Summary of key issues

- During the week ending 3 May 2017 little to no rainfall was recorded across the majority of Australia, with isolated areas of eastern New South Wales, southern Victoria, western Tasmania, northern Western Australia and the Top End of the Northern Territory recording some useful falls.

- The Top End of the Northern Territory has recorded the third-wettest wet season (1 November 2016 – 30 April 2017) on record. The above average falls have boosted groundwater and surface water supplies and resulted in solid pasture growth with strong prospects heading into the dry season.

- During the week ending 2 May 2017 maximum and minimum temperatures were below average across the country, with parts of southern Australia recording maximum temperatures between 4°C and 6°C below average for this time of year.

- During April 2017 rainfall was extremely high in south-western areas of New South Wales and the eastern half of Victoria, extending through most of South Australia into the central east of Western Australia and the south-west corner of the Northern Territory.

- Relative lower layer soil moisture for April 2017 was well above average to extremely high in eastern New South Wales and western Victoria, northern and south-eastern Queensland and across most of Western Australia, and the Top End of the Northern Territory.

- The forecast for the next eight days indicates little to no rainfall is forecast for most of mainland Australia.

- Water storage levels in the Murray–Darling Basin (MDB) increased during the week ending 4 May 2017 by 267 gigalitres (GL) to 15,331 GL and are at 68 per cent of total capacity.

- The world indicator price for wheat (US no.2 hard red winter wheat, fob Gulf) lifted 6 per cent in the week ended 2 May to US$198 a tonne. A large snowstorm hit the US plains on 29 and 30 April, with winter wheat the most vulnerable to damage.
1. Climate

1.1. Rainfall this week

During the week ending 3 May 2017 little to no rainfall was recorded across the majority of Australia, with isolated areas of eastern New South Wales, southern Victoria, western Tasmania, northern Western Australia and the Top End of the Northern Territory recording some useful falls. The highest recorded weekly total was 234 millimetres on Tiwi Island, north of Darwin in the Northern Territory.

The Top End of the Northern Territory has recorded the third-wettest wet season (1 November 2016 – 30 April 2017) on record. The 2016-2017 wet season recorded 2,484.4 millimetres of rainfall in Darwin, well above the average of 1,700 millimetres. The above average falls have boosted groundwater and surface water supplies and resulted in solid pasture growth with strong prospects heading into the dry season.

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/

Rainfall for the week ending 3 May 2017
1.2. Temperature anomalies this week

During the week ending 2 May 2017 maximum temperatures were generally below average across much of the country, with parts of southern Australia recording temperatures between 4°C and 6°C below average. Minimum temperatures were generally below average across most of Australia. Parts of central New South Wales, Queensland and Western Australia recorded minimum temperatures between 4°C and 6°C below average for this time of year.

Maximum temperature anomalies for the week ending 2 May 2017

Minimum temperature anomalies for the week ending 2 May 2017

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 their long-term averages. Temperature anomalies are calculated using high-resolution gridded datasets from 1911 onwards. For further information go to http://www.bom.gov.au/jsp/awap/temp/index.jsp.
1.3. Monthly rainfall

Rainfall for April 2017 was extremely high in south-western areas of New South Wales and the eastern half of Victoria, extending through most of South Australia into the central-east of Western Australia and the south-west corner of the Northern Territory. There were scattered areas along the northern coast of Western Australia and the Top End of the Northern Territory and Far North Queensland that also recorded extremely high rainfall. Rainfall was extremely low to severely deficient in the south-east Queensland, south-western Western Australia and western Tasmania.

In cropping regions, April rainfall was mostly average in New South Wales, severely deficient to average in Queensland and Western Australia and average to extremely high in Victoria and South Australia.

Rainfall percentiles for April 2017

Source: Bureau of Meteorology

Note: Spatial rainfall percentile analyses are based on historical monthly rainfall data provided by the Bureau of Meteorology. These rainfall percentile maps show how rainfall recorded during that given time period compared with the rainfall recorded for that same period during the entire historical record (1900 to present). Rainfall percentiles are a way of providing an indication of the spread of data in a data set. To calculate percentiles, the entire rainfall record at a certain point is divided into one hundred equal parts. The 5th percentile for April 2017 means that only five per cent of all Aprils in the historical record have recorded a rainfall total that is at or below the rainfall recorded during April 2017. Dark blue areas on the maps are those areas that were wetter than the same time of year during the entire historical record, and dark red areas are drier. For further information, go to http://www.bom.gov.au/jsp/awap/
1.4. Recent soil moisture percentiles

The maps below show the levels of modelled upper layer (0 to 10 centimetres) soil moisture and lower layer (10 centimetres to 1 metre) soil moisture during April 2017. These maps show how modelled soil conditions during April 2017 compare with April conditions modelled over the 106 year reference period (1911 to 2016). Dark blue areas on the maps are those areas that were much wetter than the same time of year during the reference period, and dark red areas were much drier than during the reference period. These data are from the Australian Water Resources Assessment Landscape model (AWRA-L version 5.0), which was developed through the Water Information Research and Development Alliance (WIRADA) initiative. WIRADA is a collaborative project between the BoM and the CSIRO.

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 (10 centimetres) is therefore the most appropriate indicator of the availability of water, particularly for germinating plants. 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.

Relative upper layer soil moisture for April 2017 was well above average to extremely high in a band covering northern Western Australia, South Australia, southern New South Wales and Victoria. The relative upper layer soil moisture was well below average to extremely low in central and western Queensland and adjacent areas of the Northern Territory, western Tasmania and south-western Western Australia. The pattern of relative upper layer soil moisture reflects rainfall received during April 2017.
Relative lower layer soil moisture for April 2017 was well above average to extremely high in eastern New South Wales and western Victoria, northern and south-eastern Queensland and across most of Western Australia, and the Top End of the Northern Territory. Lower layer soil moisture for April 2017 was well below average to extremely low in a large area of central Australia, across most of western Queensland and adjacent areas of Northern Territory, scattered areas of north-western New South Wales, north-eastern and southern South Australia and parts of Western Australia.

Modelled lower layer soil moisture for April 2017

Source: Bureau of Meteorology (Australian Water Resources Assessment Landscape model)
1.5. Rainfall forecast for the next 8 days

The forecast for the next eight days indicates that little to no rainfall is forecast for most of mainland Australia. Rainfall totals exceeding 25 millimetres are expected along coastal Queensland and in western Tasmania.

This rainfall forecast is produced from computer models. As it contains no input from weather forecasters, it is important to check local forecasts and warnings issued by the Bureau of Meteorology.

Total forecast rainfall (mm) for the period 4 to 11 May 2017
2. Water

2.1. Water availability

Water storage levels in the Murray–Darling Basin (MDB) decreased during the week ending 4 May 2017 by 267 gigalitres (GL) to 15,331 GL and are at 68 per cent of total capacity. This is 38 percentage points or 8,679 GL more than at the same time last year.

Information on irrigation water available in the Murray–Darling Basin from 1 January 2001 to 4 May 2017 is shown above. The top horizontal (short dash) line indicates the storage level during a similar time last year. The bottom horizontal (long dash) line indicates the amount of ‘dead’ or unusable storage.
2.2. Water storages

Changes in regional water storage for April 2017 and the previous 12 months are summarised in the table and graph below (current at 4 May 2017).

<table>
<thead>
<tr>
<th>Region</th>
<th>Total capacity (GL)</th>
<th>Current volume (GL)</th>
<th>Current volume (%)</th>
<th>Monthly change (GL)</th>
<th>Monthly change (%)</th>
<th>Annual change (GL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Murray-Darling Basin (MDB)</td>
<td>22,559</td>
<td>15,331</td>
<td>68</td>
<td>-192</td>
<td>-1</td>
<td>8,679</td>
</tr>
<tr>
<td>Murray-Darling Basin Authority (MDBA)</td>
<td>9,352</td>
<td>5,716</td>
<td>58</td>
<td>-93</td>
<td>-1</td>
<td>3,475</td>
</tr>
<tr>
<td>Queensland MDB</td>
<td>186</td>
<td>178</td>
<td>96</td>
<td>1</td>
<td>1</td>
<td>72</td>
</tr>
<tr>
<td>Central Queensland</td>
<td>3,154</td>
<td>2,792</td>
<td>87</td>
<td>-243</td>
<td>-8</td>
<td>92</td>
</tr>
<tr>
<td>South-east Queensland</td>
<td>3,517</td>
<td>2,397</td>
<td>68</td>
<td>-57</td>
<td>-2</td>
<td>96</td>
</tr>
<tr>
<td>New South Wales MDB</td>
<td>13,884</td>
<td>8,791</td>
<td>63</td>
<td>-168</td>
<td>-1</td>
<td>5,434</td>
</tr>
<tr>
<td>Coastal New South Wales</td>
<td>1,074</td>
<td>953</td>
<td>89</td>
<td>-2</td>
<td>0</td>
<td>42</td>
</tr>
<tr>
<td>Victoria MDB</td>
<td>8,488</td>
<td>6,151</td>
<td>72</td>
<td>-25</td>
<td>0</td>
<td>2,962</td>
</tr>
</tbody>
</table>
3. Commodities

3.1. Market focus

Wheat
A large snowstorm and strong winds swept across the US plains wheat belt on 29 and 30 April. While the extent of damage is still being assessed, early reports indicate winter wheat crops have been affected in Kansas, Colorado, Oklahoma and Nebraska. These states are estimated to account for almost half of the total area planted to US winter wheat in 2017. Winter wheat crops are susceptible to damage because of their current stage of development. Corn and soybean crops are less vulnerable because they are in the planting and emergence stage of development.

Dairy
The price of anhydrous milk fat (AMF) rose 4 per cent to US$6,185 a tonne at the Global Dairy Trade (GDT) auction event on 2 May 2017, while the price of skim milk powder fell by 3 per cent to US$1,982 a tonne. The ratio of AMF to skim milk powder is currently at the highest level since these products began trading on the GDT in 2010 (Figure 1). This divergence of milk fat to solids-not-fat follows large exportable surpluses of skim milk powder, particularly in the European Union, and strong global demand for milk fat.

Figure 1 Ratio of AMF and SMP prices on GDT, March 2010 to April 2017

Source: Global Dairy Trade
<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>03-May</td>
<td>US$/A$</td>
<td>0.75</td>
<td>0.75</td>
<td>0%</td>
<td>▼</td>
<td>-1%</td>
</tr>
<tr>
<td>Wheat - US no. 2 hard red winter wheat, fob Gulf</td>
<td>02-May</td>
<td>US$/t</td>
<td>198</td>
<td>186</td>
<td>6%</td>
<td>▲</td>
<td>198</td>
</tr>
<tr>
<td>Coarse Grains - US no. 2 yellow corn, fob Gulf</td>
<td>03-May</td>
<td>US$/t</td>
<td>159</td>
<td>156</td>
<td>2%</td>
<td>▲</td>
<td>169</td>
</tr>
<tr>
<td>Canola - Rapeseed, Europe, fob Hamburg</td>
<td>02-May</td>
<td>US$/t</td>
<td>439</td>
<td>441</td>
<td>&lt;1%</td>
<td>▼</td>
<td>423</td>
</tr>
<tr>
<td>Cotton - Cotlook 'A' Index</td>
<td>03-May</td>
<td>USc/lb</td>
<td>88.6</td>
<td>88.4</td>
<td>&lt;1%</td>
<td>▲</td>
<td>71.4</td>
</tr>
<tr>
<td>Sugar - Intercontinental Exchange, nearby futures, no.11 contract</td>
<td>03-May</td>
<td>USc/lb</td>
<td>15.8</td>
<td>16.1</td>
<td>-2%</td>
<td>▼</td>
<td>16.1</td>
</tr>
<tr>
<td>Wool - Eastern Market Indicator</td>
<td>27-Apr</td>
<td>Ac/kg clean</td>
<td>1,501</td>
<td>1,512</td>
<td>&lt;1%</td>
<td>▼</td>
<td>1,241</td>
</tr>
<tr>
<td>Wool - Western Market Indicator</td>
<td>28-Apr</td>
<td>Ac/kg clean</td>
<td>1,508</td>
<td>1,508</td>
<td>-2%</td>
<td>▼</td>
<td>1,278</td>
</tr>
<tr>
<td><strong>Selected domestic crop indicator prices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milling Wheat - ASW1, track quote, Port Adelaide, SA</td>
<td>02-May</td>
<td>A$/t</td>
<td>184</td>
<td>185</td>
<td>&lt;1%</td>
<td>▼</td>
<td>240</td>
</tr>
<tr>
<td>Feed Wheat - General purpose, Sydney, NSW</td>
<td>03-May</td>
<td>A$/t</td>
<td>230</td>
<td>227</td>
<td>1%</td>
<td>▲</td>
<td>259</td>
</tr>
<tr>
<td>Feed Barley - Sydney, NSW</td>
<td>03-May</td>
<td>A$/t</td>
<td>201</td>
<td>198</td>
<td>2%</td>
<td>▲</td>
<td>226</td>
</tr>
<tr>
<td>Canola - Portland, Vic.</td>
<td>01-May</td>
<td>A$/t</td>
<td>520</td>
<td>510</td>
<td>2%</td>
<td>▲</td>
<td>496</td>
</tr>
<tr>
<td>Grain Sorghum - Sydney, NSW</td>
<td>03-May</td>
<td>A$/t</td>
<td>261</td>
<td>257</td>
<td>2%</td>
<td>▲</td>
<td>236</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>05-May</td>
<td>Ac/kg cwt</td>
<td>652</td>
<td>658</td>
<td>&lt;1%</td>
<td>▼</td>
<td>546</td>
</tr>
<tr>
<td>Mutton - Mutton indicator (18-24 kg fat score 2-3), Vic</td>
<td>28-Apr</td>
<td>Ac/kg cwt</td>
<td>503</td>
<td>517</td>
<td>-3%</td>
<td>▼</td>
<td>308</td>
</tr>
<tr>
<td>Lamb - Eastern States Trade Lamb Indicator</td>
<td>04-May</td>
<td>Ac/kg cwt</td>
<td>642</td>
<td>649</td>
<td>-1%</td>
<td>▼</td>
<td>526</td>
</tr>
<tr>
<td>Pig - Eastern Seaboard (60.1-75 kg), average of buyers &amp; sellers</td>
<td>21-Apr</td>
<td>Ac/kg cwt</td>
<td>314</td>
<td>318</td>
<td>-1%</td>
<td>▼</td>
<td>391</td>
</tr>
<tr>
<td>Goat - Eastern States (12.1-16 kg)</td>
<td>01-May</td>
<td>Ac/kg cwt</td>
<td>658</td>
<td>653</td>
<td>&lt;1%</td>
<td>▲</td>
<td>538</td>
</tr>
<tr>
<td>Live cattle - Light steers ex Darwin to Indonesia</td>
<td>29-Apr</td>
<td>Ac/kg lwt</td>
<td>330</td>
<td>330</td>
<td>0%</td>
<td>●</td>
<td>280</td>
</tr>
<tr>
<td>Live sheep - Live wether (Muchea WA saleyard) to Middle East</td>
<td>24-Apr</td>
<td>$/head</td>
<td>108</td>
<td>128</td>
<td>-16%</td>
<td>▼</td>
<td>92</td>
</tr>
</tbody>
</table>

11
<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-May</td>
<td>US$/t</td>
<td>3,233</td>
<td>2,998</td>
<td>8%</td>
<td>2,176</td>
<td>49%</td>
</tr>
<tr>
<td>Dairy - Skim milk powder</td>
<td>02-May</td>
<td>US$/t</td>
<td>1,982</td>
<td>2,044</td>
<td>-3%</td>
<td>1,676</td>
<td>18%</td>
</tr>
<tr>
<td>Dairy - Cheddar cheese</td>
<td>02-May</td>
<td>US$/t</td>
<td>3,666</td>
<td>3,462</td>
<td>6%</td>
<td>2,727</td>
<td>34%</td>
</tr>
<tr>
<td>Dairy - Anhydrous milk fat</td>
<td>02-May</td>
<td>US$/t</td>
<td>6,185</td>
<td>5,930</td>
<td>4%</td>
<td>3,195</td>
<td>94%</td>
</tr>
</tbody>
</table>

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

World wheat indicator price
US No. 2, hard red winter wheat, fob Gulf
Week ended 2 May 2017

World coarse grains indicator price
US corn No. 2, fob Gulf
Week ended 3 May 2017

World canola indicator price
Europe fob Hamburg
Week ended 2 May 2017

World cotton indicator price
Cotlook ‘A’ index
Week ended 3 May 2017
3.3. Global Dairy Trade (GDT) weighted average prices

- Whole milk powder price
  2 May 2017

- Skim milk powder price
  2 May 2017

- Cheddar cheese price
  2 May 2017

- Anhydrous milk fat price
  2 May 2017
3.4. Selected domestic crop indicator prices

Grain sorghum indicator price
Sydney, NSW
Week ended 3 May 2017

Feed barley indicator price
Sydney, NSW
Week ended 3 May 2017

Feed wheat indicator price
General Purpose, Sydney, NSW
Week ended 3 May 2017

Milling wheat indicator price
ASW1, track quote, Port Adelaide, SA
Week ended 2 May 2017
3.5. Selected domestic livestock indicator prices

Eastern Young Cattle Indicator
Week ended 5 May 2017

Eastern States Trade Lamb Indicator
Week ended 4 May 2017

Mutton indicator price in Victoria
(18–24 kg fat score 2–3)
Week ended 28 April 2017

Pig indicator price Eastern Seaboard
(60.1–75 kg)
Week ended 21 April 2017
3.6. Movements in selected fruit and vegetable prices – week ended 29 April 2017

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