Summary of key issues

- Following the relatively dry autumn, rainfall totals of between 10 and 50 millimetres were recorded across much of the Western Australian winter cropping region during the week ending 13 June 2019. This week’s falls are likely to be sufficient to allow the germination and establishment of most of the state’s dry-sown winter crop.

- Similar rainfall totals were recorded across cropping regions in south-western Victoria, South Australia, isolated parts of southern New South Wales, and northern and central Queensland. These falls are likely to support further germination and crop growth and consolidate winter crop prospects in these regions.

- Following above average May rainfall, deficiencies at the 5-month timescale have reduced over parts of coastal South Australia, Victoria, and inland southern New South Wales.

- Indian Ocean temperature forecasts indicated that a positive Indian Ocean Dipole (IOD) is expected to persist through winter and into spring. A positive IOD at this time of year typically brings drier conditions to much of southern and central Australia.

- Across Australia’s winter cropping regions, forecast 8-day rainfall totals are relatively low and are not expected to exceed 15 millimetres.

- Water storage levels in the Murray-Darling Basin (MDB) increased between 5 June and 11 June 2019 by 86 gigalitres (GL). Current volume of water held in storage is 8,585 GL which represents 34 per cent of total capacity. This is 35 percentage points or 4,560 GL less than at the same time last year.

- Allocation prices in the southern Murray-Darling Basin decreased, moving from $545 per ML in the week ending 27 May 2019 to $343 per ML in the week ending 3 June 2019.

1. Climate

1.1. Rainfall this week

During the week ending 13 June 2019 rainfall was recorded across north-eastern, western and southern Australia. Little to no rainfall was recorded across the rest of Australia.

Following the relatively dry autumn for most Western Australia cropping regions, the forecasted rainfall event that was reported in last week’s *Weekly Australian Climate, Water and Agricultural Update* has eventuated.

Much of the Western Australian winter cropping region recorded rainfall totals of between 10 and 50 millimetres during the week ending 13 June 2019. This week’s falls are likely to be sufficient to allow the germination and establishment of most of the state’s dry-sown winter crop, and has provided a welcome boost for crops which germinated on earlier falls.

Rainfall totals of between 10 and 50 millimetres were also recorded across cropping regions in south-western Victoria, South Australia, isolated parts of southern New South Wales, and northern and central Queensland during the week ending 13 June 2019. These falls are likely to support further germination and crop growth and consolidate winter crop prospects in these regions.
1.2. Temperature anomalies this week

For the week ending 11 June 2019, maximum temperatures were 2°C to 4°C above average across south-eastern and central Australia. Minimum temperatures were 2°C to 4°C above average across parts of northern Australia, and scattered areas of eastern and western Australia. In contrast, minimum temperatures were -2°C to -4°C below average across parts of South 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 11 June 2019**

![Maximum Temperature Anomaly Map](http://www.bom.gov.au)

**Minimum temperature anomalies for the week ending 11 June 2019**

![Minimum Temperature Anomaly Map](http://www.bom.gov.au)

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](http://www.bom.gov.au/jsp/awap/temp/index.jsp).
1.3. 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

May 2019 was mixed across Australia, with particularly low rainfall across much of Western Australia and parts of eastern Australia, and above average rainfall in parts of northern and south-eastern Australia. For the 5-month period ending May 2019, north-eastern New South Wales, part of south-eastern Queensland, south-western and eastern Western Australia, parts of western and central South Australia and much of 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. For the 14-months ending April 2019, serious or severe rainfall deficiencies have decreased in southern New South Wales and central Victoria. In contrast, rainfall deficiencies increased in severity across northern New South Wales, south-eastern Queensland and south-western and central Western Australia. Serious to severe rainfall deficiencies persist across much of northern and western 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’, 3 June 2019).

Rainfall deficiencies for the 5-month period 1 January to 31 May 2019

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Issued: 03/06/2019
1.4. 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/

The current El Niño–like warmth in the central tropical Pacific Ocean is forecast to cool towards more ENSO-neutral levels over winter. As a result, the drying influence on the Australian climate from a warm tropical Pacific will reduce over the next three months. However, the positive Indian Ocean Dipole (IOD) is forecast to persist through winter and into spring. A positive IOD typically brings drier conditions to much of southern and central Australia during winter-spring.

The Bureau's climate model also indicates that atmospheric pressures over southern and eastern Australia are likely to be higher than normal. This increases the chance of drier and warmer than average weather over much of southern Australia, and may keep cold fronts further to the south than normal.

The latest rainfall outlook released by the Bureau of Meteorology suggests that a drier than average June is more likely for parts of New South Wales, Victoria, southern Queensland, southern Western Australia, south-eastern South Australia and south-east of the Northern Territory. There is no strong shift towards a wetter or drier than average July for the remainder of the country (Bureau of Meteorology ‘National Climate Outlook’, 13 June 2019).

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

![Map showing the chance of exceeding the median rainfall from 1 July to 31 July 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 provided 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, it does not mean that large areas of Australia will receive rainfall totals that are close to median for this time of year.

The rainfall outlook for July to September 2019 indicates that a drier than average 3-months is more likely across most of Australia (Bureau of Meteorology ‘National Climate Outlook’, 13 June 2019).

Chance of exceeding the median rainfall July to September 2019
There is still a significant chance that areas unlikely to exceed median rainfall will receive rainfall sufficient to sustain crop and pasture production through the low evapotranspiration of winter where successful establishment has occurred.

In cropping regions, for example, there is a 75% chance of receiving between 25 and 100 millimetres across much of New South Wales and Victoria between July and September 2019. There is a similar probability of receiving between 50 and 200 millimetres for most cropping regions in South Australia and Western Australia.

Across Queensland, there is a 75% chance of receiving between 10 and 50 millimetres. In areas with low soil moisture, these probable low three-month rainfall totals are unlikely to be sufficient to sustain substantial crop and pasture production.

Rainfall totals that have a 75% chance of occurring July to August 2019
The temperature outlook for July to September 2019 indicates that daytime temperatures are more likely to be warmer than average for much of the country, except for the far north-east. Night-time temperatures are also likely to be warmer than average for north Western Australia, much of northern Australia and parts of the eastern coast, with average minimum temperatures forecast for the remainder of Australia. The forecast drier than average conditions and dry soils could bring more cloud-free nights, increasing the risk of frost in susceptible areas (Bureau of Meteorology ‘National Climate Outlook’, 13 June 2019).

**Chance of exceeding the median maximum temperature July to September 2019**

**Chance of exceeding the median minimum temperature July to September 2019**
1.5. Rainfall forecast for the next eight days

During the next eight days, rainfall is expected across eastern, southern and central Australia. Rainfall totals of between 5 and 25 millimetres are forecast for parts of eastern New South Wales, southern and eastern Victoria, south-eastern Queensland, the south-west of Western Australia, south-eastern South Australia, south of the Northern Territory and much of Tasmania. Rainfall in excess of 25 millimetres is forecast for parts of north-eastern and western Tasmania.

In cropping regions, rainfall of between 5 and 15 millimetres is expected across south-eastern and north-eastern New South Wales and southern Queensland. Lighter falls of between 1 and 5 millimetres are expected in the South Australia, Victoria and Western Australia and remaining cropping regions of New South Wales and Queensland.

Total forecast rainfall (mm) for the period 13 June to 20 June 2019
2. Water

2.1. Water markets – current week

Water storage in the Murray–Darling Basin (MDB) increased by 86 gigalitres (GL) between 5 June and 11 June 2019. The current volume of water held in storage is 8,585 GL, which represents 34 per cent of total capacity. This is 35 percent or 4,560 GL less than at the same time last year.


Allocation prices in the southern Murray-Darling Basin decreased, moving from $545 per ML in the week ending 27 May 2019 to $343 per ML in the week ending 3 June 2019. Water volume traded remains low as we approach the end of the current water season and water demand declines.

Surface water trade activity, Southern Murray–Darling Basin


Note: The trades shown reflect estimated market activity and do not encompass all registered trades. The price line reflects value weighted average prices for the entire southern Murray-Darling Basin. Data shown is current as at Thursday 13 June 2019, and encompasses water activity until 3 June 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>12-Jun</td>
<td>US$/A$</td>
<td>0.7</td>
<td>0.7</td>
<td>0% ●</td>
<td>0.76</td>
<td>-8% ●</td>
</tr>
<tr>
<td>Wheat – US no. 2 hard red winter wheat, fob Gulf</td>
<td>11-Jun</td>
<td>US$/t</td>
<td>222</td>
<td>230</td>
<td>-3% ●</td>
<td>254</td>
<td>-13% ●</td>
</tr>
<tr>
<td>Coarse Grains – US no. 2 yellow corn, fob Gulf</td>
<td>12-Jun</td>
<td>US$/t</td>
<td>190</td>
<td>191</td>
<td>&lt;1%</td>
<td>169</td>
<td>12% ●</td>
</tr>
<tr>
<td>Canola – Rapeseed, Europe, fob Hamburg</td>
<td>11-Jun</td>
<td>US$/t</td>
<td>411</td>
<td>415</td>
<td>&lt;1%</td>
<td>399</td>
<td>3% ●</td>
</tr>
<tr>
<td>Cotton – Cotlook 'A' Index</td>
<td>12-Jun</td>
<td>USc/lb</td>
<td>77.7</td>
<td>80.0</td>
<td>-3% ●</td>
<td>101.0</td>
<td>-23% ●</td>
</tr>
<tr>
<td>Sugar – Intercontinental Exchange, nearby futures, no.11 contract</td>
<td>12-Jun</td>
<td>USc/lb</td>
<td>12.5</td>
<td>12.0</td>
<td>4% ●</td>
<td>12.2</td>
<td>2% ●</td>
</tr>
<tr>
<td>Wool – Eastern Market Indicator</td>
<td>06-Jun</td>
<td>Ac/kg clean</td>
<td>1,864</td>
<td>1,887</td>
<td>-1% ●</td>
<td>2,011</td>
<td>-7% ●</td>
</tr>
<tr>
<td>Wool – Western Market Indicator</td>
<td>31-May</td>
<td>Ac/kg clean</td>
<td>1,992</td>
<td>1,937</td>
<td>3% ●</td>
<td>2,167</td>
<td>-8% ●</td>
</tr>
<tr>
<td><strong>Selected domestic crop indicator prices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milling Wheat – ASW1, track quote, Port Adelaide, SA</td>
<td>11-Jun</td>
<td>A$/t</td>
<td>281</td>
<td>307</td>
<td>-8% ●</td>
<td>290</td>
<td>-3% ●</td>
</tr>
<tr>
<td>Feed Wheat – General purpose, Sydney, NSW</td>
<td>12-Jun</td>
<td>A$/t</td>
<td>380</td>
<td>400</td>
<td>-5% ●</td>
<td>375</td>
<td>1% ●</td>
</tr>
<tr>
<td>Feed Barley – Sydney, NSW</td>
<td>05-Jun</td>
<td>A$/t</td>
<td>369</td>
<td>369</td>
<td>0% ●</td>
<td>350</td>
<td>5% ●</td>
</tr>
<tr>
<td>Canola – Portland, Vic.</td>
<td>29-Oct</td>
<td>A$/t</td>
<td>597</td>
<td>na</td>
<td>na</td>
<td>536</td>
<td>11% ●</td>
</tr>
<tr>
<td>Grain Sorghum – Sydney, NSW</td>
<td>12-Jun</td>
<td>A$/t</td>
<td>360</td>
<td>360</td>
<td>0% ●</td>
<td>410</td>
<td>-12% ●</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>06-Jun</td>
<td>Ac/kg cwt</td>
<td>487</td>
<td>472</td>
<td>3% ●</td>
<td>477</td>
<td>2% ●</td>
</tr>
<tr>
<td>Mutton – Mutton indicator (18–24 kg fat score 2–3), Vic</td>
<td>07-Jun</td>
<td>Ac/kg cwt</td>
<td>602</td>
<td>605</td>
<td>&lt;1%</td>
<td>493</td>
<td>22% ●</td>
</tr>
<tr>
<td>Lamb – Eastern States Trade Lamb Indicator</td>
<td>06-Jun</td>
<td>Ac/kg cwt</td>
<td>873</td>
<td>888</td>
<td>-2% ●</td>
<td>636</td>
<td>37% ●</td>
</tr>
<tr>
<td>Pig – Eastern Seaboard (60.1–75 kg), average of buyers &amp; sellers</td>
<td>31-May</td>
<td>Ac/kg cwt</td>
<td>350</td>
<td>344</td>
<td>2% ●</td>
<td>256</td>
<td>37% ●</td>
</tr>
<tr>
<td>Goat – Eastern States (12.1–16 kg)</td>
<td>10-Jun</td>
<td>Ac/kg cwt</td>
<td>938</td>
<td>932</td>
<td>&lt;1%</td>
<td>508</td>
<td>85% ●</td>
</tr>
<tr>
<td>Live cattle – Light steers ex Darwin to Indonesia</td>
<td>08-Jun</td>
<td>Ac/kg lwt</td>
<td>290</td>
<td>290</td>
<td>0% ●</td>
<td>260</td>
<td>12% ●</td>
</tr>
<tr>
<td>Live sheep – Live wether (Muchea WA saleyard) to Middle East</td>
<td>13-May</td>
<td>$/head</td>
<td>135</td>
<td>110</td>
<td>23% ●</td>
<td>95</td>
<td>42% ●</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>04-Jun</td>
<td>US$/t</td>
<td>3,138</td>
<td>3,180</td>
<td>-1% ↓</td>
<td>3,205</td>
<td>-2% ↓</td>
</tr>
<tr>
<td>Dairy – Skim milk powder</td>
<td>04-Jun</td>
<td>US$/t</td>
<td>2,436</td>
<td>2,529</td>
<td>-4% ↓</td>
<td>2,051</td>
<td>19% ↑</td>
</tr>
<tr>
<td>Dairy – Cheddar cheese</td>
<td>04-Jun</td>
<td>US$/t</td>
<td>3,950</td>
<td>4,851</td>
<td>-19% ↓</td>
<td>3,998</td>
<td>-1% ↓</td>
</tr>
<tr>
<td>Dairy – Anhydrous milk fat</td>
<td>04-Jun</td>
<td>US$/t</td>
<td>5,752</td>
<td>6,140</td>
<td>-6% ↓</td>
<td>6,222</td>
<td>-8% ↓</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 11 June 2019

- **World coarse grains indicator price**
  - US corn No. 2, fob Gulf
  - Week ended 12 June 2019

- **World canola indicator price**
  - Europe fob Hamburg
  - Week ended 11 June 2019

- **World cotton indicator price**
  - Cotlook ‘A’ index
  - Week ended 12 June 2019
3.2. Global Dairy Trade (GDT) weighted average prices

- **Whole milk powder price**

  - 4 June 2019

- **Skim milk powder price**

  - 4 June 2019

- **Cheddar cheese price**

  - 4 June 2019

- **Anhydrous milk fat price**

  - 4 June 2019
3.3. **Selected domestic crop indicator prices**

- **Grain sorghum indicator price**
  - Sydney, NSW
  - Week ended 12 June 2019

- **Feed barley indicator price**
  - Sydney, NSW
  - Week ended 5 June 2019

- **Feed wheat indicator price**
  - General Purpose, Sydney, NSW
  - Week ended 12 June 2019

- **Milling wheat indicator price**
  - ASW1, track quote, Port Adelaide, SA
  - Week ended 11 June 2019
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 6 June 2019

- Mutton indicator price in Victoria
  (18–24 kg fat score 2–3)
  Week ended 7 June 2019

- Eastern States Trade Lamb Indicator
  Week ended 6 June 2019

- Pig indicator price Eastern Seaboard
  (60.1–75 kg)
  Week ended 31 May 2019
3.5. Selected fruit and vegetable prices – week ended 13 June 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

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