Weekly Australian Climate, Water and Agricultural Update



31 January 2019

Summary of key issues

- During the week ending 30 January 2019 rainfall was recorded across isolated areas of central Australia, eastern New South Wales and large areas of northern Australia.
- Rainfall totals in excess of 50 millimetres were recorded across vast areas of tropical northern Australia with the arrival of the monsoonal trough.
- In summer cropping regions, rainfall of between 1 and 10 millimetres was recorded across the eastern and northern growing regions in New South Wales and northern growing regions in Queensland during the week ending 30 January 2019. Little to no rainfall was recorded in other summer cropping regions.
- For the week ending 29 January 2019, maximum and minimum temperatures were between 2°C to 10°C above average across vast areas of central, western and south-eastern Australia.
- The latest rainfall outlook released by the Bureau of Meteorology indicates that a drier than average February is more likely for much of Western Australia, and parts western South Australia and the north of the Northern Territory.
- The rainfall outlook for February to April 2019 indicates that a drier than average three months is more likely for much of western and southern Australia, and parts of eastern Queensland and the north of the Northern Territory. For the remainder of the country there is roughly equal chances of a wetter or drier three months.
- During the next eight days, rainfall is expected to be restricted to the far south-east and the north-eastern quarter of Australia.
- The tropical north of Queensland is in for more very wet weather over the next eight days as the monsoon continues to strengthen.
- In summer cropping regions, rainfall of between 5 and 50 millimetres is expected across northern cropping areas of Queensland.
- Water storage levels in the Murray—Darling Basin (MDB) decreased by 175 gigalitres (GL) between 21 January 2019 and 30 January 2019. The current volume of water held in storage is 10,614 GL, which represents 42 per cent of total capacity.
- Allocation prices in the southern Murray—Darling Basin decreased from \$459 per ML in the week ending 14 January 2019 to \$444 per ML in the week ending 28 January 2019.



ABARES Outlook 2019 - Tough choices to boost agricultural productivity and resilience

The agriculture sector's premier information and networking event — ABARES Outlook 2019 conference on 5-6 March - is fast approaching. Find out more at www.agriculture.gov.au/abares/outlook

1. Climate

1.1. Rainfall this week

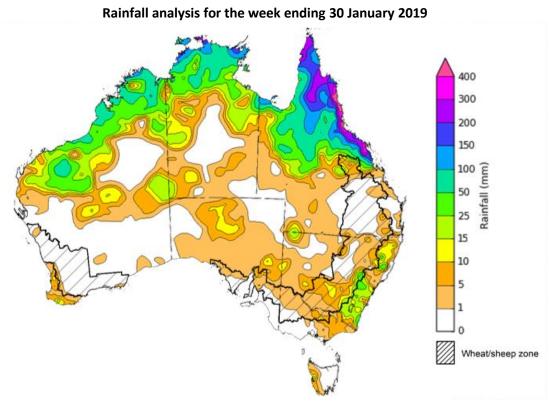
During the week ending 30 January 2019 rainfall was recorded across isolated areas of central Australia, eastern New South Wales and large areas of northern Australia. Rainfall totals of between 10 and 50 millimetres were recorded across scattered areas of eastern and southern New South Wales, northern Queensland, northern Western Australia and the north of the Northern Territory. Higher rainfall totals in excess of 50 millimetres were recorded across vast areas of tropical northern Australia with the arrival of the monsoonal trough.

Monsoonal rain has inundated parts of central and northern Queensland during the last 7 days, pushing dams to capacity as rivers experience major flooding. The southward moving monsoon trough caused widespread falls of between 100 and 300 millimetres between Ingham and Mackay during the 24 hours to 9am on Wednesday 30 January.

One of the heaviest falls in the region during this 24-hour period was 370 millimetres at Paluma, to the north of Townsville. This torrential rain has resulted in Paluma Dam reaching 106 per cent of its capacity at 7am local time on Wednesday. North of Mackay, Sandy Plateau received 375 millimetres during the 24 hours to 9am on Wednesday, which brought their two-day total to an impressive 763 millimetres.

Unsurprisingly, a number of rivers are experiencing major flooding and the Bureau of Meteorology have issued numerous flood watches. A flood watch also remains in place for coastal catchments from Daintree to Mackay, the western Cape York Peninsula and eastern Gulf of Carpentaria catchments.

In summer cropping regions, rainfall of between 1 and 10 millimetres was recorded across the eastern and northern growing regions in New South Wales and northern growing regions in Queensland during the week ending 30 January 2019. Little to no rainfall was recorded in other summer cropping regions.



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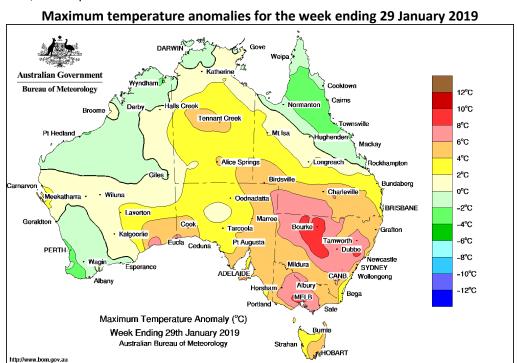
Note: The rainfall analyses and associated maps utilise data contained in the Bureau of Meteorology climate database, the Australian Data Archive for Meteorology (ADAM). The analyses are initially produced automatically from real-time data with limited quality control. They are intended to provide a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

1.2. Temperature anomalies this week

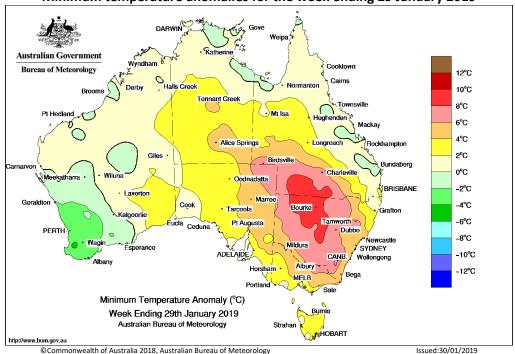
©Commonwealth of Australia 2018, Australian Bureau of Meteorology

For the week ending 29 January 2019, maximum and minimum temperatures were generally well above average across much of the country. Maximum and minimum temperatures were between 2°C to 10°C above average across vast areas of central, southern and eastern Australia.

Average (-2°C to 2°C) minimum and maximum temperatures were recorded across parts of eastern Queensland, the tropical northern Australia and much of Western Australia.



Minimum temperature anomalies for the week ending 29 January 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: https://www.bom.gov.au/isp/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.

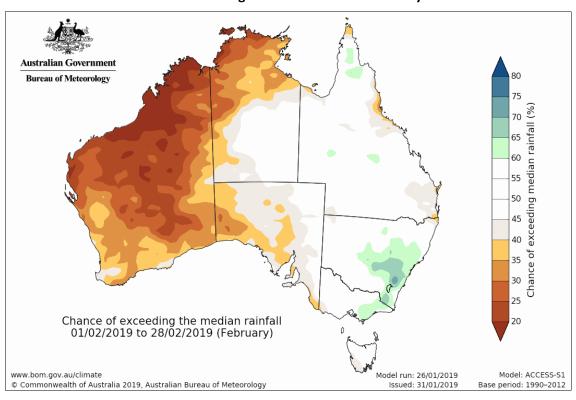
For further information, go to http://www.bom.gov.au/climate/ahead/about/

Although the sea surface temperatures in the tropical Pacific Ocean are currently neutral, there is still a chance of El Niño developing during autumn 2019. An El Niño typically results in warmer and drier than usual conditions, and a later autumn break for southern and eastern Australia, and this is influencing this latest climate outlook released by the Bureau of Meteorology.

Other climate influences relevant to this latest outlook relate to temperature of the oceans surrounding Australia. In the Indian Ocean, the central and western tropics are warmer than normal. 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 pressures and reduced westerly winds over the Southern Ocean are also reducing the chance of rainfall in parts of southern Australia.

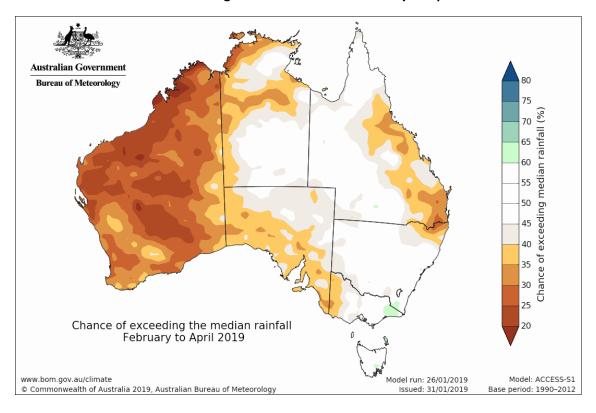
The latest rainfall outlook released by the Bureau of Meteorology indicates that a drier than average February is more likely for much of Western Australia, and parts western South Australia and the north of the Northern Territory. Parts of eastern Victoria and south-eastern New South Wales have an increased chance of being wetter than usual. For the remainder of the country there are roughly equal chances of a wetter or drier than average February (Bureau of Meteorology 'National Climate Outlook', 31 January 2018).

Chance of exceeding the median rainfall February 2018



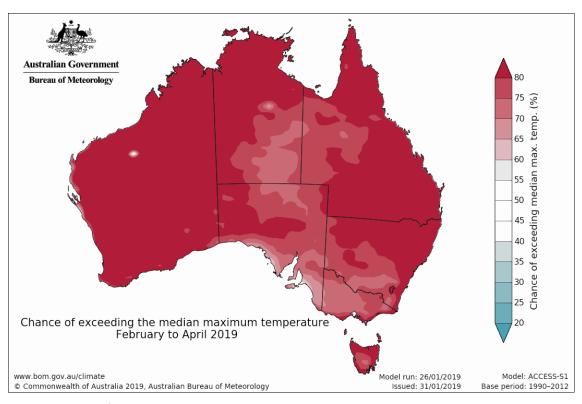
The rainfall outlook for February to April 2019 indicates that a drier than average three months is more likely for much of Western Australia and southern South Australia, and parts of eastern Queensland and the north of the Northern Territory. For the remainder of the country there are roughly equal chances of a wetter or drier three months (Bureau of Meteorology 'National Climate Outlook', 31 January 2018).

Chance of exceeding the median rainfall February to April 2019

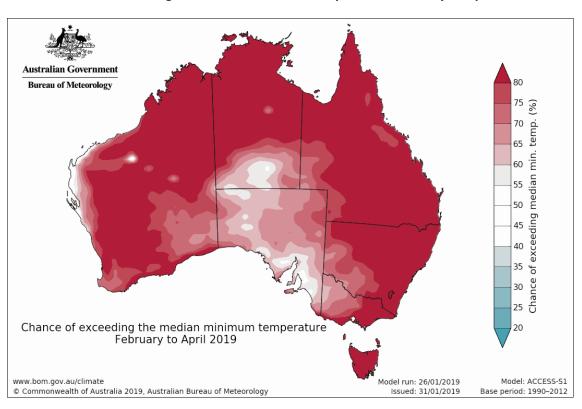


The temperature outlook for February to April 2019 indicates that daytime temperatures are more likely to be warmer than average for Australia. Night-time temperatures are also likely to be warmer than average for much of the country, with the exception of parts of southern South Australia and central Australia, where the chances of warmer or cooler nights are roughly equal (Bureau of Meteorology 'Naional Climate Outlook', 31 January 2018).

Chance of exceeding the median maximum temperature February to April 2019



Chance of exceeding the median minimum temperature February to April 2019



1.4. Rainfall forecast for the next eight days

During the next eight days, rainfall is expected to be mainly restricted to the far south-east and the north-eastern quarter of Australia.

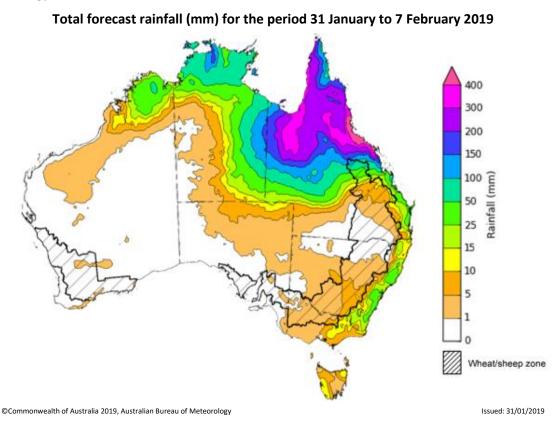
Rainfall totals of between 10 and 50 millimetres are forecast for parts of eastern New South Wales and eastern Victoria, much of Queensland, the far north of Western Australia and much of the east and north of the Northern Territory. Heavier falls in excess of 50 millimetres are forecast for tropical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

The tropical north of Queensland is in for more very wet weather over the next eight days as the monsoon continues to strengthen, on the back what has already been a very wet start to 2019. The monsoon trough extends from a tropical low near the southern Gulf of Carpentaria across to the eastern tropical coast of Queensland near Cairns. As winds turn clockwise around the low they are bringing tropical moisture from the Coral Sea right along the coast.

Rainfall totals in excess of 400 millimetres are likely along the coast between Cardwell and Mackay during the next eight days. Rainfall is also expected to spread further inland into central, western and north-western Queensland over the coming days, as that low remains fairly slow-moving over the Gulf Country. While the monsoon trough will start to shift slowly north, this movement is likely to coincide with a renewed burst of monsoon winds and heavier rain and thunderstorms—with those heavier falls likely to remain along coastal locations and north-western Queensland.

In summer cropping regions, rainfall of between 5 and 50 millimetres is expected across northern cropping areas of Queensland. Little to no rainfall is expected across other summer cropping regions of Queensland and New South Wales.

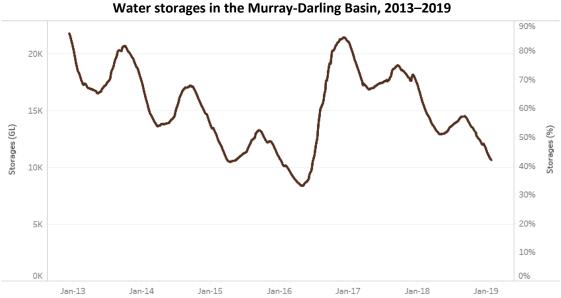
This rainfall forecast is produced from computer models. As the model outputs are not altered by weather forecasters, it is important to check local forecasts and warnings issued by the Bureau of Meteorology.



2. Water

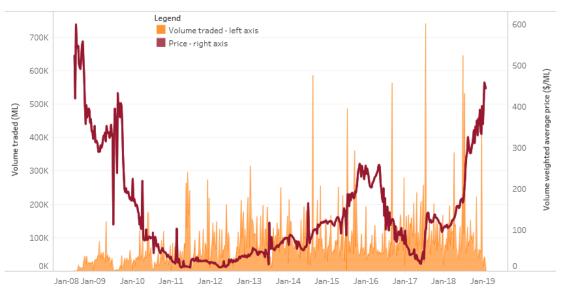
2.1. Water markets – current week

Water storage levels in the Murray—Darling Basin (MDB) decreased by 175 gigalitres (GL) between 21 January 2019 and 30 January 2019. The current volume of water held in storage is 10,614 GL which represents 42 per cent of total capacity. This is 32 percentage points or 5,074 GL less than at the same time last year.



Allocation prices in the southern Murray-Darling Basin decreased from \$459 per ML in the week ending 14 January 2019 to \$444 per ML in the week ending 28 January 2019.

Surface water trade activity, Southern Murray-Darling Basin



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 31 January 2019, and encompasses water activity until 28 January 2019. ABARES has changes the data source for this output. Data is now sourced from the Bureau of Meteorology water dashboard.

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-310119

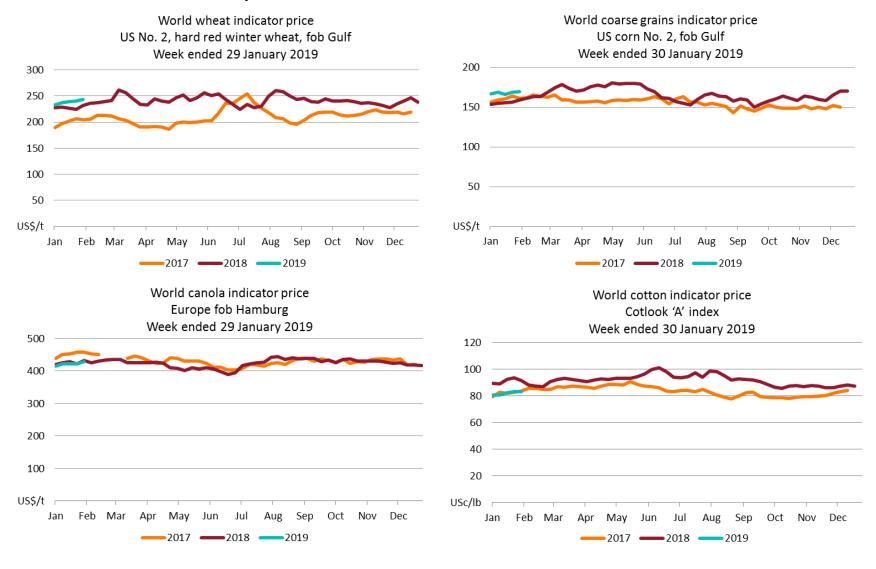
3. Commodities

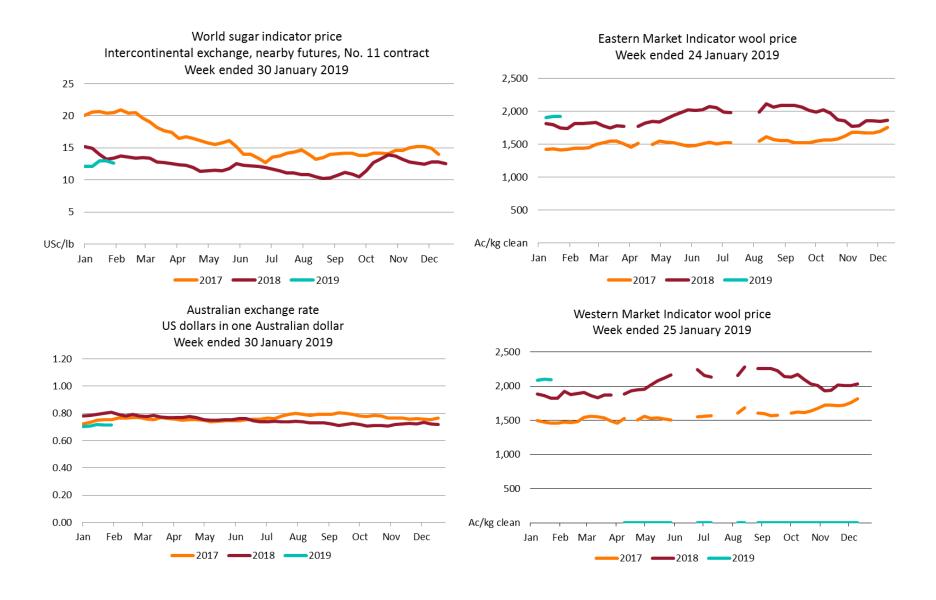
Indicator	Week ended	Unit	Latest price	Price week prior	Weekly change		Price 12 months prior	Year-on-year change	
Selected World Indicator Prices									
Australian Dollar – AUD/USD Exchange Rate	30-Jan	US\$/A\$	0.71	0.72	-1%	Û	0.81	-12%	Û
Wheat – US no. 2 hard red winter wheat, fob Gulf	29-Jan	US\$/t	243	240	1%	Û	232	5%	Û
Coarse Grains – US no. 2 yellow corn, fob Gulf	30-Jan	US\$/t	170	169	<1%	Û	159	7%	Û
Canola – Rapeseed, Europe, fob Hamburg	29-Jan	US\$/t	429	422	2%	Û	432	<1%	Û
Cotton – Cotlook 'A' Index	30-Jan	USc/lb	83.2	83.2	0%	•	91.3	-9%	Û
Sugar – Intercontinental Exchange, nearby futures, no.11 contract	30-Jan	USc/lb	12.6	12.9	-2%	Û	13.4	-6%	Û
Wool – Eastern Market Indicator	24-Jan	Ac/kg clean	1,927	1,923	<1%	Û	1,744	10%	矿
Wool – Western Market Indicator	25-Jan	Ac/kg clean	2,092	2,105	<1%	Û	1,821	15%	Û
Selected domestic crop indicator prices									
Milling Wheat – ASW1, track quote, Port Adelaide, SA	29-Jan	A\$/t	360	352	2%	Û	227	59%	矿
Feed Wheat – General purpose, Sydney, NSW	23-Jan	A\$/t	440	440	0%	•	253	74%	矿
Feed Barley – Sydney, NSW	23-Jan	A\$/t	395	395	0%	•	281	41%	Û
Canola – Portland, Vic.	29-Oct	A\$/t	597	na	na		536	11%	矿
Grain Sorghum – Sydney, NSW	23-Jan	A\$/t	360	370	-3%	Û	410	-12%	Û
Selected domestic livestock indicator prices									
Beef – Eastern Young Cattle Indicator	24-Jan	Ac/kg cwt	475	478	<1%	Û	531	-11%	Û
Mutton – Mutton indicator (18–24 kg fat score 2–3), Vic	25-Jan	Ac/kg cwt	362	365	<1%	Û	399	-9%	Û
Lamb – Eastern States Trade Lamb Indicator	24-Jan	Ac/kg cwt	677	651	4%	Û	633	7%	Û
Pig – Eastern Seaboard (60.1–75 kg), average of buyers & sellers	18-Jan	Ac/kg cwt	323	na	na		274	18%	Û
Goat – Eastern States (12.1–16 kg)	28-Jan	Ac/kg cwt	586	586	0%	•	483	21%	Û
Live cattle – Light steers ex Darwin to Indonesia	26-Jan	Ac/kg lwt	325	325	0%	•	320	2%	Û
Live sheep – Live wether (Muchea WA saleyard) to Middle East	03-Dec	\$/head	108	na	na		121	-11%	Û

Indicator	Week ended	Unit	Latest price	Price week prior	Weekly change	Price 12 months prior	Year on year change
Global Dairy Trade (GDT) weighted average prices ^a							
Dairy – Whole milk powder	16-Jan	US\$/t	2,777	2,705	3% 🛈	3,010	-8% ↓
Dairy – Skim milk powder	16-Jan	US\$/t	2,405	1,970	22% 🛈	1,818	32% 🛈
Dairy – Cheddar cheese	16-Jan	US\$/t	3,504	3,371	4% 🛈	3,486	<1% 🛈
Dairy – Anhydrous milk fat	16-Jan	US\$/t	5,294	5,137	3% 🛈	6,547	-19% 🔱

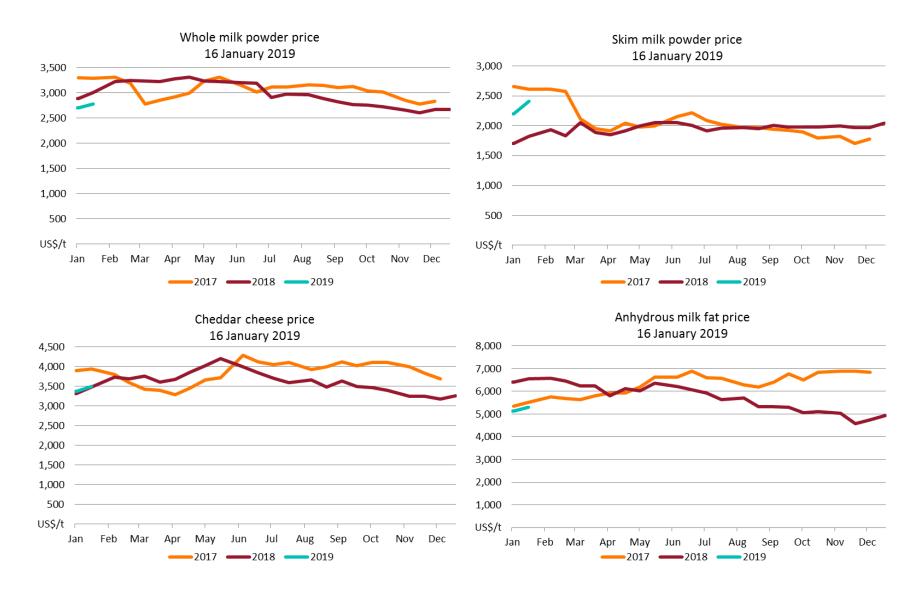
a Global Dairy Trade prices are updated twice monthly on the first and third Tuesday of each month.

3.1. Selected world indicator prices

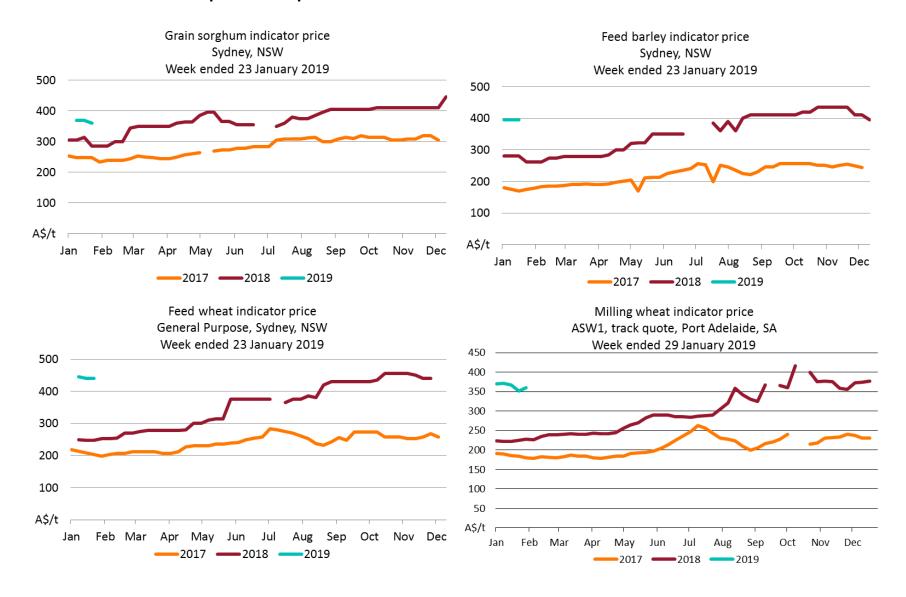


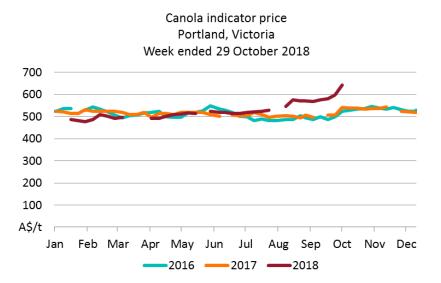


3.2. Global Dairy Trade (GDT) weighted average prices

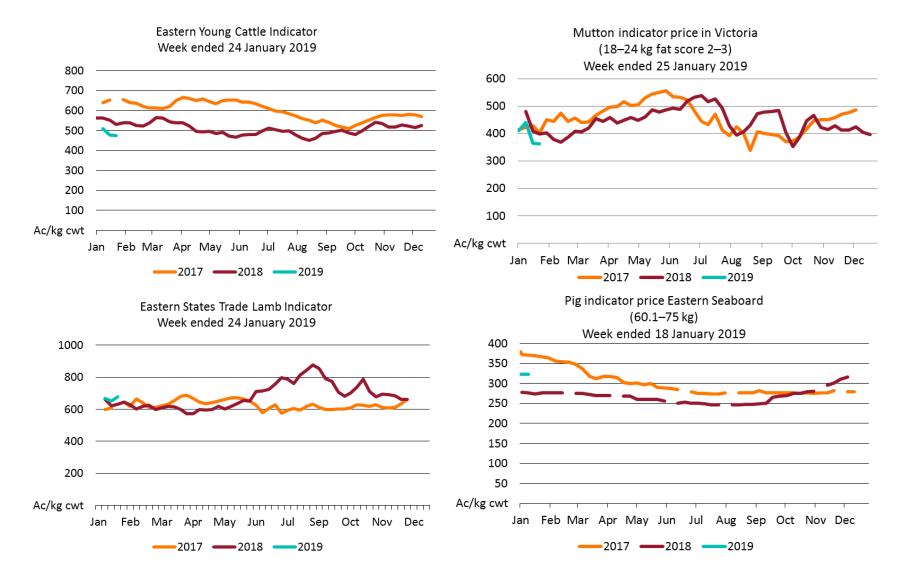


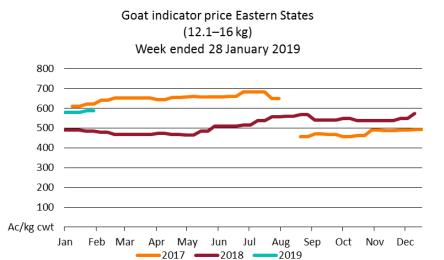
3.3. Selected domestic crop indicator prices

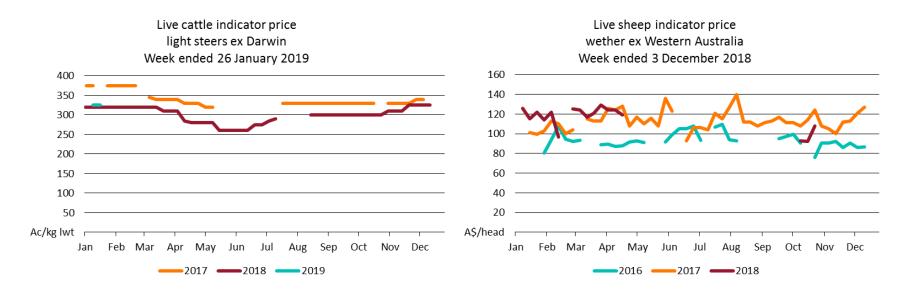




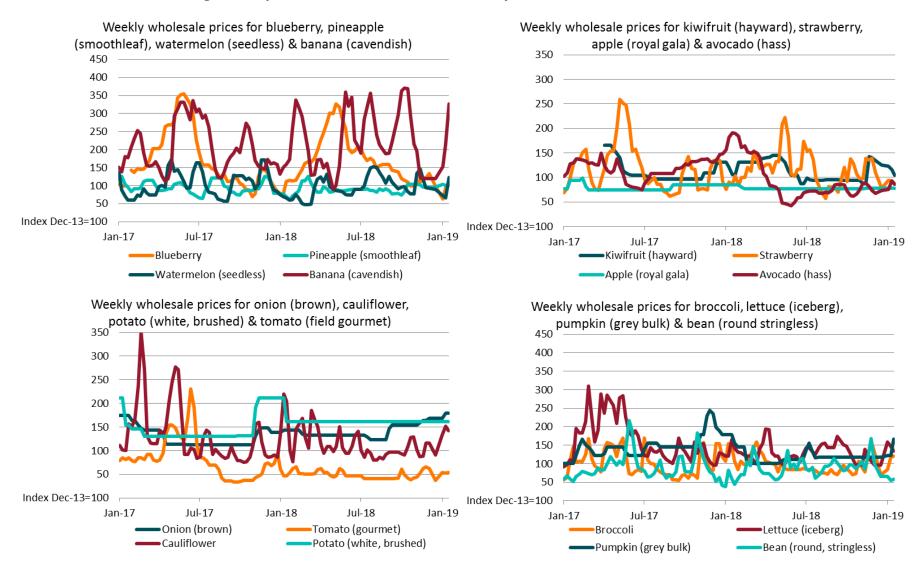
3.4. Selected domestic livestock indicator prices







3.5. Selected fruit and vegetable prices – week ended 31 January 2019



4. Data attribution

Climate

Bureau of Meteorology

- Weekly rainfall totals: www.bom.gov.au/jsp/awap/rain/index.jsp
- Monthly and last 3-month rainfall percentiles: www.bom.gov.au/jsp/awap/rain/index.jsp
- Temperature anomalies: www.bom.gov.au/jsp/awap/temp/index.jsp
- Rainfall forecast: www.bom.gov.au/jsp/watl/rainfall/pme.jsp
- Seasonal outlook: www.bom.gov.au/climate/outlooks/#/overview/summary/
- Drought statement: <u>www.bom.gov.au/climate/drought/drought.shtml</u>
- Soil moisture: www.bom.gov.au/water/landscape/

Water

New South Wales

- New South Wales Water Information: http://waterinfo.nsw.gov.au/
- New South Wales Office of Water, Department of Primary Industries: <u>www.water.nsw.gov.au/Home/default.aspx</u>
- Available water determinations register: <u>www.water.nsw.gov.au/water-licensing/registers</u>

Queensland

- Sunwater: <u>www.sunwater.com.au</u>
- Seqwater: http://seqwater.com.au

South Australia

- SA Water: www.sawater.com.au/community-and-environment/the-river-murray/river-reports/daily-flow-report
- South Australian Department of Environment, Water and Natural Resources: www.environment.sa.gov.au

Victoria

Goulburn–Murray Water: <u>www.g-mwater.com.au</u>

Commodities

Fruit and vegetables

Datafresh: <u>www.freshstate.com.au</u>

Pigs

Australian Pork Limited: <u>www.australianpork.com.au</u>

Canola

Weekly Times: hardcopy

Dairy

• Global Dairy Trade: <u>www.globaldairytrade.info/en/product-results/</u>

World wheat, canola

• International Grains Council

World coarse grains

United States Department of Agriculture

World cotton

• Cotlook: <u>www.cotlook.com/</u>

World sugar

New York Stock Exchange - Intercontinental Exchange

Wool

Australian Wool Exchange: www.awex.com.au/

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

Meat and Livestock Australia: <u>www.mla.com.au/Prices-and-markets</u>