW</td>
<td>11-Oct</td>
<td>A$/t</td>
<td>273</td>
<td>273</td>
<td>0%</td>
<td>246</td>
<td>11%</td>
</tr>
<tr>
<td>Feed Barley – Sydney, NSW</td>
<td>11-Oct</td>
<td>A$/t</td>
<td>256</td>
<td>256</td>
<td>0%</td>
<td>187</td>
<td>37%</td>
</tr>
<tr>
<td>Canola – Portland, Vic.</td>
<td>09-Oct</td>
<td>A$/t</td>
<td>539</td>
<td>541</td>
<td>-1%</td>
<td>528</td>
<td>2%</td>
</tr>
<tr>
<td>Grain Sorghum – Sydney, NSW</td>
<td>11-Oct</td>
<td>A$/t</td>
<td>314</td>
<td>319</td>
<td>-2%</td>
<td>214</td>
<td>47%</td>
</tr>
</tbody>
</table>

### Selected domestic livestock indicator prices

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Week ended</th>
<th>Unit</th>
<th>Latest price</th>
<th>Price week prior</th>
<th>Weekly change</th>
<th>Price 12 months prior</th>
<th>Year on year change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef – Eastern Young Cattle Indicator</td>
<td>05-Oct</td>
<td>Ac/kg cwt</td>
<td>525</td>
<td>509</td>
<td>3%</td>
<td>717</td>
<td>-27%</td>
</tr>
<tr>
<td>Mutton – Mutton indicator (18–24 kg fat score 2–3), Vic</td>
<td>06-Oct</td>
<td>Ac/kg cwt</td>
<td>373</td>
<td>370</td>
<td>&lt;1%</td>
<td>420</td>
<td>-11%</td>
</tr>
<tr>
<td>Lamb – Eastern States Trade Lamb Indicator</td>
<td>05-Oct</td>
<td>Ac/kg cwt</td>
<td>602</td>
<td>603</td>
<td>&lt;1%</td>
<td>596</td>
<td>1%</td>
</tr>
<tr>
<td>Pig – Eastern Seaboard (60.1–75 kg), average of buyers &amp; sellers</td>
<td>29-Sep</td>
<td>Ac/kg cwt</td>
<td>277</td>
<td>277</td>
<td>0%</td>
<td>377</td>
<td>-27%</td>
</tr>
<tr>
<td>Goat – Eastern States (12.1–16 kg)</td>
<td>09-Oct</td>
<td>Ac/kg cwt</td>
<td>457</td>
<td>457</td>
<td>0%</td>
<td>583</td>
<td>-22%</td>
</tr>
<tr>
<td>Live cattle – Light steers ex Darwin to Indonesia</td>
<td>07-Oct</td>
<td>Ac/kg lwt</td>
<td>330</td>
<td>330</td>
<td>0%</td>
<td>365</td>
<td>-10%</td>
</tr>
<tr>
<td>Live sheep – Live wether (Muchea WA saleyard) to Middle East</td>
<td>09-Oct</td>
<td>$/head</td>
<td>108</td>
<td>111</td>
<td>-3%</td>
<td>90.8</td>
<td>19%</td>
</tr>
</tbody>
</table>

**Note:** Price week prior for Wool – Western Market Indicator refers to week ending 22 September 2017. Price 12 months prior for Live cattle – Light steers ex Darwin to Indonesia refers to 24 September 2016.
### Global Dairy Trade (GDT) weighted average prices

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Week ended</th>
<th>Unit</th>
<th>Latest price</th>
<th>Price week prior</th>
<th>Weekly change</th>
<th>Price 12 months prior</th>
<th>Year on year change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy – Whole milk powder</td>
<td>03-Oct</td>
<td>US$/t</td>
<td>3,037</td>
<td>3,122</td>
<td>-3%</td>
<td>2,681</td>
<td>13%</td>
</tr>
<tr>
<td>Dairy – Skim milk powder</td>
<td>03-Oct</td>
<td>US$/t</td>
<td>1,895</td>
<td>1,920</td>
<td>-1%</td>
<td>2,209</td>
<td>-14%</td>
</tr>
<tr>
<td>Dairy – Cheddar cheese</td>
<td>03-Oct</td>
<td>US$/t</td>
<td>4,109</td>
<td>4,032</td>
<td>2%</td>
<td>3,430</td>
<td>20%</td>
</tr>
<tr>
<td>Dairy – Anhydrous milk fat</td>
<td>03-Oct</td>
<td>US$/t</td>
<td>6,504</td>
<td>6,764</td>
<td>-4%</td>
<td>4,954</td>
<td>31%</td>
</tr>
</tbody>
</table>

*a Global Dairy Trade prices are updated twice monthly on the first and third Tuesday of each month.*
2.4. Selected world indicator prices

- **World wheat indicator price**
  - US No. 2, hard red winter wheat, fob Gulf
  - Week ended 10 October 2017

- **World coarse grains indicator price**
  - US corn No. 2, fob Gulf
  - Week ended 11 October 2017

- **World canola indicator price**
  - Europe fob Hamburg
  - Week ended 10 October 2017

- **World cotton indicator price**
  - Cotlook ‘A’ index
  - Week ended 11 October 2017
2.5. Global Dairy Trade (GDT) weighted average prices

- Whole milk powder price
  - 3 October 2017

- Skim milk powder price
  - 3 October 2017

- Cheddar cheese price
  - 3 October 2017

- Anhydrous milk fat price
  - 3 October 2017
2.6. **Selected domestic crop indicator prices**

- **Grain sorghum indicator price**
  - Sydney, NSW
  - Week ended 11 October 2017

- **Feed barley indicator price**
  - Sydney, NSW
  - Week ended 11 October 2017

- **Feed wheat indicator price**
  - General Purpose, Sydney, NSW
  - Week ended 11 October 2017

- **Milling wheat indicator price**
  - ASW1, track quote, Port Adelaide, SA
  - Week ended 3 October 2017
2.7. Selected domestic livestock indicator prices

- **Eastern Young Cattle Indicator**
  - Week ended 5 October 2017
- **Mutton indicator price in Victoria**
  - (18–24 kg fat score 2–3)
  - Week ended 6 October 2017
- **Eastern States Trade Lamb Indicator**
  - Week ended 5 October 2017
- **Pig indicator price Eastern Seaboard**
  - (60.1–75 kg)
  - Week ended 29 September 2017
2.8. Selected fruit and vegetable prices – week ended 7 October 2017
3. Data attribution

Climate
Bureau of Meteorology

Water
New South Wales

Queensland
- Sunwater: www.sunwater.com.au
- Seqwater: http://seqwater.com.au

South Australia
- South Australian Department of Environment, Water and Natural Resources: www.environment.sa.gov.au

Victoria
- Goulburn-Murray Water: www.g-mwater.com.au

Commodities
Fruit and vegetables
- Datafresh: www.freshstate.com.au

Pigs
- Australian Pork Limited: www.australianpork.com.au

Canola
- Weekly Times: hardcopy

Dairy

World wheat, canola
- International Grains Council

World coarse grains
- United States Department of Agriculture

World cotton
- Cotlook: www.cotlook.com/

World sugar
- New York Stock Exchange - Intercontinental Exchange

Wool

Milling wheat
- ProFarmer

Domestic wheat, barley, sorghum
- The Land: hardcopy or online at www.theland.farmonline.com.au/markets

Domestic canola
- The Weekly Times: hardcopy

Cattle, beef, mutton, lamb, goat and live export