23 February 2017

UNDER EMBARGO until 4.30pm


Summary of key issues

- During the week ending 22 February 2017, rainfall was mostly recorded across northern, western and eastern Australia, western Tasmania and southern Victoria. Little or no rainfall was recorded in large areas of central and southern Australia.

- Maximum temperatures were between 2°C and 6°C below average in some areas of southern Australia, the Northern Territory and Queensland and between 2 and 6 degrees above average in north-east New South Wales and south-east Queensland during the week ending 21 February 2017. Minimum temperatures were between 2°C and 6°C below average in central and south-east Australia.

- Rainfall is likely to be below average across much of Australia during March 2017.

- The rainfall outlook for March to May 2017 indicates that below average rainfall is likely in most of Australia. In contrast, above average rainfall is likely in Far North Queensland and the Top End in the Northern Territory.

- The forecast for the next eight days indicates that rainfall in excess of 15 millimetres is expected in parts of Western Australia, much of the Northern Territory, and coastal areas in Queensland and New South Wales.

- Water storage levels in the Murray–Darling Basin (MDB) decreased by 386 gigalitres (GL) during the week ending 23 February 2017 to 73 per cent of total capacity.

- Restocker demand continues to support lamb prices and the eastern states trade lamb indicator price averaged 664 cents a kilogram in the week ending 16 February, 7 per cent higher than the previous week.

- The world sugar indicator price averaged US$20.5 cents a pound in the week ending 22 February, around 55 per cent higher than the same week in the previous year.

Outlook 2017 - Innovation in agriculture - capturing the opportunities

Registrations are now open for Australia’s premier information and networking forum for agriculture sector stakeholders. 7–8 March in Canberra. Visit www.agriculture.gov.au/abares/outlook for more.
1. Climate

1.1. Rainfall this week

For the week ending 22 February 2017, rainfall was mostly recorded across northern, western and eastern Australia, western Tasmania and southern Victoria. Little or no rainfall was recorded in large areas of central and southern Australia.

Ex-Tropical Cyclone Alfred brought rainfall totals in excess of 400 millimetres to southern Gulf of Carpentaria near the Northern Territory and Queensland border during the past week. The highest weekly rainfall total of 995 millimetres was recorded in this region at Sweers Island.

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 22 February 2017
1.2. Temperature anomalies this week

For the week ending 21 February 2017, maximum temperatures were between 2°C and 6°C below average in some areas of southern Australia, the Northern Territory and Queensland and between 2 and 6 degrees above average in north-east New South Wales and south-east Queensland. Maximum temperatures were generally around average in most other parts of Australia (see map below).

For the week ending 21 February 2017, minimum temperatures were between 2°C and 6°C below average in much of central and south eastern Australia. Minimum temperatures were generally average most other parts of Australia (see map below).

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. National Climate Outlook to the end of May

The rainfall and temperature outlooks presented below 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. Climate outlooks are generated by the Predictive Climate Ocean Atmosphere Model for Australia (POAMA), a dynamical (physics-based) climate model developed by the Bureau of Meteorology and CSIRO Marine and Atmospheric research division.

For further information, go to http://www.bom.gov.au/climate-ahead/about/

The El Niño–Southern Oscillation (ENSO) remains neutral, but the tropical Pacific Ocean is steadily warming. The Indian Ocean Dipole (IOD) has little influence on rainfall in Australia from December to April.

Without a strong influence from the Indian or Pacific oceans, secondary climate drivers contribute more to the outlooks. Higher than average pressure is forecast over the Great Australian Bight and southern and western Australia, meaning fewer rain-bearing systems are likely to cross the coast.

There has been a decline in autumn rainfall in much of southern Australia over the past two decades. For example, there has been below-average rainfall in southeast Australia in 22 of the past 26 years. In addition to drivers such as ENSO and the IOD, Australian climate patterns are being influenced by the long-term trends of rising global air and ocean temperatures.

Rainfall is likely to be below average across much of Australia during March 2017. (Bureau of Meteorology ‘National Climate Outlook’, 23 February 2017).

![Chance of exceeding the median rainfall March 2017](image)
The rainfall outlook for March to May 2017 indicates that below average rainfall is likely in most of Australia. In contrast, above average rainfall is more likely in Far North Queensland and the Top End in the Northern Territory. For the remainder of Australia, the chances of higher or lower than average rainfall are roughly equal (Bureau of Meteorology ‘National Climate Outlook’, 23 February 2017).

Chance of exceeding the median rainfall March to May 2017
The temperature outlook for March to May 2017 indicates maximum and minimum temperatures are likely to be above the median for most of Australia. Maximum and minimum temperatures are more likely to be below the median in northern parts of northern Australia (Bureau of Meteorology ‘National Climate Outlook’, 23 February 2017).

Chance of exceeding the median maximum temperature March to May 2017

Chance of exceeding the median minimum temperature March to May 2017
1.4. **Rainfall forecast for the next 8 days**

The forecast for the next eight days indicates that rainfall in excess of 15 millimetres is expected in parts of Western Australia, much of the Northern Territory, and coastal areas in Queensland and New South Wales. There is likely to be little to no rainfall in large areas of central and southern Australia during this period (see map below).

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 23 to 30 February 2017**
2. Water

2.1. Water availability

Water storage levels in the Murray–Darling Basin (MDB) decreased by 386 gigalitres (GL) during the week ending 23 February 2017 to 16,537 GL, and are at 73 per cent of total capacity. This water storage level is 39 percentage points or 8,708 GL more than at the same time last year.

Information on irrigation water available in the Murray–Darling Basin from 1 January 2001 to 23 February 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.
3. Commodities

3.1. Market focus

Lamb slaughter
Restocker demand continues to support lamb prices. The Eastern States Trade Lamb Indicator averaged 664 cents a kilogram in the week ending 16 February, 7 per cent higher than the previous week and 26 per cent higher than the same week last year. Lamb slaughter averaged around 15 per cent lower year on year for the period 1 January and 19 February, despite lamb yardings averaging around 25 per cent higher over the same period.

Sugar
The world sugar indicator price averaged US20.5 cents a pound in the week ending 22 February, marginally higher than the previous week and 55 per cent higher than the same week in the previous year. Data from the Brazil Sugar Industry Association indicates that as at 1 February 2017 sugar production in Brazil’s South-Central region (which produces around 90 per cent of Brazil’s sugarcane) increased by 15 per cent from the same time in the previous season to around 35.3 million tonnes of raw sugar. Over the same period, ethanol production declined by 8 per cent to around 25 billion litres.
<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>22-Feb</td>
<td>US$/A$</td>
<td>0.77</td>
<td>0.77</td>
<td>0%</td>
<td>0.72</td>
<td>7%</td>
</tr>
<tr>
<td>Wheat - US no. 2 hard red winter wheat, fob Gulf</td>
<td>21-Feb</td>
<td>US$/t</td>
<td>213</td>
<td>213</td>
<td>0%</td>
<td>205</td>
<td>4%</td>
</tr>
<tr>
<td>Coarse Grains - US no. 2 yellow corn, fob Gulf</td>
<td>22-Feb</td>
<td>US$/t</td>
<td>164</td>
<td>165</td>
<td>&lt;1%</td>
<td>159</td>
<td>3%</td>
</tr>
<tr>
<td>Canola - Rapeseed, Europe, fob Hamburg</td>
<td>14-Feb</td>
<td>US$/t</td>
<td>451</td>
<td>453</td>
<td>&lt;1%</td>
<td>400</td>
<td>13%</td>
</tr>
<tr>
<td>Cotton - Cotlook 'A' Index</td>
<td>22-Feb</td>
<td>USc/lb</td>
<td>84.7</td>
<td>85.8</td>
<td>-1%</td>
<td>66.6</td>
<td>27%</td>
</tr>
<tr>
<td>Sugar - Intercontinental Exchange, nearby futures, no.11 contract</td>
<td>22-Feb</td>
<td>USc/lb</td>
<td>20.5</td>
<td>20.4</td>
<td>&lt;1%</td>
<td>13.2</td>
<td>55%</td>
</tr>
<tr>
<td>Wool - Eastern Market Indicator</td>
<td>16-Feb</td>
<td>Ac/kg</td>
<td>1,440</td>
<td>1,437</td>
<td>&lt;1%</td>
<td>1,285</td>
<td>12%</td>
</tr>
<tr>
<td>Wool - Western Market Indicator</td>
<td>17-Feb</td>
<td>Ac/kg</td>
<td>1,468</td>
<td>1,472</td>
<td>&lt;1%</td>
<td>1,356</td>
<td>8%</td>
</tr>
<tr>
<td><strong>Selected domestic crop indicator prices</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milling wheat - ASW1, track quote, Port Adelaide, SA</td>
<td>15-Feb</td>
<td>A$/t</td>
<td>183</td>
<td>179</td>
<td>2%</td>
<td>249</td>
<td>-27%</td>
</tr>
<tr>
<td>Feed Wheat - General purpose, Sydney, NSW</td>
<td>22-Feb</td>
<td>A$/t</td>
<td>207</td>
<td>204</td>
<td>1%</td>
<td>270</td>
<td>-23%</td>
</tr>
<tr>
<td>Feed Barley - Sydney, NSW</td>
<td>22-Feb</td>
<td>A$/t</td>
<td>185</td>
<td>183</td>
<td>1%</td>
<td>236</td>
<td>-22%</td>
</tr>
<tr>
<td>Canola - Portland, Vic.</td>
<td>20-Feb</td>
<td>A$/t</td>
<td>524</td>
<td>525</td>
<td>&lt;1%</td>
<td>522</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Grain Sorghum - Sydney, NSW</td>
<td>22-Feb</td>
<td>A$/t</td>
<td>239</td>
<td>239</td>
<td>0%</td>
<td>254</td>
<td>-6%</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>17-Feb</td>
<td>Ac/kg cwt</td>
<td>637</td>
<td>645</td>
<td>-1%</td>
<td>593</td>
<td>7%</td>
</tr>
<tr>
<td>Mutton - Mutton indicator (18-24 kg fat score 2-3), Vic</td>
<td>17-Feb</td>
<td>Ac/kg cwt</td>
<td>474</td>
<td>445</td>
<td>7%</td>
<td>303</td>
<td>56%</td>
</tr>
<tr>
<td>Lamb - Eastern States Trade Lamb Indicator</td>
<td>16-Feb</td>
<td>Ac/kg cwt</td>
<td>664</td>
<td>618</td>
<td>7%</td>
<td>528</td>
<td>26%</td>
</tr>
<tr>
<td>Pig - Eastern Seaboard (60.1-75 kg), average of buyers &amp; sellers</td>
<td>10-Feb</td>
<td>Ac/kg cwt</td>
<td>365</td>
<td>367</td>
<td>&lt;1%</td>
<td>388</td>
<td>-6%</td>
</tr>
<tr>
<td>Goat - Eastern States (12.1-16 kg)</td>
<td>13-Feb</td>
<td>Ac/kg cwt</td>
<td>640</td>
<td>640</td>
<td>0%</td>
<td>513</td>
<td>25%</td>
</tr>
<tr>
<td>Live cattle - Light steers ex Darwin to Indonesia</td>
<td>11-Feb</td>
<td>Ac/kg lwt</td>
<td>375</td>
<td>375</td>
<td>0%</td>
<td>375</td>
<td>0%</td>
</tr>
<tr>
<td>Live sheep - Live wether (Mucheia WA saleyard) to Middle East</td>
<td>13-Feb</td>
<td>$/head</td>
<td>110</td>
<td>113</td>
<td>-3%</td>
<td>108</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Global Dairy Trade (GDT) weighted average prices</strong> a</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dairy - Whole milk powder</td>
<td>21-Feb</td>
<td>US$/t</td>
<td>3,189</td>
<td>3,314</td>
<td>-4%</td>
<td>1,890</td>
<td>69%</td>
</tr>
<tr>
<td>Dairy - Skim milk powder</td>
<td>21-Feb</td>
<td>US$/t</td>
<td>2,574</td>
<td>2,608</td>
<td>-1%</td>
<td>1,762</td>
<td>46%</td>
</tr>
<tr>
<td>Dairy - Cheddar cheese</td>
<td>21-Feb</td>
<td>US$/t</td>
<td>3,590</td>
<td>3,798</td>
<td>-5%</td>
<td>2,535</td>
<td>42%</td>
</tr>
<tr>
<td>Dairy - Anhydrous milk fat</td>
<td>21-Feb</td>
<td>US$/t</td>
<td>5,693</td>
<td>5,765</td>
<td>-1%</td>
<td>3,527</td>
<td>61%</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 21 February 2017

World coarse grains indicator price
US corn No. 2, fob Gulf
Week ended 22 February 2017

World canola indicator price
Europe fob Hamburg
Week ended 14 February 2017

World cotton indicator price
Cotlook 'A' index
Week ended 22 February 2017
3.3. Global Dairy Trade (GDT) weighted average prices

- Whole milk powder price
- Skim milk powder price
- Cheddar cheese price
- Anhydrous milk fat price

Charts showing the price trends from January 2015 to December 2017 for each product.
3.4. Selected domestic crop indicator prices

Grain sorghum indicator price
Sydney, NSW
Week ended 22 February 2017

Feed barley indicator price
Sydney, NSW
Week ended 22 February 2017

Feed wheat indicator price
General Purpose, Sydney, NSW
Week ended 22 February 2017

Milling wheat indicator price
ASW1, track quote, Port Adelaide, SA
Week ended 15 February 2017
3.5. Selected domestic livestock indicator prices

Eastern Young Cattle Indicator
Week ended 17 February 2017

Eastern States Trade Lamb Indicator
Week ended 16 February 2017

Mutton indicator price in Victoria
(18–24 kg fat score 2–3)
Week ended 17 February 2017

Pig indicator price Eastern Seaboard
(60.1–75 kg)
Week ended 10 February 2017
3.6. Movements in selected fruit and vegetable prices – week ended 18 February 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: http://www.environment.sa.gov.au

Victoria
- Goulburn–Murray Water: www.g-mwater.com.au

Commodities
Fruit and vegetables
- Datafresh: http://www.freshstate.com.au

Mutton, lambs, wheat, barley and grain sorghum
- The Land: hardcopy or online at http://theland.farmonline.com.au/markets

Cattle, mutton and lambs

Pigs
- Australian Pork Limited: www.australianpork.com.au

Canola
- Weekly Times: hardcopy

Dairy