



Weekly Australian Climate, Water and Agricultural Update

No. 28/2023

20 July 2023

Summary of key issues

- For the week ending 19 July 2023, a high-pressure system kept much of Australia dry. Fronts passing over southern Australia brought some rainfall to parts of south-western Western Australia and western Tasmania. Meanwhile onshore flow brought isolated falls to Australia's east coast.
- Across cropping regions, rainfall totals of up to 25 millimetres were recorded in far west Western Australia. The rainfall recorded across Western Australia this week has likely only been enough to sustain crop and pasture growth but insufficient to build up soil moisture reserves. Little to no rainfall was recorded across remaining cropping regions. These regions will require sufficient and timely rain in the coming weeks and months to support winter crop production, following the gradual decline in soil moisture reserves. For remaining cropping regions, the clear dry conditions would have allowed for unimpeded field access to undertake pest and weed management and fertilizer top dressing of crops and pasture (see Section 1.1).
- Highly variable rainfall globally during June has led to mixed prospects for grain and oilseed production. Average to above average rainfall has resulted in improved wheat production potential in Canada, the EU, Ukraine, Kazakhstan and Türkiye. Below average rainfall and above average temperatures in recent months have negatively affected corn and soybean production across parts of Argentina, China, the US, India and Mexico. Global production conditions have improved compared to those used to formulate ABARES forecasts of global grain supplies and world prices in its June 2023 edition of the *Agricultural Commodities Report*. As a result, global grain and oilseed production is currently expected to be higher than that published in early June (see Section 1.2).
- Over the 8 days to 27 July 2023, a cold front and trough are expected to bring showers to southern parts of the country early in the week. Meanwhile, a coastal trough is expected to bring some heavy falls and storms to eastern New South Wales and Queensland. A high-pressure system is expected to bring mainly dry conditions to the remainder of the country (see Section 1.3).
- Across cropping regions, rainfall totals up to 10 millimetres are expected. Western margins of the Western Australia wheatbelt are expected to receive up to 25 millimetres. If these falls eventuate as forecast, they are likely to be sufficient to support crop and pasture growth and development (see Section 1.4).
- Water storage levels in the Murray-Darling Basin (MDB) decreased between 13 July 2023 and 20 July 2023 by 80 gigalitres (GL). Current volume of water held in storage is 20 888 GL. This is 1 percent or 264 GL more than at the same time last year.
- Allocation prices in the Victorian Murray below the Barmah Choke increased from \$85 on 13 July 2023 to \$100 on 20 July 2023.

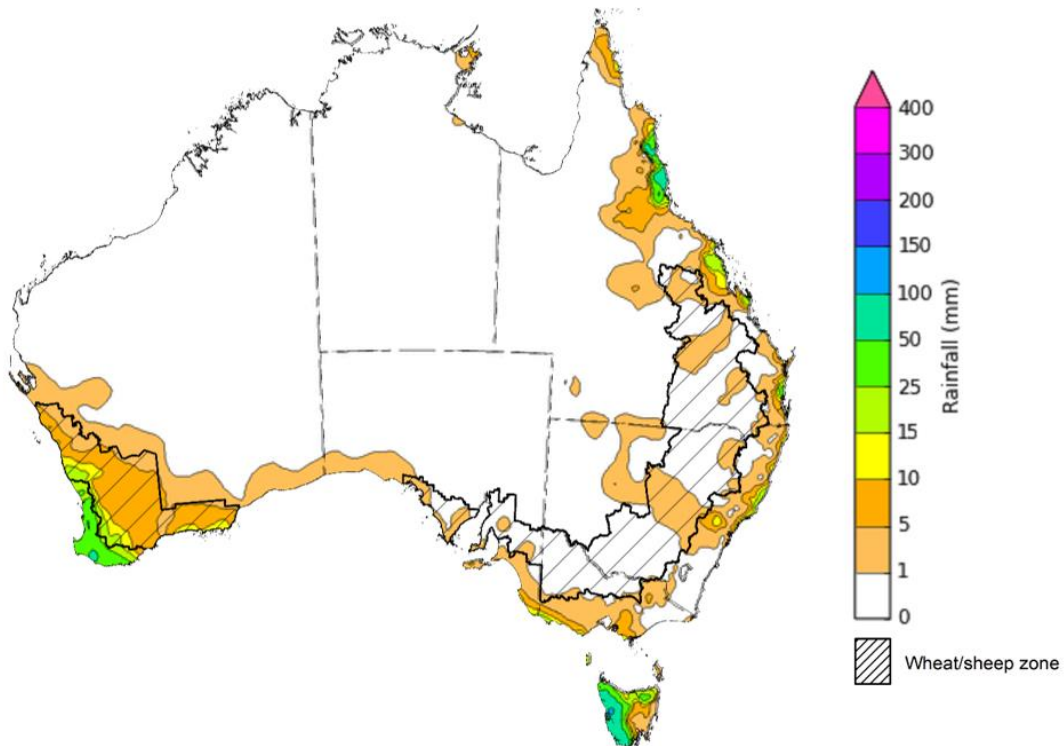
1. Climate

1.1. Rainfall this week

For the week ending 19 July 2023, a high-pressure system kept much of Australia dry. Fronts passing over southern Australia brought some rainfall to parts of south-western Western Australia and western Tasmania. Meanwhile onshore flow brought isolated falls to Australia's east coast.

Across cropping regions, rainfall totals of up to 25 millimetres were recorded in far west Western Australia. The rainfall recorded across Western Australia this week has likely only been enough to sustain crop and pasture growth but insufficient to build up soil moisture reserves. Little to no rainfall was recorded across remaining cropping regions. These regions will require sufficient and timely rain in the coming weeks and months to support current levels of winter crop production, following a gradual decline in soil moisture reserves. For remaining cropping regions, the clear dry conditions would have allowed for unimpeded field access to undertake pest and weed management and fertilizer top dressing of crops and pasture.

Rainfall for the week ending 19 July 2023



©Commonwealth of Australia 2023, Australian Bureau of Meteorology
Issued: 19/7/2023
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. Global production conditions and climate outlook

Crop production is affected by long-term trends in average rainfall and temperature, interannual climate variability, shocks during specific growth stages, and extreme weather events. Some crops are more tolerant than others to certain types of stresses, and at each growth stage, different types of stresses affect each crop species in different ways.

The precipitation anomalies and outlooks presented here give an indication of the current and future state of production conditions for the major grain and oilseed producing countries which are responsible for over 80% of global production. This is an important input to assessing the global grain supply outlook.

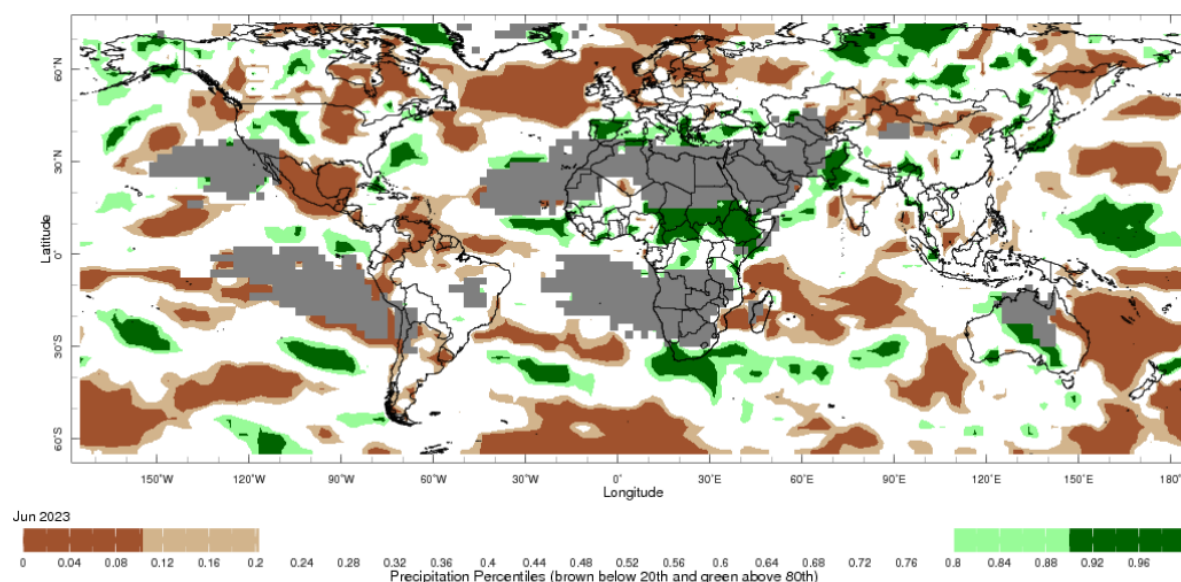
June precipitation percentiles and current production conditions

As of the end of June 2023, rainfall was highly variable for the world's major grain-producing and oilseed-producing regions.

In the northern hemisphere, precipitation was generally average across Canada, except for some southern production regions where it was below average. In the United States, precipitation was highly variable, ranging from above average in the northwest to well below average in the Northern Plains and the Corn Belt. Precipitation was also below average across northern areas of Europe, China and the Russian Federation, much of Mexico, and parts of Kazakhstan and central India. June precipitation was generally average to above average across the remainder of the major grain-producing and oilseed-producing regions in the northern hemisphere.

In the southern hemisphere, June precipitation was generally average in South America, with northern parts of Argentina being the main exception, where it was below average. In Australia, June precipitation was average to above average across cropping regions, except for in the parts of Queensland and New South Wales where it was below average. Precipitation was generally average across the remainder of major grain-producing and oilseed-producing regions in the southern hemisphere.

Global precipitation percentiles, June 2023



Note: The world precipitation percentiles indicate a ranking of precipitation for June, with the driest (0th percentile) being 0 on the scale and the wettest (100th percentile) being 1 on the scale. Percentiles are based on precipitation estimates from the NOAA Climate Prediction Center's [Climate Anomaly Monitoring System Outgoing Precipitation Index](#) dataset. Precipitation estimates for June 2023 are compared with rainfall recorded for that period during the 1981 to 2010 base period.

Source: International Research Institute for Climate and Society

As of 28 June 2023, global productions were mixed for wheat, maize, and soybeans, and generally favourable for rice.

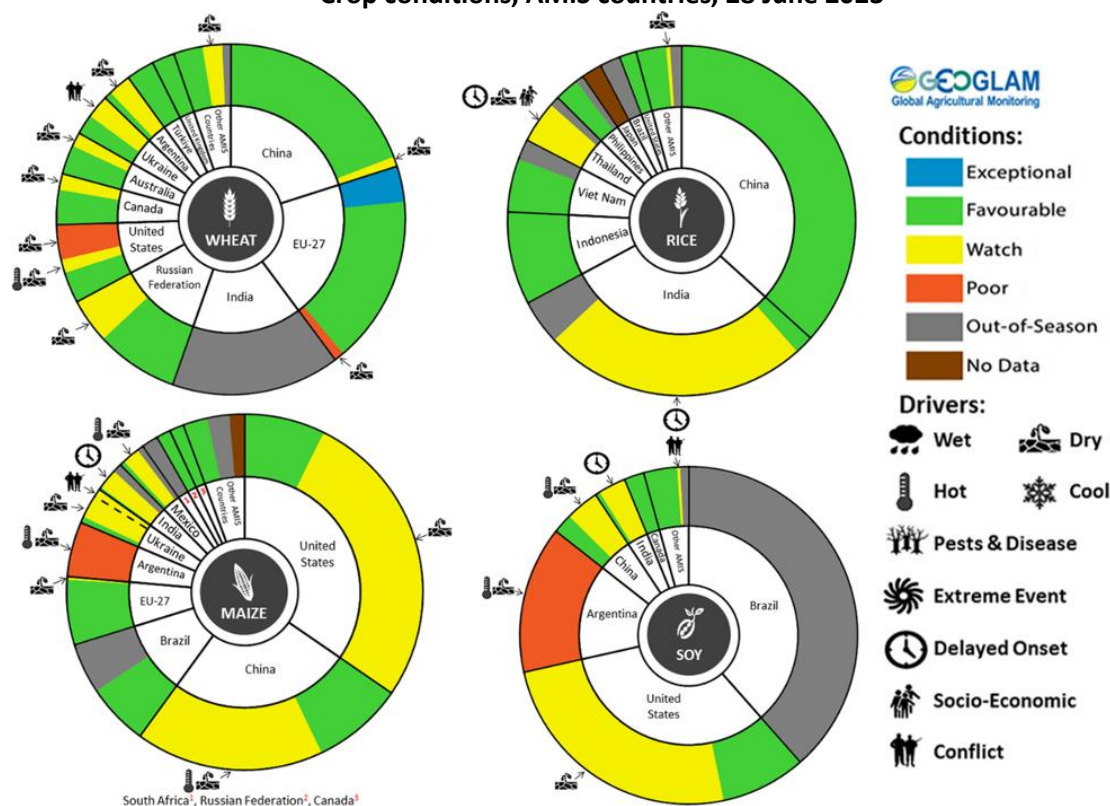
In the northern hemisphere, harvesting of winter wheat and the development of spring wheat is continuing under mixed conditions in Canada, the US, the Russian Federation and in Ukraine away from the war zone. In China, the EU, the UK and Türkiye conditions are generally favourable. In the southern hemisphere, conditions are mixed for wheat production in Argentina and Australia.

For maize, production conditions were mixed in the US, Mexico, northern China and central Ukraine due to dryness. In the EU, conditions are generally favourable following a return of rain to southern growing regions. In Brazil, the harvest for the summer-planted crop is beginning under favourable condition. In Argentina, harvest is wrapping up for the spring-planted crop and beginning for the summer-planted crop under poor conditions due to dryness throughout the season.

Conditions are mixed for rice production in India and Thailand due to late arrival of monsoonal rain. In China, harvesting of early- and sowing of late-season crop is underway under favourable conditions. Similarly, the sowing of dry- and harvesting of wet-season rice is wrapping up in Indonesia under favourable conditions. In Vietnam, harvesting of dry-season rice is ongoing and sowing of wet-season rice is beginning under favourable conditions. In the US, conditions are favourable with an increase in sown area compared to last year.

For soybeans, harvesting for both early- and late planted crops are wrapping up in Argentina with poor yields due to dry conditions throughout the growing season. Sowing is wrapping up in Canada and Ukraine under favourable conditions. In the US, an extremely dry spring and June has reduced yield prospects across much of main growing areas. In China, conditions are mixed due to high temperatures and dry conditions in the main producing areas. In India, the late arrival of monsoon has resulted in a mixed and slower than normal start to the sowing season.

Crop conditions, AMIS countries, 28 June 2023



AMIS Agricultural Market Information System. Source: AMIS

The global climate outlook for August 2023 to October 2023 indicates that variable rainfall conditions are expected for the world's major grain-producing and oilseed-producing regions. Outlooks and potential production impacts for the major grain and oilseed producing countries are presented in the table.

Rainfall outlook and potential impact on the future state of production conditions between August 2023 to October 2023

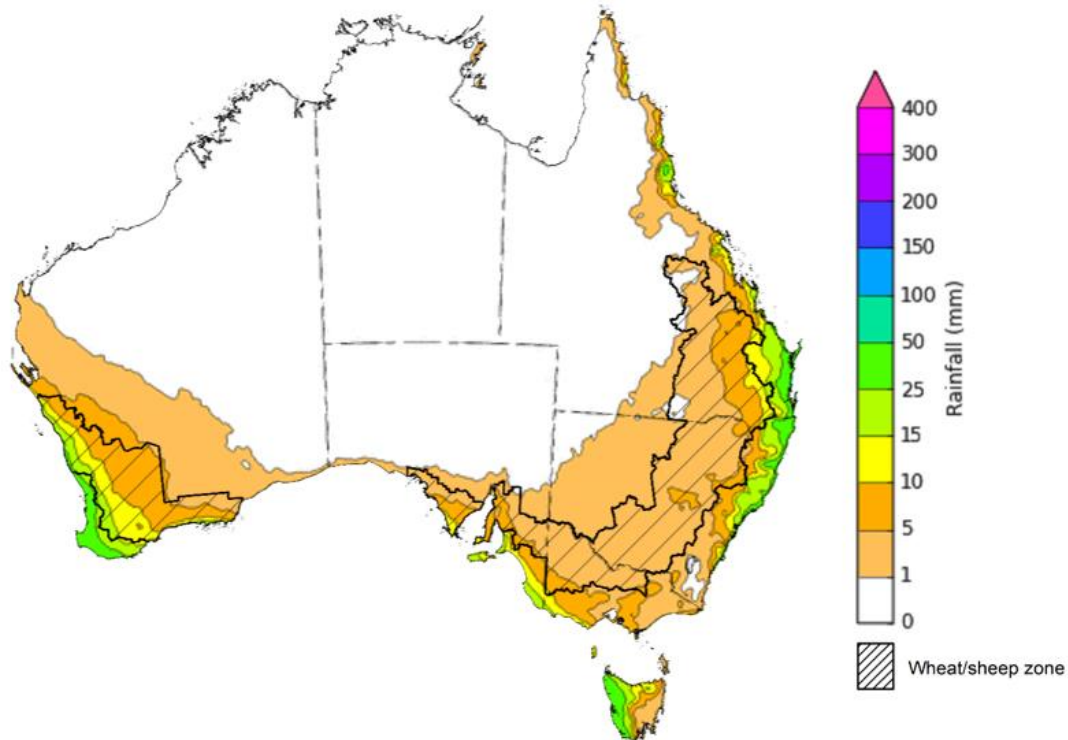
Region	August - October rainfall outlook	Potential impact on production
Argentina	Below average rainfall in the north and average rainfall in the south is likely.	Below average rainfall is likely to adversely affect the heading and grain fill of wheat and planting of corn, cotton and soybeans through September and October.
Black Sea Region	Average rainfall is more likely in Ukraine, Kazakhstan and the Russian Federation.	Average rainfall between August and October is likely to support grain fill for spring wheat and harvesting in the north of the Black Sea Region. In the south of the Black Sea Region, average rainfall is likely to support cotton, corn and sunflower development and winter wheat and rapeseed harvesting and planting.
Brazil	Below average rainfall is likely across much of Brazil except for the far south where average rainfall is likely.	Average rainfall in southern Brazil is likely to benefit wheat heading, and grain fill in August and September leading up to harvest in October. However below average rainfall elsewhere is likely to adversely affect corn and soybean planting and development in September and October.
Canada	Average rainfall is more likely for much of Canada, especially across major production regions.	Average rainfall is likely to benefit corn, soybeans and sunflower flowering in August and support grain development through September and October.
China	Average to above average rainfall is more likely across China.	Average to above average rainfall is likely to support the development and harvest of cotton, rice, corn, sorghum, soybean, sunflower, groundnuts, and spring wheat. Additionally, average to above average rainfall is likely to support late rice heading in September and planting of winter wheat and rapeseed in October.
Europe	Average to below average rainfall is more likely.	Below average rainfall may adversely impact the yield prospects of corn, cotton and sorghum in northern Europe. Below average rainfall may also impact winter wheat and rapeseed planting in parts of northern Europe during October.
South Asia (India)	Average rainfall is more likely across India.	Average rainfall is likely to benefit corn, sorghum, rice, millet, groundnuts, and sunflower flowering and filling in August and September leading up to harvest in October, and cotton blooming in the south in September.
Southeast Asia (SEA)	Generally average to above average rainfall is more likely.	Average to above average rainfall between August and October is likely to support corn and rice filling and maturing in SEA leading up to harvest in October.
The United States of America	Generally average to above average rainfall is more likely for the US.	Across the east of the US average to above average rainfall is likely to benefit soybeans, sunflower and millet flowering in August and the development of these crops as well as rice, corn, sorghum and groundnuts leading up to harvest in October. Average rainfall likely to benefit the yield prospects of corn, spring wheat and soybeans in central and southern US.

1.4. Rainfall forecast for the next eight days

Over the 8-days to 27 July 2023, a cold front and trough are expected to bring showers to southern parts of the country early in the week. Meanwhile, a coastal trough is expected to bring some heavy falls and storms to eastern New South Wales and Queensland. A high-pressure system is expected to bring mainly dry conditions to the remainder of the country.

Across cropping regions, rainfall totals up to 10 millimetres are expected. Western margins of the Western Australia wheatbelt are expected to receive up to 25 millimetres. If these falls eventuate as forecast, they are likely to be sufficient to support crop and pasture growth and development.

Total forecast rainfall for the period 20 July 2023 to 27 July 2023



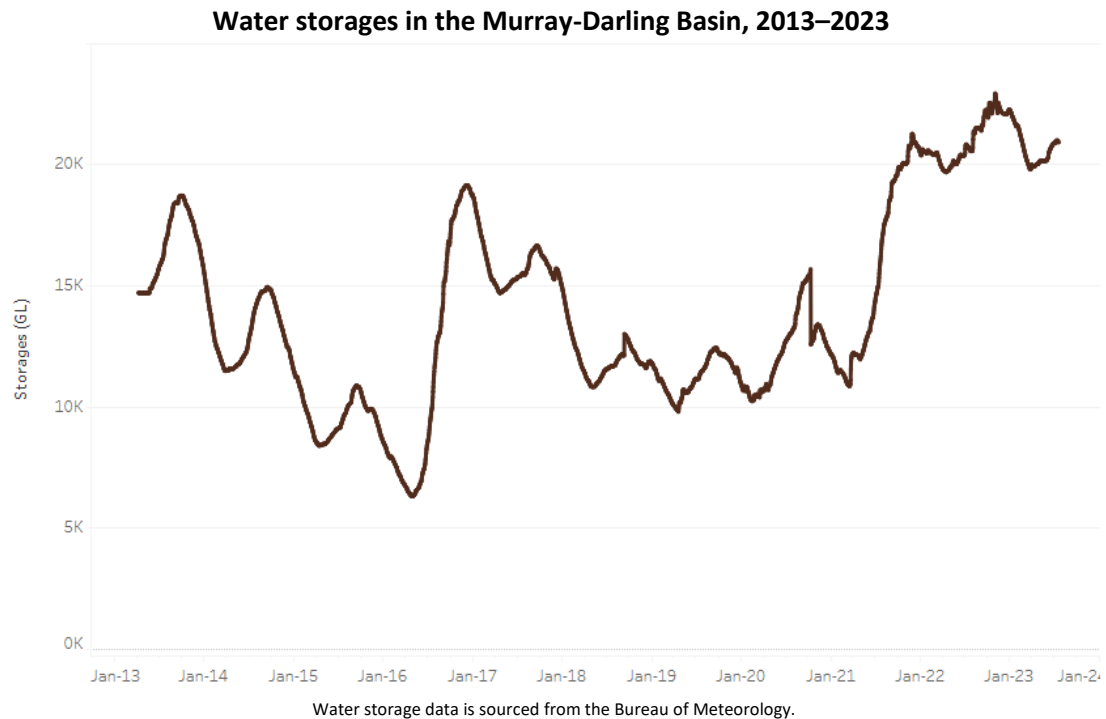
©Commonwealth of Australia 2023, Australian Bureau of Meteorology
Note: This rainfall forecast is produced from computer models. As the model outputs are not altered by weather forecasters, it is important to check local forecasts and warnings issued by the Bureau of Meteorology.

Issued 20/7/2023

2. Water

2.1. Water markets – current week

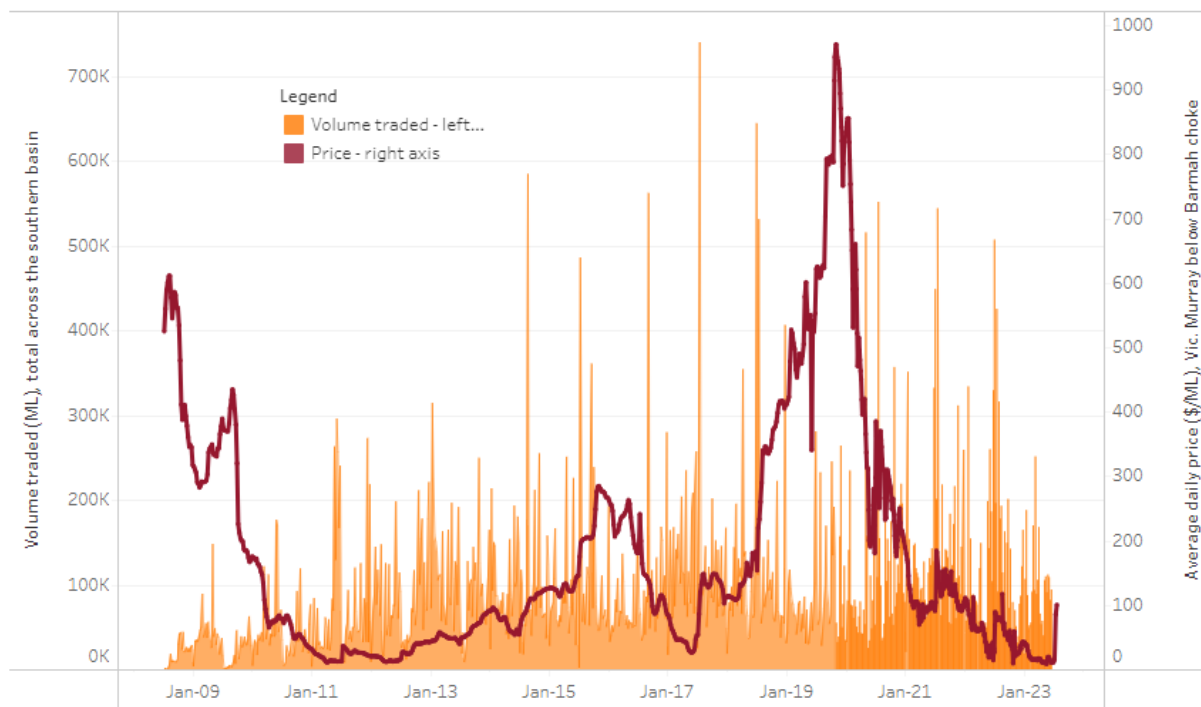
Water storage levels in the Murray-Darling Basin (MDB) decreased between 13 July 2023 and 20 July 2023 by 80 gigalitres (GL). Current volume of water held in storage is 20 888 GL. This is 1 percent or 264 GL more than at the same time last year.



Allocation prices in the Victorian Murray below the Barmah Choke increased from \$85 on 13 July 2023 to \$100 on 20 July 2023.

Region	\$/ML
NSW Murray Above	21
NSW Murrumbidgee	103
VIC Goulburn-Broken	69
VIC Murray Below	100

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 20 July 2023.

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/weeakly-update-20723

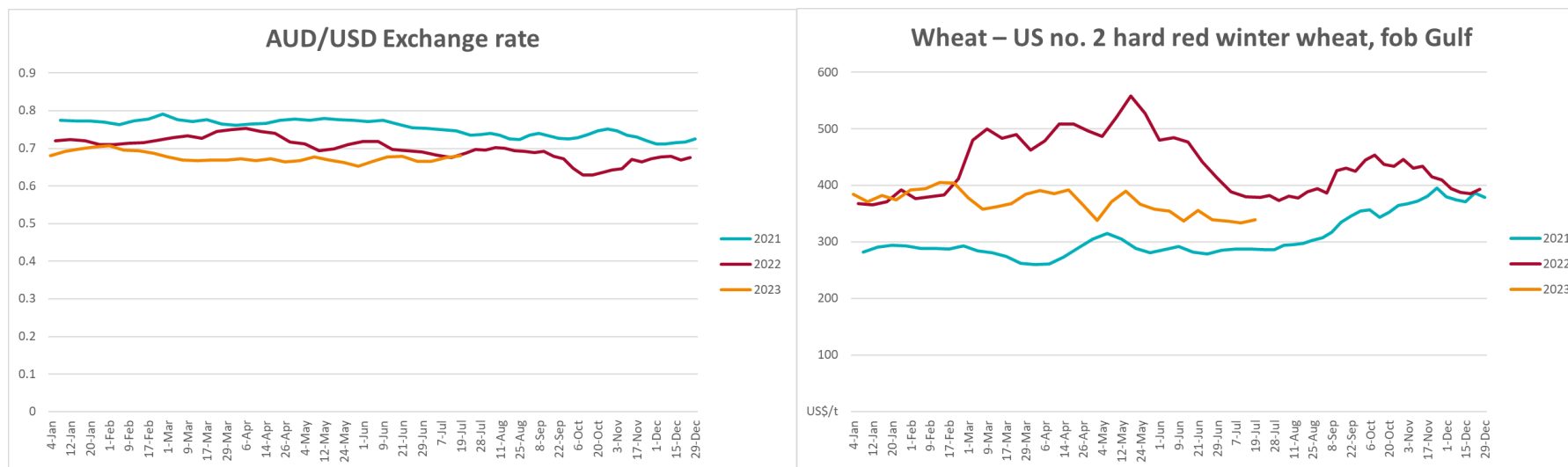
3. Commodities

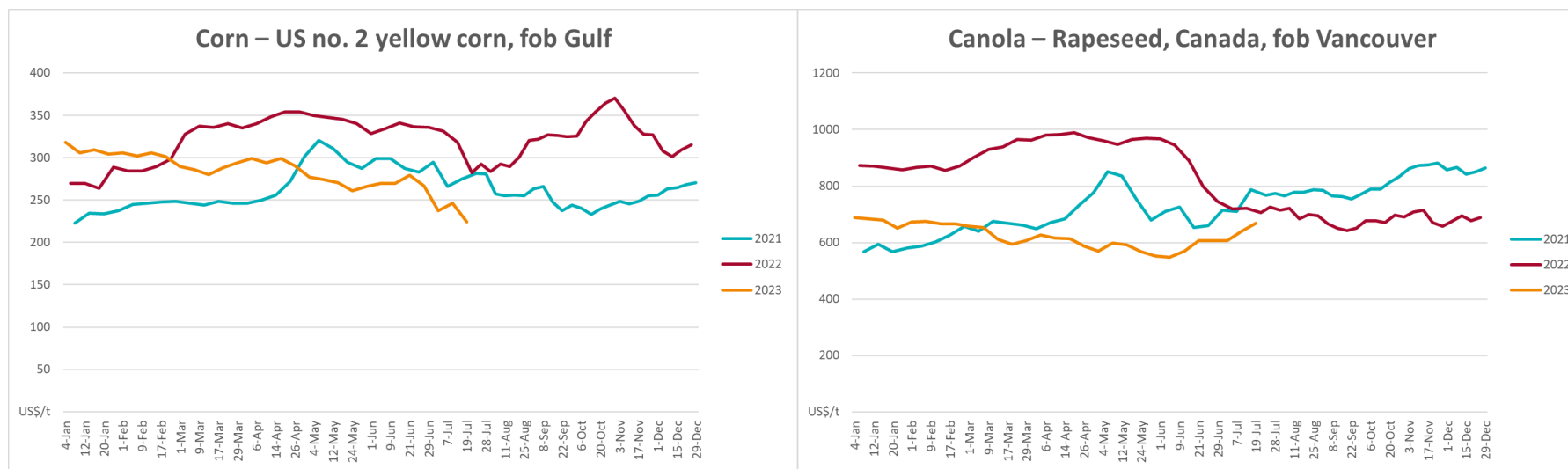
Indicator	Week ended	Unit	Latest Price	Previous Week	Weekly change	Price 12 months ago	Annual change
Selected world indicator prices							
AUD/USD Exchange rate	19-Jul	A\$/US\$	0.68	0.67	1%	0.70	-2%
Wheat – US no. 2 hard red winter wheat, fob Gulf	19-Jul	US\$/t	339	334	1%	382	-11%
Corn – US no. 2 yellow corn, fob Gulf	19-Jul	US\$/t	224	246	-9%	292	-23%
Canola – Rapeseed, Canada, fob Vancouver	19-Jul	US\$/t	668	640	4%	726	-8%
Cotton – Cotlook 'A' Index	19-Jul	USc/lb	92	91	1%	129	-29%
Sugar – Intercontinental Exchange, nearby futures, no.11 contract	19-Jul	USc/lb	24.0	24.0	0%	18	36%
Wool – Eastern Market Indicator	05-Jul	Ac/kg clean	1,179	1,162	1%	1,414	-17%
Wool – Western Market Indicator	05-Jul	Ac/kg clean	1,339	1,320	1%	1,421	-6%
Selected Australian grain export prices							
Milling Wheat – APW, Port Adelaide, SA	19-Jul	A\$/t	450	448	0%	581	-23%
Feed Wheat – ASW, Port Adelaide, SA	19-Jul	A\$/t	427	427	0%	541	-21%
Feed Barley – Port Adelaide, SA	19-Jul	A\$/t	348	345	1%	491	-29%
Canola – Kwinana, WA	19-Jul	A\$/t	829	807	3%	1,096	-24%
Grain Sorghum – Brisbane, QLD	19-Jul	A\$/t	473	471	1%	432	10%
Selected domestic livestock indicator prices							
Beef – Eastern Young Cattle Indicator	19-Jul	Ac/kg cwt	571	567	1%	983	-42%
Mutton – Mutton indicator (18–24 kg fat score 2–3), Vic	19-Jul	Ac/kg cwt	327	320	2%	622	-47%
Lamb – Eastern States Trade Lamb Indicator	05-Jul	Ac/kg cwt	554	523	6%	776	-29%
Pig – Eastern Seaboard (60.1–75 kg), average of buyers & sellers	05-Jul	Ac/kg cwt	357	357	0%	374	-5%
Goats – Eastern States (12.1–16 kg)	07-Jun	Ac/kg cwt	324	330	-2%	838	-61%

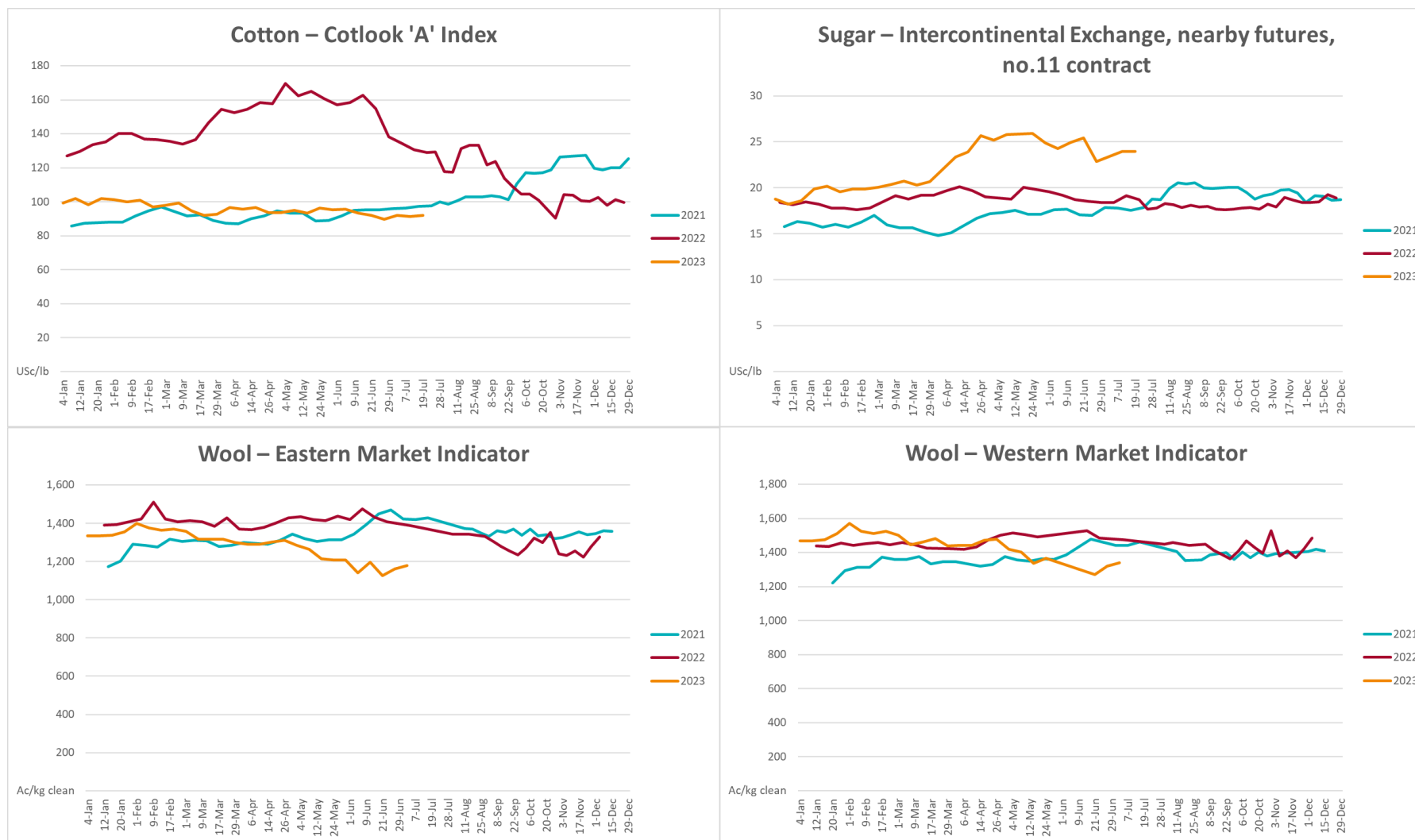
Live cattle – Light steers ex Darwin to Indonesia	17-Aug	Ac/kg lwt	420	480	-13%	320	31%
Live sheep – Live wethers (Muehea WA saleyard) to Middle East	14-Sep	\$/head	93	113	-18%	114	-18%
Global Dairy Trade (GDT) weighted average prices ^a							
Dairy – Whole milk powder	19-Jul	US\$/t	3,100	3,149	-2%	3,961	-22%
Dairy – Skim milk powder	19-Jul	US\$/t	2,503	2,525	-1%	4,063	-38%
Dairy – Cheddar cheese	19-Jul	US\$/t	3,955	4,386	-10%	4,908	-19%
Dairy – Anhydrous milk fat	19-Jul	US\$/t	4,745	4,579	4%	5,706	-17%

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

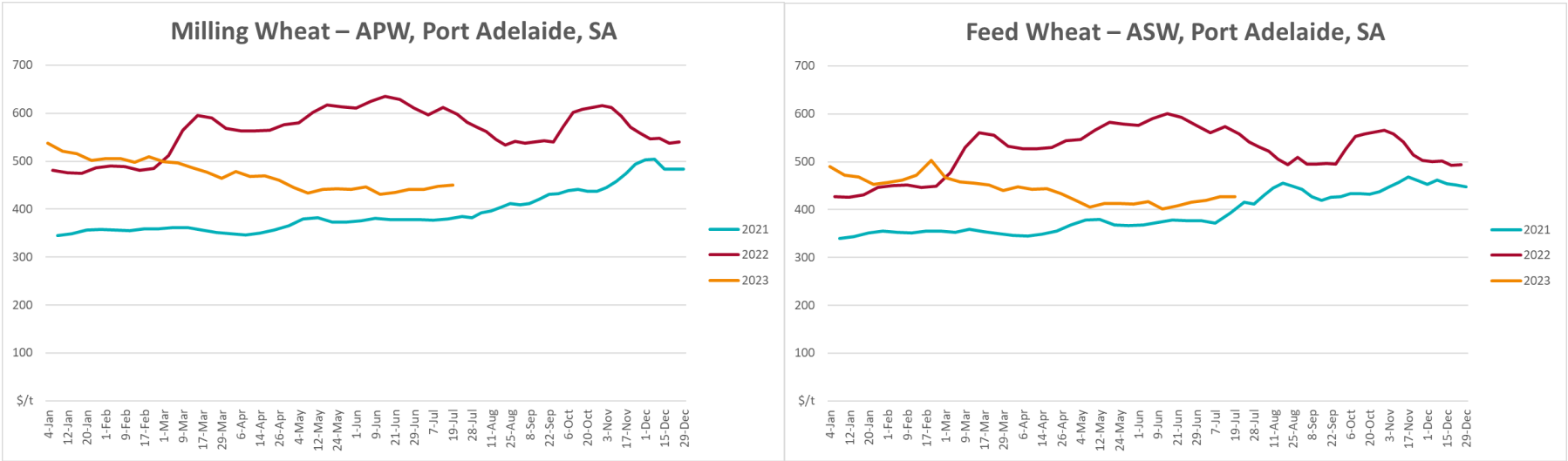
3.1. Selected world indicator prices

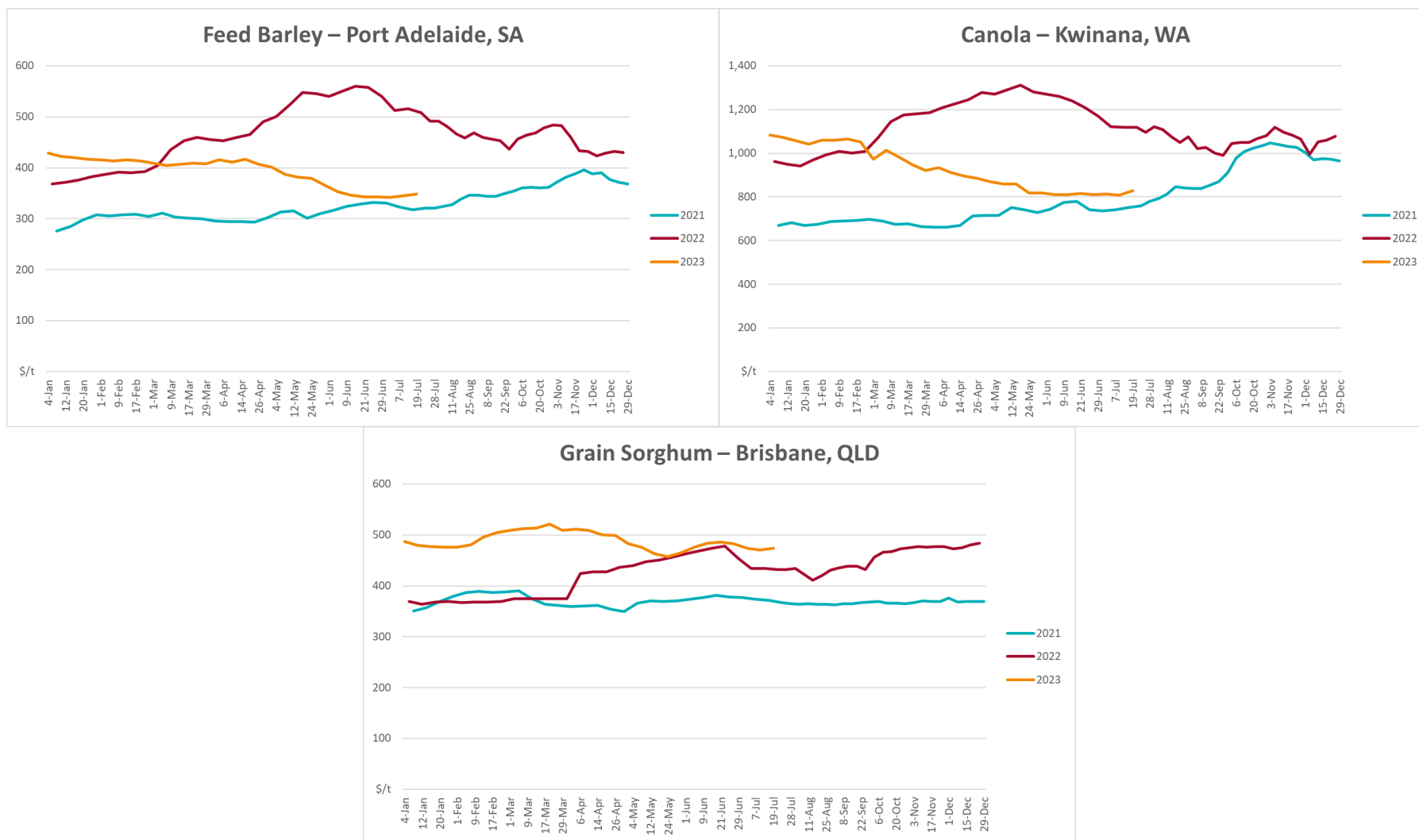




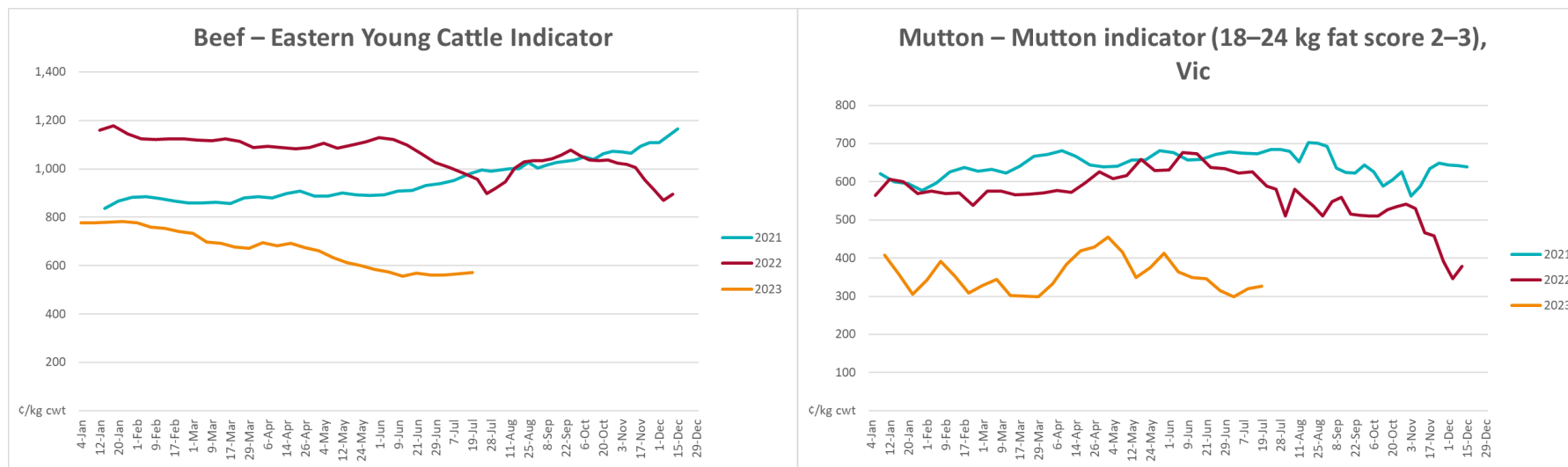


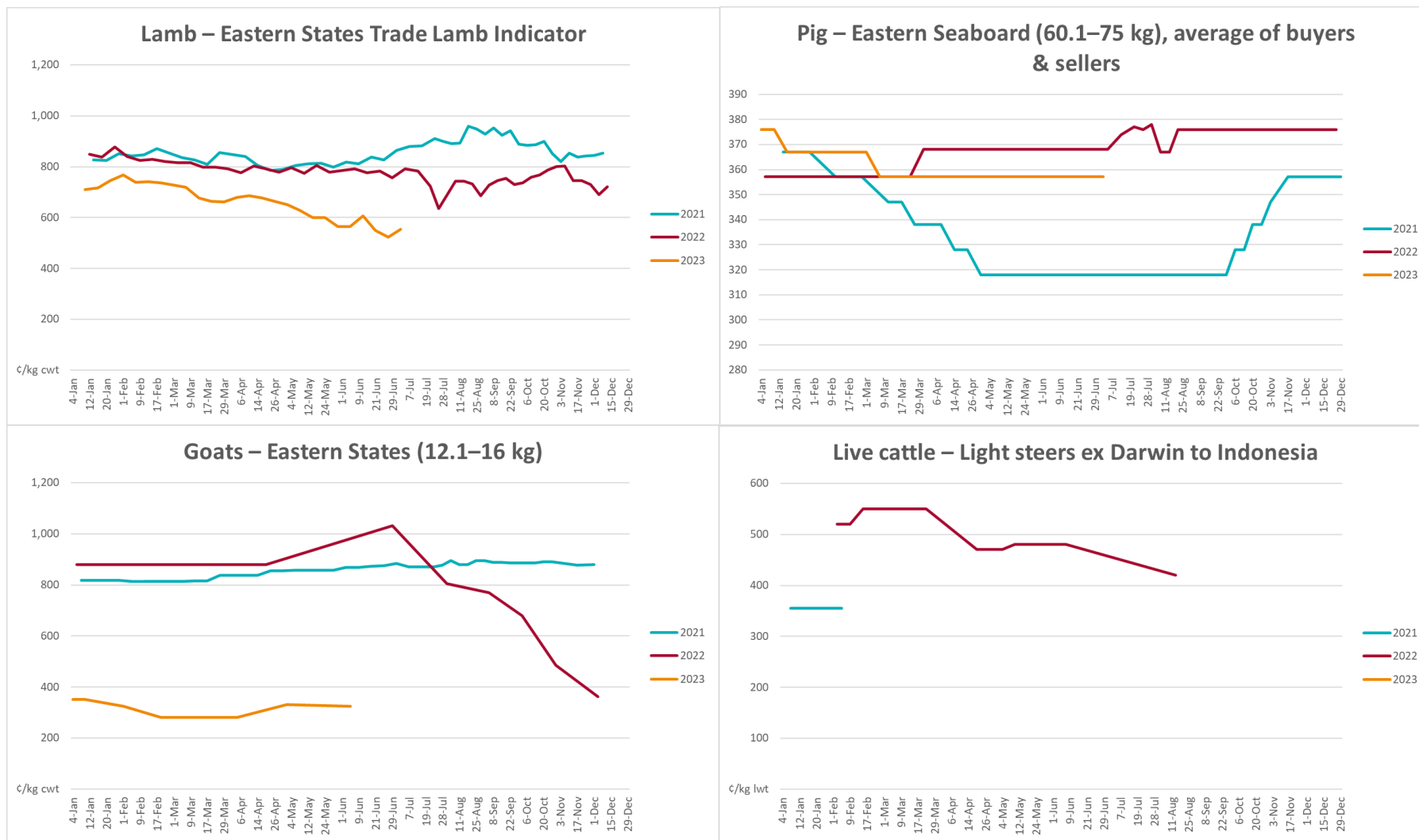
3.2. Selected domestic crop indicator prices

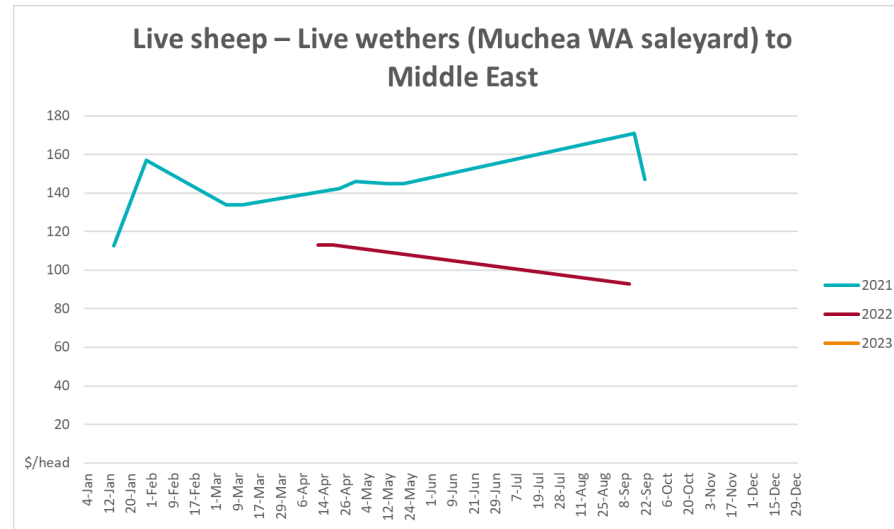




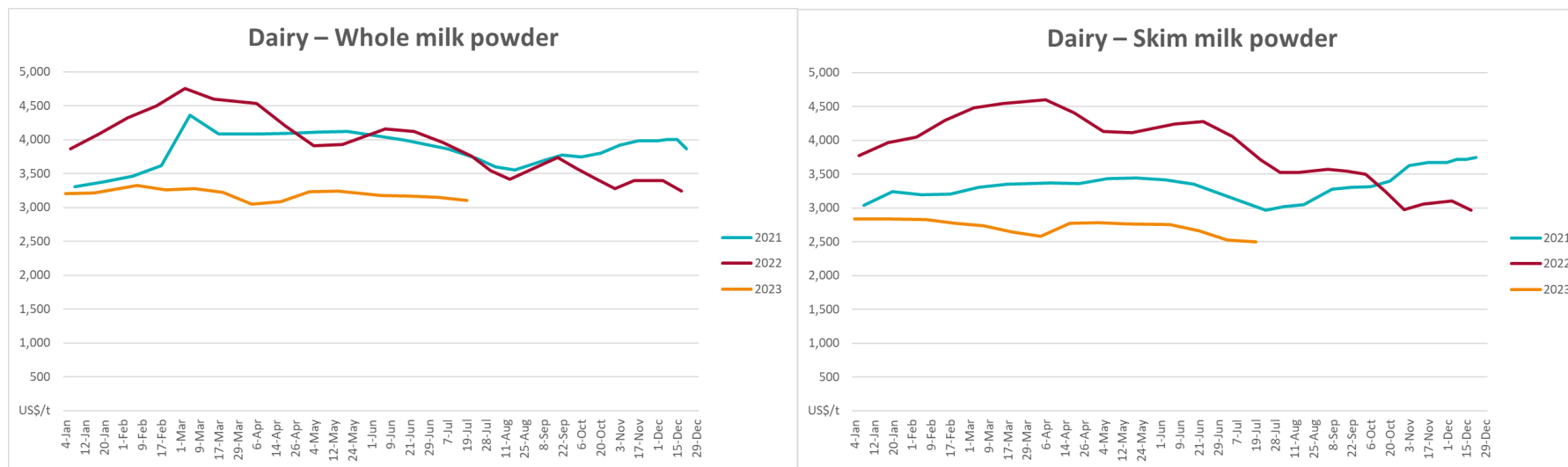
3.3. Selected domestic livestock indicator prices

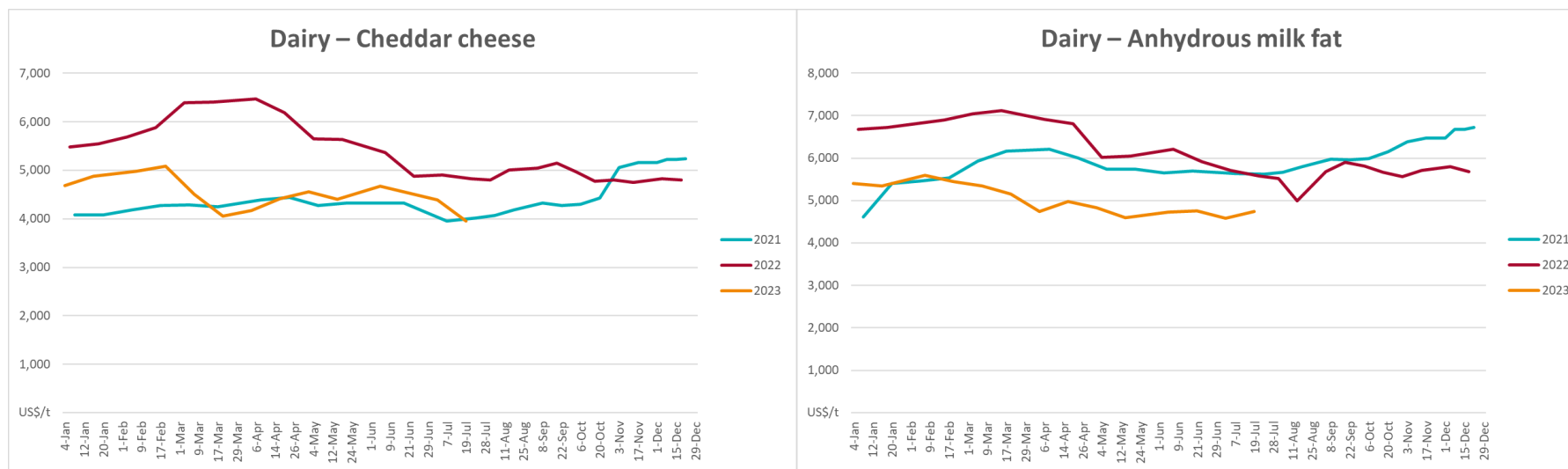




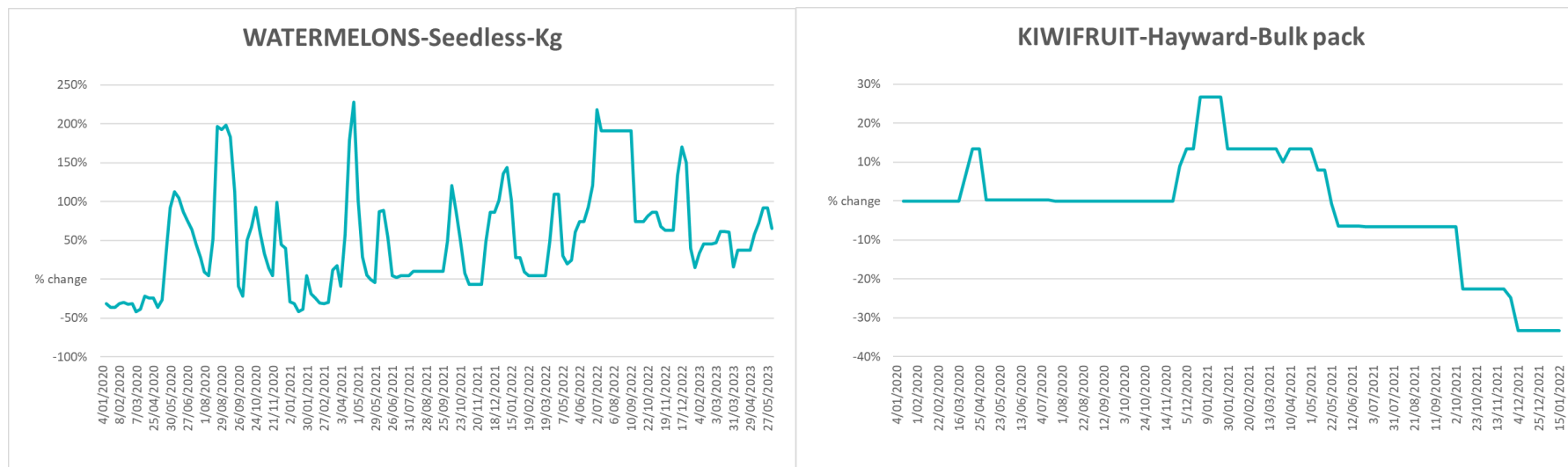


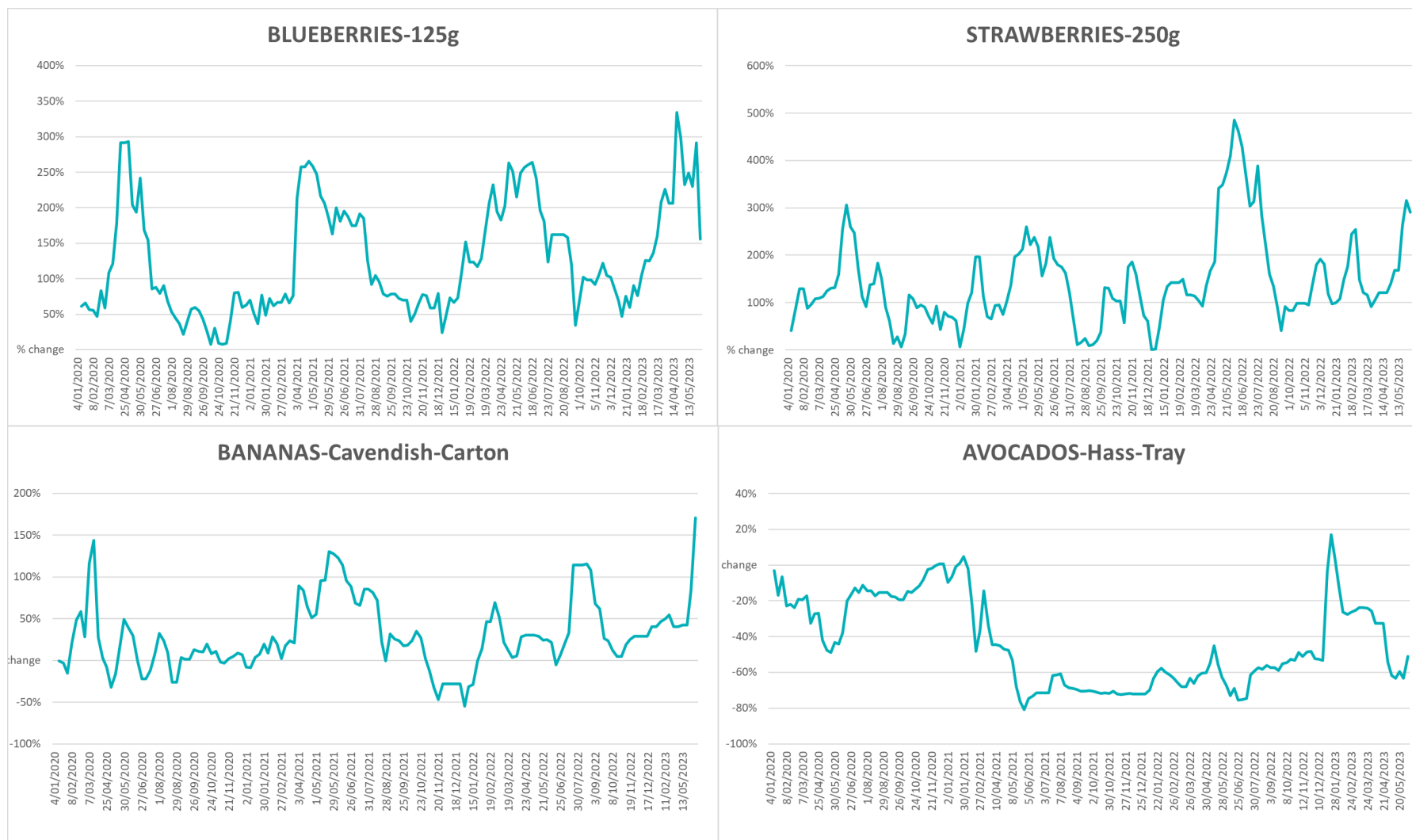
3.4. Global Dairy Trade (GDT) weighted average prices





3.5. Selected fruit and vegetable prices

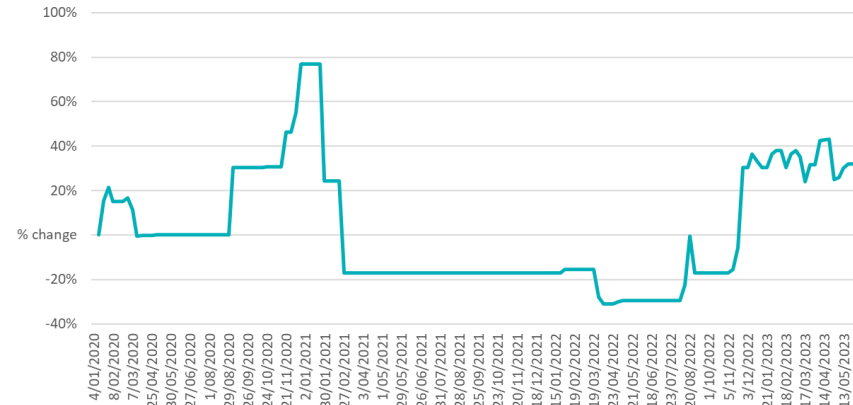




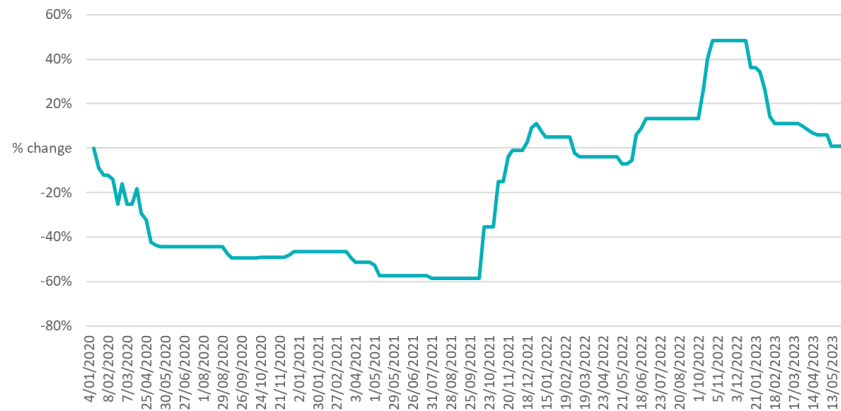
PINEAPPLES-Smoothleaf-Tray



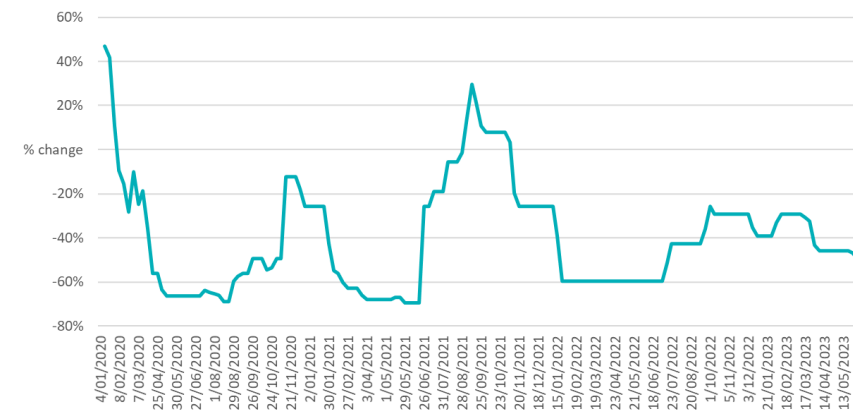
APPLES-Royal Gala-12kg carton

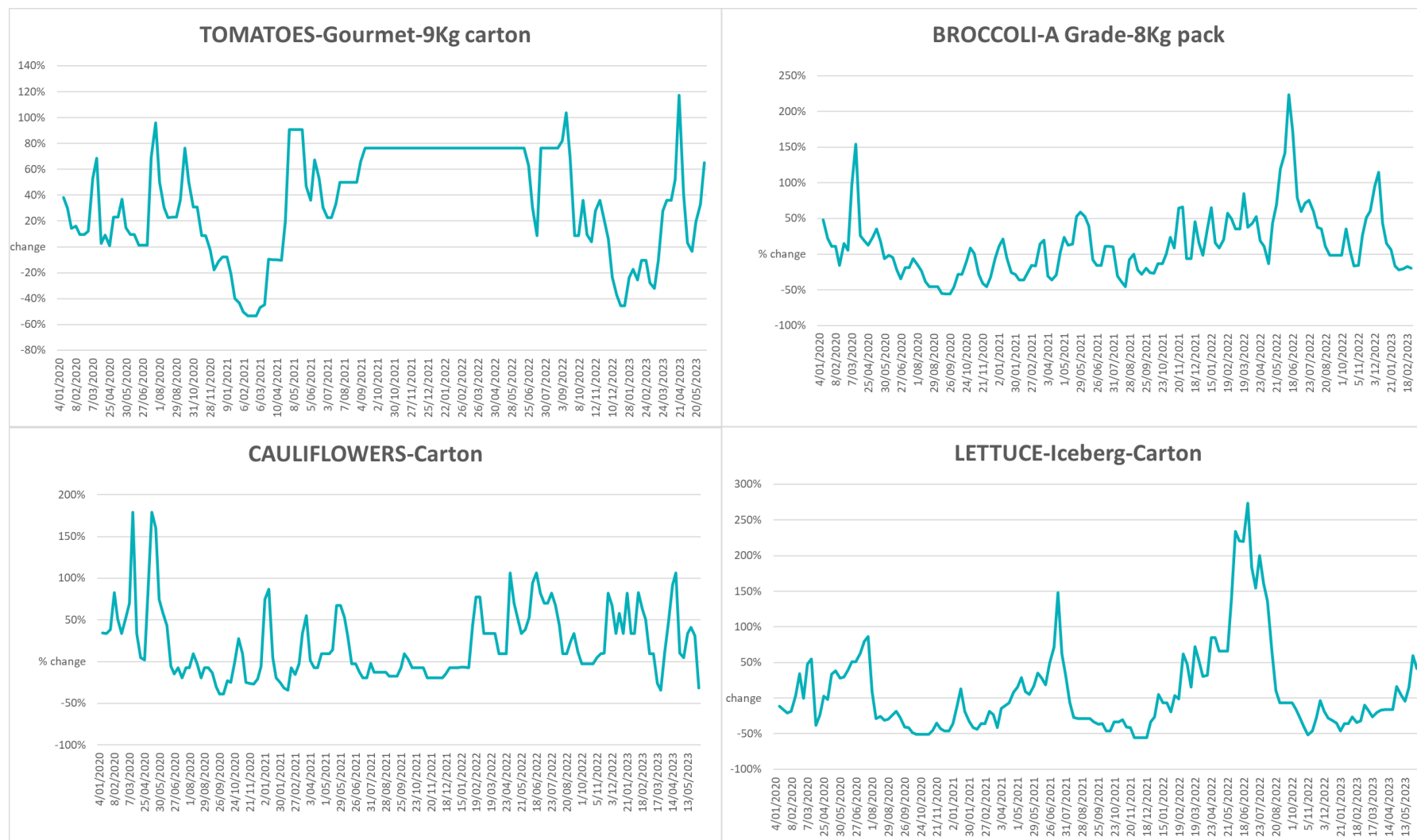


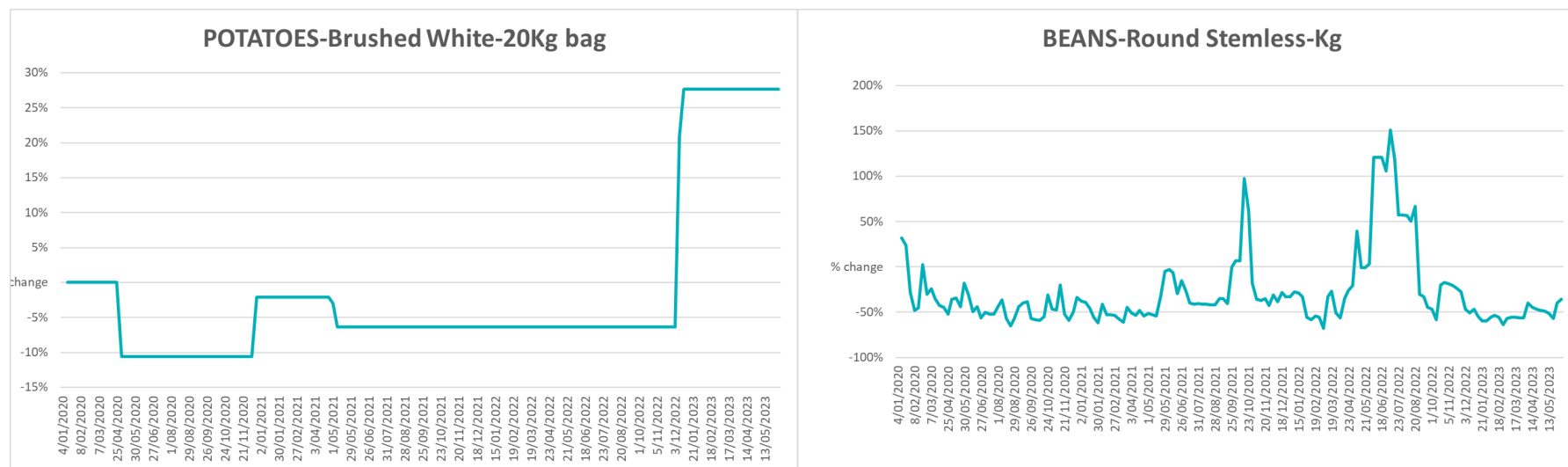
ONIONS-Brown-20Kg bag



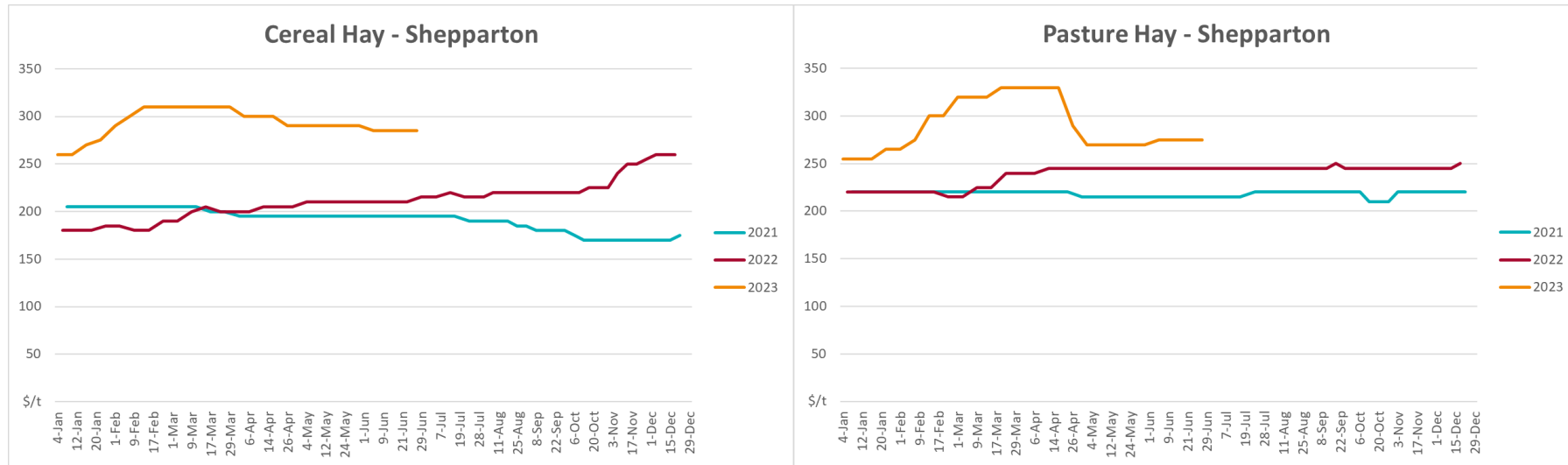
PUMPKINS-Grey Bulk-Kg

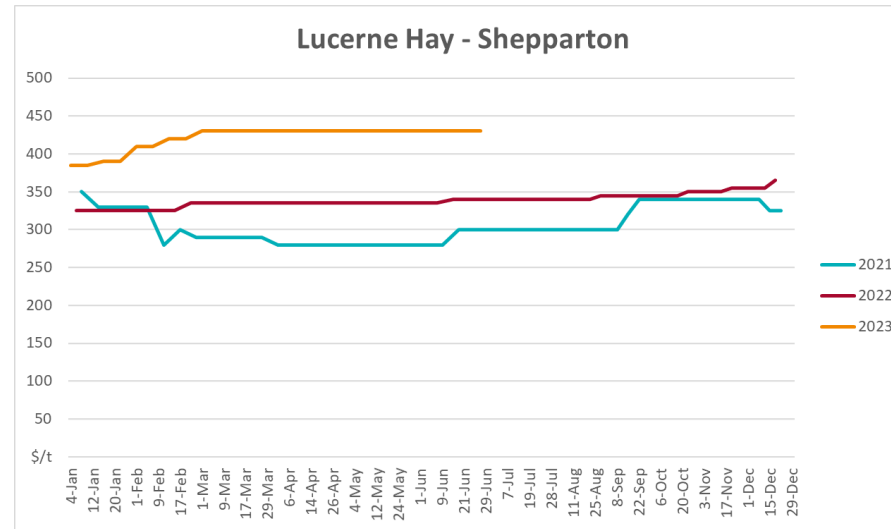






3.6 Selected domestic fodder indicator prices





4. Data attribution

Climate

Bureau of Meteorology

- Weekly rainfall totals: www.bom.gov.au/climate/maps/rainfall/
- 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: www.bom.gov.au/water/landscape/

Other

- Pasture growth: www.longpaddock.qld.gov.au/aussiegrass/
- 3-month global outlooks: [Environment and Climate Change Canada](#), [NOAA Climate Prediction Center](#), [EUROBRISA](#), [CPTEC/INPE](#), [European Centre for Medium-Range Weather Forecasts](#), [Hydrometcenter of Russia](#), [National Climate Center](#), [Climate System Diagnosis and Prediction Room \(NCC\)](#), [International Research Institute for Climate and Society](#)
- 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.watarnsw.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: www.freshstate.com.au

Pigs

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

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: www.cotlook.com/

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: www.mla.com.au/Prices-and-market

© Commonwealth of Australia 2023

Ownership of intellectual property rights

Unless otherwise noted, copyright (and any other intellectual property rights, if any) in this publication is owned by the Commonwealth of Australia (referred to as the Commonwealth).

Creative Commons licence

All material in this publication is licensed under a [Creative Commons Attribution 4.0 International Licence](#) except content supplied by third parties, logos and the Commonwealth Coat of Arms.

Inquiries about the licence and any use of this document should be emailed to copyright@awe.gov.au.



Cataloguing data

This publication (and any material sourced from it) should be attributed as:

ABARES 2023, Weekly Australian Climate, Water and Agricultural Update, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra, 20 July 2023. 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

Department of Agriculture, Fisheries and Forestry

GPO Box 858 Canberra ACT 2601

Telephone 1800 900 090

Web [agriculture.gov.au/abares](https://www.agriculture.gov.au/abares)

Disclaimer

The Australian Government acting through the Department of Agriculture, Fisheries and Forestry, represented by the Australian Bureau of Agricultural and Resource Economics and Sciences, has exercised due care and skill in preparing and compiling the information and data in this publication. Notwithstanding, the Department of Agriculture, Fisheries and Forestry, ABARES, its employees and advisers disclaim all liability, including liability for negligence and for any loss, damage, injury, expense or cost incurred by any person as a result of accessing, using or relying on any of the information or data in this publication to the maximum extent permitted by law.

Statement of Professional Independence

The views and analysis presented in ABARES publications, including this one, reflect ABARES professionally independent findings, based on scientific and economic concepts, principles, information

and data. These views, analysis and findings may not reflect or be consistent with the views or positions of the Australian Government, or of organisations or groups who have commissioned ABARES reports or analysis. More information on professional independence is provided on the ABARES website.

Acknowledgements

This report was prepared by Kavina Dayal and Matthew Miller.