Summary of key issues

- During the week ending 13 March 2019 rainfall was recorded across northern and eastern Australia, as well as parts of south-eastern and south-western Australia.

- In summer cropping regions, rainfall of between 5 and 50 millimetres was recorded across some northern and south-eastern growing regions in Queensland during the week ending 13 March 2019. Lighter falls of between 1 and 10 millimetres were recorded across most summer cropping regions in New South Wales.

- For the week ending 12 March 2019, maximum and minimum temperatures were generally well above average across much of the country. Maximum temperatures were -2°C to -4°C below average in parts of southern Western Australia, south-western Victoria, south-eastern South Australia and western Tasmania.

- The latest rainfall outlook released by the Bureau of Meteorology indicates that a drier than average April is more likely for northern and eastern Queensland, and part of north-eastern New South Wales. In contrast, parts of Western Australia have an increased chance of being wetter than usual.

- The rainfall outlook for April to June 2019 indicates that a drier than average three months is more likely for the Cape York Peninsula, and scattered parts of western Queensland, south-eastern New South Wales and northern Victoria. Isolated parts of inland Western Australia have an increased chance of being wetter than usual. For the remainder of the country there are roughly equal chances of a wetter or drier three months.

- During the next eight days, rainfall is expected to be mainly restricted to northern and eastern Australia.

- In summer cropping regions, rainfall of between 25 and 100 millimetres is expected across central and eastern cropping areas of Queensland. Lower rainfall totals of between 5 and 25 millimetres are expected across remaining summer cropping regions of Queensland and New South Wales.

- Water storage levels in the Murray-Darling Basin (MDB) decreased between 6 March and 13 March 2019 by 199 gigalitres (GL). Current volume of water held in storage is 9,076 GL which represents 36 per cent of total capacity. This is 36 percentage points or 5,009 GL less than at the same time last year.

- Allocation prices in the southern Murray-Darling Basin increased from $471 per ML in the week ending 25 February 2019 to $473 per ML in the week ending 4 March 2019.
1. Climate

1.1. Rainfall this week

During the week ending 13 March 2019 rainfall was recorded across northern and eastern Australia, as well as parts of south-eastern and south-western Australia. Rainfall totals of between 10 and 50 millimetres were recorded across part of north-eastern New South Wales, northern and eastern Queensland, part of northern and southern Western Australia, western Tasmania and the north of the Northern Territory. Higher rainfall totals in excess of 50 millimetres were recorded across scattered areas of tropical northern Australia.

In summer cropping regions, rainfall of between 5 and 50 millimetres was recorded across some northern and south-eastern growing regions in Queensland during the week ending 13 March 2019. Lighter falls of between 1 and 10 millimetres were recorded across summer cropping regions in northern New South Wales.

Rainfall analysis for the week ending 13 March 2019

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Issued: 13/03/2019

Note: The rainfall analyses and associated maps utilise data contained in the Bureau of Meteorology climate database, the Australian Data Archive for Meteorology (ADAM). The analyses are initially produced automatically from real-time data with limited quality control. They are intended to provide a general overview of rainfall across Australia as quickly as possible after the observations are received. For further information go to http://www.bom.gov.au/climate/rainfall/
1.2. Temperature anomalies this week

For the week ending 12 March 2019, maximum and minimum temperatures were generally well above average across much of the country. Areas of 2°C to 10°C above average maximum and minimum temperatures were recorded across vast areas of western, central and eastern Australia. Maximum temperatures were -2°C to -4°C below average in parts of southern Western Australia, south-western Victoria, south-eastern South Australia and western Tasmania. Average (-2°C to 2°C) minimum and maximum temperatures were recorded across the remainder of the country.

Maximum temperature anomalies for the week ending 12 March 2019

Minimum temperature anomalies for the week ending 12 March 2019

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. Mid-month 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/

Sea surface temperatures in the tropical Pacific Ocean are warmer than average and there is a reasonable chance that El Niño will develop during autumn 2019. While an El Niño typically results in warmer and drier than usual conditions during winter and spring, it typically has a weaker influence on climatic conditions in Australia during autumn.

Other climate influences relevant to this latest outlook relate to the temperature of the oceans surrounding Australia. While the Indian Ocean Dipole is forecast to remain neutral through autumn, towards the end of the forecast period it is projected that the central and western tropics in the Indian Ocean will be warmer than normal and the waters off Western Australia will be cooler than average. This pattern tends to move the focus of rainfall away from Australia, and reduces the amount of moisture in the air that travels over western and southern Australia. Higher than normal air pressures are likely to remain over eastern Queensland and the Coral Sea during autumn, reducing the chance of rainfall in much of eastern Australia.

The latest rainfall outlook released by the Bureau of Meteorology indicates that a drier than average April is more likely for northern and eastern Queensland, and part of north-eastern New South Wales. In contrast, parts of Western Australia have an increased chance of being wetter than usual. For the remainder of the country there are roughly equal chances of a wetter or drier than average April (Bureau of Meteorology ‘National Climate Outlook’, 14 March 2019).

Chance of exceeding the median rainfall April 2019

![Map showing chance of exceeding the median rainfall for April 2019](map.png)
The rainfall outlook for April to June 2019 indicates that a drier than average three months is more likely for the Cape York Peninsula, and scattered parts of western Queensland, south-eastern New South Wales and northern Victoria. Isolated parts of inland Western Australia have an increased chance of being wetter than usual. For the remainder of the country there are roughly equal chances of a wetter or drier three months (Bureau of Meteorology ‘National Climate Outlook’, 14 March 2019).

**Chance of exceeding the median rainfall April to June 2019**
The temperature outlook for April to June 2019 indicates that daytime temperatures are more likely to be warmer than average for much of the country, with a very high chance, greater than 80%, across northern and eastern Australia. Night-time temperatures are also likely to be warmer than average for Australia (Bureau of Meteorology ‘National Climate Outlook’, 14 March 2019).

**Chance of exceeding the median maximum temperature April to June 2019**

![Map showing the chance of exceeding the median maximum temperature in April to June 2019](image1)

**Chance of exceeding the median minimum temperature April to June 2019**

![Map showing the chance of exceeding the median minimum temperature in April to June 2019](image2)
1.4. Rainfall forecast for the next eight days

During the next eight days, rainfall is expected to be mainly restricted to northern and eastern Australia.

Rainfall totals of between 10 and 50 millimetres are forecast for eastern New South Wales, the eastern quarter and far north of Queensland, northern Western Australia and the north of the Northern Territory. Heavier falls in excess of 50 millimetres are forecast for parts of north-eastern New South Wales, the south-east and far north of Queensland, the north of the Northern Territory and far north Western Australia.

In summer cropping regions, rainfall of between 25 and 100 millimetres is expected across central and eastern cropping areas of Queensland. Lower rainfall totals of between 5 and 25 millimetres are 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 14 to 21 March 2019
2. Water

2.1. Water markets – current week

Water storage levels in the Murray–Darling Basin (MDB) decreased by 199 gigalitres (GL) between 6 March and 13 March 2019. The current volume of water held in storage is 9,076 GL, which represents 36 per cent of total capacity. This is 36 percentage points or 5,009 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 $471 per ML in the week ending 25 February 2019 to $473 per ML in the week ending 4 March 2019.

![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 14 March 2019, and encompasses water activity until 4 March 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>13-Mar</td>
<td>US$/A$</td>
<td>0.7</td>
<td>0.71</td>
<td>-1% ↓</td>
<td>0.78</td>
<td>-10% ↓</td>
</tr>
<tr>
<td>Wheat – US no. 2 hard red winter wheat, fob Gulf</td>
<td>12-Mar</td>
<td>US$/t</td>
<td>220</td>
<td>223</td>
<td>-1% ↓</td>
<td>256</td>
<td>-14% ↓</td>
</tr>
<tr>
<td>Coarse Grains – US no. 2 yellow corn, fob Gulf</td>
<td>13-Mar</td>
<td>US$/t</td>
<td>164</td>
<td>169</td>
<td>-3% ↓</td>
<td>179</td>
<td>-8% ↓</td>
</tr>
<tr>
<td>Canola – Rapeseed, Europe, fob Hamburg</td>
<td>12-Mar</td>
<td>US$/t</td>
<td>404</td>
<td>402</td>
<td>&lt;1% ↑</td>
<td>426</td>
<td>-5% ↓</td>
</tr>
<tr>
<td>Cotton – Cotlook 'A' Index</td>
<td>13-Mar</td>
<td>USC/lb</td>
<td>82.0</td>
<td>81.4</td>
<td>&lt;1% ↑</td>
<td>93.1</td>
<td>-12% ↓</td>
</tr>
<tr>
<td>Sugar – Intercontinental Exchange, nearby futures, no.11 contract</td>
<td>13-Mar</td>
<td>USC/lb</td>
<td>12.2</td>
<td>12.7</td>
<td>-4% ↓</td>
<td>12.8</td>
<td>-5% ↓</td>
</tr>
<tr>
<td>Wool – Eastern Market Indicator</td>
<td>07-Mar</td>
<td>Ac/kg clean</td>
<td>2,008</td>
<td>2,016</td>
<td>&lt;1% ↓</td>
<td>1,778</td>
<td>13% ↑</td>
</tr>
<tr>
<td>Wool – Western Market Indicator</td>
<td>08-Mar</td>
<td>Ac/kg clean</td>
<td>2,157</td>
<td>2,177</td>
<td>&lt;1% ↓</td>
<td>1,859</td>
<td>16% ↑</td>
</tr>
<tr>
<td><strong>Selected domestic crop indicator prices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milling Wheat – ASW1, track quote, Port Adelaide, SA</td>
<td>12-Mar</td>
<td>A$/t</td>
<td>285</td>
<td>289</td>
<td>-1% ↓</td>
<td>242</td>
<td>18% ↑</td>
</tr>
<tr>
<td>Feed Wheat – General purpose, Sydney, NSW</td>
<td>13-Mar</td>
<td>A$/t</td>
<td>435</td>
<td>400</td>
<td>9% ↑</td>
<td>278</td>
<td>56% ↑</td>
</tr>
<tr>
<td>Feed Barley – Sydney, NSW</td>
<td>13-Mar</td>
<td>A$/t</td>
<td>370</td>
<td>360</td>
<td>3% ↑</td>
<td>279</td>
<td>33% ↑</td>
</tr>
<tr>
<td>Canola – Portland, Vic.</td>
<td>29-Oct</td>
<td>A$/t</td>
<td>597</td>
<td>na</td>
<td>na</td>
<td>536</td>
<td>11% ↑</td>
</tr>
<tr>
<td>Grain Sorghum – Sydney, NSW</td>
<td>13-Mar</td>
<td>A$/t</td>
<td>370</td>
<td>380</td>
<td>-3% ↓</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>07-Mar</td>
<td>Ac/kg cwt</td>
<td>401</td>
<td>434</td>
<td>-8% ↓</td>
<td>566</td>
<td>-29% ↓</td>
</tr>
<tr>
<td>Mutton – Mutton indicator (18–24 kg fat score 2–3), Vic</td>
<td>08-Mar</td>
<td>Ac/kg cwt</td>
<td>397</td>
<td>415</td>
<td>-4% ↓</td>
<td>407</td>
<td>-2% ↓</td>
</tr>
<tr>
<td>Lamb – Eastern States Trade Lamb Indicator</td>
<td>07-Mar</td>
<td>Ac/kg cwt</td>
<td>639</td>
<td>656</td>
<td>-3% ↓</td>
<td>597</td>
<td>7% ↑</td>
</tr>
<tr>
<td>Pig – Eastern Seaboard (60.1–75 kg), average of buyers &amp; sellers</td>
<td>01-Mar</td>
<td>Ac/kg cwt</td>
<td>329</td>
<td>329</td>
<td>0% ●</td>
<td>275</td>
<td>20% ↑</td>
</tr>
<tr>
<td>Goat – Eastern States (12.1–16 kg)</td>
<td>11-Mar</td>
<td>Ac/kg cwt</td>
<td>616</td>
<td>616</td>
<td>0% ●</td>
<td>468</td>
<td>32% ↑</td>
</tr>
<tr>
<td>Live cattle – Light steers ex Darwin to Indonesia</td>
<td>09-Mar</td>
<td>Ac/kg lwt</td>
<td>340</td>
<td>340</td>
<td>0% ●</td>
<td>320</td>
<td>6% ↑</td>
</tr>
<tr>
<td>Live sheep – Live wether (Muchea WA saleyard) to Middle East</td>
<td>04-Mar</td>
<td>$/head</td>
<td>105</td>
<td>105</td>
<td>0% ●</td>
<td>124</td>
<td>-15% ↓</td>
</tr>
<tr>
<td>Indicator</td>
<td>Week ended</td>
<td>Unit</td>
<td>Latest price</td>
<td>Price week prior</td>
<td>Weekly change</td>
<td>Price 12 months prior</td>
<td>Year on year change</td>
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<td>--------------------------------</td>
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<tr>
<td>Global Dairy Trade (GDT) weighted average prices a</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dairy – Whole milk powder</td>
<td>06-Mar</td>
<td>US$/t</td>
<td>3,186</td>
<td>3,022</td>
<td>5%</td>
<td>3,232</td>
<td>-1%</td>
</tr>
<tr>
<td>Dairy – Skim milk powder</td>
<td>06-Mar</td>
<td>US$/t</td>
<td>2,462</td>
<td>2,580</td>
<td>-5%</td>
<td>2,051</td>
<td>20%</td>
</tr>
<tr>
<td>Dairy – Cheddar cheese</td>
<td>06-Mar</td>
<td>US$/t</td>
<td>3,888</td>
<td>3,667</td>
<td>6%</td>
<td>3,759</td>
<td>3%</td>
</tr>
<tr>
<td>Dairy – Anhydrous milk fat</td>
<td>06-Mar</td>
<td>US$/t</td>
<td>5,837</td>
<td>5,620</td>
<td>4%</td>
<td>6,245</td>
<td>-7%</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 12 March 2019

World coarse grains indicator price
US corn No. 2, fob Gulf
Week ended 13 March 2019

World canola indicator price
Europe fob Hamburg
Week ended 12 March 2019

World cotton indicator price
Cotlook ‘A’ index
Week ended 13 March 2019
3.2. Global Dairy Trade (GDT) weighted average prices

- **Whole milk powder price**
  - 6 March 2019
  - Performance of whole milk powder from January to December 2019,
    - 2017: Orange line
    - 2018: Purple line
    - 2019: Cyan line

- **Skim milk powder price**
  - 6 March 2019
  - Performance of skim milk powder from January to December 2019,
    - 2017: Orange line
    - 2018: Purple line
    - 2019: Cyan line

- **Cheddar cheese price**
  - 6 March 2019
  - Performance of Cheddar cheese from January to December 2019,
    - 2017: Orange line
    - 2018: Purple line
    - 2019: Cyan line

- **Anhydrous milk fat price**
  - 6 March 2019
  - Performance of anhydrous milk fat from January to December 2019,
    - 2017: Orange line
    - 2018: Purple line
    - 2019: Cyan line

**Note:** The charts illustrate the price trends for milk powder and cheese over the year, showing fluctuations in prices.
3.3. Selected domestic crop indicator prices

Grain sorghum indicator price
Sydney, NSW
Week ended 13 March 2019

Feed barley indicator price
Sydney, NSW
Week ended 13 March 2019

Feed wheat indicator price
General Purpose, Sydney, NSW
Week ended 13 March 2019

Milling wheat indicator price
ASW1, track quote, Port Adelaide, SA
Week ended 12 March 2019
3.4. Selected domestic livestock indicator prices

![Graphs of selected domestic livestock indicator prices for different regions and dates, showing price trends over time.](image)
Goat indicator price Eastern States
(12.1–16 kg)
Week ended 11 March 2019

Live cattle indicator price
light steers ex Darwin
Week ended 9 March 2019

Live sheep indicator price
wether ex Western Australia
Week ended 4 March 2019
3.5. Selected fruit and vegetable prices – week ended 14 March 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