This week’s Update will be the last for 2018.
The next Update will be published on 10 January 2019.

Summary of key issues

- During the week ending 19 December 2018 widespread rainfall was recorded across large areas of eastern and northern Australia.

- In summer cropping regions, rainfall of between 1 and 25 millimetres was recorded across much of northern New South Wales and northern Queensland during the week ending 19 December 2018. Higher falls in excess of 25 millimetres were recorded across eastern areas of New South Wales and southern and northern cropping regions in Queensland.

- For the week ending 18 December 2018, maximum and minimum temperatures were generally average across much of Australia.

- The latest rainfall outlook released by the Bureau of Meteorology indicates that a drier than average January is more likely for much of Western Australia, and parts of northern and western Queensland and the Northern Territory.

- The rainfall outlook for January to March 2019 indicates that a drier than average three months is more likely for much of northern and inland New South Wales, eastern and southern Queensland, eastern Victoria, Western Australia and parts of South Australia and the Northern Territory. For the remainder of the country there is roughly equal chances of a wetter or drier three months.

- During the next eight days, rainfall is expected to be restricted to the far east and north of Australia.

- In summer cropping regions, rainfall of between 5 and 10 millimetres is expected across parts of northern and eastern Queensland. Little to no rainfall is expected across the remainder of Queensland and New South Wales summer cropping regions.

- Water storage levels in the Murray–Darling Basin (MDB) increased during the week ending 20 December 2018 by 97 gigalitres (GL) to 12,066 GL and are at 48 per cent of total capacity.

- Allocation prices in the southern Murray-Darling Basin increased in the week ending 10 December 2018 to $402 per ML. This is an increase of $21 from the same time last week.
1. Climate

1.1. Rainfall this week

During the week ending 19 December 2018 widespread rainfall was recorded across large areas of eastern and northern Australia. Rainfall totals of between 10 and 50 millimetres were recorded across eastern and southern New South Wales, Victoria, much of Queensland, parts of southern and northern South Australia, Tasmania, scattered areas of northern and southern Western Australia, and the north of the Northern Territory.

Higher rainfall totals in excess of 50 millimetres were recorded across parts of eastern and southern New South Wales, northern and eastern Queensland, large areas of Victoria, north-eastern Tasmania and the north of the Northern Territory.

In summer cropping regions, rainfall of between 1 and 25 millimetres was recorded across much of northern New South Wales and northern Queensland during the week ending 19 December 2018. Higher falls in excess of 25 millimetres were recorded across eastern areas of New South Wales and southern and northern cropping regions in Queensland.

Rainfall analysis for the week ending 19 December 2018
1.2. Temperature anomalies this week

For the week ending 18 December 2018, maximum and minimum temperatures were generally average across much of Australia. Maximum and minimum temperatures were 2°C to 6°C above average across large areas of north-eastern Western Australia and the Northern Territory, parts of the eastern seaboard and Tasmania. Meanwhile, maximum temperatures were -2°C to -6°C below average across parts of southern Australia for the week ending 18 December 2018.

Maximum temperature anomalies for the week ending 18 December 2018

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. National Climate Outlook

The rainfall and temperature outlooks presented here 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. These climate outlooks are generated by ACCESS–S (Australian Community Climate Earth-System Simulator–Seasonal). ACCESS–S is the Bureau of Meteorology’s dynamical (physics-based) weather and climate model used for monthly, seasonal and longer-lead climate outlooks.

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

While tropical Pacific Ocean waters have warmed above levels consistent with an El Niño, the atmospheric component of the El Niño–Southern Oscillation (ENSO) has not responded, meaning an El Niño event is yet to become established. This means that the typical widespread influence on global and Australian climate and weather is currently unlikely. Climate models suggest that tropical Pacific Ocean waters are likely to remain at El Niño levels through the coming months, which will increase the chance of the atmosphere responding, particularly later in the season. Additionally, waters off the north-west of Western Australia are expected to remain cooler than average through the coming months, reducing the potential for moisture to be evaporated off the eastern Indian Ocean, and therefore likely limiting moisture flowing into Western Australia.

In contrast to typical El Niño events, warmer than average waters are forecast to persist across the Top End, the Gulf of Carpentaria, and right down the east coast of the continent. This may lead to a more volatile rainfall pattern, with brief periods of high rainfall when weather patterns draw moisture from the warm seas inland.

The latest rainfall outlook released by the Bureau of Meteorology indicates that a drier than average January is more likely for much of Western Australia, and parts of northern and western Queensland and the Northern Territory. For the remainder of the country there are roughly equal chances of a wetter or drier than average January (Bureau of Meteorology ‘National Climate Outlook’, 20 December 2018).

Chance of exceeding the median rainfall January 2018

![Map showing the chance of exceeding the median rainfall January 2018](image-url)
The rainfall outlook for January to March 2019 indicates that a drier than average three months is more likely for much of northern and inland New South Wales, eastern and southern Queensland, eastern Victoria, Western Australia and parts of South Australia and the Northern Territory. For the remainder of the country there are roughly equal chances of a wetter or drier three months (Bureau of Meteorology ‘National Climate Outlook’, 20 December 2018).

**Chance of exceeding the median rainfall January to March 2019**
The temperature outlook for January to March 2019 indicates that daytime temperatures are more likely to be warmer than average for Australia. Night-time temperatures are also likely to be warmer than average for much of the country, with the exception of the west of Western Australia, where the chances of warmer or cooler nights are roughly equal (Bureau of Meteorology ‘National Climate Outlook’, 20 December 2018).

**Chance of exceeding the median maximum temperature January to March 2019**

**Chance of exceeding the median minimum temperature January to March 2019**
1.4. Rainfall forecast for the next eight days

During the next eight days, rainfall is expected to be restricted to the far east and north of Australia. Rainfall totals of between 10 and 50 millimetres are forecast for much of eastern New South Wales, eastern Victoria, eastern and northern Queensland, parts of northern and southern Tasmania, northern Western Australia and the north of the Northern Territory. Heavier falls in excess of 50 millimetres are forecast for northern Queensland and the far north of the Northern Territory. In summer cropping regions, rainfall of between 5 and 10 millimetres is expected across parts of northern and eastern Queensland. Little to no rainfall is expected across the remainder of Queensland and New South Wales summer cropping regions.

This rainfall forecast is produced from computer models. As the model outputs are not altered by weather forecasters, it is important to check local forecasts and warnings issued by the Bureau of Meteorology.

Total forecast rainfall (mm) for the period 20 to 27 December 2018

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Issued: 20/12/2018
2. Water

2.1. Water markets - current week

Water storage levels in the Murray–Darling Basin (MDB) increased during the week ending 20 December 2018 by 97 gigalitres (GL) to 12,066 GL and are at 48 per cent of total capacity. This is 32 percentage points or 5,797 GL less than at the same time last year.

![Water storages in the Murray-Darling Basin, 2013–2018](image)

Allocation prices in the southern Murray-Darling Basin increased in the week ending 10 December 2018 to $402 per ML. This is an increase of $21 from the same time last week.

![Surface water trade activity, Southern Murray-Darling Basin](image)

Note: The trades shown reflect estimated market activity and do not encompass all register trades. The price line reflects value weighted average prices for the entire southern Murray-Darling Basin. Data shown is current as at Thursday 20 December 2018. ABARES has changed the data source for this output. Data is now sourced from the Bureau of Meteorology water dashboard.

## 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>19-Dec</td>
<td>US$/A$</td>
<td>0.72</td>
<td>0.72</td>
<td>0%</td>
<td>●</td>
<td>0.77</td>
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<tr>
<td>Wheat – US no. 2 hard red winter wheat, fob Gulf</td>
<td>18-Dec</td>
<td>US$/t</td>
<td>247</td>
<td>240</td>
<td>3%</td>
<td>●</td>
<td>219</td>
</tr>
<tr>
<td>Coarse Grains – US no. 2 yellow corn, fob Gulf</td>
<td>19-Dec</td>
<td>US$/t</td>
<td>170</td>
<td>170</td>
<td>0%</td>
<td>●</td>
<td>150</td>
</tr>
<tr>
<td>Canola – Rapeseed, Europe, fob Hamburg</td>
<td>18-Dec</td>
<td>US$/t</td>
<td>418</td>
<td>419</td>
<td>&lt;1%</td>
<td>●</td>
<td>420</td>
</tr>
<tr>
<td>Cotton – Cotlook 'A' Index</td>
<td>19-Dec</td>
<td>USc/lb</td>
<td>87.3</td>
<td>88.3</td>
<td>-1%</td>
<td>●</td>
<td>83.8</td>
</tr>
<tr>
<td>Sugar – Intercontinental Exchange, nearby futures, no.11 contract</td>
<td>19-Dec</td>
<td>USc/lb</td>
<td>12.5</td>
<td>12.8</td>
<td>-2%</td>
<td>●</td>
<td>14.0</td>
</tr>
<tr>
<td>Wool – Eastern Market Indicator</td>
<td>13-Dec</td>
<td>Ac/kg clean</td>
<td>1,862</td>
<td>1,849</td>
<td>&lt;1%</td>
<td>●</td>
<td>1,760</td>
</tr>
<tr>
<td>Wool – Western Market Indicator</td>
<td>14-Dec</td>
<td>Ac/kg clean</td>
<td>2,031</td>
<td>2,009</td>
<td>1%</td>
<td>●</td>
<td>1,816</td>
</tr>
<tr>
<td><strong>Selected domestic crop indicator prices</strong></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Milling Wheat – ASW1, track quote, Port Adelaide, SA</td>
<td>18-Dec</td>
<td>A$/t</td>
<td>377</td>
<td>374</td>
<td>&lt;1%</td>
<td>●</td>
<td>231</td>
</tr>
<tr>
<td>Feed Wheat – General purpose, Sydney, NSW</td>
<td>12-Dec</td>
<td>A$/t</td>
<td>440</td>
<td>na</td>
<td>na</td>
<td>●</td>
<td>258</td>
</tr>
<tr>
<td>Feed Barley – Sydney, NSW</td>
<td>05-Dec</td>
<td>A$/t</td>
<td>410</td>
<td>410</td>
<td>0%</td>
<td>●</td>
<td>245</td>
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<tr>
<td>Canola – Portland, Vic.</td>
<td>29-Oct</td>
<td>A$/t</td>
<td>597</td>
<td>na</td>
<td>na</td>
<td>●</td>
<td>536</td>
</tr>
<tr>
<td>Grain Sorghum – Sydney, NSW</td>
<td>12-Dec</td>
<td>A$/t</td>
<td>445</td>
<td>410</td>
<td>9%</td>
<td>●</td>
<td>304</td>
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<tr>
<td><strong>Selected domestic livestock indicator prices</strong></td>
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<tr>
<td>Beef – Eastern Young Cattle Indicator</td>
<td>13-Dec</td>
<td>Ac/kg cwt</td>
<td>527</td>
<td>515</td>
<td>2%</td>
<td>●</td>
<td>571</td>
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<tr>
<td>Mutton – Mutton indicator (18–24 kg fat score 2–3), Vic</td>
<td>14-Dec</td>
<td>Ac/kg cwt</td>
<td>404</td>
<td>424</td>
<td>-5%</td>
<td>●</td>
<td>487</td>
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<tr>
<td>Lamb – Eastern States Trade Lamb Indicator</td>
<td>13-Dec</td>
<td>Ac/kg cwt</td>
<td>663</td>
<td>663</td>
<td>0%</td>
<td>●</td>
<td>661</td>
</tr>
<tr>
<td>Pig – Eastern Seaboard (60.1–75 kg), average of buyers &amp; sellers</td>
<td>07-Dec</td>
<td>Ac/kg cwt</td>
<td>317</td>
<td>311</td>
<td>2%</td>
<td>●</td>
<td>281</td>
</tr>
<tr>
<td>Goat – Eastern States (12.1–16 kg)</td>
<td>10-Dec</td>
<td>Ac/kg cwt</td>
<td>572</td>
<td>548</td>
<td>4%</td>
<td>●</td>
<td>492</td>
</tr>
<tr>
<td>Live cattle – Light steers ex Darwin to Indonesia</td>
<td>15-Dec</td>
<td>Ac/kg lwt</td>
<td>325</td>
<td>325</td>
<td>0%</td>
<td>●</td>
<td>340</td>
</tr>
<tr>
<td>Live sheep – Live wether (Muchea WA saleyard) to Middle East</td>
<td>03-Dec</td>
<td>$/head</td>
<td>108</td>
<td>na</td>
<td>na</td>
<td>●</td>
<td>121</td>
</tr>
<tr>
<td>Indicator</td>
<td>Week ended</td>
<td>Unit</td>
<td>Latest price</td>
<td>Price week prior</td>
<td>Weekly change</td>
<td>Price 12 months prior</td>
<td>Year on year change</td>
</tr>
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<tr>
<td>Global Dairy Trade (GDT) weighted average prices a</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Dairy – Whole milk powder</td>
<td>18-Dec</td>
<td>US$/t</td>
<td>2,674</td>
<td>2,667</td>
<td>&lt;1%</td>
<td>2,830</td>
<td>-6%</td>
</tr>
<tr>
<td>Dairy – Skim milk powder</td>
<td>18-Dec</td>
<td>US$/t</td>
<td>2,042</td>
<td>1,970</td>
<td>4%</td>
<td>1,774</td>
<td>15%</td>
</tr>
<tr>
<td>Dairy – Cheddar cheese</td>
<td>18-Dec</td>
<td>US$/t</td>
<td>3,263</td>
<td>3,184</td>
<td>2%</td>
<td>3,696</td>
<td>-11%</td>
</tr>
<tr>
<td>Dairy – Anhydrous milk fat</td>
<td>18-Dec</td>
<td>US$/t</td>
<td>4,936</td>
<td>4,755</td>
<td>4%</td>
<td>6,836</td>
<td>-28%</td>
</tr>
</tbody>
</table>

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

- World wheat indicator price
  US No. 2, hard red winter wheat, fob Gulf
  Week ended 18 December 2018

- World coarse grains indicator price
  US corn No. 2, fob Gulf
  Week ended 19 December 2018

- World canola indicator price
  Europe fob Hamburg
  Week ended 18 December 2018

- World cotton indicator price
  Cotlook 'A' index
  Week ended 19 December 2018
World sugar indicator price
Intercontinental exchange, nearby futures, No. 11 contract
Week ended 19 December 2018

Easton Market Indicator wool price
Week ended 13 December 2018

Australian exchange rate
US dollars in one Australian dollar
Week ended 19 December 2018

Western Market Indicator wool price
Week ended 14 December 2018
3.2. Global Dairy Trade (GDT) weighted average prices

Whole milk powder price  
18 December 2018

Skim milk powder price  
18 December 2018

Cheddar cheese price  
18 December 2018

Anhydrous milk fat price  
18 December 2018
3.3. Selected domestic crop indicator prices

- **Grain sorghum indicator price**
  - Sydney, NSW
  - Week ended 12 December 2018

- **Feed barley indicator price**
  - Sydney, NSW
  - Week ended 5 December 2018

- **Feed wheat indicator price**
  - General Purpose, Sydney, NSW
  - Week ended 12 December 2018

- **Milling wheat indicator price**
  - ASW1, track quote, Port Adelaide, SA
  - Week ended 18 December 2018
Canola indicator price
Portland, Victoria
Week ended 29 October 2018

A$/t
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

2016 2017 2018
3.4. Selected domestic livestock indicator prices

- Eastern Young Cattle Indicator
  Week ended 13 December 2018

- Eastern States Trade Lamb Indicator
  Week ended 13 December 2018

- Mutton indicator price in Victoria
  (18–24 kg fat score 2–3)
  Week ended 14 December 2018

- Pig indicator price Eastern Seaboard
  (60.1–75 kg)
  Week ended 7 December 2018
3.5. Selected fruit and vegetable prices – week ended 20 December 2018
4. 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