



Weekly Australian Climate, Water and Agricultural Update

No. 38/2021

30 September 2021

Summary of key issues

- During the week ending 29 September 2021, a trough of low-pressure systems resulted in rainfall in parts of eastern Australia, while a cold front off the Southern Ocean brought substantial rainfall to western Tasmania. Weak frontal activity across northern and central Australia, on the other hand, brought clear, dry conditions ([see Section 1.1](#)).
- Crops remain in good condition across most growing regions, but further rainfall will support crops through grain filling and enhanced yields. Some parts of Victoria, South Australia and Western Australia had little to no rainfall through September and hence a rapid drying of soils, which will negatively affect yields. Rainfall in parts of central Queensland will support sprouting and establishment of early-sown summer crops. Continued rainfall will boost soil moisture levels and encourage increased planting activity.
- The climate driver with the largest potential impact on summer rainfall across much of Australia is the El Niño-Southern Oscillation (ENSO). The ENSO is currently neutral. However, the Bureau of Meteorology recently updated its ENSO Outlook from 'inactive' to 'La Niña watch', reflecting the increased likelihood of a La Niña event forming over the coming months. La Niña events are associated with above average rainfall in eastern, central and northern Australia in spring and summer ([see Section 1.2](#)).
- Troughs of low-pressure systems across eastern and southern Australia and cold fronts in the southwest are expected to result in significant rainfall across those regions. High pressure systems across central and northern parts of Australia are likely to bring clear skies and dry conditions over the next eight days ([see Section 1.3](#)).
- Water storage in the Murray–Darling Basin (MDB) increased by 69 gigalitres (GL) between 22 September 2021 and 29 September 2021. The current volume of water held in storage is 21,554 GL, which represents 85% of total capacity. This is 48% or 7,019 GL more than at the same time last year.
- Allocation prices in the Victorian Murray below the Barmah Choke decreased from \$139 per ML on 17 September 2021 to \$125 per ML on 24 September 2021. Prices are lower in the Goulburn-Broken, Murrumbidgee, and regions above the Barmah choke due to the binding of the Goulburn intervalley trade limit, Murrumbidgee export limit, and Barmah choke trade constraint.

1. Climate

1.1. Rainfall this week

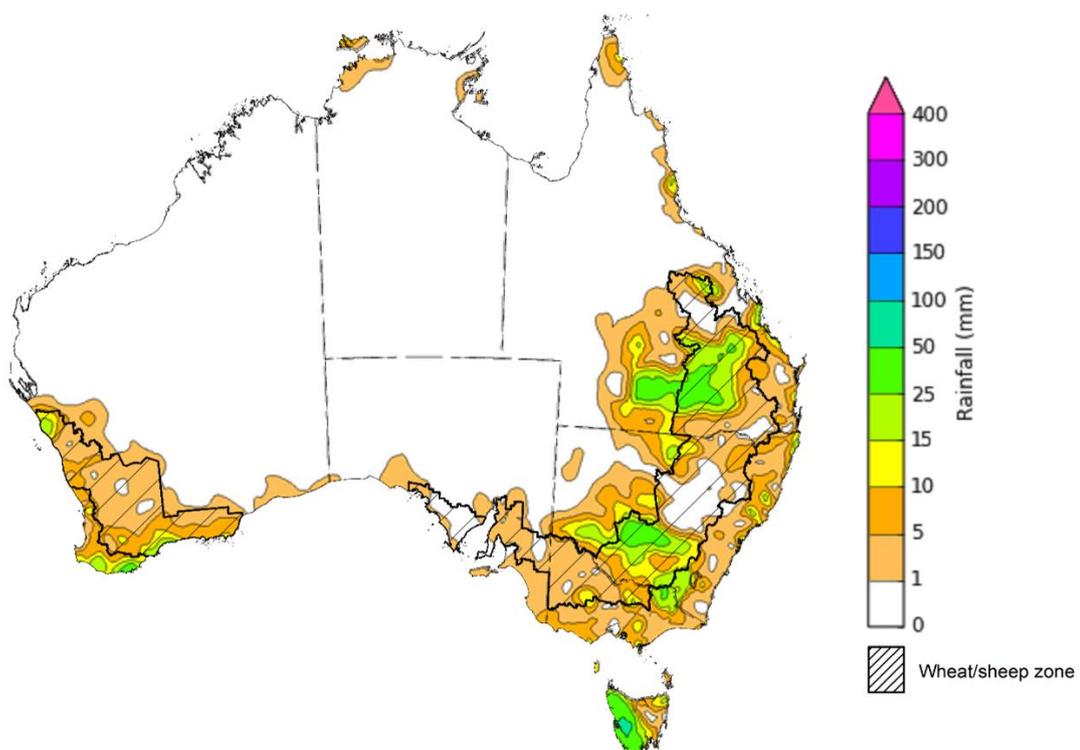
During the week ending 29 September 2021, a trough of low-pressure systems resulted in rainfall in parts of eastern Australia, while a cold front off the Southern Ocean brought substantial rainfall to western Tasmania. Weak frontal activity across northern and central Australia, on the other hand, brought clear, dry conditions.

Rainfall totals of between 10 and 50 millimetres were recorded across southern New South Wales, southern and central Queensland, as well as isolated parts of Victoria, the southwest of Western Australia and parts of Tasmania. Rainfall totals in excess of 50 millimetres were recorded across parts of western Tasmania.

In cropping regions, rainfall totals of between 10 and 50 millimetres were recorded across much of southern New South Wales, central and western Queensland, as well as isolated parts of southern Victoria and Western Australia. Little to no rainfall was recorded in other cropping regions in New South Wales, Queensland, Victoria and Western Australia, as well as most cropping regions in South Australia.

The rainfall in some Queensland cropping regions has interrupted harvesting, but likely benefitted yield potential for crops in southern New South Wales. Crops remain in good condition across most growing regions, but further rainfall will support grain filling and enhanced yields. Some parts of Victoria, South Australia and Western Australia had little to no rainfall through September and hence a rapid drying of soils, which will negatively affect yields. Rainfall in parts of central Queensland will support sprouting and establishment of early-sown summer crops. Continued rainfall will boost soil moisture levels and encourage increased planting activity.

Rainfall for the week ending 29 September 2021



©Commonwealth of Australia 2021, Australian Bureau of Meteorology

Issued: 29/09/2021

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/>

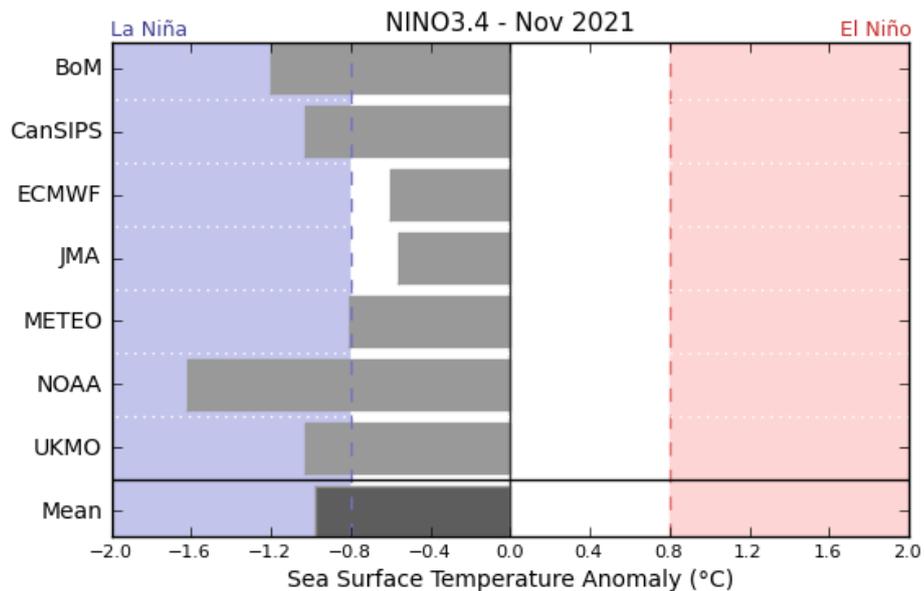
1.2. La Niña watch

The climate driver with the largest potential impact on summer rainfall across much of Australia is the El Niño-Southern Oscillation (ENSO). The ENSO is currently neutral. However, the Bureau of Meteorology recently updated its ENSO Outlook from 'inactive' to 'La Niña watch', reflecting the increased likelihood of a La Niña event forming over the coming months. La Niña events are associated with above average rainfall in eastern, central and northern Australia in spring and summer.

The Bureau of Meteorology was prompted to update its ENSO Outlook due to continued cooling of sea surface temperatures across the equatorial Pacific and recent model outlooks. Five of the seven climate models surveyed by the bureau are forecasting the development of a La Niña event by November 2021. Three of the seven models expect the event to last until January 2022.

Throughout winter 2021, a negative Indian Ocean Dipole (IOD) has contributed to above average rainfall for southern and eastern cropping regions. However, the influence of the IOD is expected to diminish with the onset of the northern monsoon season. If a La Niña event does occur, it is likely to boost yields of summer crops across northern cropping regions and improve soil moisture levels in southern cropping regions ahead of next season.

International climate model outlooks for the NINO 3.4 region in November 2021



©Commonwealth of Australia 2021, Australian Bureau of Meteorology

Issued: 28/09/2021

1.3. Rainfall forecast for the next eight days

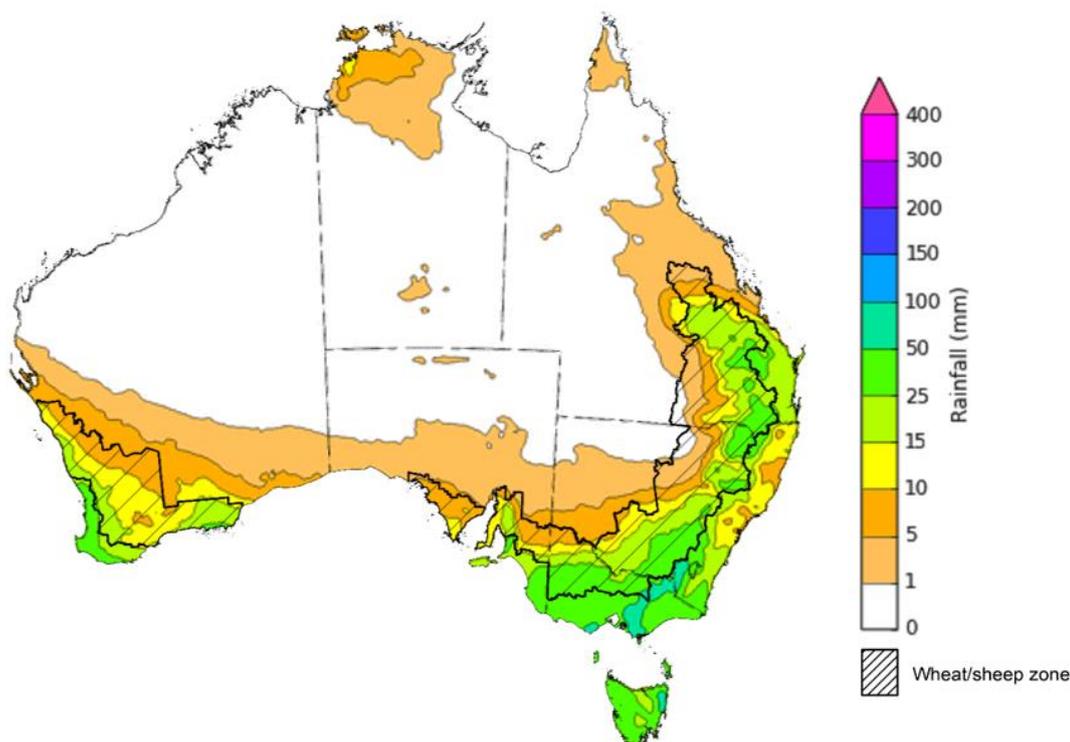
Troughs of low-pressure systems across eastern and southern Australia and cold fronts in the southwest are expected to result in significant rainfall across those regions. High pressure systems across central and northern parts of Australia are likely to bring clear skies and dry conditions over the next eight days.

Rainfall totals of between 10 and 50 millimetres are forecast for much of eastern New South Wales, Victoria and Tasmania, as well as south-east Queensland, the south of South Australia and the south-west of Western Australia. Rainfall in excess of 50 millimetres is expected in alpine regions of New South Wales and Victoria, and the north-east of Tasmania.

In Australian cropping regions, rainfall totals of between 10 and 50 millimetres are expected across southern and north-eastern New South Wales, eastern and central Queensland, southern and central parts of South Australia, southern and western parts of Western Australia, as well as much of Victoria. Lower rainfall totals of between 5 and 10 millimetres are expected across north-western New South Wales, western and northern Queensland, as well as the northern cropping regions of South Australia and Western Australia during the next 8 days.

The forecast rainfall across most cropping regions will boost soil moisture levels and support yield potentials, as winter crops progress through flowering and grain filling. A lack of rainfall throughout much of September has led to a decrease in plant-available moisture. However, the wet winter in most cropping regions has resulted in above-average soil moisture levels, which have supported ongoing crop development through spring. For parts of South Australia and Western Australia, rapid drying of soil profiles is negatively affecting yield potential, and the forecast rainfall is unlikely to provide relief. In Queensland, wet conditions are likely to interrupt harvesting of winter crops but provide an impetus for increased planting of summer crops when conditions allow.

Total forecast rainfall (mm) for the period 30 September to 7 October 2021



©Commonwealth of Australia 2021, Australian Bureau of Meteorology

Issued: 29/09/2021

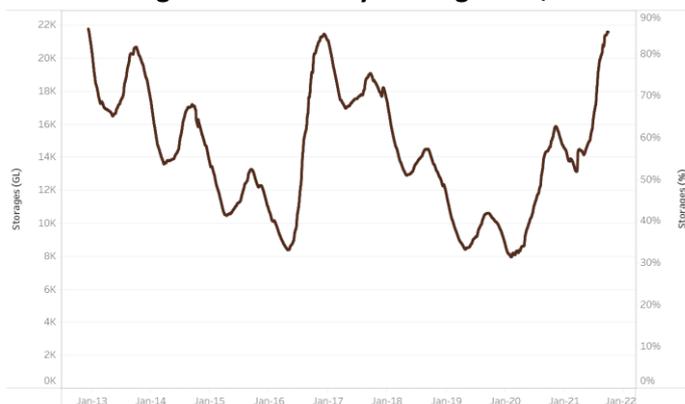
Note: This rainfall forecast is produced from computer models. As the model outputs are not altered by weather forecasters, it is important to check local forecasts and warnings issued by the Bureau of Meteorology.

2. Water

2.1. Water markets – current week

Water storage in the Murray–Darling Basin (MDB) increased by 69 gigalitres (GL) between 22 September 2021 and 29 September 2021. The current volume of water held in storage is 21,554 GL, which represents 85% of total capacity. This is 48% or 7,019 GL more than at the same time last year.

Water storages in the Murray-Darling Basin, 2013–2021

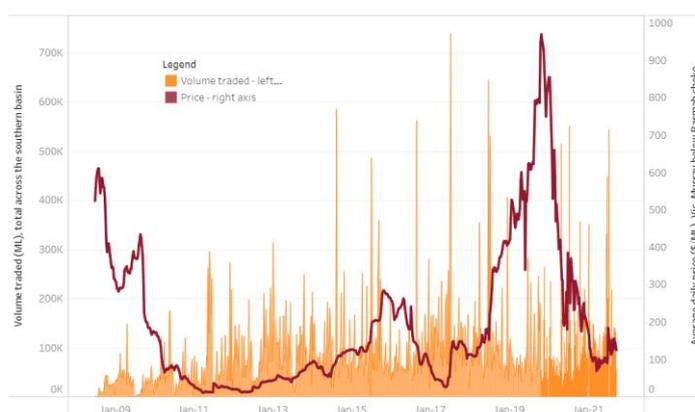


Water storage data is sourced from the Bureau of Meteorology.

Allocation prices in the Victorian Murray below the Barmah Choke decreased from \$139 per ML on 17 September 2021 to \$125 per ML on 24 September 2021. Prices are lower in the Goulburn-Broken, Murrumbidgee, and regions above the Barmah choke due to the binding of the Goulburn intervalley trade limit, Murrumbidgee export limit, and Barmah choke trade constraint.

Region	\$/ML
NSW Murray Above	88
NSW Murrumbidgee	117
VIC Goulburn-Broken	102
VIC Murray Below	125

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. Data shown is current at 23 September 2021.

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/products/weekly_update/weekly-update-300921

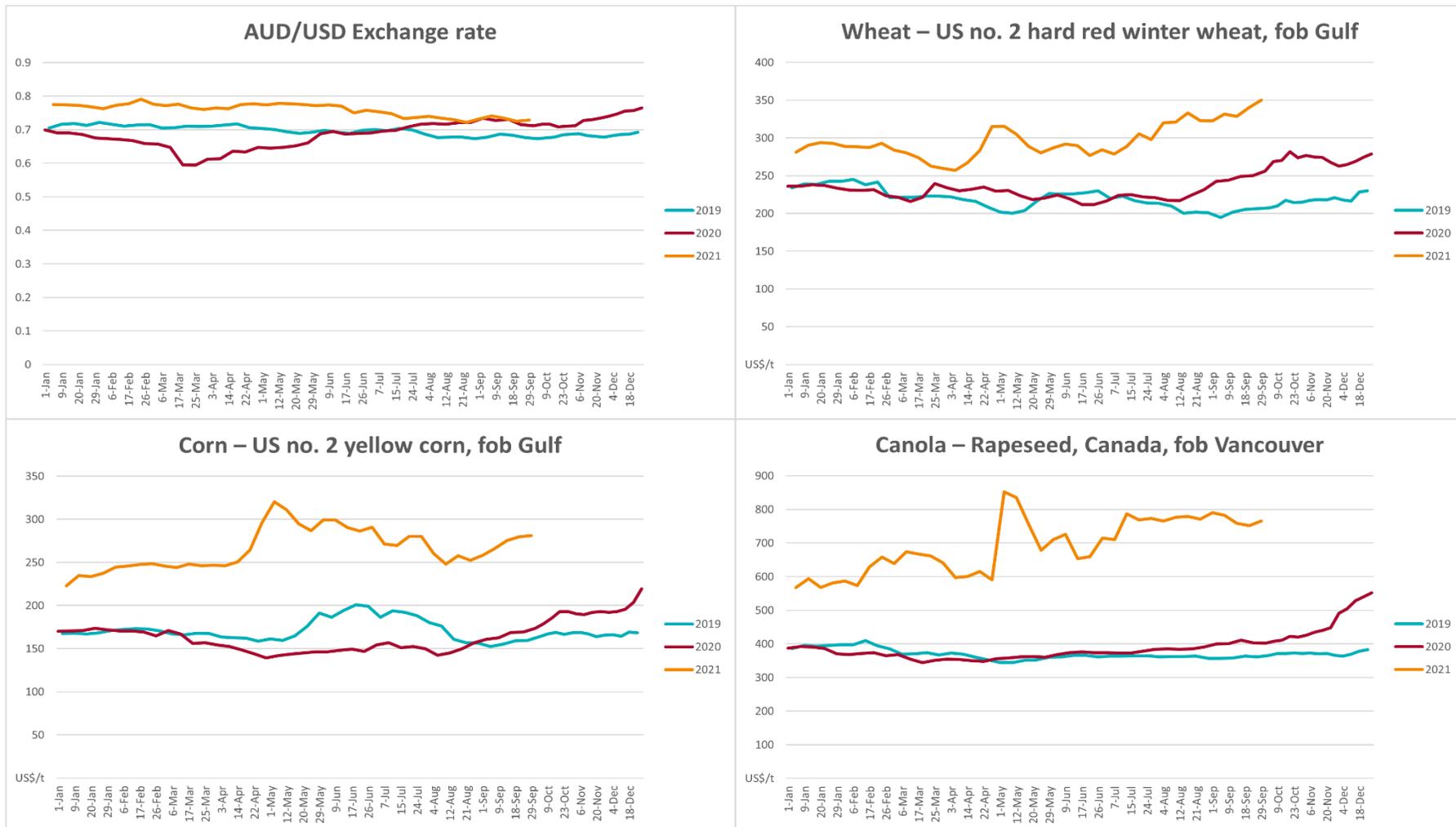
3. Commodities

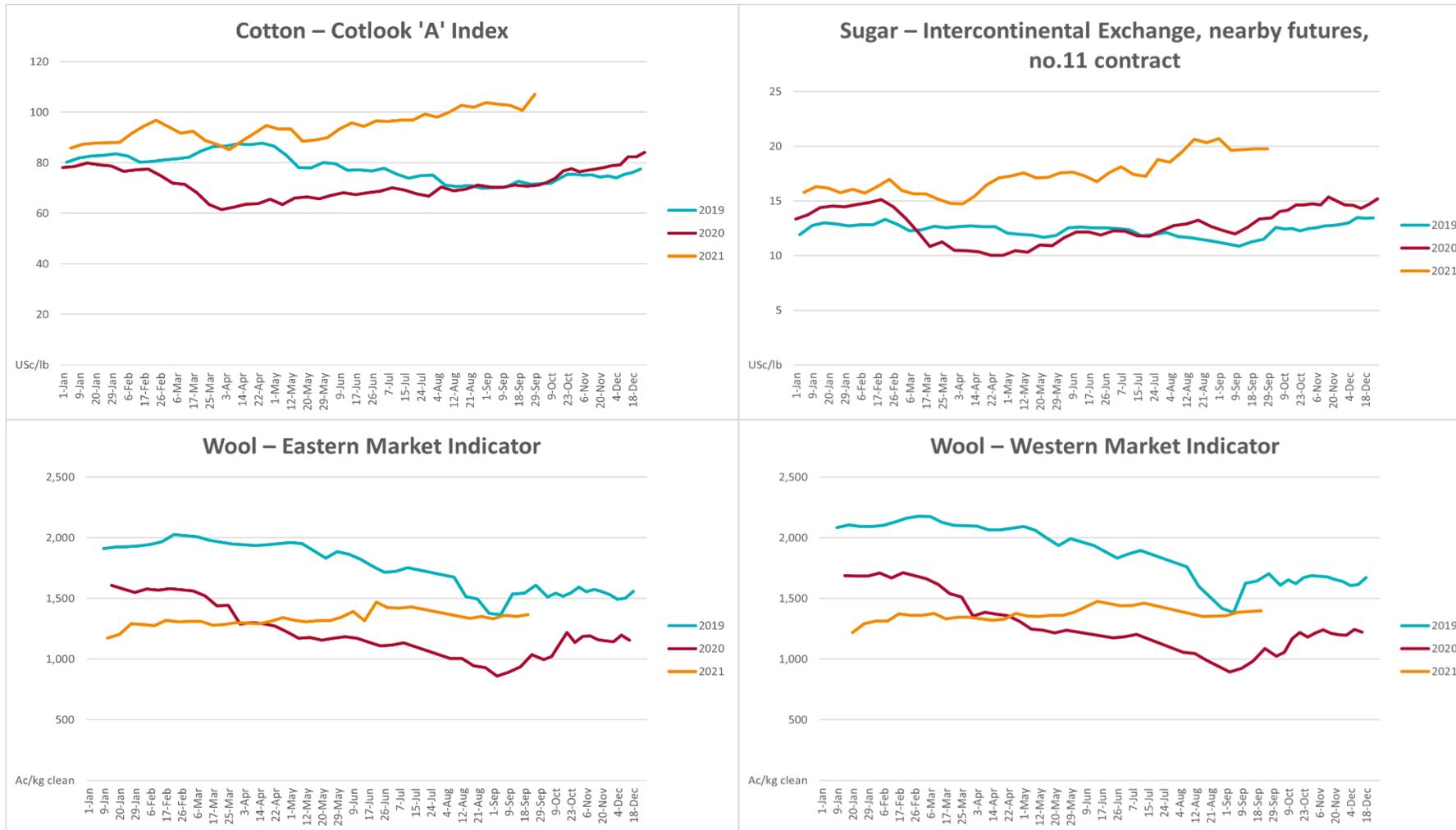
Indicator	Week ended	Unit	Latest price	Previous week	Weekly change	Price 12 months ago	Annual change
Selected world indicator prices							
AUD/USD Exchange rate	29-Sep	A\$/US\$	0.73	0.73	0%	0.72	2%
Wheat – US no. 2 hard red winter wheat, fob Gulf	29-Sep	US\$/t	350	340	3%	269	30%
Corn – US no. 2 yellow corn, fob Gulf	29-Sep	US\$/t	281	280	0%	179	57%
Canola – Rapeseed, Canada, fob Vancouver	29-Sep	US\$/t	765	751	2%	407	88%
Cotton – Cotlook 'A' Index	29-Sep	USc/lb	107	101	6%	72	48%
Sugar – Intercontinental Exchange, nearby futures, no.11 contract	29-Sep	USc/lb	19.8	19.8	0%	14	41%
Wool – Eastern Market Indicator	22-Sep	Ac/kg clean	1,368	1,352	1%	1,006	36%
Wool – Western Market Indicator	22-Sep	Ac/kg clean	1,397	1,392	0%	1,214	15%
Selected Australian grain export prices							
Milling Wheat – APW, Port Adelaide, SA	29-Sep	A\$/t	430	430	0%	359	20%
Feed Wheat – ASW, Port Adelaide, SA	29-Sep	A\$/t	426	424	0%	342	25%
Feed Barley – Port Adelaide, SA	29-Sep	A\$/t	352	349	1%	289	22%
Canola – Kwinana, WA	29-Sep	A\$/t	896	869	3%	669	34%
Grain Sorghum – Brisbane, QLD	29-Sep	A\$/t	367	366	0%	363	1%
Selected domestic livestock indicator prices							
Beef – Eastern Young Cattle Indicator	29-Sep	Ac/kg cwt	1,032	1,030	0%	762	35%
Mutton – Mutton indicator (18–24 kg fat score 2–3), Vic	22-Sep	Ac/kg cwt	621	624	0%	507	23%
Lamb – Eastern States Trade Lamb Indicator	29-Sep	Ac/kg cwt	926	927	0%	636	46%
Pig – Eastern Seaboard (60.1–75 kg), average of buyers & sellers	08-Sep	Ac/kg cwt	318	318	0%	289	10%
Goats – Eastern States (12.1–16 kg)	29-Sep	Ac/kg cwt	887	887	0%	843	5%
Live cattle – Light steers ex Darwin to Indonesia	17-Feb	Ac/kg lwt	355	355	0%	360	-1%
Live sheep – Live wethers (Muchea WA saleyard) to Middle East	19-May	\$/head	145	145	0%	#N/A	#N/A

Indicator	Week ended	Unit	Latest price	Previous week	Weekly change	Price 12 months ago	Annual change
Global Dairy Trade (GDT) weighted average prices ^a							
Dairy – Whole milk powder	22-Sep	US\$/t	3,777	3,691	2%	3,039	24%
Dairy – Skim milk powder	22-Sep	US\$/t	3,302	3,274	1%	2,482	33%
Dairy – Cheddar cheese	22-Sep	US\$/t	4,274	4,328	-1%	3,857	11%
Dairy – Anhydrous milk fat	22-Sep	US\$/t	5,962	5,970	0%	5,061	18%

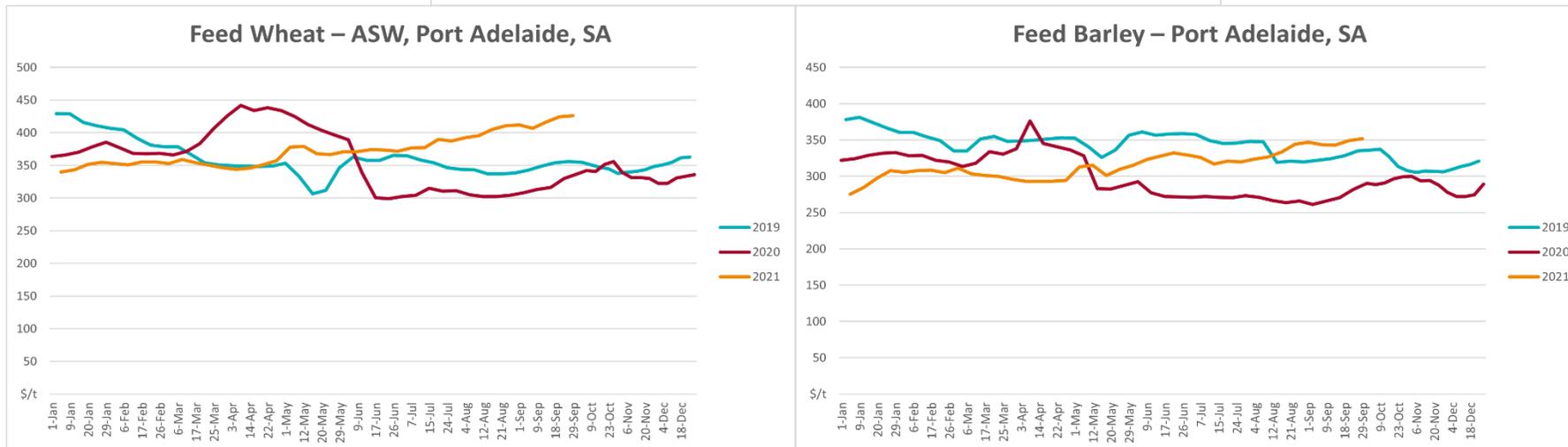
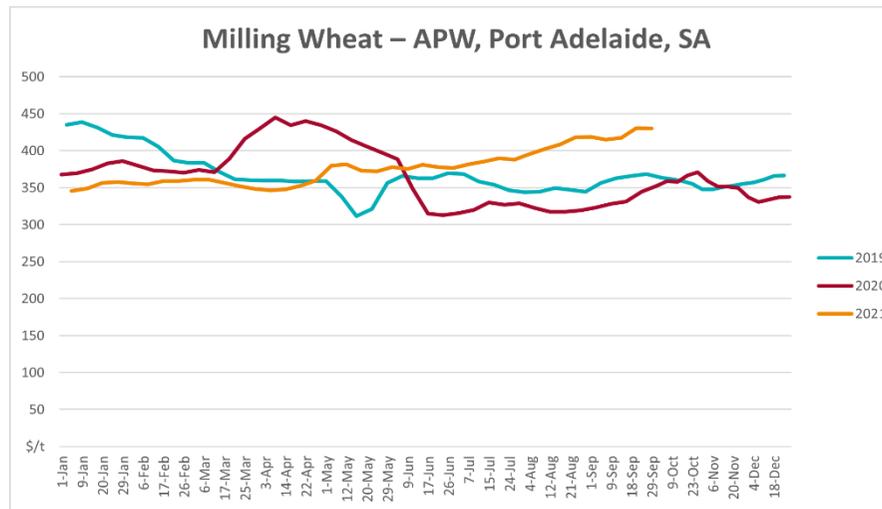
^a Global Dairy Trade prices are updated twice monthly on the first and third Tuesday of each month.

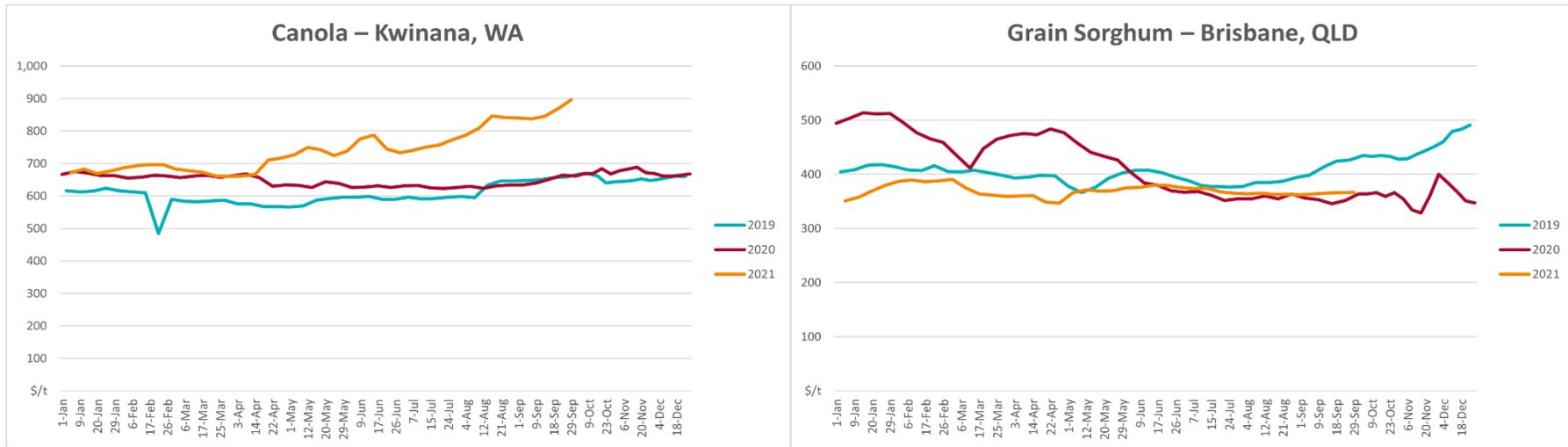
3.1. Selected world indicator prices



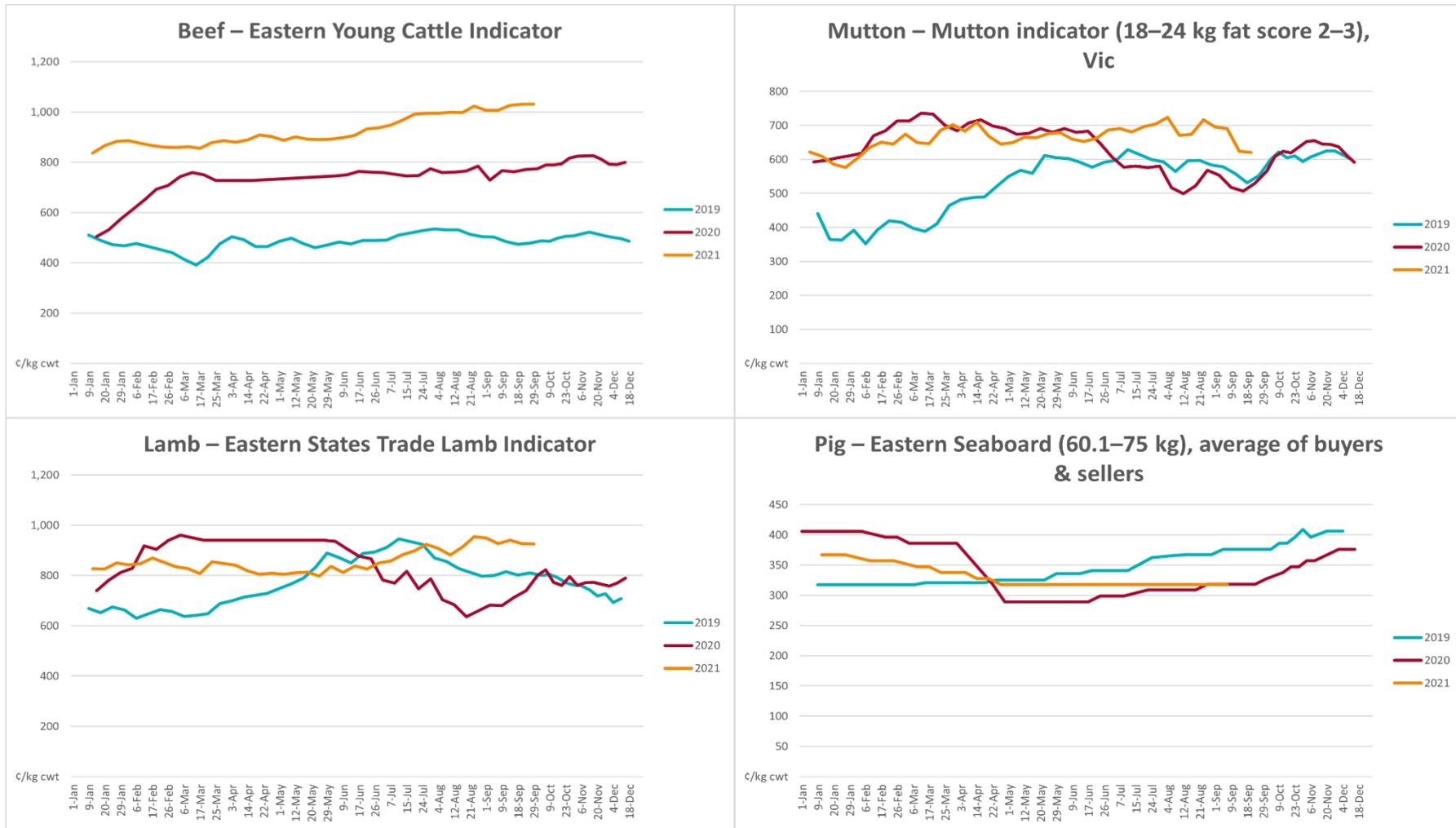


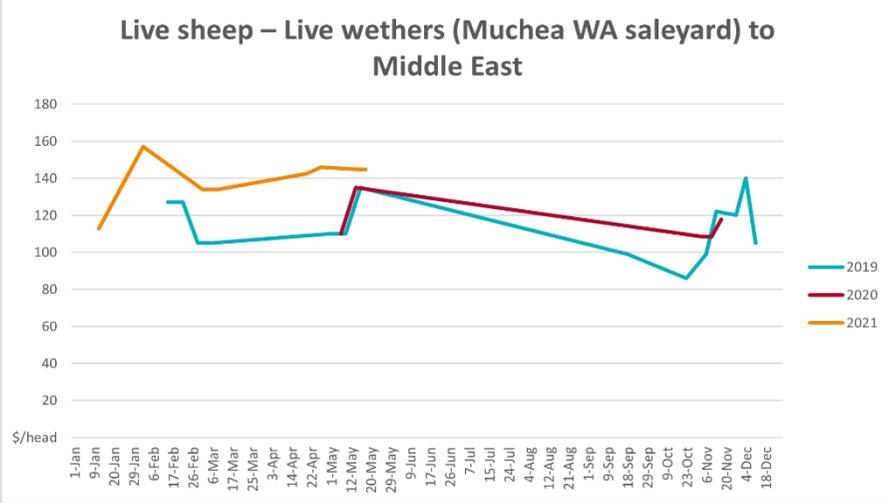
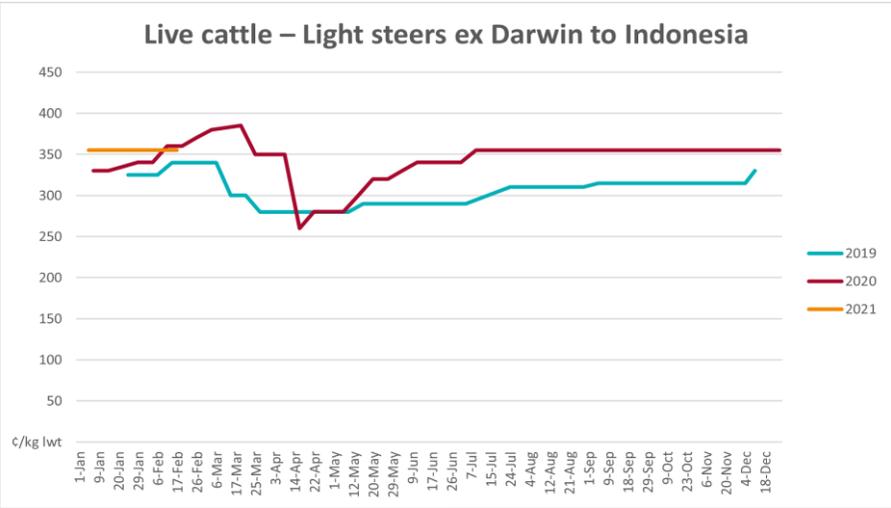
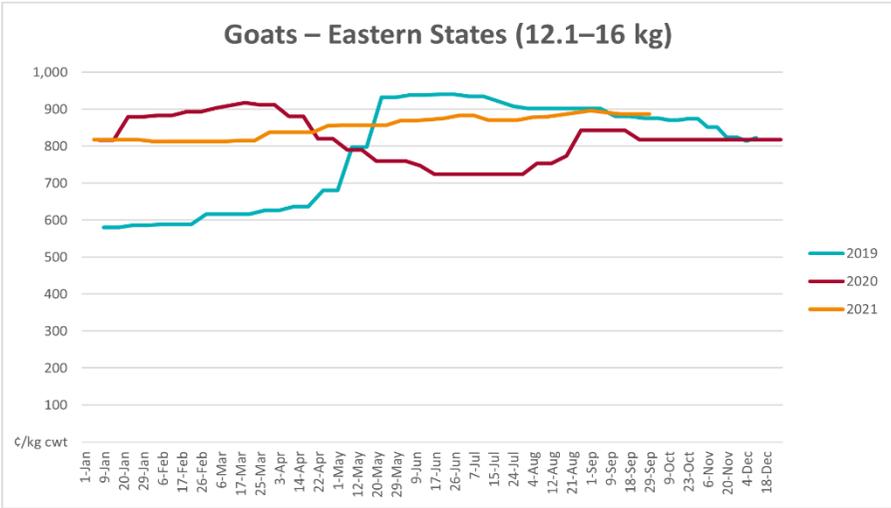
3.2. Selected domestic crop indicator prices



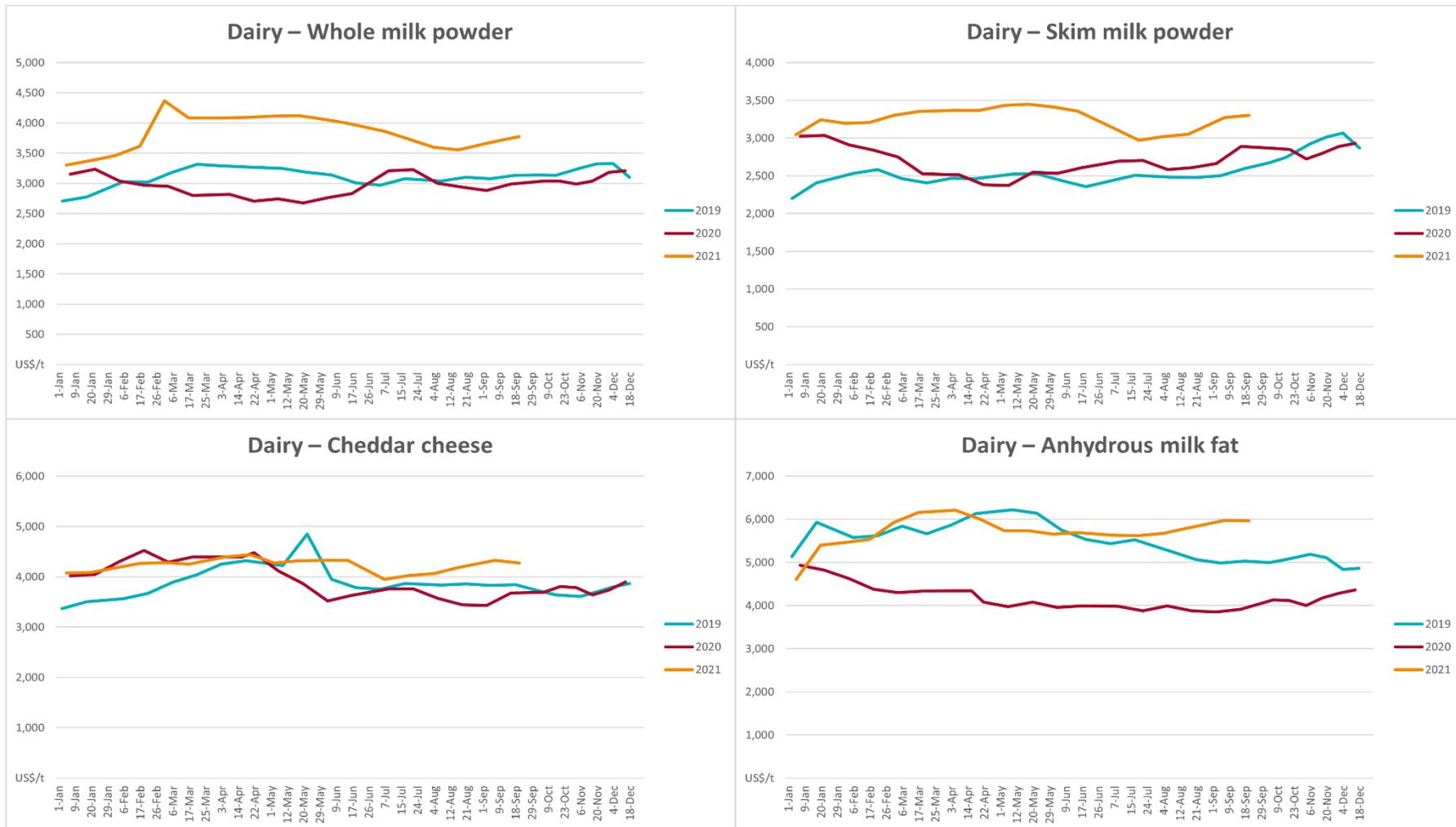


3.3. Selected domestic livestock indicator prices

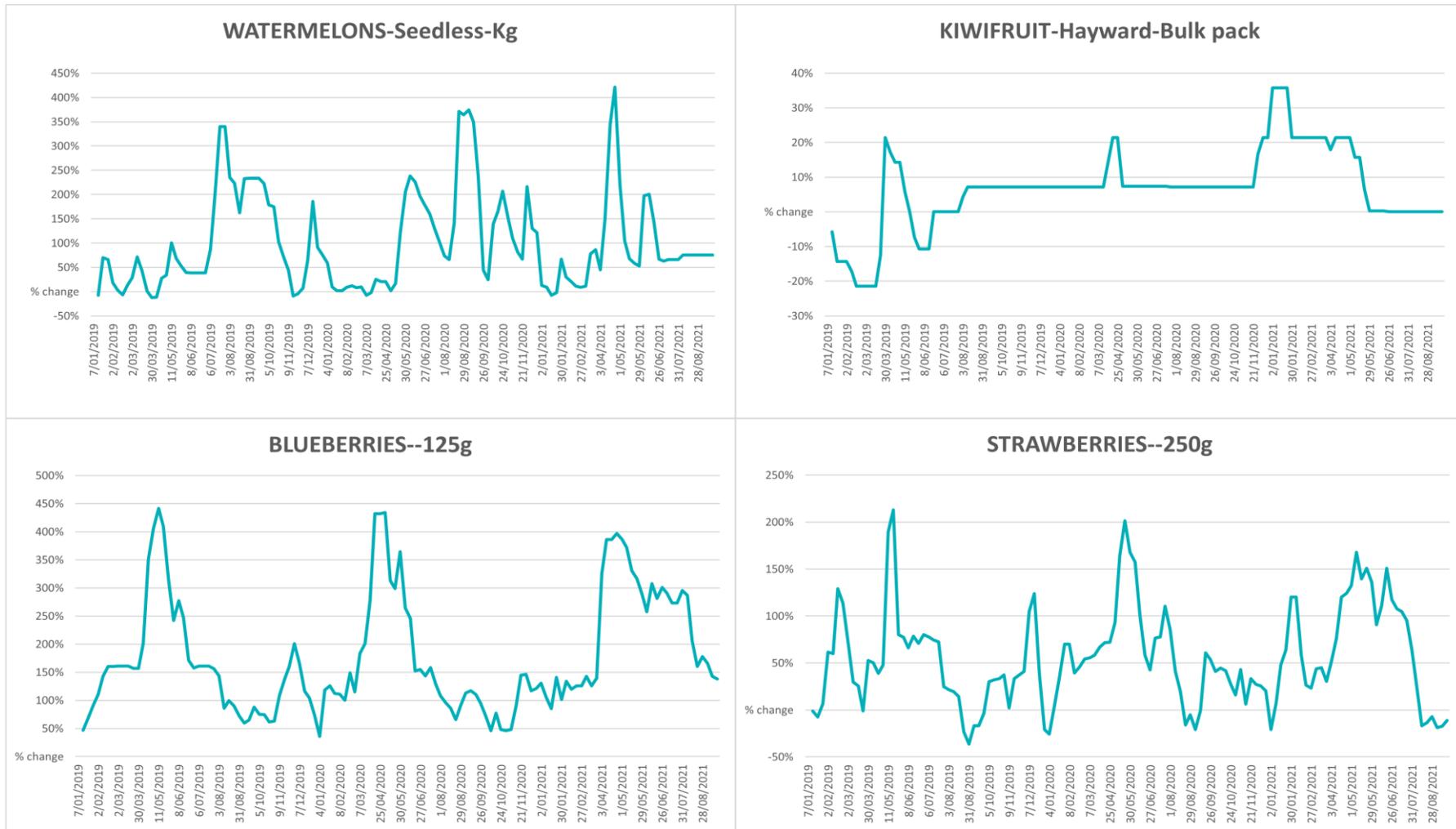


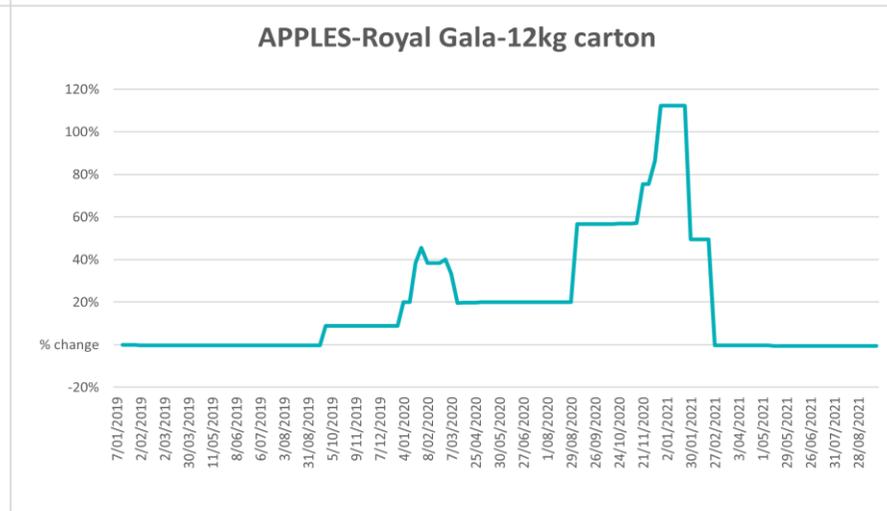
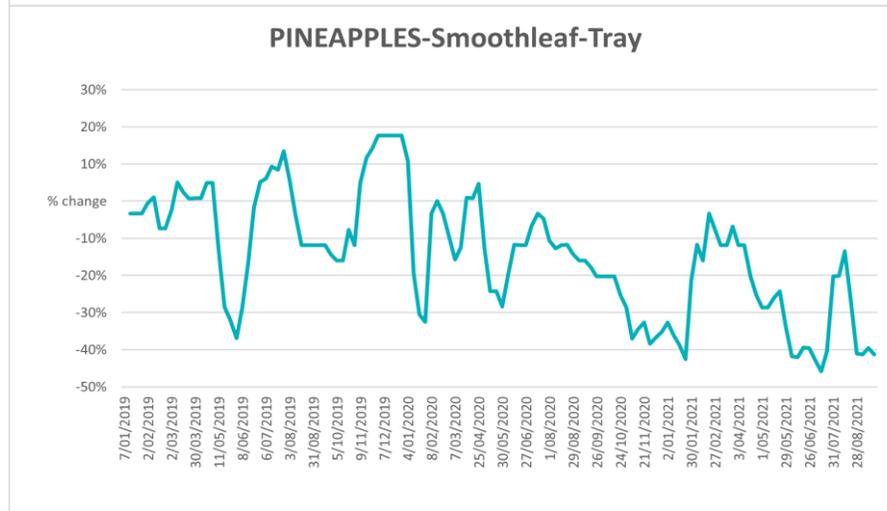
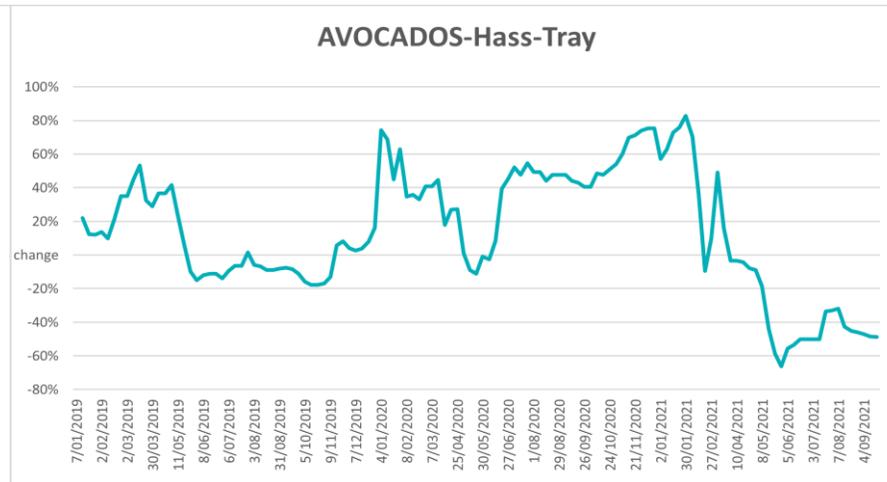
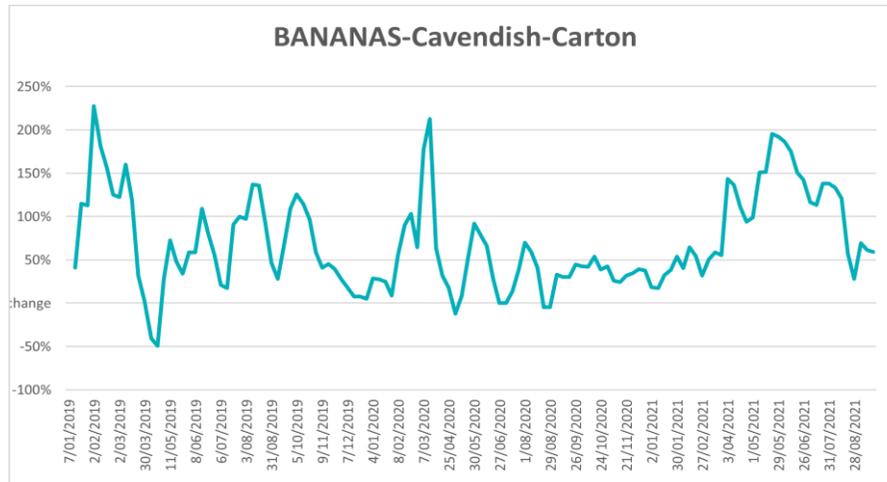


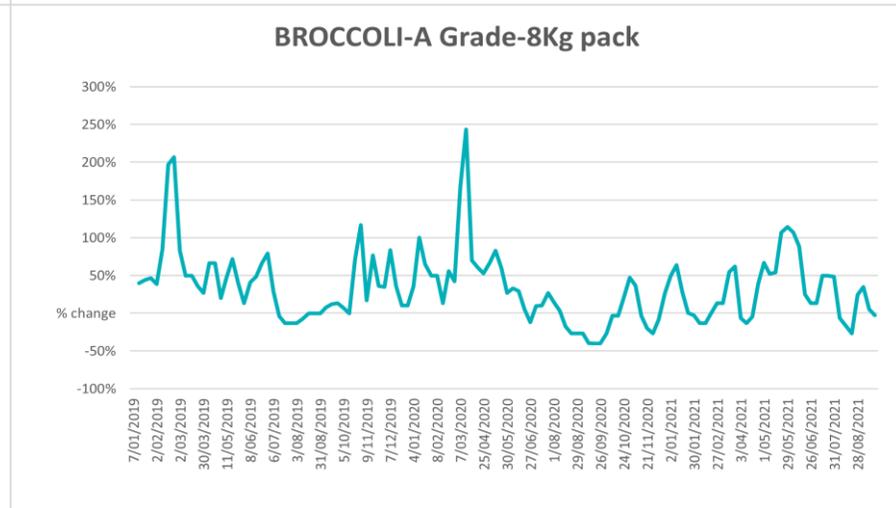
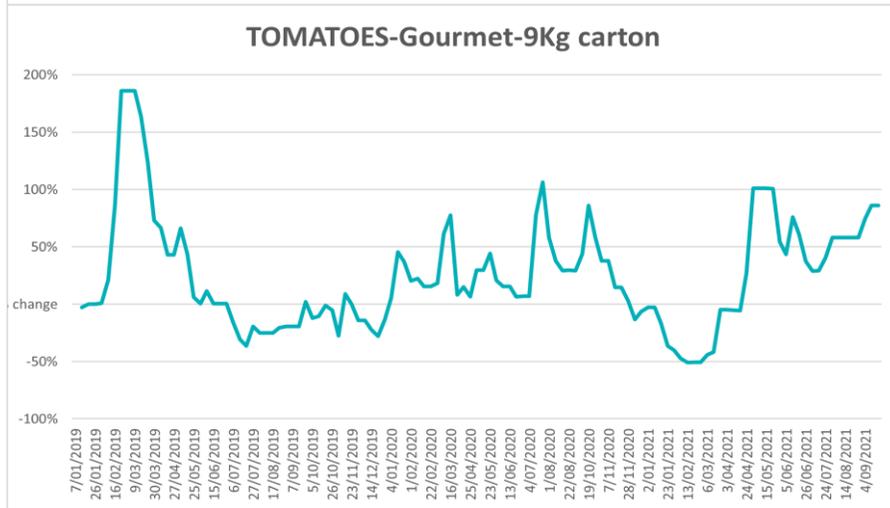
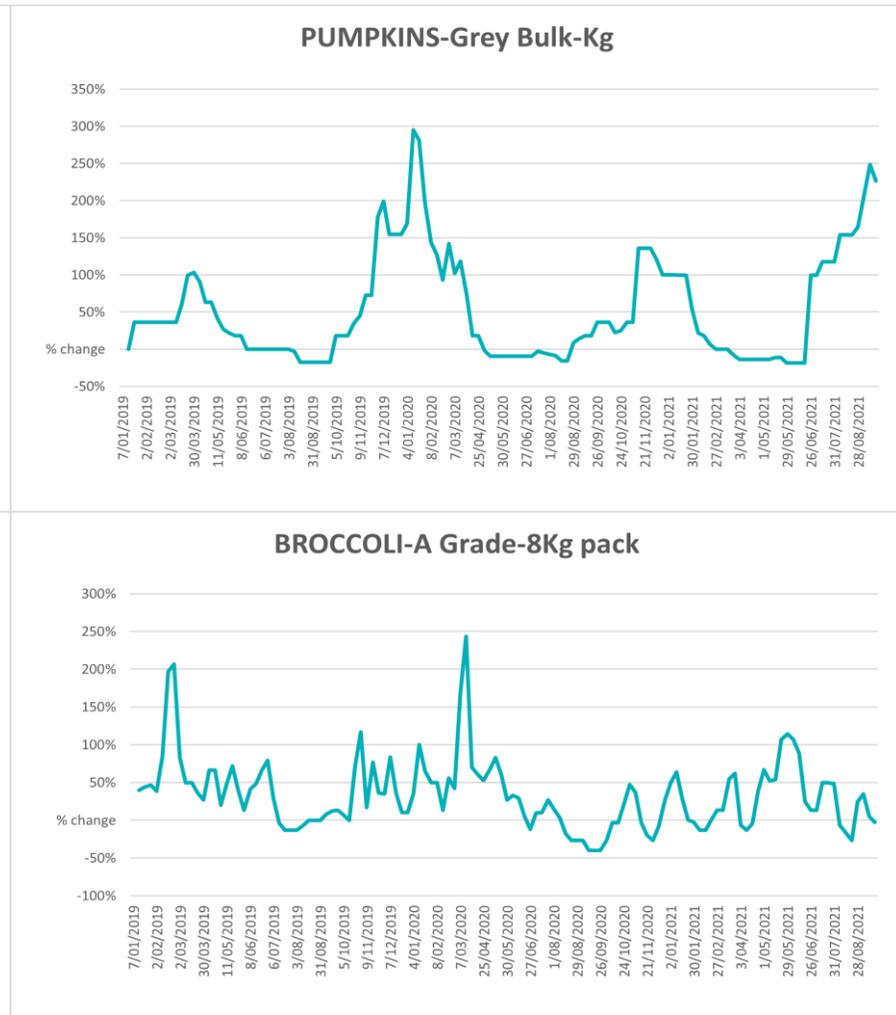
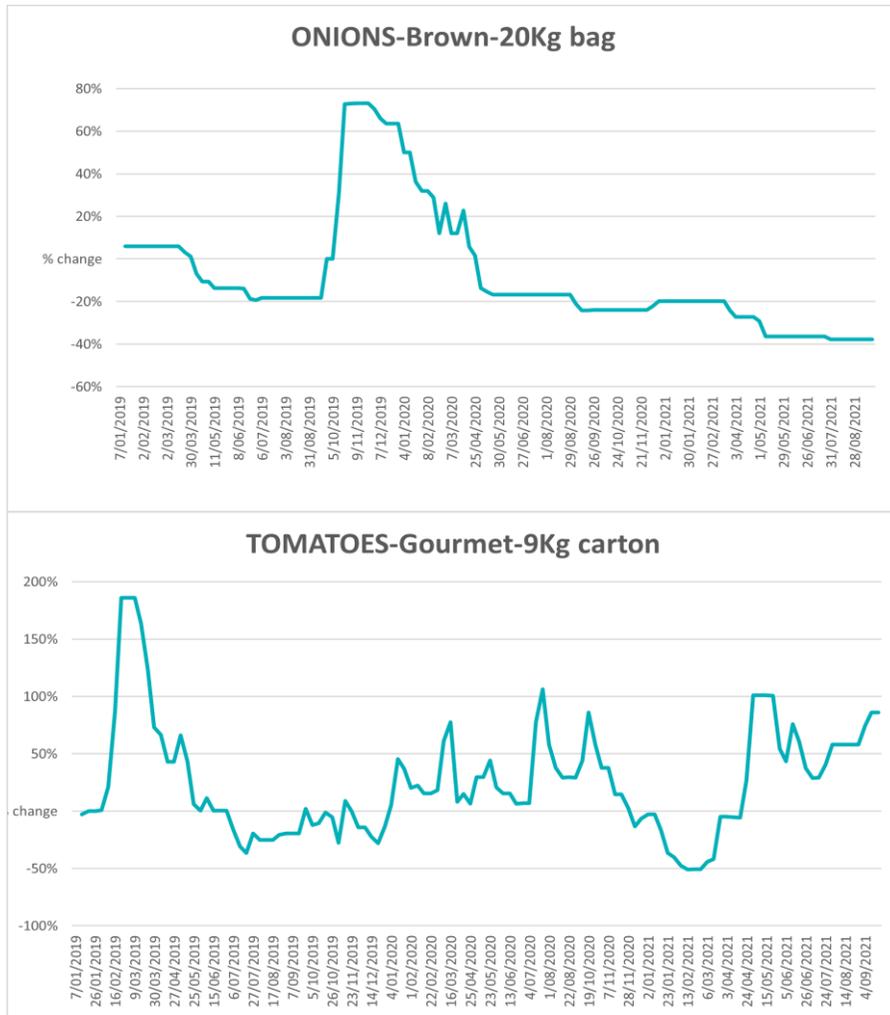
3.4. Global Dairy Trade (GDT) weighted average prices

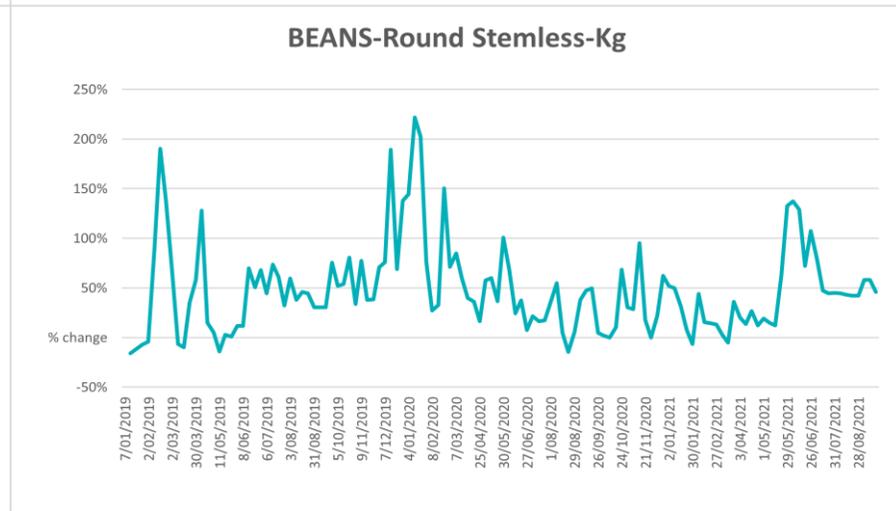
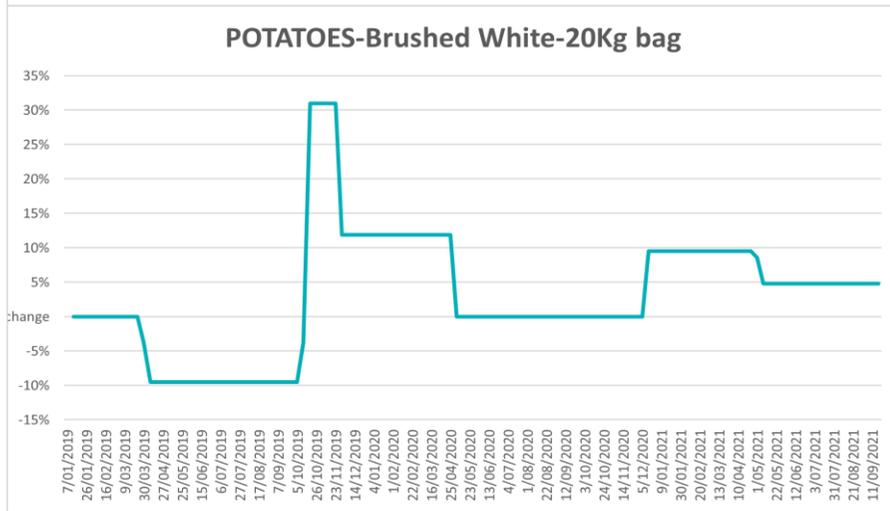
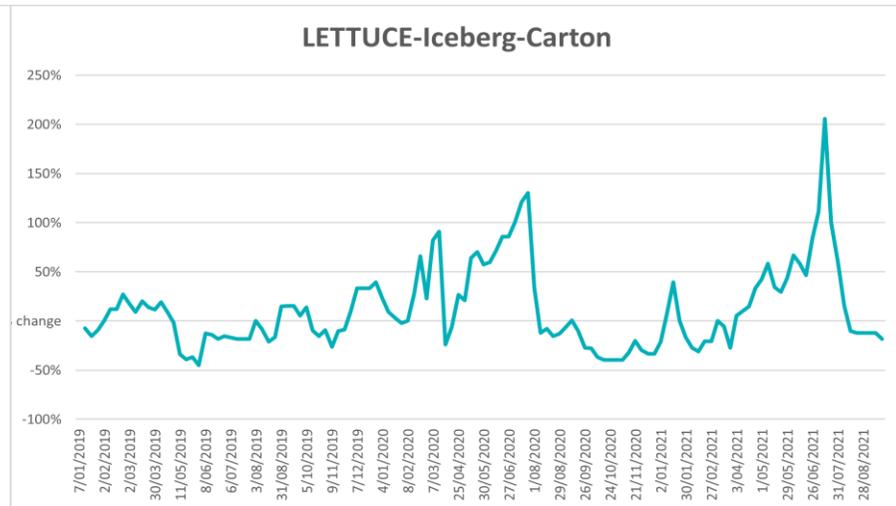
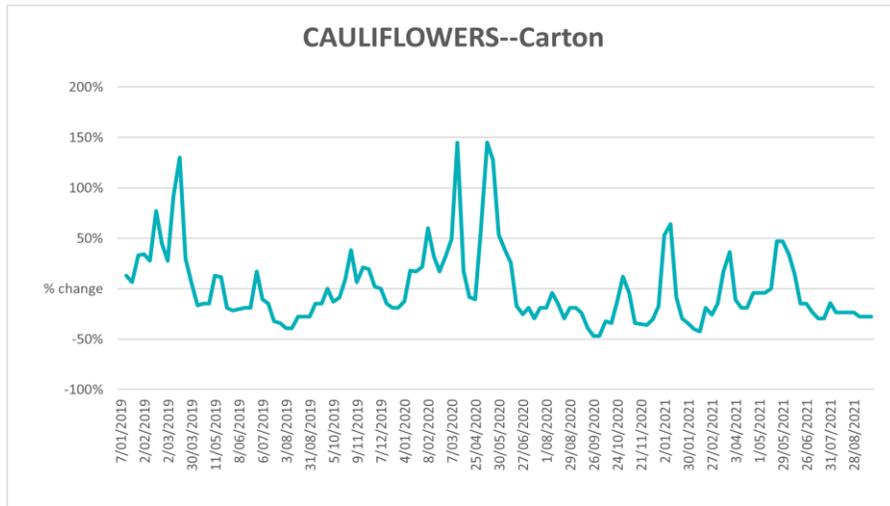


3.5. Selected fruit and vegetable prices

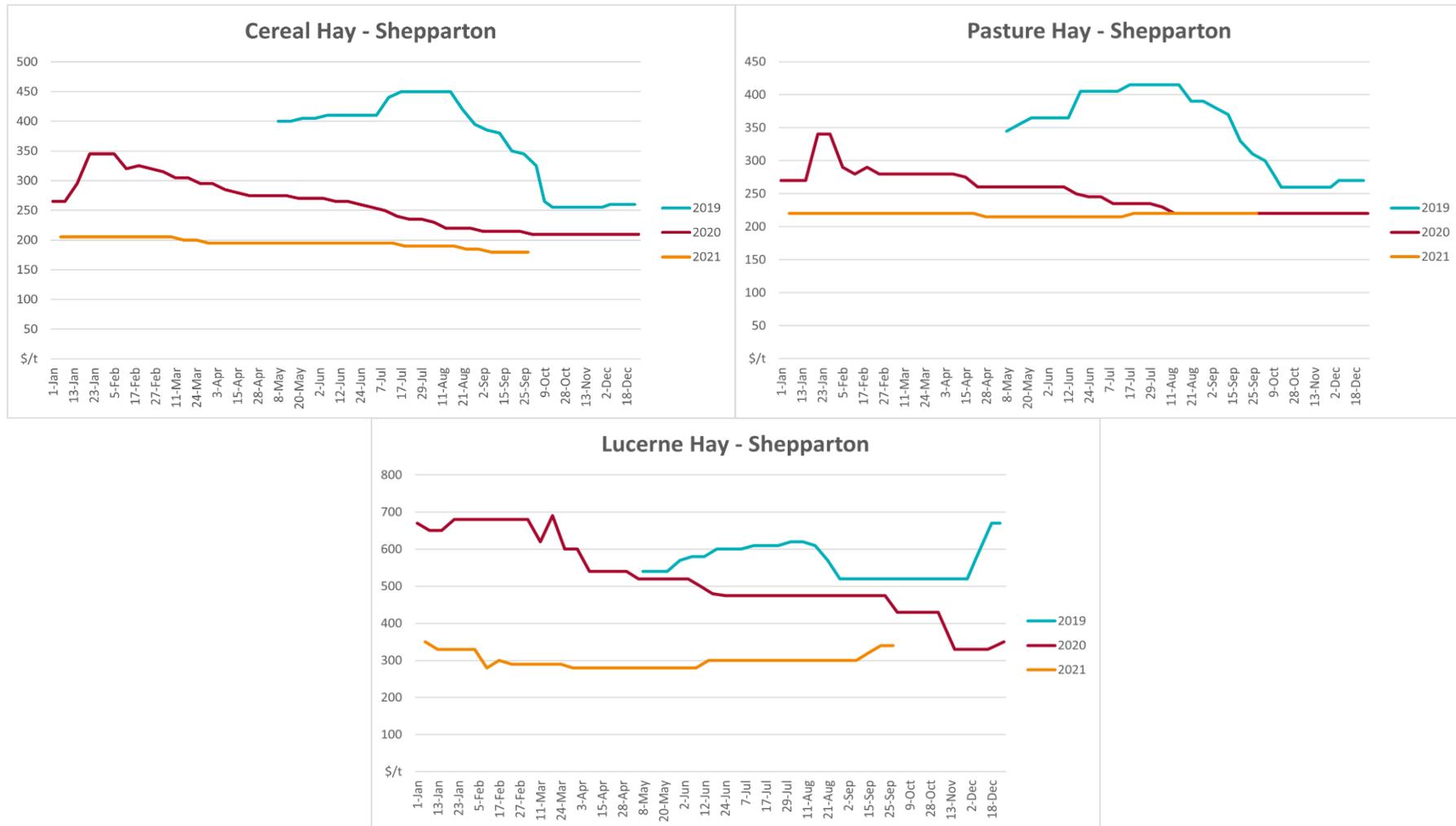








3.6. Selected domestic fodder indicator prices



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/mbd/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

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 2021, Weekly Australian Climate, Water and Agricultural Update, Australian Bureau of Agricultural and Resource Economics and Sciences, Canberra, 30 September 2021. 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, Water and the Environment

GPO Box 858 Canberra ACT 2601

Telephone 1800 900 090

Web awe.gov.au/abares

Disclaimer

The Australian Government acting through the Department of Agriculture, Water and the Environment, 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, Water and the Environment, 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 Cameron Van-Lane and Andrew Cameron.