Summary of key issues

- During the week ending 9 January 2019 rainfall was recorded across large areas of eastern and northern Australia.
- In summer cropping regions, rainfall of between 1 and 10 millimetres was recorded across parts of northern New South Wales and northern Queensland during the week ending 9 January 2019. Higher falls in excess of 25 millimetres were recorded across some northern cropping regions in Queensland. Little to no rainfall was recorded in remaining summer cropping regions.
- December 2018 was an exceptionally warm month. It was the warmest December on record for Australia in terms of mean, maximum, and minimum temperatures. The national monthly mean temperature was 2.13 °C above average.
- Overall, area-average rainfall in December 2018 was below average for Australia. Rainfall for the month was below average across much of the northern half of the country extending into northern New South Wales. Rainfall was above average across the northeast coast, large areas of the southeast mainland, and parts of inland southwestern Australia.
- December 2018 rainfall was generally below average to well below average for most summer cropping regions.
- Lower layer soil moisture in December 2018 was below average across parts of northern New South Wales, southern Victoria, parts of southern and north-western Queensland, parts of southern and northern Western Australia and scattered areas of the Northern Territory.
- During the next eight days, rainfall is expected to be restricted to the far south-east and north of Australia.
- In summer cropping regions, rainfall of between 1 and 10 millimetres is expected across parts of northern and eastern Queensland and southern regions of New South Wales. Little to no rainfall is expected across remaining summer cropping regions of Queensland and New South Wales.
- Water storage levels in the Murray–Darling Basin (MDB) decreased between 20 December 2018 and 10 January 2019 by 751 gigalitres (GL). Current volume of water held in storage is 11,285 GL which represents 45 per cent of total capacity.
- Allocation prices in the southern Murray-Darling Basin increased from $333 per ML in the week ending 17 December 2018 to $357 per ML in the week ending 31 December 2018.
1. Climate

1.1. Rainfall this week

During the week ending 9 January 2019 rainfall was recorded across large areas of eastern and northern Australia. Rainfall totals of between 10 and 50 millimetres were recorded across south-eastern New South Wales, parts of eastern Victoria, parts of eastern and northern Queensland, scattered areas of northern Western Australia, and the north of the Northern Territory.

Higher rainfall totals in excess of 50 millimetres were recorded across scattered areas of northern and eastern Queensland, northern Western Australia and the north of the Northern Territory.

In summer cropping regions, rainfall of between 1 and 10 millimetres was recorded across parts of northern New South Wales and northern Queensland during the week ending 9 January 2019. Higher falls in excess of 25 millimetres were recorded across some northern cropping regions in Queensland. Little to no rainfall was recorded in remaining summer cropping regions.

Rainfall analysis for the week ending 9 January 2019
1.2. Monthly temperatures

December 2018 was an exceptionally warm month. It was the warmest December on record for Australia in terms of mean, maximum, and minimum temperatures. The national mean temperature was 2.13 °C above average. Maximum temperatures were 2.41 °C above average and minimum temperatures were 1.85 °C above average. Both maximum and minimum temperatures were warmer than average across most of Australia. December was the warmest on record for New South Wales, Victoria, Tasmania, and the Northern Territory.

**Maximum temperature deciles for December 2018**

![Map of Australia showing temperature deciles for December 2018]

**Minimum temperature deciles for December 2018**

![Map of Australia showing temperature deciles for December 2018]

Note: Maximum and minimum temperatures for December 2018 compared with temperature recorded for that period during the historical record (1900 to present). For further information go to: [http://www.bom.gov.au/jsp/awap/temp/index.jsp](http://www.bom.gov.au/jsp/awap/temp/index.jsp).
1.3. Monthly rainfall

Rainfall for December 2018 was below above average for Australia as a whole. December rainfall was below average across northern New South Wales, most of Queensland away from the east coast, large areas of north-eastern and central South Australia, much of northern Western Australia, and most of the Northern Territory. Rainfall for the month was the lowest on record for some locations in the Northern Territory and Queensland.

Rainfall for the month was above average across south-western New South Wales and some pockets along the east coast, the east coast of Queensland, large areas of western and northern Victoria, the far south-east and north-west of South Australia, a large area of south-eastern Western Australia, and the far southwest of the Northern Territory.

December 2018 rainfall was generally below average to well below average for most summer cropping regions.

Rainfall percentiles for December 2018

Source: Bureau of Meteorology
Note: Rainfall for December 2018 is compared with rainfall recorded for that period during the historical record (1900 to present). For further information, go to http://www.bom.gov.au/jsp/awap/
1.4. Monthly soil moisture

Upper layer soil moisture in December 2018 was generally average to very much above average across much of southern Australia and north-eastern Queensland. It was below average to very much below average across northern New South Wales, most of Queensland away from the east coast, large areas of north-eastern and central South Australia, much of northern Western Australia, and most of the Northern Territory.

In summer cropping regions across northern New South Wales and Queensland, upper layer soil moisture was generally below average to very much below average for this time of year.

**Modelled upper layer soil moisture for December 2018**

Source: Bureau of Meteorology (Australian Water Resources Assessment Landscape model)

Note: This map shows the levels of modelled upper layer soil moisture (0 to 10 centimetres) during December 2018. This map shows how modelled soil conditions during December 2018 compare with December conditions modelled over the reference period (1911 to 2015). Dark blue areas on the maps were much wetter in December 2018 than during the reference period. The dark red areas were much drier than during the reference period. The bulk of plant roots occur in the top 20 centimetres of the soil profile. Soil moisture in the upper layer of the soil profile is therefore useful indicator of the availability of water, particularly for germinating seed.
Lower layer soil moisture for December 2018 was below average across parts of northern New South Wales, southern Victoria, parts of southern and north-western Queensland, parts of southern and northern Western Australia and scattered areas of the Northern Territory. It was average or above average across the remainder of the country.

In summer cropping regions, lower layer soil moisture was below average for northern and western areas of New South Wales and central regions in Queensland. It was generally average or above average across remaining summer cropping regions.

**Modelled lower layer soil moisture for December 2018**

Source: Bureau of Meteorology ($\text{Australian Water Resources Assessment Landscape model}$)

*Note: This map shows the levels of modelled lower layer soil moisture (10 to 100 centimetres) during December 2018. This map shows how modelled soil conditions during December 2018 compare with November conditions modelled over the reference period (1911 to 2015). Dark blue areas on the maps were much wetter in December 2018 than during the reference period. The dark red areas were much drier than during the reference period. The bulk of plant roots occur in the top 20 centimetres of the soil profile. The lower layer soil moisture is a larger, deeper store that is slower to respond to rainfall and tends to reflect accumulated rainfall events over longer time periods.*
1.5. Rainfall deficiencies

The rainfall deficiencies presented below are sourced from the Bureau of Meteorology’s monthly ‘Drought Statement’. As short to longer-term deficiencies become evident the Bureau of Meteorology monitors these events through their lifecycle – from emergence through to their dissipation – with the time-period of analysis each month increasing from a fixed starting point to the easing of the deficiencies.

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

For the 12-month period ending December 2018, rainfall deficiencies have decreased across most of Victoria and south-western New South Wales, but have increased in severity across much of the remainder of New South Wales, north-eastern South Australia, and south-western Queensland. Serious to severe rainfall deficiencies persist across much of New South Wales, parts of eastern and northern Victoria, parts of southern and central Queensland, large areas of eastern South Australia and parts of southern Western Australia.

Serious to severe rainfall deficiencies continue to persist at longer timescales. For the 21-months starting in April 2017, serious to severe rainfall deficiencies are evident across large areas of eastern and northern New South Wales, parts of eastern Victoria, large areas of eastern South Australia, south-western and central Queensland, and parts of western and southern Western Australia (Bureau of Meteorology ‘Drought Statement’, 8 December 2019).

Rainfall deficiencies for the 12-month period 1 January 2018 to 31 December 2018
Rainfall deficiencies for the 21-month period 1 April 2017 to 31 December 2018
1.6. Rainfall forecast for the next eight days

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

Rainfall totals of between 10 and 50 millimetres are forecast for much of south-eastern New South Wales, northern Queensland, northern Western Australia and the north of the Northern Territory. Heavier falls in excess of 50 millimetres are forecast for tropical northern Australia. In summer cropping regions, rainfall of between 1 and 10 millimetres is expected across parts of northern and eastern Queensland and southern regions of New South Wales. Little to no rainfall is expected across remaining summer cropping regions of Queensland and New South Wales.

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 10 to 17 January 2019**
2. Water

2.1. Water markets - current week

Water storage levels in the Murray-Darling Basin (MDB) decreased between 20 December 2018 and 10 January 2019 by 751 gigalitres (GL). Current volume of water held in storage is 11,285 GL which represents 45 per cent of total capacity. This is 33 percentage points or 5,599 GL less than at the same time last year.

![Water storages in the Murray-Darling Basin, 2013–2019](image)

Allocation prices in the southern Murray-Darling Basin increased from $333 per ML in the week ending 17 December 2018 to $357 per ML in the week ending 31 December 2018.

![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 10 January 2019. 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>09-Jan</td>
<td>US$/A$</td>
<td>0.71</td>
<td>0.70</td>
<td>1% ↑</td>
<td>0.78</td>
<td>-9% ↓</td>
</tr>
<tr>
<td>Wheat – US no. 2 hard red winter wheat, fob Gulf</td>
<td>08-Jan</td>
<td>US$/t</td>
<td>237</td>
<td>233</td>
<td>2% ↑</td>
<td>229</td>
<td>3% ↑</td>
</tr>
<tr>
<td>Coarse Grains – US no. 2 yellow corn, fob Gulf</td>
<td>09-Jan</td>
<td>US$/t</td>
<td>169</td>
<td>167</td>
<td>1% ↑</td>
<td>155</td>
<td>9% ↑</td>
</tr>
<tr>
<td>Canola – Rapeseed, Europe, fob Hamburg</td>
<td>09-Jan</td>
<td>US$/t</td>
<td>422</td>
<td>415</td>
<td>2% ↑</td>
<td>426</td>
<td>&lt;1% ↑</td>
</tr>
<tr>
<td>Cotton – Cotlook 'A' Index</td>
<td>09-Jan</td>
<td>USc/lb</td>
<td>89.1</td>
<td>na</td>
<td>na</td>
<td>89.1</td>
<td>0% ●</td>
</tr>
<tr>
<td>Sugar – Intercontinental Exchange, nearby futures, no.11 contract</td>
<td>09-Jan</td>
<td>USc/lb</td>
<td>12.1</td>
<td>na</td>
<td>na</td>
<td>14.9</td>
<td>-19% ↓</td>
</tr>
<tr>
<td>Wool – Eastern Market Indicator</td>
<td>13-Dec</td>
<td>Ac/kg clean</td>
<td>1,862</td>
<td>1,849</td>
<td>&lt;1% ↑</td>
<td>1,760</td>
<td>6% ↑</td>
</tr>
<tr>
<td>Wool – Western Market Indicator</td>
<td>14-Dec</td>
<td>Ac/kg clean</td>
<td>2,031</td>
<td>2,009</td>
<td>1% ↑</td>
<td>1,816</td>
<td>12% ↑</td>
</tr>
<tr>
<td><strong>Selected domestic crop indicator prices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milling Wheat – ASW1, track quote, Port Adelaide, SA</td>
<td>08-Jan</td>
<td>A$/t</td>
<td>371</td>
<td>370</td>
<td>&lt;1% ↑</td>
<td>223</td>
<td>66% ↑</td>
</tr>
<tr>
<td>Feed Wheat – General purpose, Sydney, NSW</td>
<td>09-Jan</td>
<td>A$/t</td>
<td>445</td>
<td>na</td>
<td>na</td>
<td>248</td>
<td>79% ↑</td>
</tr>
<tr>
<td>Feed Barley – Sydney, NSW</td>
<td>09-Jan</td>
<td>A$/t</td>
<td>395</td>
<td>na</td>
<td>na</td>
<td>280</td>
<td>41% ↑</td>
</tr>
<tr>
<td>Canola – Portland, Vic.</td>
<td>29-Oct</td>
<td>A$/t</td>
<td>597</td>
<td>na</td>
<td>na</td>
<td>536</td>
<td>11% ↑</td>
</tr>
<tr>
<td>Grain Sorghum – Sydney, NSW</td>
<td>09-Jan</td>
<td>A$/t</td>
<td>370</td>
<td>na</td>
<td>na</td>
<td>410</td>
<td>-10% ↓</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>13-Dec</td>
<td>Ac/kg cwt</td>
<td>527</td>
<td>515</td>
<td>2% ↑</td>
<td>571</td>
<td>-8% ↓</td>
</tr>
<tr>
<td>Mutton – Mutton indicator (18–24 kg fat score 2–3), Vic</td>
<td>21-Dec</td>
<td>Ac/kg cwt</td>
<td>410</td>
<td>na</td>
<td>na</td>
<td>481</td>
<td>-15% ↓</td>
</tr>
<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>661</td>
<td>&lt;1% ↑</td>
</tr>
<tr>
<td>Pig – Eastern Seaboard (60.1–75 kg), average of buyers &amp; sellers</td>
<td>21-Dec</td>
<td>Ac/kg cwt</td>
<td>321</td>
<td>na</td>
<td>na</td>
<td>280</td>
<td>15% ↑</td>
</tr>
<tr>
<td>Goat – Eastern States (12.1–16 kg)</td>
<td>07-Jan</td>
<td>Ac/kg cwt</td>
<td>580</td>
<td>na</td>
<td>na</td>
<td>490</td>
<td>18% ↑</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>na</td>
<td>na</td>
<td>340</td>
<td>-4% ↓</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>121</td>
<td>-11% ↓</td>
</tr>
</tbody>
</table>
### 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>02-Jan</td>
<td>US$/t</td>
<td>2,705</td>
<td>2,674</td>
<td>1% ↑</td>
<td>2,886</td>
<td>-6% ↓</td>
</tr>
<tr>
<td>Dairy – Skim milk powder</td>
<td>02-Jan</td>
<td>US$/t</td>
<td>2,201</td>
<td>1,970</td>
<td>12% ↑</td>
<td>1,699</td>
<td>30% ↑</td>
</tr>
<tr>
<td>Dairy – Cheddar cheese</td>
<td>02-Jan</td>
<td>US$/t</td>
<td>3,371</td>
<td>3,371</td>
<td>3% ↑</td>
<td>3,317</td>
<td>2% ↑</td>
</tr>
<tr>
<td>Dairy – Anhydrous milk fat</td>
<td>02-Jan</td>
<td>US$/t</td>
<td>5,137</td>
<td>5,137</td>
<td>4% ↑</td>
<td>6,405</td>
<td>-20% ↓</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 8 January 2019

World coarse grains indicator price
US corn No. 2, fob Gulf
Week ended 9 January 2019

World canola indicator price
Europe fob Hamburg
Week ended 9 January 2019

World cotton indicator price
Cotlook 'A' index
Week ended 9 January 2019
3.2. Global Dairy Trade (GDT) weighted average prices

- **Whole milk powder price**
  - 2 January 2019
  - US$/t

- **Skim milk powder price**
  - 2 January 2019
  - US$/t

- **Cheddar cheese price**
  - 2 January 2019
  - US$/t

- **Anhydrous milk fat price**
  - 2 January 2019
  - US$/t
3.3. Selected domestic crop indicator prices

Grain sorghum indicator price
Sydney, NSW
Week ended 9 January 2019

Feed barley indicator price
Sydney, NSW
Week ended 9 January 2019

Feed wheat indicator price
General Purpose, Sydney, NSW
Week ended 9 January 2019

Milling wheat indicator price
ASW1, track quote, Port Adelaide, SA
Week ended 8 January 2019
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 21 December 2018
Goat indicator price Eastern States
(12.1–16 kg)
Week ended 7 January 2019

Live cattle indicator price
light steers ex Darwin
Week ended 15 December 2018

Live sheep indicator price
wether ex Western Australia
Week ended 3 December 2018
3.5. Selected fruit and vegetable prices – week ended 10 January 2019

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)
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