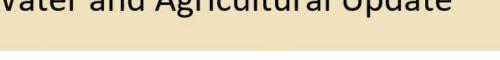




Weekly Australian Climate, Water and Agricultural Update



No. 7/2024

22 February 2024

Summary of key issues

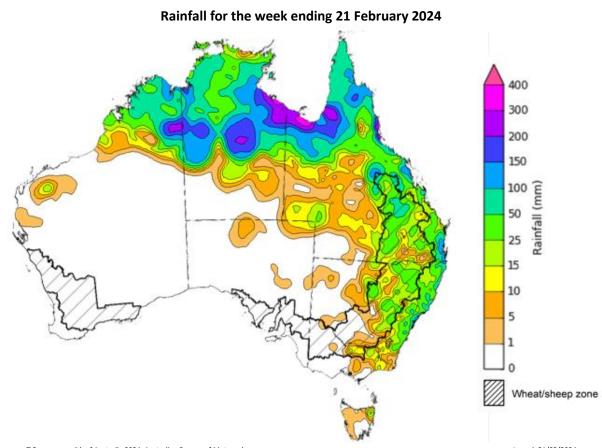
- In the week ending 21 February 2024, a tropical low (07U) embedded into a monsoon trough developed over the Top End of the Northern Territory at the beginning of the week and strengthened into a category 1 Tropical Cyclone Lincoln, bringing heavy rainfall in the north.
- Over the coming days, ex-Tropical Cyclone Lincoln is expected to redevelop into Category 2 Tropical Cyclone and bring heavy rainfall to the west of Western Australia as it moves southward. Storms and showers are expected in the tropics and eastern Australia.
 - Rainfall in Queensland and New South Wales will continue to support development of summer crops and pasture growth.
 - If realized, forecast rainfall across Western Australian cropping regions will provide some boost to soil moisture levels following several months of dryness. However, more rainfall in autumn will be required in these areas to support the planting of winter crops.
- Autumn 2024 rainfall is likely to be below median across much of northern and central Australia.
 There is 50% chance of rainfall being above median across parts of western and south-eastern Australia.
- Water storage levels in the Murray-Darling Basin (MDB) decreased between 15 February 2024 and 22 February 2024 by 298 gigalitres (GL). Current volume of water held in storage is 18 736 GL, equivalent to 84% of total storage capacity. This is 10 percent or 2121 GL less than at the same time last year.
- Allocation prices in the Victorian Murray below the Barmah Choke decreased from \$32 on 15
 February 2024 to \$22 on 22 February 2024. Prices are lower in the Murrumbidgee and regions
 above the Barmah choke due to the binding of the Murrumbidgee export limit and the
 Goulburn intervalley trade limit.

1. Climate

1.1. Rainfall this week

For the week ending 21 February 2024, a tropical low (07U) embedded into a monsoon trough developed over the Top End of the Northern Territory at the beginning of the week and strengthened into a category 1 Tropical Cyclone Lincoln. It made a landfall as it moved eastwards across the Top End, along the monsoon trough reaching the Gulf of Carpentaria, and brought heavy rainfall to much of the Gulf coast and parts of northern Queensland during the week. Onshore winds brought showers to eastern parts of the country. A high-pressure system kept much of the remainder of the country dry.

Across cropping regions, rainfall totals of up to 100 millimetres were recorded across parts of Queensland and up to 50 millimetres in northern and central New South Wales. These falls will continue to support the ongoing growth and lift the yield potential of summer crops. Additionally, these falls will help maintain soil moisture levels to support pasture growth and build reserves ahead of the upcoming winter cropping season. By contrast, Western Australia, South Australia, and Victoria and southern New South Wales remained dry, with declining levels of soil moisture.



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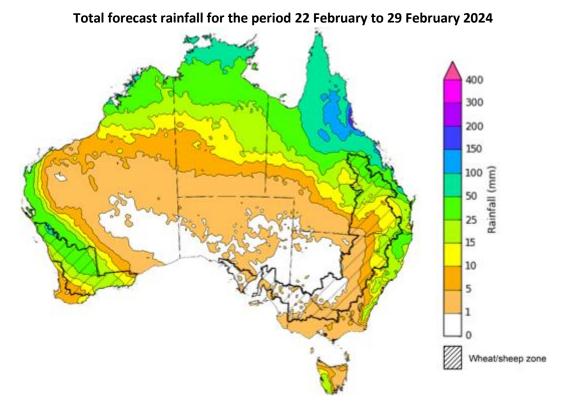
Note: The rainfall analyses and associated maps utilise data contained in the Bureau of Meteorology climate database, the Australian Data Archive for Meteorology (ADAM). The analyses are initially produced automatically from real-time data with limited quality control. They are intended to provide a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

1.2. Rainfall forecast for the next eight days

Over the 8 days to 29 February 2024, ex-Tropical Cyclone Lincoln is expected to redevelop into Category 2 Tropical Cyclone and generate heavy rainfall in Western Australia's Kimberley region earlier in the week and as it moves southward. South-western parts of Western Australia are also likely to benefit from the heavy rainfall, after being dry for several months. Showers and storms are expected in the tropics, extending to coastal east New South Wales.

Across cropping regions, rainfall totals up to 50 millimetres are forecast for Queensland and up to 25 millimetres in northern New South Wales. Western Australia, after being dry for several weeks, is expected to receive up to 100 millimetres of rainfall. If realised, these falls will continue to benefit soil moisture levels for pasture growth and support the growth of long season and later sown summer crops in Queensland and New South Wales. With the harvest of early planted summer crop now underway, wet weather over the next 8-days is likely to result in some harvest delays. While Western Australia will have some relief from this rain, more is required to prepare the sub-soil with sufficient moisture for the winter crops.

Little to no rainfall is expected across remaining cropping regions.



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Note: 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.

1.3. National Climate Outlook

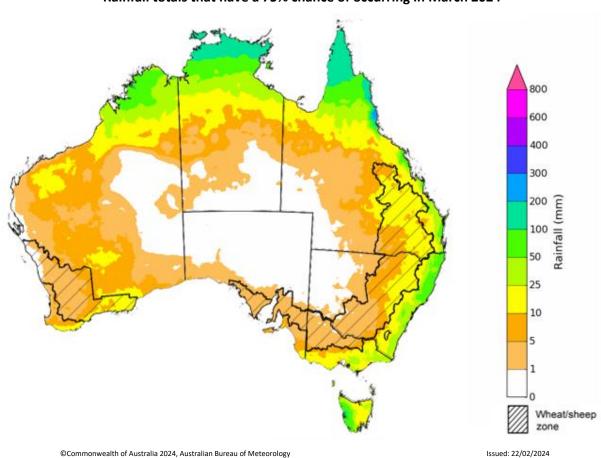
The Bureau of Meteorology's latest rainfall outlook for March 2024 indicates that rainfall is likely (60 to 80% chance) to be below median across much of western New South Wales, Queensland, Victoria, South Australia, Tasmania, the Northern Territory and northern Western Australia. Equal chances of below or above median rainfall is likely elsewhere.

The Bureau of Meteorology's climate model suggests that for March 2024, there is a 75% chance of rainfall totals being over 25 millimetres across coastal east and northern Australia, as well as in western Tasmania and southern Victoria. Rainfall totals in excess of 100 millimetres are expected northern Queensland and Northern Territory.

Across cropping regions, there is at least a 75% chance of rainfall totals up to 25 millimetres in parts of New South Wales, Queensland, and southern Western Australia. March rainfall totals are expected to be below 10 millimetres for the remaining cropping regions.

If realised these forecast rainfall totals for March will provide some useful follow-up falls for dryland summer crop production as well as pasture growth across eastern and northern Australia. Dry conditions elsewhere will see a decline in soil moisture levels, particularly in Western Australia which has remained dry for several months, generating some concerns ahead of the upcoming winter cropping season. In contrast, relatively dry conditions across much of northern New Soth Wales and southern Queensland are likely to provide unimpeded access for the harvesting of early planted summer crops.

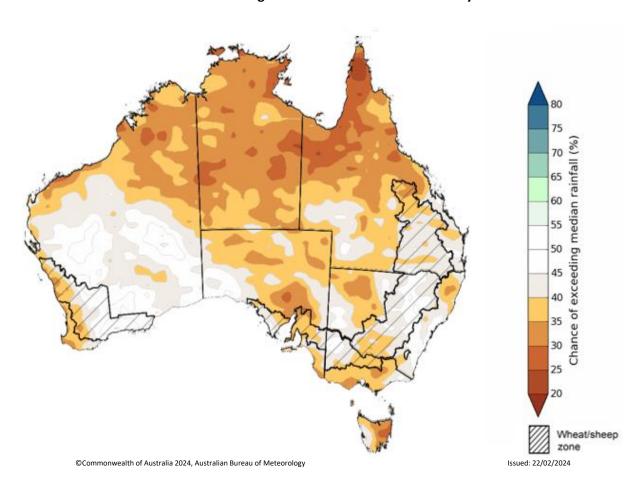
Rainfall totals that have a 75% chance of occurring in March 2024



The 2023 El Niño continues to weaken, and the Indian Ocean Dipole has returned to a neutral state. The rainfall outlook for March to May 2024 suggests that there is least a 50% chance of exceeding median rainfall across southern parts of Western Australia and in scattered areas in the southern and eastern Australia. Below median rainfall is likely across most of northern Australia, South Australia, Victoria and Tasmania.

Across cropping regions, 50% chance of exceeding median rainfall is likely in many growing regions.

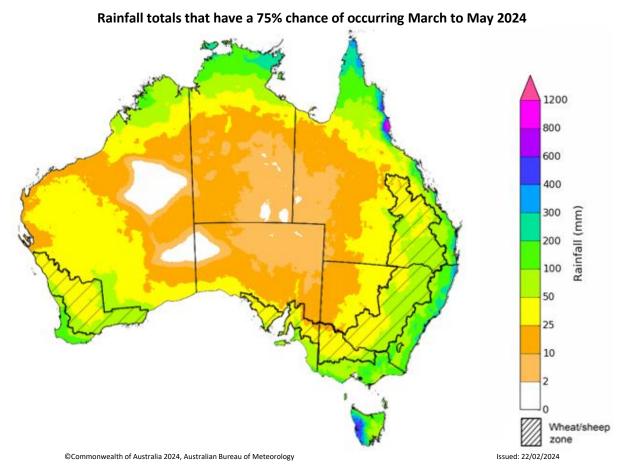
Chance of exceeding the median rainfall March to May 2024



The outlook for March to May 2024 suggests there is at least a 75% chance of rainfall totals above 25 millimetres across much of Australia. The main exceptions being large areas of the interior and western coast where below 25 millimetres of rainfall are expected. Rainfall totals in excess of 200 millimetres are likely across tropical northern Australia, along Australia's eastern coastline and western Tasmania during this period.

Across cropping regions, there is a 75% chance of receiving between 25 and 100 millimetres.

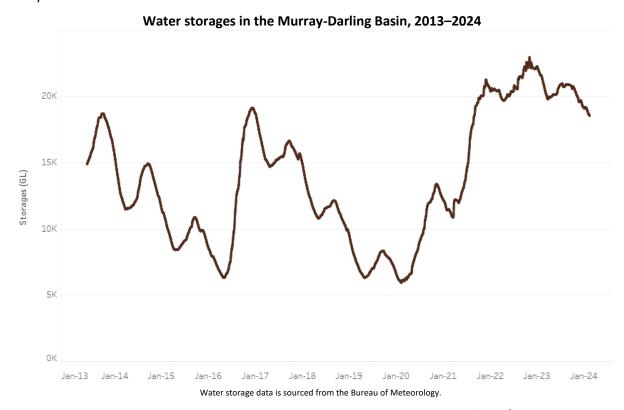
If realised, these falls will likely be sufficient to support autumn pasture growth across eastern and northern Australia and growth late planted summer crops. These falls are also likely to be sufficient to support the early planting of winter crops across those areas of eastern Australia that have benefited from above average summer rainfall and an associated boost to soil moisture profiles.



2. Water

2.1. Water markets – current week

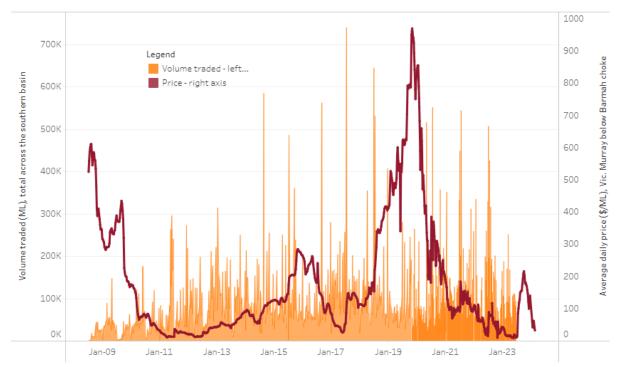
Water storage levels in the Murray-Darling Basin (MDB) decreased between 15 February 2024 and 22 February 2024 by 298 gigalitres (GL). Current volume of water held in storage is 18 736 GL, equivalent to 84% of total storage capacity. This is 10 percent or 2121 GL less than at the same time last year.



Allocation prices in the Victorian Murray below the Barmah Choke decreased from \$32 on 15 February 2024 to \$22 on 22 February 2024. Prices are lower in the Murrumbidgee and regions above the Barmah choke due to the binding of the Murrumbidgee export limit and the Goulburn intervalley trade limit.

Region	\$/ML
NSW Murray Above	18
NSW Murrumbidgee	14
VIC Goulburn-Broken	25
VIC Murray Below	22

Surface water trade activity, Southern Murray-Darling Basin



The trades shown reflect estimated market activity and do not encompass all register trades. The price is shown for the VIC Murray below the Barmah choke. Historical prices (before 1 July 2019) are ABARES estimates after removing outliers from BOM water register data. Prices after 1 July 2019 and prior to the 30 October 2019 reflect recorded transaction prices as sourced from Ruralco. Prices after the 30 October 2019 are sourced from Waterflow. Data for volume traded is sourced from the BOM water register. Only the price data shown is current on 22 February 2024.

To access the full, interactive, weekly water dashboard, which contains the latest and historical water storage, water market and water allocation information, please visit https://www.agriculture.gov.au/abares/products/weekly-update/weekly-update-22224

3. Commodities

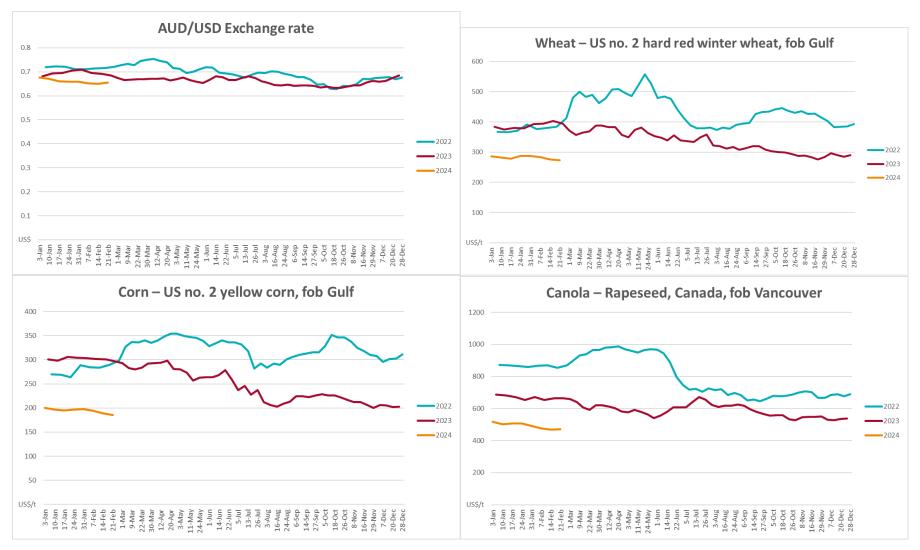
Indicator	Week ended	Unit	Latest Price	Previous Week	Weekly change	Price 12 months ago	Annual change
Selected world indicator prices							
AUD/USD Exchange rate	21-Feb	A\$/US\$	0.65	0.65	1%	0.67	-3%
Wheat – US no. 2 hard red winter wheat, fob Gulf	21-Feb	US\$/t	274	276	-1%	371	-26%
Corn – US no. 2 yellow corn, fob Gulf	21-Feb	US\$/t	185	189	-2%	294	-37%
Canola – Rapeseed, Canada, fob Vancouver	21-Feb	US\$/t	471	469	1%	659	-29%
Cotton – Cotlook 'A' Index	21-Feb	USc/lb	102	101	1%	99	2%
Sugar – Intercontinental Exchange, nearby futures, no.11 contract	21-Feb	USc/lb	22.9	22.6	2%	20	14%
Wool – Eastern Market Indicator	14-Feb	Ac/kg clean	1,157	1,163	-1%	1,278	-9%
Wool – Western Market Indicator	14-Feb	Ac/kg clean	1,293	1,291	0%	1,408	-8%
Selected Australian grain export prices							
Milling Wheat – APW, Port Adelaide, SA	21-Feb	A\$/t	428	440	-3%	496	-14%
Feed Wheat – ASW, Port Adelaide, SA	21-Feb	A\$/t	406	418	-3%	464	-13%
Feed Barley – Port Adelaide, SA	21-Feb	A\$/t	357	364	-2%	406	-12%
Canola – Kwinana, WA	21-Feb	A\$/t	724	729	-1%	1,021	-29%
Grain Sorghum – Brisbane, QLD	21-Feb	A\$/t	462	462	0%	511	-10%
Selected domestic livestock indicator prices							
Beef – Eastern Young Cattle Indicator	21-Feb	Ac/kg cwt	628	648	-3%	733	-14%
Mutton – Mutton indicator (18–24 kg fat score 2–3), Vic	21-Feb	Ac/kg cwt	214	257	-17%	338	-37%
Lamb – National Trade Lamb Indicator	21-Feb	Ac/kg cwt	630	658	-4%	771	-18%
Pig – Eastern Seaboard (60.1–75 kg), average of buyers & sellers	07-Feb	Ac/kg cwt	411	411	0%	367	12%
Goats – Eastern States (10.1–12 kg)	27-Dec	Ac/kg cwt	170	170	0%	350	-51%
Live cattle – Light steers to Indonesia	21-Feb	Ac/kg lwt	330	320	3%	440	-25%
Global Dairy Trade (GDT) weighted average prices ^a							

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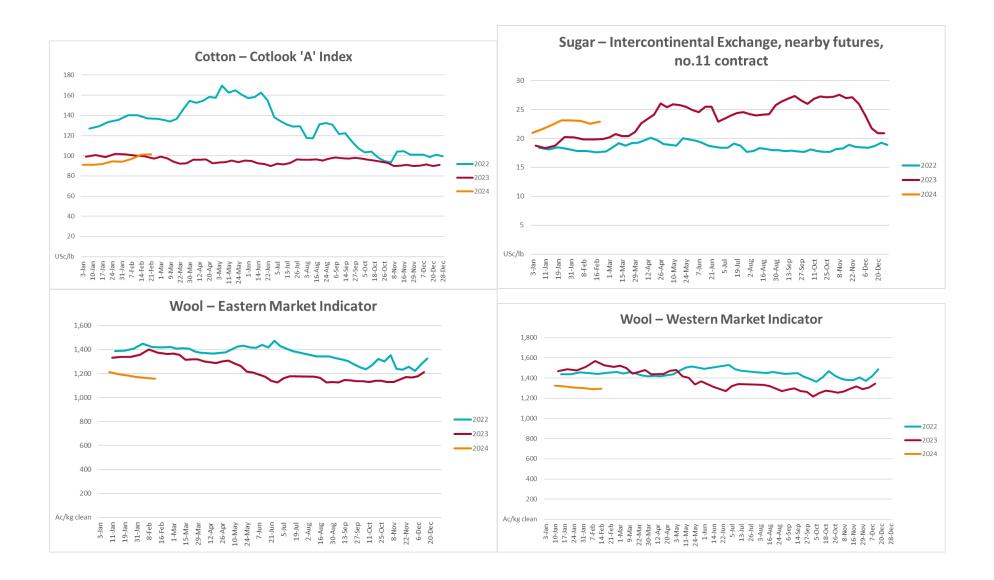
Dairy – Whole milk powder	21-Feb	US\$/t	3,388	3,463	-2%	3,329	2%
Dairy – Skim milk powder	21-Feb	US\$/t	2,788	2,758	1%	2,829	-1%
Dairy – Cheddar cheese	21-Feb	US\$/t	4,143	4,469	-7%	4,980	-17%
Dairy – Anhydrous milk fat	21-Feb	US\$/t	6,552	6,033	9%	5,586	17%

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

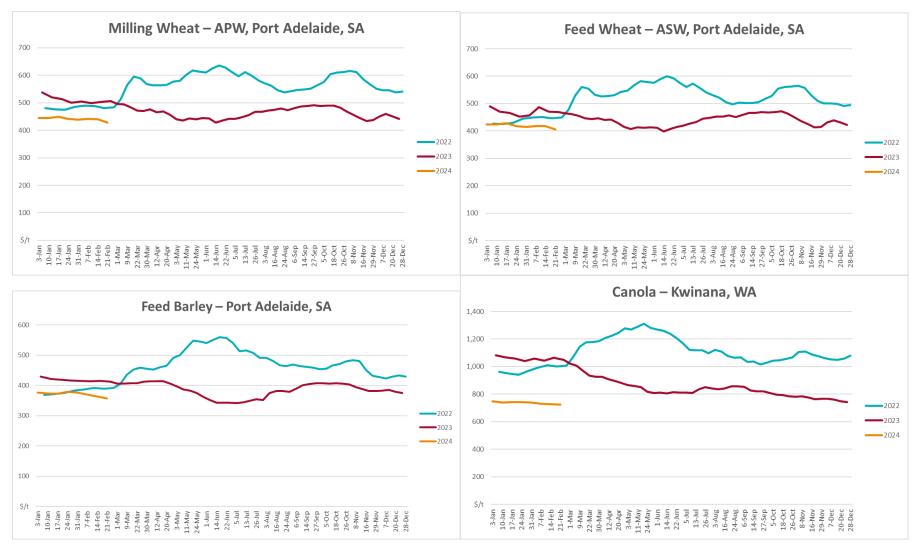
3.1. Selected world indicator prices



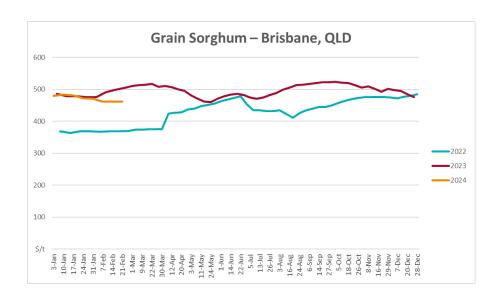
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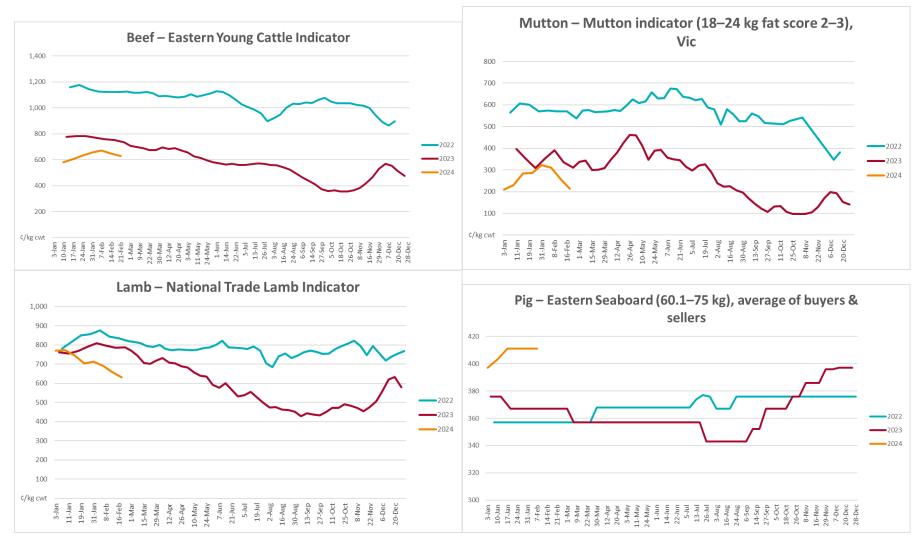
3.2. Selected domestic crop indicator prices



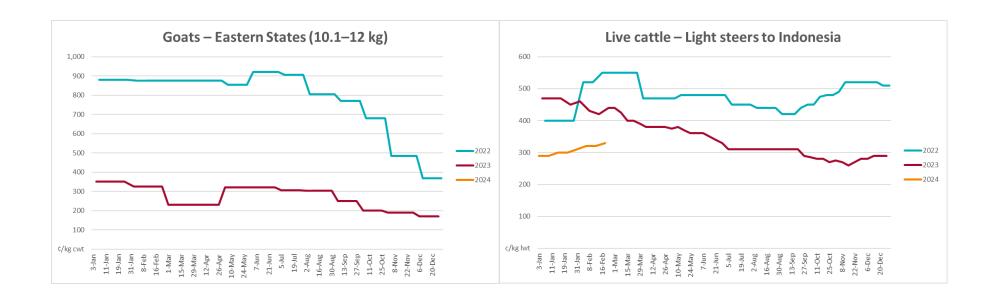
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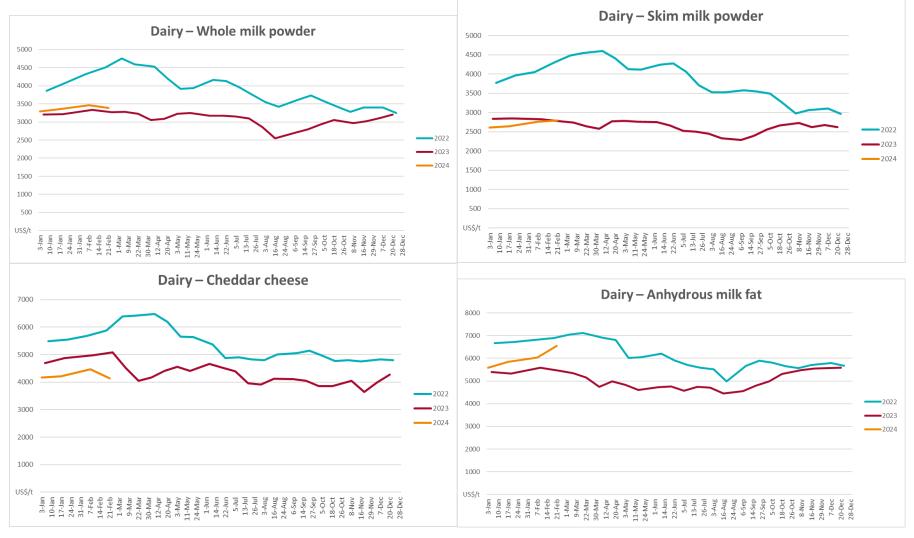
3.3. Selected domestic livestock indicator prices



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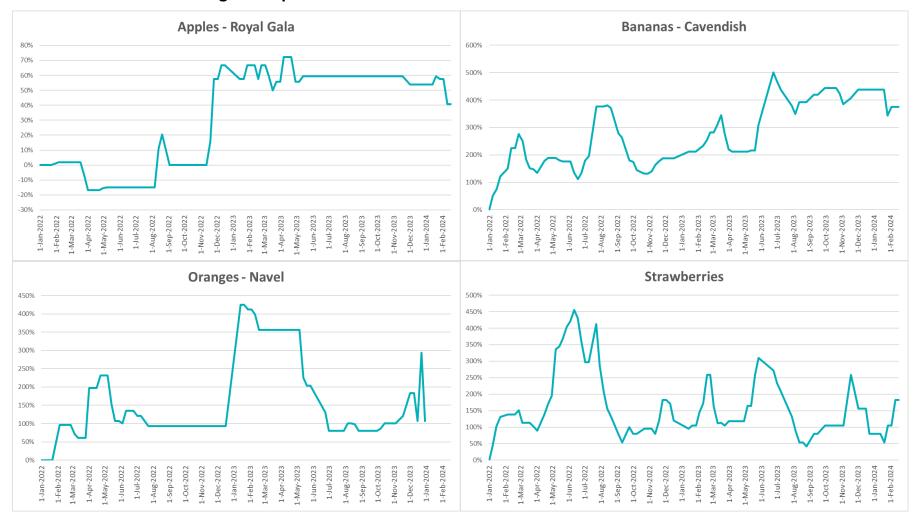


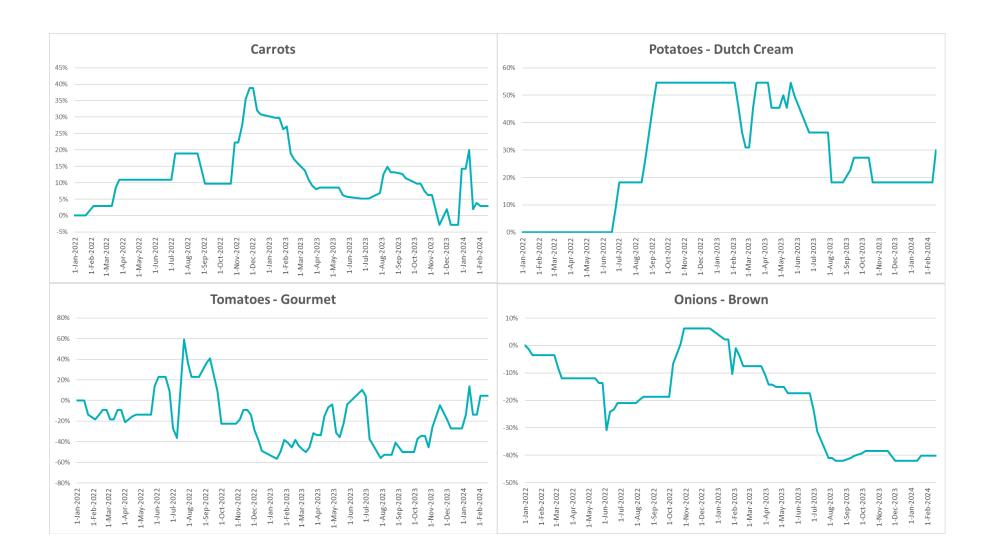
3.4. Global Dairy Trade (GDT) weighted average prices



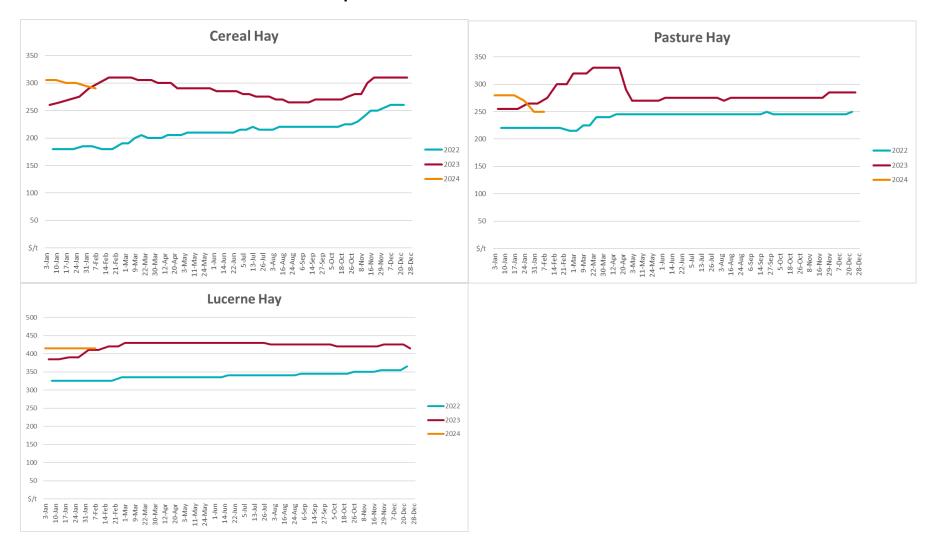
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3.5. Selected fruit and vegetable prices





3.6 Selected domestic fodder indicator prices



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4. Data attribution

Climate

Bureau of Meteorology

- Weekly rainfall totals: <u>www.bom.gov.au/climate/maps/rainfall/</u>
- Monthly and last 3-month rainfall percentiles: www.bom.gov.au/water/landscape/
- 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/
- Climate drivers: http://www.bom.gov.au/climate/enso/
- Soil moisture: <u>www.bom.gov.au/water/landscape/</u>

Other

- Pasture growth: <u>www.longpaddock.qld.gov.au/aussiegrass/</u>
- 3-month global outlooks: <u>Environment and Climate Change Canada</u>, <u>NOAA Climate Prediction Center</u>, <u>EUROBRISA</u>
 <u>CPTEC/INPE</u>, <u>European Centre for Medium-Range Weather Forecasts</u>, <u>Hydrometcenter of Russia</u>, <u>National Climate Center Climate System Diagnosis and Prediction Room (NCC)</u>, <u>International Research Institute for Climate and Society</u>
- Global production: https://ipad.fas.usda.gov/ogamaps/cropmapsandcalendars.aspx
- Autumn break: Pook et al., 2009, https://rmets-onlinelibrary-wiley-com.virtual.anu.edu.au/doi/epdf/10.1002/joc.1833

Water

Prices

• Waterflow: https://www.waterflow.io/

Ruralco: https://www.ruralcowater.com.au/

Bureau of Meteorology:

- Allocation trade: http://www.bom.gov.au/water/dashboards/#/water-markets/mdb/at
- Storage volumes: http://www.bom.gov.au/water/dashboards/#/water-storages/summary/drainage

Trade constraints:

- Water NSW: https://www.waternsw.com.au/customer-service/ordering-trading-and-pricing/trading/murrumbidgee
- Victorian Water Register: https://www.waterregister.vic.gov.au/TradingRules2019/

Commodities

Fruit and vegetables

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

Pigs

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

Dairy

Global Dairy Trade: www.globaldairytrade.info/en/product-results/

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/

Domestic wheat, barley, sorghum, canola and fodder

• Jumbuk Consulting Pty Ltd: http://www.jumbukag.com.au/

Cattle, beef, mutton, lamb, goat and live export

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

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ABARES 2023, Weekly Australian Climate, Water and Agricultural Update, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra, 22 February 2024. CC BY 4.0 DOI: https://doi.org/10.25814/5f3e04e7d2503

ISSN 2652-7561

This publication is available at https://www.agriculture.gov.au/abares/products/weekly_update

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Acknowledgements

This report was prepared by Kavina Dayal and Matthew Miller.

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