This week’s Update will be the last for 2017. The next Update will be published on 11 January 2018.

Summary of key issues

- During the week ending 13 December 2017 rainfall totals between 25 and 50 millimetres were recorded in south-eastern and northern Queensland, south-eastern Victoria, parts of central and northern Western Australia, western Tasmania and north-western parts of the Northern Territory.
- Maximum temperatures were close to average during the week ending 12 December 2017. Minimum temperatures were generally close to average for most of the country, although they were below average (-2°C to -4°C) in parts of New South Wales, Victoria, South Australia, Queensland and the Northern Territory.
- At the six month timescale (June to November 2017) rainfall deficiencies have decreased in both extent and severity in the Eyre Peninsula in South Australia, and parts of southern New South Wales. Serious to severe deficiencies remain unchanged in eastern Victoria, eastern Tasmania, and on the western to north-western coast of Western Australia.
- The Australian Plague Locust Commission report that Australian plague locust densities remained low in all surveyed regions during November 2017. The outlook for summer is for population densities to remain generally low in all regions of inland eastern Australia.
- Rainfall is mainly expected across northern Australia during the next eight days, with totals up to 100 millimetres in northern parts of Western Australia and the Northern Territory.
- Water storage levels in the Murray–Darling Basin (MDB) decreased during the week ending 14 December 2017 by 42 gigalitres (GL) to 15,943 GL and are at 71 per cent of total capacity. This is 15 percentage points or 3,460 GL less than at the same time last year.
- Allocation prices in the southern Murray–Darling Basin declined in the week ending 14 December 2017 to $92 per ML. This is a decrease of $20 from the same time last week, predominantly a result of significant rainfall into the catchments and the widespread availability of short-term supplementary water which also trades in the market.

Outlook 2018 - Creating value in an increasingly connected world

Australia’s premier information and networking forum for public and private sector decision makers in agriculture. 6-7 March, Canberra. Visit www.agriculture.gov.au/abares/outlook

For more information or to subscribe, email Climate_Update@agriculture.gov.au
1. Climate

1.1. Rainfall this week

During the week ending 13 December 2017 rainfall totals between 25 and 50 millimetres were recorded in south-eastern and northern Queensland, south-eastern Victoria and parts of central and northern Western Australia. Similar totals were recorded in north-western parts of the Northern Territory and western Tasmania. Totals up to 25 millimetres were recorded in isolated parts of central Queensland and Western Australia. Little to no rainfall was recorded in New South Wales and South Australia. The highest recorded weekly total was 168 millimetres at Falls Creek, in north-eastern Victoria.
1.2. Temperature anomalies this week

Maximum temperatures were close to average across most of Australia during the week ending 12 December 2017. Minimum temperatures were generally close to average for most of the country, although they were below average (-2°C to -4°C) in parts of New South Wales, Victoria, South Australia, Queensland and the Northern Territory.

Maximum temperature anomalies for the week ending 12 December 2017

Minimum temperature anomalies for the week ending 12 December 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, November rainfall has eased deficiencies across the top of the Eyre Peninsula in South Australia, and parts of southern New South Wales at the 6-month timescale. Rainfall during the first days of December has further eased deficiencies in these areas, while serious to severe deficiencies remain unchanged in eastern Victoria, eastern Tasmania, and on the western to north-western coast of Western Australia (Bureau of Meteorology ‘Drought Statement’, 7 December 2017).

Rainfall deficiencies for the 6 month period 1 June to 30 November 2017
1.4. **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 densities remained low in all surveyed regions during November 2017. Despite rainfall producing more favourable habitat conditions in many areas, only low density adults and very few nymphs were identified during surveys.

The outlook for summer is for population densities to remain generally low in all regions of inland eastern Australia. Localised breeding is likely to occur in habitat areas that receive heavy rainfall in December and this will result in small regional population increases. Breeding is likely to continue during summer and autumn, but given the current very low population densities there is a low risk of widespread regional infestations developing during summer, and a very low risk of swarms affecting agricultural regions across several states in autumn.

1.5. **Rainfall forecast for the next eight days**

Rainfall is mainly expected across northern Australia during the next eight days, with totals up to 100 millimetres in northern parts of Western Australia and the Northern Territory. Totals up to 50 millimetres are predicted for isolated parts of far northern Queensland, south-western Western Australia, the Eyre Peninsula in South Australia, and western Tasmania. Parts of eastern New South Wales can expect rainfall totals up to 25 millimetres. Little to no rainfall is forecast for the rest of the country.

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 14 to 21 December 2017**

1.6. **Australian monsoon onset**

While part of northern Australia recorded above average rainfall during October and November, the Bureau of Meteorology has reported that there has been no sign of a significant southern hemisphere monsoon trough near the Australian region for the 2017–18 northern wet season to date. In the last week there has been limited monsoon trough development in the far western Indian Ocean near Madagascar, but none in the eastern Indian Ocean near Indonesia, which can be a precursor to monsoon onset over northern Australia.

The Bureau of Meteorology has stated that the broadscale climate pattern across the equatorial Indian and western Pacific oceans remains unfavourable for monsoon trough development in the Australian region (Bureau of Meteorology, Weekly Tropical Climate Note, 12 December 2017).
2. Water

2.1. Water availability

Water storage levels in the Murray–Darling Basin (MDB) decreased during the week ending 14 December 2017 by 42 gigalitres (GL) to 15,943 GL and are at 71 per cent of total capacity. This is 15 percentage points or 3,460 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 14 December 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

On 7 December 2017 NSW Department of Primary Industries – Water announced allocation increases of:

- 1.06% for NSW Gwydir general security to 17.17%

### Water allocations in the Murray–Darling Basin (NSW, Victoria and South Australia)

<table>
<thead>
<tr>
<th>New South Wales</th>
<th>General security</th>
<th>High security</th>
<th>General security</th>
<th>High security</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSW Murray</td>
<td>39%</td>
<td>97%</td>
<td>39%</td>
<td>97%</td>
</tr>
<tr>
<td>NSW Murrumbidgee</td>
<td>33%</td>
<td>95%</td>
<td>33%</td>
<td>95%</td>
</tr>
<tr>
<td>NSW Lower Darling</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>NSW Macquarie and Cudgeong</td>
<td>38%</td>
<td>100%</td>
<td>38%</td>
<td>100%</td>
</tr>
<tr>
<td>NSW Hunter</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>NSW Lachlan</td>
<td>2%</td>
<td>100%</td>
<td>2%</td>
<td>100%</td>
</tr>
<tr>
<td>NSW Lower Namoi</td>
<td>7%</td>
<td>100%</td>
<td>7%</td>
<td>100%</td>
</tr>
<tr>
<td>NSW Upper Namoi</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>NSW Gwydir</td>
<td>17%</td>
<td>100%</td>
<td>17%</td>
<td>100%</td>
</tr>
<tr>
<td>NSW Border Rivers</td>
<td>100%(a)/14.7%(b)</td>
<td>100%</td>
<td>100%(a)/14.7%(b)</td>
<td>100%</td>
</tr>
<tr>
<td>NSW Peel</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Victoria</th>
<th>Low reliability</th>
<th>High reliability</th>
<th>Low reliability</th>
<th>High reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Victoria Murray</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Victoria Goulburn</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Victoria Campaspe</td>
<td>46%</td>
<td>100%</td>
<td>46%</td>
<td>100%</td>
</tr>
<tr>
<td>Victoria Loddon</td>
<td>0%</td>
<td>100%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>Victoria Bullarook</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Victoria Broken</td>
<td>63%</td>
<td>100%</td>
<td>63%</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>South Australia</th>
<th>Class 3a/3b</th>
<th>Class 3a/3b</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>South Australia Murray</td>
<td>100%</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Select water allocation percentages in the southern Murray–Darling Basin
2.3. Water markets

Allocation prices in the southern Murray–Darling Basin declined in the week ending 14 December 2017 to $92 per ML. This is a decrease of $20 from the same time last week, predominantly a result of significant rainfall into the catchments and the widespread availability of short–term supplementary water which also trades in the market. This contrasts with an average price of $120 in November across the whole southern MDB, and $93 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 14 December 2017. Trade activity is shown as colour density.

<table>
<thead>
<tr>
<th>Allocation trade prices, southern Murray–Darling Basin trade zones (price per ML)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Southern MDB</strong></td>
</tr>
<tr>
<td><strong>Current week: 08/12/17 – 14/12/17</strong></td>
</tr>
<tr>
<td><strong>Last week: 01/12/17 – 07/12/17</strong></td>
</tr>
<tr>
<td><strong>November 2017</strong></td>
</tr>
<tr>
<td><strong>November 2016</strong></td>
</tr>
</tbody>
</table>
### 3. Commodities

<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><strong>Selected World Indicator Prices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australian Dollar – AUD/USD Exchange Rate</td>
<td>13-Dec</td>
<td>US$/A$</td>
<td>0.75</td>
<td>0.76</td>
<td>-1% ↓</td>
<td>0.75</td>
<td>0% ●</td>
</tr>
<tr>
<td>Wheat – US no. 2 hard red winter wheat, fob Gulf</td>
<td>12-Dec</td>
<td>US$/t</td>
<td>216</td>
<td>219</td>
<td>-1% ↓</td>
<td>184</td>
<td>17% ↑</td>
</tr>
<tr>
<td>Coarse Grains – US no. 2 yellow corn, fob Gulf</td>
<td>13-Dec</td>
<td>US$/t</td>
<td>150</td>
<td>152</td>
<td>-1% ↓</td>
<td>156</td>
<td>-4% ↓</td>
</tr>
<tr>
<td>Canola – Rapeseed, Europe, fob Hamburg</td>
<td>12-Dec</td>
<td>US$/t</td>
<td>419</td>
<td>437</td>
<td>-4% ↓</td>
<td>441</td>
<td>-5% ↓</td>
</tr>
<tr>
<td>Cotton – Cotlook 'A' Index</td>
<td>13-Dec</td>
<td>USc/lb</td>
<td>83.8</td>
<td>83.3</td>
<td>&lt;1% ↑</td>
<td>80.0</td>
<td>5% ↑</td>
</tr>
<tr>
<td>Sugar – Intercontinental Exchange, nearby futures, no.11 contract</td>
<td>13-Dec</td>
<td>USc/lb</td>
<td>14.0</td>
<td>14.9</td>
<td>-6% ↓</td>
<td>18.9</td>
<td>-26% ↓</td>
</tr>
<tr>
<td>Wool – Eastern Market Indicator</td>
<td>07-Dec</td>
<td>Ac/kg clean</td>
<td>1,699</td>
<td>1,676</td>
<td>1% ↑</td>
<td>1,349</td>
<td>26% ↑</td>
</tr>
<tr>
<td>Wool – Western Market Indicator</td>
<td>08-Dec</td>
<td>Ac/kg clean</td>
<td>1,762</td>
<td>1,725</td>
<td>2% ↑</td>
<td>1,444</td>
<td>22% ↑</td>
</tr>
<tr>
<td><strong>Selected domestic crop indicator prices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milling Wheat – ASW1, track quote, Port Adelaide, SA</td>
<td>12-Dec</td>
<td>A$/t</td>
<td>230</td>
<td>238</td>
<td>-3% ↓</td>
<td>198</td>
<td>16% ↑</td>
</tr>
<tr>
<td>Feed Wheat – General purpose, Sydney, NSW</td>
<td>13-Dec</td>
<td>A$/t</td>
<td>258</td>
<td>268</td>
<td>-4% ↓</td>
<td>219</td>
<td>18% ↑</td>
</tr>
<tr>
<td>Feed Barley – Sydney, NSW</td>
<td>13-Dec</td>
<td>A$/t</td>
<td>245</td>
<td>250</td>
<td>-2% ↓</td>
<td>180</td>
<td>36% ↑</td>
</tr>
<tr>
<td>Canola – Portland, Vic.</td>
<td>11-Dec</td>
<td>A$/t</td>
<td>520</td>
<td>522</td>
<td>&lt;1% ↓</td>
<td>525</td>
<td>&lt;1% ↓</td>
</tr>
<tr>
<td>Grain Sorghum – Sydney, NSW</td>
<td>13-Dec</td>
<td>A$/t</td>
<td>304</td>
<td>319</td>
<td>-5% ↓</td>
<td>253</td>
<td>20% ↑</td>
</tr>
<tr>
<td><strong>Selected domestic livestock indicator prices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beef – Eastern Young Cattle Indicator</td>
<td>07-Dec</td>
<td>Ac/kg cwt</td>
<td>579</td>
<td>580</td>
<td>&lt;1% ↓</td>
<td>643</td>
<td>-10% ↓</td>
</tr>
<tr>
<td>Mutton – Mutton indicator (18–24 kg fat score 2–3), Vic</td>
<td>08-Dec</td>
<td>Ac/kg cwt</td>
<td>487</td>
<td>476</td>
<td>2% ↑</td>
<td>416</td>
<td>17% ↑</td>
</tr>
<tr>
<td>Lamb – Eastern States Trade Lamb Indicator</td>
<td>14-Dec</td>
<td>Ac/kg cwt</td>
<td>659</td>
<td>635</td>
<td>4% ↑</td>
<td>498</td>
<td>32% ↑</td>
</tr>
<tr>
<td>Pig – Eastern Seaboard (60.1–75 kg), average of buyers &amp; sellers</td>
<td>01-Dec</td>
<td>Ac/kg cwt</td>
<td>282</td>
<td>277</td>
<td>2% ↑</td>
<td>378</td>
<td>-25% ↓</td>
</tr>
<tr>
<td>Goat – Eastern States (12.1–16 kg)</td>
<td>04-Dec</td>
<td>Ac/kg cwt</td>
<td>490</td>
<td>490</td>
<td>0% ●</td>
<td>600</td>
<td>-18% ↓</td>
</tr>
<tr>
<td>Live cattle – Light steers ex Darwin to Indonesia</td>
<td>09-Dec</td>
<td>Ac/kg lwt</td>
<td>340</td>
<td>320</td>
<td>6% ↑</td>
<td>370</td>
<td>-8% ↓</td>
</tr>
<tr>
<td>Live sheep – Live wether (Muchea WA saleyard) to Middle East</td>
<td>04-Dec</td>
<td>$/head</td>
<td>121</td>
<td>113</td>
<td>7% ↑</td>
<td>86</td>
<td>41% ↑</td>
</tr>
<tr>
<td>Indicator</td>
<td>Week ended</td>
<td>Unit</td>
<td>Latest price</td>
<td>Price week prior</td>
<td>Weekly change</td>
<td>Price 12 months prior</td>
<td>Year on year change</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>------------</td>
<td>--------</td>
<td>--------------</td>
<td>------------------</td>
<td>---------------</td>
<td>-----------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>Dairy – Whole milk powder</td>
<td>05-Dec</td>
<td>US$/t</td>
<td>2,830</td>
<td>2,778</td>
<td>2% ⇑</td>
<td>3,593</td>
<td>-21% ⇩</td>
</tr>
<tr>
<td>Dairy – Skim milk powder</td>
<td>05-Dec</td>
<td>US$/t</td>
<td>1,774</td>
<td>1,701</td>
<td>4% ⇑</td>
<td>2,570</td>
<td>-31% ⇩</td>
</tr>
<tr>
<td>Dairy – Cheddar cheese</td>
<td>05-Dec</td>
<td>US$/t</td>
<td>3,696</td>
<td>3,831</td>
<td>-4% ⇩</td>
<td>3,752</td>
<td>-1% ⇩</td>
</tr>
<tr>
<td>Dairy – Anhydrous milk fat</td>
<td>05-Dec</td>
<td>US$/t</td>
<td>6,836</td>
<td>6,887</td>
<td>&lt;1% ⇩</td>
<td>5,500</td>
<td>24% ⇑</td>
</tr>
</tbody>
</table>

*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 12 December 2017

World coarse grains indicator price
US corn No. 2, fob Gulf
Week ended 13 December 2017

World canola indicator price
Europe fob Hamburg
Week ended 12 December 2017

World cotton indicator price
Cotlook 'A' index
Week ended 13 December 2017
2.5. Global Dairy Trade (GDT) weighted average prices

- Whole milk powder price
- Skim milk powder price
- Cheddar cheese price
- Anhydrous milk fat price

Each chart shows the price in US$/t over the months from January to December, with data for 2015, 2016, and 2017.
2.6. Selected domestic crop indicator prices

Grain sorghum indicator price
Sydney, NSW
Week ended 13 December 2017

Feed barley indicator price
Sydney, NSW
Week ended 13 December 2017

Feed wheat indicator price
General Purpose, Sydney, NSW
Week ended 13 December 2017

Milling wheat indicator price
ASW1, track quote, Port Adelaide, SA
Week ended 12 December 2017
2.7. **Selected domestic livestock indicator prices**

- **Eastern Young Cattle Indicator**
  Week ended 7 December 2017

- **Mutton indicator price in Victoria**
  (18–24 kg fat score 2–3)
  Week ended 8 December 2017

- **Eastern States Trade Lamb Indicator**
  Week ended 14 December 2017

- **Pig indicator price Eastern Seaboard**
  (60.1–75 kg)
  Week ended 1 December 2017
2.8. Selected fruit and vegetable prices – week ended 9 December 2017

Weekly wholesale prices for blueberry, pineapple (smoothleaf), watermelon (seedless) & banana (cavendish)

Weekly wholesale prices for kiwifruit (hayward), strawberry, apple (royal gala) & avocado (hass)

Weekly wholesale prices for onion (brown), cauliflower, potato (white, brushed) & tomato (field gourmet)

Weekly wholesale prices for broccoli, lettuce (iceberg), pumpkin (grey bulk) & bean (round stringless)
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