Summary of key issues

- During the week ending 9 October 2019 rainfall was restricted to parts of eastern, north-western and southern Australia.

- Across cropping regions, rainfall totals of between 5 to 25 millimetres were recorded across parts of southern Western Australia. Little to no rainfall was recorded across cropping regions in New South Wales, Victoria, Queensland, South Australia and remaining cropping regions in Western Australia.

- Most climate models indicate that a positive Indian Ocean Dipole (IOD) is expected to remain the dominant driver of climatic conditions in Australia during spring. A positive IOD at this time of year typically brings drier conditions to much of southern and central Australia.

- A prolonged negative Southern Annular Mode (SAM) event is also forecast to persist during October and November. This negative SAM is likely to intensify dry and warm conditions across eastern Australia and bring wetter than average conditions to western Tasmania during spring.

- The rainfall outlook for November to January 2019 indicates that a drier than average three months is more likely across most of southern and eastern Australia.

- Following below average September 2019 rainfall across much of Australia, 9-month deficiencies have increased over north-eastern New South Wales, south-eastern Queensland, western South Australia and southern Western Australia.

- Over the next eight days, frontal and trough activity is expected to result in limited rainfall over parts of eastern and southern Australia.

- Across Australia’s cropping regions, the 8-day rainfall forecast indicates that falls of between 10 and 25 millimetres are expected across parts of north-eastern New South Wales, eastern Queensland and southern Western Australia.

- Water storage levels in the Murray-Darling Basin (MDB) decreased between 1 October and 9 October 2019 by 98 gigalitres (GL). Current volume of water held in storage is 10,243 GL which represents 40 per cent of total capacity. This is 26 percentage points or 3,500 GL less than at the same time last year.

- Allocation prices in the Victorian Murray below the Barmah Choke decreased from $791 per ML on 24 September 2019 to $790 per ML on 30 September 2019. Trade restrictions are currently binding in several catchments, leading to differences in water prices across the Murray Darling Basin.
1. Climate

1.1. Rainfall this week

During the week ending 9 October 2019 rainfall was restricted to parts of eastern, north-western and southern Australia.

Across cropping regions, rainfall totals of between 5 to 25 millimetres were recorded across parts of southern Western Australia. Little to no rainfall was recorded across cropping regions in New South Wales, Victoria, Queensland, South Australia and remaining cropping regions in Western Australia.

Rainfall for the week ending 9 October 2019
1.2. Temperature anomalies this week

For the week ending 7 October 2019, maximum and minimum temperatures were 2°C to 8°C above average across large areas of southern, central and north-western Australia. In contrast, minimum temperatures were 2°C to 4°C below average across scattered parts of northern Australia. 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 7 October 2019**

[Map showing temperature anomalies for maximum temperatures.]

**Minimum temperature anomalies for the week ending 7 October 2019**

[Map showing temperature anomalies for minimum temperatures.]

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/

The El Niño-Southern Oscillation is currently neutral and expected to remain neutral for the remainder of 2019. The positive Indian Ocean Dipole (IOD) has strengthened and most climate models suggest it will remain the dominant driver of climatic conditions in Australia until the end of spring. A positive IOD typically brings below average spring rainfall and warmer days to southern and central Australia. A prolonged negative Southern Annular Mode (SAM) event is also forecast to persist during October and November due to a predicted sudden stratospheric warming event. This negative SAM is likely to intensify dry and warm conditions across eastern Australia and bring wetter than average conditions to western Tasmania during spring.

The latest rainfall outlook released by the Bureau of Meteorology suggests that a drier than average November is more likely for most of the country. In contrast, a wetter than average November is more likely across parts of northern Western Australia and western Tasmania (Bureau of Meteorology ‘National Climate Outlook’, 3 October 2019).

**Chance of exceeding the median rainfall November 2019**

![Map of Australia showing the chance of exceeding the median rainfall for November 2019.](image-url)
The Bureau of Meteorology’s climate outlooks are given as a probability (or chance) of exceeding a specified rainfall or temperature threshold. In the case of the Bureau’s rainfall outlook, it is represented as the chance of rainfall being above median, expressed as a percentage. While this probabilistic forecast indicates that the chance of exceeding median rainfall is quite low across large parts of Australia, it does not mean that these areas will receive no rainfall during November to January 2019.

The rainfall outlook for November to January 2019 indicates that a drier than average three months is more likely across most of southern and eastern Australia. In contrast, a wetter than average November to January is more likely for the north-west of Western Australia. Across much of northern and western Australia, there is no strong shift towards a wetter or drier than average three months (Bureau of Meteorology ‘National Climate Outlook’, 3 October 2019).

Chance of exceeding the median rainfall November 2019 to January 2020
The temperature outlook for November to January 2019 indicates that daytime temperatures are more likely to be warmer than average for much of the country. Night-time temperatures are also likely to be warmer than average for much of Australia, with the exception of parts of north-eastern Queensland and south-eastern Australia where the chances of warmer or cooler nights are roughly equal (Bureau of Meteorology ‘National Climate Outlook’, 3 October 2019).

**Chance of exceeding the median maximum temperature November 2019 to January 2020**

**Chance of exceeding the median minimum temperature November 2019 to January 2020**
1.4. 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 the 9-month period ending September 2019, north-eastern New South Wales, south-eastern Queensland, large areas of southern and eastern Western Australia, and much of South Australia and the Northern Territory recorded rainfall totals in the lowest 5 to 10 per cent of the historical record (serious or severe rainfall deficiencies).

Areas recording rainfall totals in the lowest 5 to 10 per cent of the historical record are also evident at longer timescales. Following below average rainfall during September, rainfall deficiencies increased in severity and extent across parts of New South Wales, eastern Victoria, southern Queensland and the south-west of Western Australia for the 18-months ending September 2019. Serious to severe rainfall deficiencies persist across much of New South Wales, parts of Victoria and south-eastern Queensland, large areas of eastern South Australia, parts of northern and southern Western Australia and much of the Northern Territory (Bureau of Meteorology ‘Drought Statement’, 8 October 2019).

Rainfall deficiencies for the 9-month period 1 January to 30 September 2019
Rainfall deficiencies for the 18-month period 1 April 2018 to 30 September 2019
1.5. **Rainfall forecast for the next eight days**

Over the next eight days, frontal and trough activity is expected to result in limited rainfall over parts of eastern and southern Australia.

Rainfall totals of between 10 and 25 millimetres are forecast for parts of eastern New South Wales, south-eastern Queensland, eastern Victoria, southern Western Australia and Tasmania. Higher rainfall totals up to 50 millimetres are forecast for parts of north-eastern New South Wales and south-eastern Queensland.

In cropping regions, rainfall of between 10 and 25 millimetres is expected across parts of north-eastern New South Wales, eastern Queensland and southern Western Australia. Lighter falls of between 5 and 10 millimetres are forecast across cropping regions in eastern New South Wales, eastern Queensland, southern Western Australia and isolated parts of southern Victoria and western South Australia. Little to no rainfall is expected across remaining cropping regions in New South Wales, Victoria, Queensland, South Australia and Western Australia.

**Total forecast rainfall (mm) for the period 10 October to 17 October 2019**
2. Water

2.1. Water markets – current week

Water storage in the Murray–Darling Basin (MDB) decreased by 98 gigalitres (GL) between 1 October and 9 October 2019. The current volume of water held in storage is 10,243 GL, which represents 40% of total capacity. This is 26% or 3,500 GL less than at the same time last year.


Allocation prices in the Victorian Murray below the Barmah Choke decreased from $791 per ML on 24 September 2019 to $790 per ML on 30 September 2019. Trade restrictions are currently binding in several catchments, leading to differences in water prices across the Murray Darling Basin.

Surface water trade activity, Southern Murray–Darling Basin

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 up until 1 July 2019. The price line after 1 July 2019 reflects recorded transaction prices in the Victorian Murray (Below the Choke). Data shown is current at 10 October 2019, and encompasses water market activity until 30 September 2019. Data is sourced from the BOM water dashboard, or Ruralco Water for price data after 1 July 2019.

To access the full, interactive, weekly water dashboard, which contains the latest and historical water storage, water market and water allocation information, please visit http://www.agriculture.gov.au/abares/publications/weekly_update/weekly-update-101019
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>
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<td></td>
<td></td>
</tr>
<tr>
<td>Australian Dollar – AUD/USD Exchange Rate</td>
<td>09-Oct</td>
<td>US$/A$</td>
<td>0.68</td>
<td>0.67</td>
<td>1% ↑</td>
<td>0.71</td>
<td>-4% ↓</td>
</tr>
<tr>
<td>Wheat – US no. 2 hard red winter wheat, fob Gulf</td>
<td>09-Oct</td>
<td>US$/t</td>
<td>207</td>
<td>207</td>
<td>0% ●</td>
<td>240</td>
<td>-14% ↓</td>
</tr>
<tr>
<td>Coarse Grains – US no. 2 yellow corn, fob Gulf</td>
<td>09-Oct</td>
<td>US$/t</td>
<td>167</td>
<td>160</td>
<td>4% ↑</td>
<td>161</td>
<td>4% ↑</td>
</tr>
<tr>
<td>Canola – Rapeseed, Europe, fob Hamburg</td>
<td>09-Oct</td>
<td>US$/t</td>
<td>419</td>
<td>424</td>
<td>-1% ↓</td>
<td>435</td>
<td>-4% ↓</td>
</tr>
<tr>
<td>Cotton – Cotlook ‘A’ Index</td>
<td>09-Oct</td>
<td>USc/lb</td>
<td>72.1</td>
<td>71.6</td>
<td>&lt;1% ↑</td>
<td>85.8</td>
<td>-16% ↓</td>
</tr>
<tr>
<td>Wool – Eastern Market Indicator</td>
<td>03-Oct</td>
<td>Ac/kg clean</td>
<td>1,511</td>
<td>1,609</td>
<td>-6% ↓</td>
<td>1,992</td>
<td>-24% ↓</td>
</tr>
<tr>
<td>Wool – Western Market Indicator</td>
<td>04-Oct</td>
<td>Ac/kg clean</td>
<td>1,610</td>
<td>1,702</td>
<td>-5% ↓</td>
<td>2,132</td>
<td>-24% ↓</td>
</tr>
<tr>
<td><strong>Selected domestic crop indicator prices</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Milling Wheat – ASW1, track quote, Port Adelaide, SA</td>
<td>08-Oct</td>
<td>A$/t</td>
<td>308</td>
<td>315</td>
<td>-2% ↓</td>
<td>417</td>
<td>-26% ↓</td>
</tr>
<tr>
<td>Feed Wheat – General purpose, Sydney, NSW</td>
<td>09-Oct</td>
<td>A$/t</td>
<td>390</td>
<td>375</td>
<td>4% ↑</td>
<td>455</td>
<td>-14% ↓</td>
</tr>
<tr>
<td>Feed Barley – Sydney, NSW</td>
<td>09-Oct</td>
<td>A$/t</td>
<td>380</td>
<td>380</td>
<td>0% ●</td>
<td>410</td>
<td>-7% ↓</td>
</tr>
<tr>
<td>Grain Sorghum – Sydney, NSW</td>
<td>09-Oct</td>
<td>A$/t</td>
<td>345</td>
<td>345</td>
<td>0% ●</td>
<td>410</td>
<td>-16% ↓</td>
</tr>
<tr>
<td><strong>Selected domestic livestock indicator prices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beef – Eastern Young Cattle Indicator</td>
<td>03-Oct</td>
<td>Ac/kg cwt</td>
<td>490</td>
<td>488</td>
<td>&lt;1% ↑</td>
<td>481</td>
<td>2% ↑</td>
</tr>
<tr>
<td>Mutton – Mutton indicator (18–24 kg fat score 2–3), Vic</td>
<td>04-Oct</td>
<td>Ac/kg cwt</td>
<td>601</td>
<td>553</td>
<td>9% ↑</td>
<td>352</td>
<td>71% ↑</td>
</tr>
<tr>
<td>Lamb – Eastern States Trade Lamb Indicator</td>
<td>03-Oct</td>
<td>Ac/kg cwt</td>
<td>804</td>
<td>807</td>
<td>&lt;1% ↓</td>
<td>682</td>
<td>18% ↑</td>
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<tr>
<td>Pig – Eastern Seaboard (60.1–75 kg), average of buyers &amp; sellers</td>
<td>20-Sep</td>
<td>Ac/kg cwt</td>
<td>393</td>
<td>384</td>
<td>2% ↑</td>
<td>265</td>
<td>48% ↑</td>
</tr>
<tr>
<td>Goat – Eastern States (12.1–16 kg)</td>
<td>07-Oct</td>
<td>Ac/kg kg wt</td>
<td>876</td>
<td>876</td>
<td>0% ●</td>
<td>548</td>
<td>60% ↑</td>
</tr>
<tr>
<td>Live cattle – Light steers ex Darwin to Indonesia</td>
<td>05-Oct</td>
<td>Ac/kg lwt</td>
<td>315</td>
<td>315</td>
<td>0% ●</td>
<td>300</td>
<td>5% ↑</td>
</tr>
<tr>
<td>Live sheep – Live wether (Muchea WA saleyard) to Middle East</td>
<td>07-Oct</td>
<td>$/head</td>
<td>93</td>
<td>na</td>
<td>na ●</td>
<td>93</td>
<td>0% ●</td>
</tr>
<tr>
<td>Indicator</td>
<td>Week ended</td>
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<td>Latest price</td>
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</tr>
<tr>
<td><strong>Global Dairy Trade (GDT) weighted average prices</strong>[^a]</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Dairy – Whole milk powder</td>
<td>01-Oct</td>
<td>US$/t</td>
<td>3,141</td>
<td>3,133</td>
<td>&lt;1%</td>
<td>2,753</td>
<td>14%</td>
</tr>
<tr>
<td>Dairy – Skim milk powder</td>
<td>01-Oct</td>
<td>US$/t</td>
<td>2,674</td>
<td>2,599</td>
<td>3%</td>
<td>1,982</td>
<td>35%</td>
</tr>
<tr>
<td>Dairy – Cheddar cheese</td>
<td>01-Oct</td>
<td>US$/t</td>
<td>3,717</td>
<td>3,846</td>
<td>-3%</td>
<td>3,468</td>
<td>7%</td>
</tr>
<tr>
<td>Dairy – Anhydrous milk fat</td>
<td>01-Oct</td>
<td>US$/t</td>
<td>4,997</td>
<td>5,030</td>
<td>&lt;1%</td>
<td>5,069</td>
<td>-1%</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 October 2019

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

- **World canola indicator price**
  - Europe fob Hamburg
  - Week ended 8 October 2019

- **World cotton indicator price**
  - Cotlook ‘A’ index
  - Week ended 9 October 2019
3.2. Global Dairy Trade (GDT) weighted average prices

Whole milk powder price
1 October 2019

Skim milk powder price
1 October 2019

Cheddar cheese price
1 October 2019

Anhydrous milk fat price
1 October 2019
3.3. Selected domestic crop indicator prices

- Grain sorghum indicator price
  Sydney, NSW
  Week ended 9 October 2019

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

- Milling wheat indicator price
  ASW1, track quote, Port Adelaide, SA
  Week ended 8 October 2019

- Feed barley indicator price
  Sydney, NSW
  Week ended 9 October 2019

A$/t
3.4. Selected domestic livestock indicator prices

- Eastern Young Cattle Indicator
  Week ended 3 October 2019

- Mutton indicator price in Victoria
  (18–24 kg fat score 2–3)
  Week ended 4 October 2019

- Eastern States Trade Lamb Indicator
  Week ended 3 October 2019

- Pig indicator price Eastern Seaboard
  (60.1–75 kg)
  Week ended 20 September 2019
3.5. Selected fruit and vegetable prices – week ended 10 October 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

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