Australian Government
Department of Agriculture, Fisheries and Forestry

ABARES

ABARES Insights

MARCH 2023

Snapshot of Australian Agriculture 2023

Australian Bureau of Agricultural and Resource Economics and Sciences

This Insights report describes the current state of Australian agriculture, with the aim of providing key information and statistics in one place. It covers eight key aspects of Australian agriculture: its role in the broader economy, trends in production, farm incomes, industry structure and productivity, climate change impacts and risk management, agricultural employment, sustainability and trade.

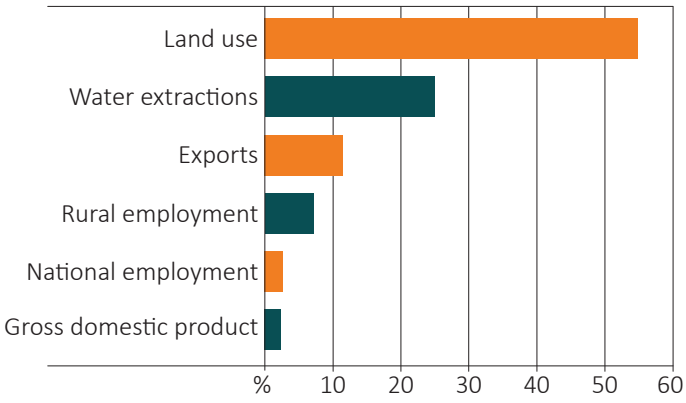
Agriculture's place in Australia

Australian agriculture accounts for:

- 55% of Australian land use (427 million hectares, excluding timber production, in December 2020) and
- 24% of water extractions (2,809 gigalitres used by agriculture in 2020–21);
- 11.6% of goods and services exports in 2021–22;
- 2.4% of value added (GDP) and 2.5% of employment in 2021–22 (Figure 1).

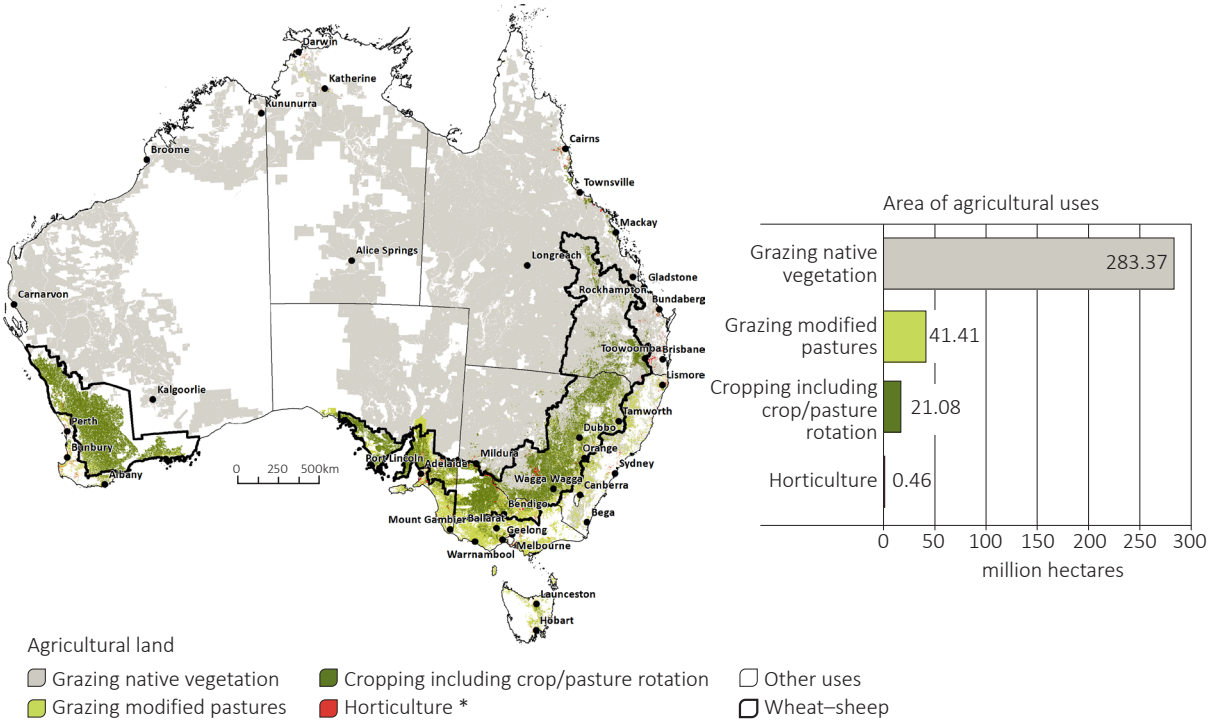
The mix of Australian agricultural activity is determined by climate, water availability, soil type and proximity to markets. Livestock grazing is widespread, occurring in most areas of Australia, while cropping and horticulture are generally concentrated in areas relatively close to the coast (Figure 2).

Figure 1 Selected contributions of agriculture



Sources: ABS Water Account (cat. 4610); Catchment scale land use of Australia – update December 2020, ABARES; ABS Balance of Payments (cat. 5302); ABS Labour Survey (cat. 6291); ABS National Accounts (cat. 5206)

Figure 2 Agricultural production zones



Note: * Exaggerated to improve visibility. Sources: Wheat-sheep zone – Australian Agricultural and Grazing Industries Survey, 2016, ABARES; Catchment scale land use of Australia – update December 2020, ABARES; ABS Agricultural Commodities, Australia, 2019–20 (cat 7121)

Agriculture accounts for over half of Australia's land use so the sustainable management of this land is an important issue for both farm businesses and the general public. There are many sustainable land practices that have become standard for Australian farmers (Coelli 2021). For example:

- many broadacre cropping farms retain stubble (85% of farms), minimise tillage (68% of farms) and optimise the use of (and reduce reliance on) pesticides or fertiliser (65% of farms)
- many livestock farms are using a variety of grazing management systems such as cell, trip or rotational grazing (61% of farms) and setting a long-term groundcover requirement (61% of farms).

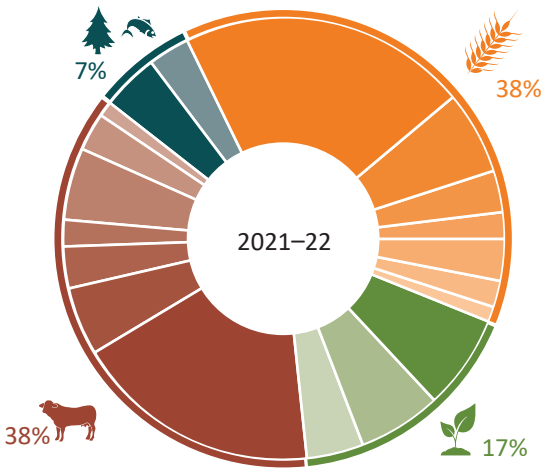
Agricultural production is growing

Australia has a diverse agricultural, fisheries and forestry sector, producing a range of crop and livestock products (Figure 3). The breaking of a 3-year east-coast drought in 2020 has been followed by successive years of record-breaking production. Many agricultural regions transitioned from very poor to very good conditions within the span of a single season. This has been combined with very high commodity prices for almost all of Australia's major agricultural products. The gross value of agricultural, fisheries and forestry production has increased by 59% in the past 20 years in real terms (adjusted for consumer price inflation), from approximately $59 billion in 2002–03 to $93 billion in 2021–22 (Figure 4).

Drivers of growth in the value of output over the past 20 years vary by sector.

- In cropping, long-term falls in real prices have been offset by volume growth, as producers have improved productivity by adopting new technologies and management practices.
- In livestock, higher prices have been the main driver of growth (Figure 5), reflecting growing demand for protein in emerging countries and some temporary factors, such as drought in the United States and disease outbreaks such as African Swine Fever in meat importing countries.

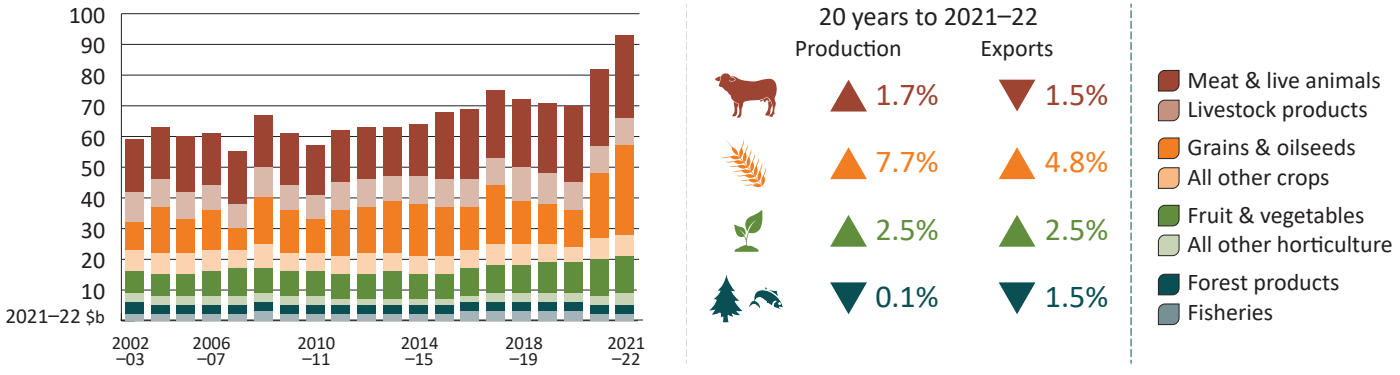
Figure 3 Agriculture, fisheries and forestry value of production, by commodity, 2021–22



Cereal grains	21%	Cattle & calves	18%
Oilseeds	6%	Sheep & lambs	5%
Pulses	3%	Poultry	3%
Hay and pasture crops	2%	Pigs	2%
Cotton	3%	Other livestock	0%
Sugar cane	2%	Milk	5%
Wine grapes	1%	Wool	3%
Fruit and nuts	7%	Other livestock products	1%
Vegetables	6%	Fisheries	4%
Other horticulture	4%	Forestry	3%

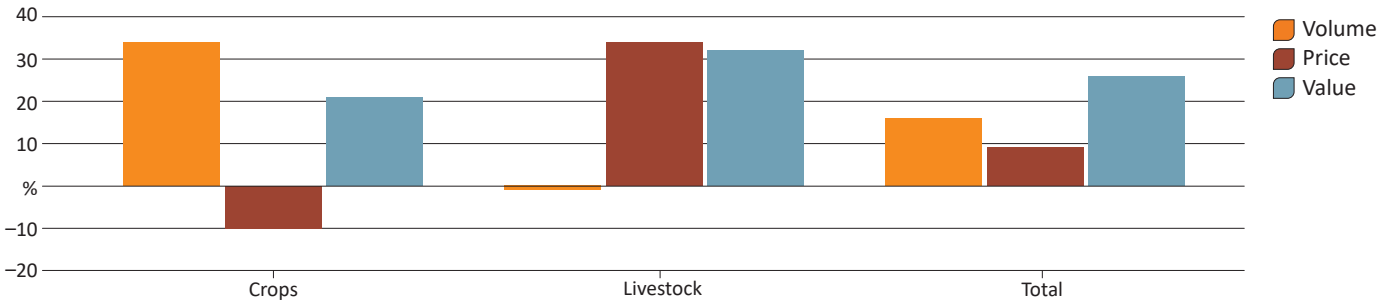
Note: Contributions of commodities to the agriculture, fisheries and forestry value of production do not sum to 100 due to rounding. Other grains and oilseeds group contributes 0.2% to the value of production. Values are measured at the farm gate (i.e. prior to processing). Source: ABARES

Figure 4 Agricultural, fisheries and forestry production, 2002–03 to 2021–22



Note: Values are measured at the farm gate (i.e. prior to processing). Percentage changes represent the average annual growth rate between 2002–03 and 2021–22. Sources: ABARES; ABS International Trade in Goods and Services (cat. 5368); ABS Value of Agricultural Commodities Produced, Australia (cat. 7503)

Figure 5 Volume driving increased cropping value, and price driving increased livestock value, 2002–03 to 2021–22



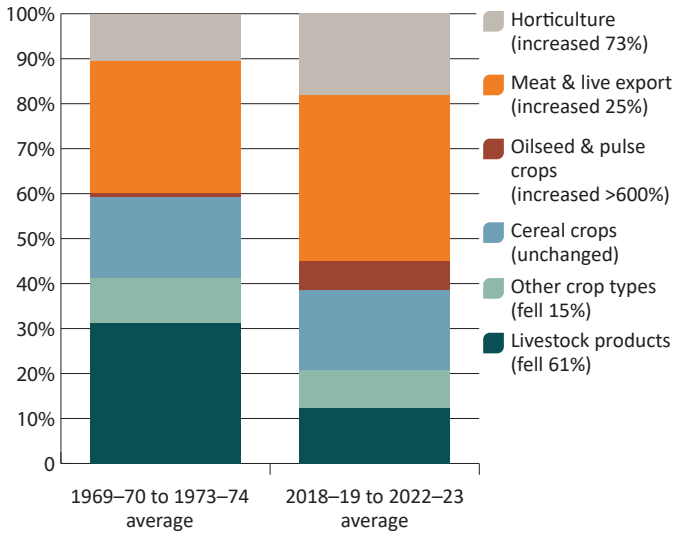
Note: Estimates relate to the agricultural sector only (they do not include fisheries and forestry). Crops include horticulture. Values represent the growth in each variable over the past 20 years (not the proportion of growth that can be attributed to each factor). Values are smoothed using a 5-year moving average. Prices and values are in real terms (adjusted to remove the effects of inflation). Source: ABARES

Australian agriculture reached a record gross value of production in 2021–22 on the back of past reforms, investments in productivity and industry responses to domestic and global pressures. These factors placed the sector in a strong position to take advantage of historically high global commodity prices and manage the uncertainties created by the COVID-19 pandemic (Cameron & Greenville 2022).

Changes in Australian agriculture can been seen through compositional shifts in its output. Over the last 5 decades, production of horticultural commodities, meat, oilseeds and pulses have grown to account for much larger shares of production while wool and milk account for much less (Figure 6).

The outlook for agriculture in 2022–23 remains positive. If seasonal conditions finish favourably and prices remain high, the sector could achieve its highest gross value of production of $90 billion (ABARES 2023)

Figure 6 Agricultural production has changed, contributing to an overall increase in output



Commodity group contribution by volume to total agricultural output, 1969–70 to 2022–23.

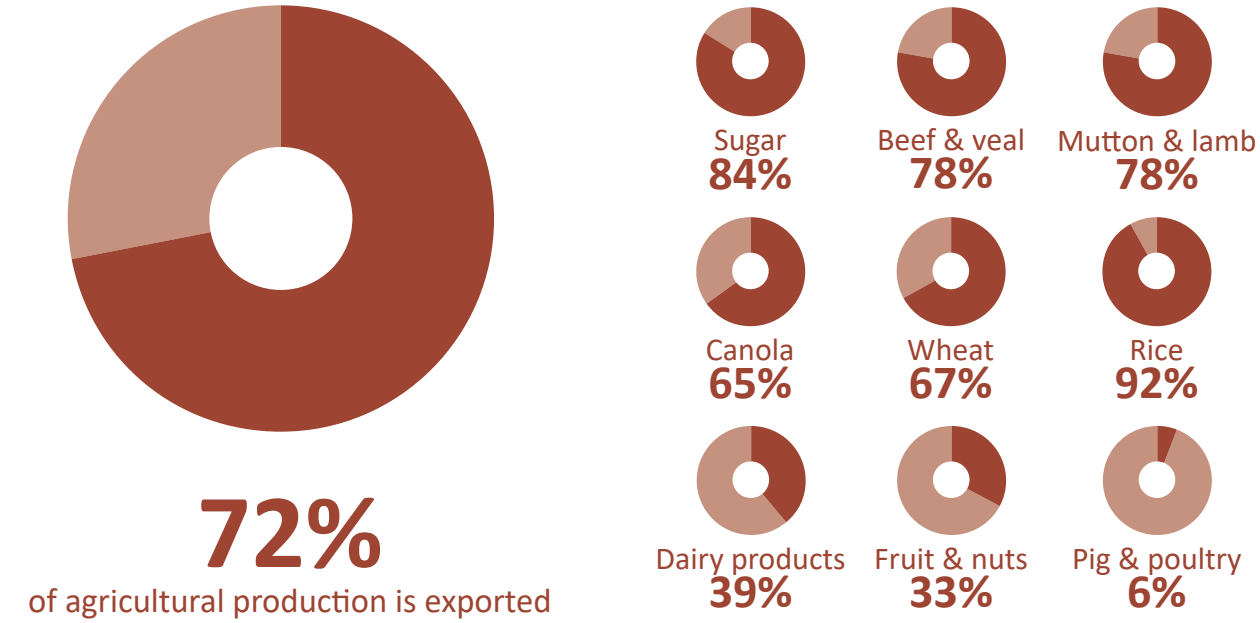
Notes: Based on chain volumes measures. Base years of 1971–72 and 2020–21 were used for the 5-year ranges shown to minimise the effect of non-additivity on category shares. The *Other crop types* category includes wine grapes, sugar cane, cotton and fodder crops. Source: ABARES

Around 72% of agricultural production is exported

Australia exports around 72% of the total value of agricultural, fisheries and forestry production. Export orientation of each industry can vary by commodity type. Wheat and beef, which are large sectors, are more export-focused than dairy, horticulture and pork (Figure 7).

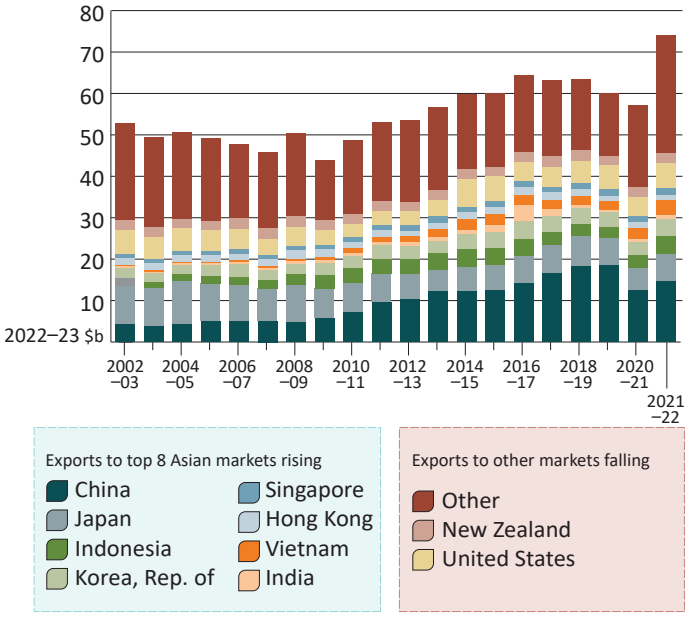
In real terms the value of agricultural exports has fluctuated between $41 billion and $71 billion since 2002–03 (Figure 8). In 2021–22 Australia agricultural, fisheries and forestry exports reached a estimated record of $76 billion. Grains, oilseeds and pulses have been the fastest-growing export segment, growing at an average annual rate of 10% in value terms between 2002–03 and 2021–22, followed by other horticulture (excludes fruit and vegetables) (5%), and meat and live animals (4%).

Figure 7 Australian agriculture is export oriented



Note: Share of agricultural production exported by sector, 3 year average, 2017–18 to 2019–20. Source: ABARES, following method outlined in Cameron (2017)

Figure 8 Real value of agricultural, fisheries and forestry exports by destination, 2002–03 to 2021–22



Note: Export values are measured at the border and so include processing of some commodities beyond the farm gate (for example, wine from grapes and cheese from milk). For this reason, production and export values are not directly comparable. Total exports may not match ABARES estimates of export value due to some agricultural, fishery and forestry exports not being included in ABS data. Sources: ABARES; ABS International Trade in Goods and Services, Australia (cat. 5368)

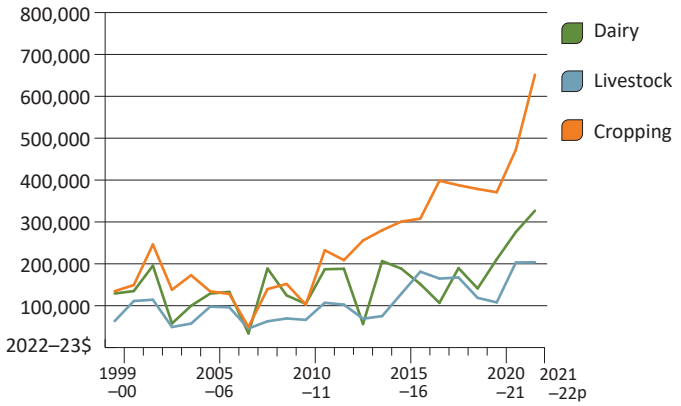
Farm incomes at record highs

Australian broadacre and dairy farms received record average farm cash incomes in 2020–21 and 2021–22 (Figure 9). Good seasonal conditions and higher commodity prices have been the predominant drivers of increases in income from the drought affected lows of recent years.

Higher cropping farm incomes were mostly driven by increases in receipts for wheat outstripping rises in average expenses for fertiliser and fuel. Livestock farm incomes in 2021–22 were estimated to fall slightly with incomes of the previous year despite higher receipts due to expenses also rising. In the case of dairy farms, higher milk prices, increased milk production and lower feeding costs have contributed to the increase in incomes.

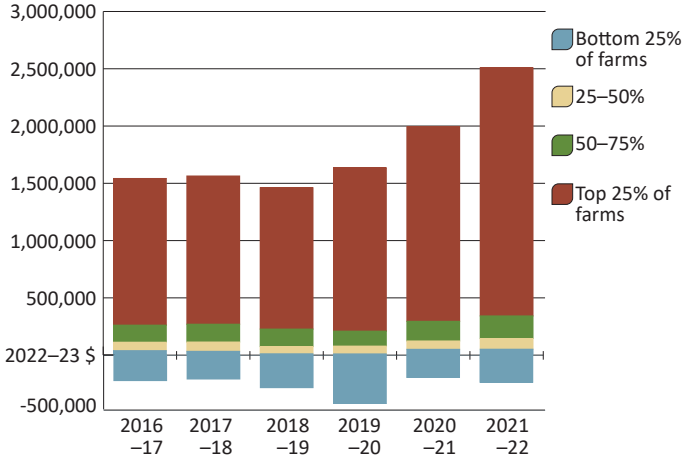
Figure 10 shows the range of farm cash incomes split into quartiles, with each colour representing 25% of the broadacre and dairy farm population. Most of the recent improvements in farm performance have resulted in the range of incomes for farms in the highest quartile increasing significantly, while changes in incomes for farms in the other quartiles were more modest. The percentage of broadacre and dairy farms with negative net income in 2021–22 is estimated to have been around 12% of farms, down from 25% of farms recording negative incomes in the drought-affected year of 2018–19.

Figure 9 Average cash income per farm, Australia, 1999–2000 to 2021–22



Note: Provisional estimates for 2021–22. Data expressed in 2022–23 dollars. Source: ABARES Australian Agricultural and Grazing Industries Survey

Figure 10 Distribution of farm cash income by quartile, broadacre and dairy farms, Australia, 2016–17 to 2021–22

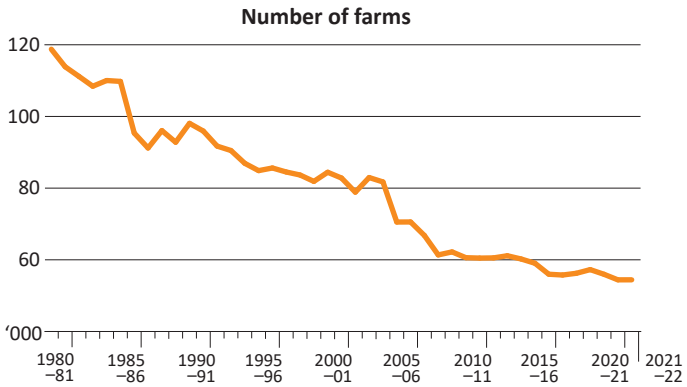


Note: Columns in this figure show the range of farm cash incomes received excluding the top and bottom 2% of farms. The quartile categories represent the range of incomes between 98th, 75th, 50th, 25th and 2nd percentiles. Preliminary estimates for 2021–22. Source: ABARES Australian Agricultural and Grazing Industries Survey

The farm population is diverse and constantly changing

In 2021–22, there were 87,800 agricultural businesses with an Estimated Value of Agricultural Operations (EVAO) of $40,000 or greater in Australia (ABS 2021a). Of these, there were an estimated 54,400 broadacre and dairy farm businesses with 62% classified as livestock farms, 30% cropping farms and 9% dairy industry farms. There has been a reduction in the number of farm businesses over time as average farm sizes have increased (Figure 11). There has also been a change in the mix of farm types, with more substantial adjustment in the cropping and dairy sectors.

Figure 11 Number of broadacre and dairy farm businesses, 1979–80 to 2021–22

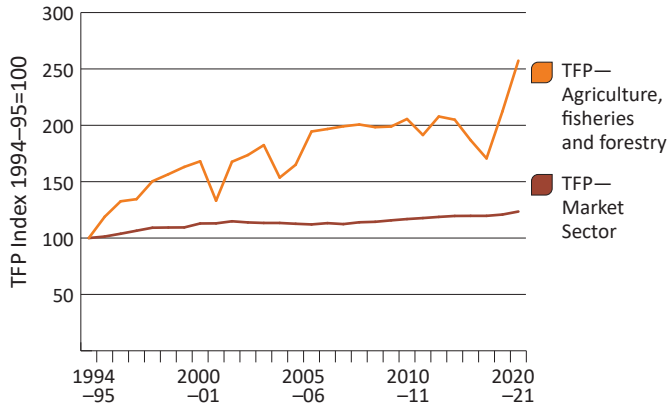


Note: ABARES' counts of farm numbers rely on the definition of a farm business according to the ABS measure of EVAO (ABS 2023b). The EVAO threshold used for ABARES' farm surveys has changed over time with shifts in industry structure and output value. Farm numbers in this graph relate to those farms with an EVAO of $10,000 or more until 1987–88; $20,000 or more from 1987–88 to 1990–91; $22,500 or more from 1991–92 to 2003–04; and $40,000 or more from 2004–05. Source: ABARES

Achieving long term growth in farm profitability

Productivity is an important measure of agricultural industry performance because in the long run, it measures the efficiency of production. Productivity growth is an important mechanism for boosting profitability and maintaining industry competitiveness. In recent decades, productivity growth in Australia's agriculture, fisheries and forestry sectors has been strong - higher than most other industries, and the market sector as a whole (ABS 2022) (Figure 12). Across Australia's broadacre industries, productivity growth has occurred through both reduced input use, and to a lesser extent, increased outputs (ABARES 2022).

Figure 12 Total factor productivity for the agriculture, fisheries and forestry sector and market average



Source: ABARES

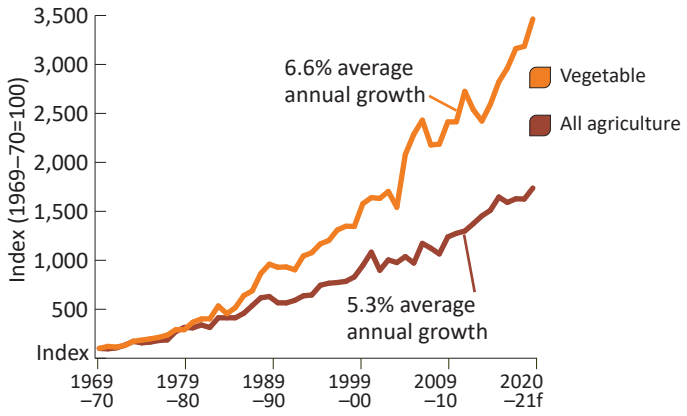
In the long run, productivity growth is driven by institutional factors, the adoption of new technologies, and structural adjustment with more profitable activities expanding at the expense of less profitable ones (Gray, Jackson and Zhao 2011). Many of the productivity gains in recent decades have resulted from market reforms and subsequent structural adjustment (Sheng, Jackson & Gooday 2015). Looking ahead, new avenues of productivity growth are most likely to occur from the adoption of new technologies – particularly input saving innovations, and through output mix in response to changing consumer preferences.

Agricultural industries have grown their output value (and profit) through different channels. For example, grain growers have adopted new technologies and management practices and strong output growth has been enabled by the use of more inputs and dairy farmers have achieved output growth while using fewer inputs.

The path for the vegetable industry has been different again with growth achieved by improving quality and supplying a wider variety of higher valued products. Over the last 5 decades, while the nominal value of all agricultural industries increased by 5.3% per year, it increased by 6.6% for the vegetable industry (from $138 million to $4.79 billion)(Figure 13).

- 5.6% ($259 million) was due to increased volume
- 34.7% ($1.615 billion) was caused by vegetable price inflation
- 59.7% ($2.779 billion) was attributable to quality improvements and/or changes in output mix

Figure 13 Growth in the nominal gross value of production by industry, Australia, 1969–70 to 2020–21



Note: Forecast values for 2020-21. Source: ABARES

The focus on quality has been possible with increasing consumer incomes and population diversity leading to changes in demand towards higher quality, variety, and convenience.

Capitalising on the changes in demand has required some significant change. Farmers introduced new varieties, added value by optimising the timing and location of supply, and changes were also made in the way vegetables were delivered and presented to consumers, including the significant shift we've seen over the last 20 years toward sales through the major retailers. Collaboration with firms involved in packing, transport, storage and distribution, and vertical and horizontal integration facilitated these improvements.

A key to investment in quality improvement has been the ability to differentiate based on quality, and to capture the benefits of that through direct involvement in the post-farm parts of the supply chain. While the vegetable sector is mostly domestic focussed and their experience won't translate perfectly, the experience of the vegetable industry has lessons for other agricultural sectors as it seems likely that responding to emerging consumer preferences and unlocking market access will become increasingly important for additional future growth (Greenville et al. 2020).

Employment on Australian farms is significant and varies throughout the year

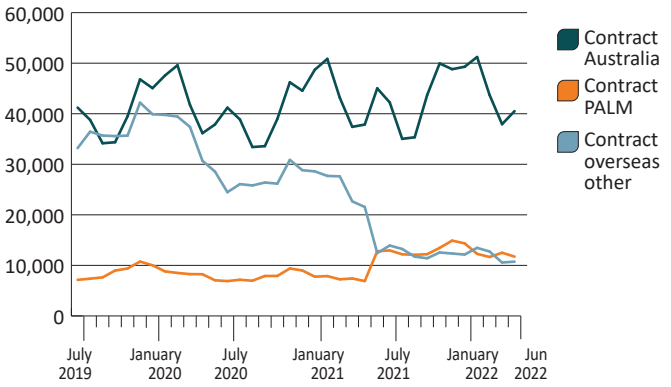
Labour is a key input to Australian agriculture. Statistics from the latest Australian Bureau of Statistics (ABS) Labour Force Survey (LFS) (ABS 2023c) indicate that the Australian agriculture, fisheries and forestry sector employed 300,000 people on average over the 4 quarters to November 2022. However, as the ABS LFS only focuses on the Australian resident civilian population, there is a significant number of overseas workers employed in the agriculture sector not captured in the LFS. As a result, there is an underestimation of approximately 8%, or 25,000 workers.

ABARES estimates that broadacre, dairy and horticulture farms account for over 88% of total agricultural employment in Australia and on average horticulture farms employ more workers per farm than other industries.

Variation in total employment on farms throughout the year occurs almost entirely through changes in the use of casual and contract labour. The total number of casual and contract workers employed on farms peaks in late summer and is at its lowest in late winter, reflecting the timing of relatively labour-intensive operations, such as planting and harvest. Horticultural farms tend to use relatively large amounts of casual and contract labour at key times of the year, while broadacre and dairy farms tend to use this kind of labour to a lesser extent and more consistently through the year.

The effects of COVID-19 on the Australian agricultural workforce were most directly felt in the horticulture sector. The total number of workers used by Australian horticulture farms declined by 20% (29,300 workers) between 2019–20 and 2021–22 (ABARES 2022). Horticulture farms typically rely on a mix of overseas workers in their peak labour use period, consisting primarily of Working Holiday Makers (WHMs) and Pacific Australia Labour Mobility (PALM) workers. From February 2020 to March 2022, the number of WHMs in Australia declined by 87% from 143,000 workers to 18,600 workers (Figure 14). Around 25–30% of all WHMs were estimated to have been employed in horticulture before COVID-19.

Figure 14 Number of farm workers by type, 2019 to 2022



Source: ABARES

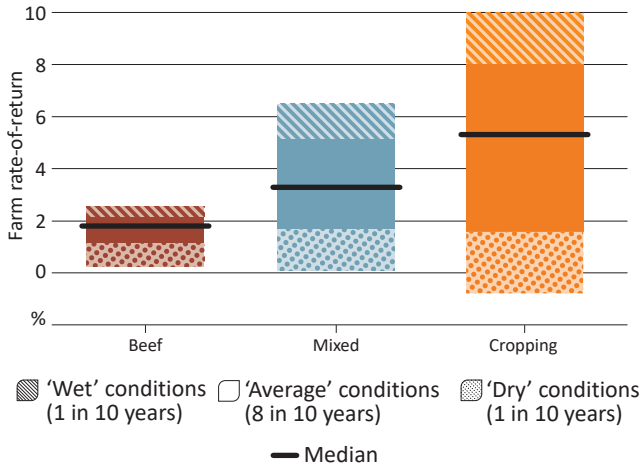
Recent changes yet to be captured in the ABARES survey show overseas worker numbers have been recovering since Australia's borders reopened in March 2022, and are now close to pre-COVID-19 levels. January 2023 saw WHM numbers back up to 88.3% (121,000) of pre-COVID levels (Department of Home Affairs 2022). In December 2022, the number of PALM workers surpassed pre-COVID-19 levels by 440% (35,000) (PALM 2022).

Australian farmers manage significant risk and variability

Australian agricultural producers manage significant variability, including a highly variable climate and volatile commodity prices. These factors generate substantial variation in farm output and incomes, greater than that experienced by farmers in most other countries and that experienced by business owners in other sectors of the Australian economy (Keogh 2012).

The effects of climate variability on farms are complex and can vary greatly across locations, farm types and sizes. On average, cropping farms face greater climate risk than beef farms, while mixed-cropping livestock farms sit in-between these extremes (Figure 15). Cropping farms are subject to large declines in production and revenue in drought years (due to reduced crop yields), while livestock farms can partially offset drought impacts in the short-term by increasing livestock sales (i.e., de-stocking, see Hughes et al. 2019). There is also a trade-off between risk and return: cropping farms face higher risk but also generate higher average returns. Exposure to climate variability and drought risk varies across Australia but is generally higher in drier in-land agricultural zones compared with high-rainfall coastal zones (Hughes et al. 2022a).

Figure 15 Effect of climate variability on rate-of-return for typical Australian cropping, beef and mixed farms

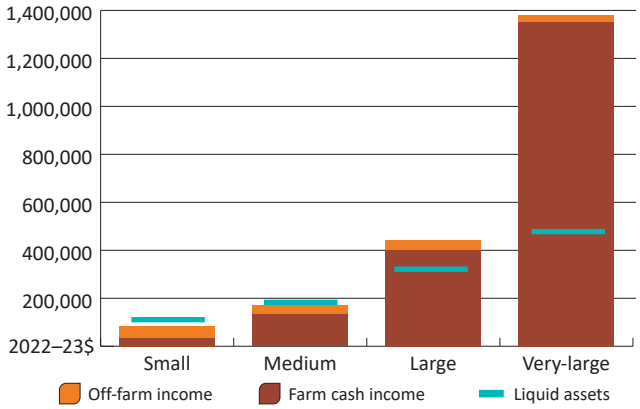


Notes: Farm rate of return is defined as profit at full equity (farm business profit less financing costs) relative to total capital holdings. Farm business profit is calculated at market prices for all inputs and outputs, including unpaid family labour, as well as changes in the value of stocks. Results are for average cropping specialist, mixed-cropping livestock and beef farms (farms with average characteristics: land area, capital holdings etc. for their industry). Based on model simulation results for current Australian farms and current commodity prices (2015–16 to 2017–18) and historical climate conditions (1949–50 to 2018–19). Source: ABARES farmpredict

Australian farmers have a number of effective strategies for managing risks associated with short term fluctuations in climate, including maintaining relatively high levels of equity, liquid assets and borrowing capacity, using inputs conservatively, diversifying across enterprises and locations and earning off-farm income.

Liquid assets are often used as working capital to finance post-drought crop planting and herd and flock rebuilding. Many broadacre farms have substantial holdings of liquid assets relative to farm household income (Figure 16) that makes them well placed to withstand short term downturns in income, although there is wide distribution across farms.

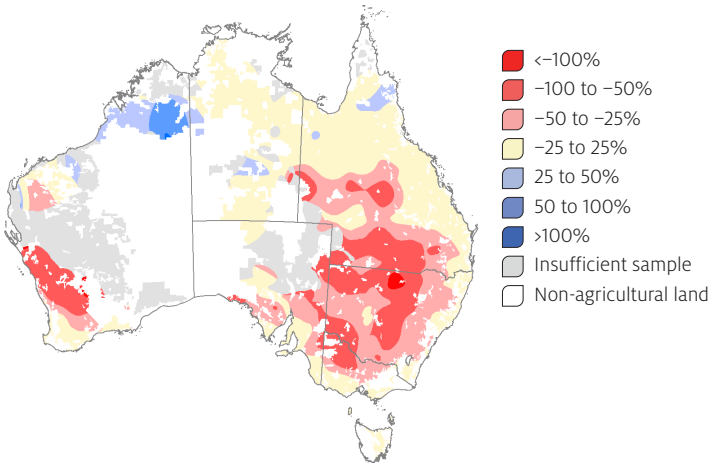
Figure 16 Farm household income and liquid assets by farm size, broadacre farms, 2019–20 to 2021–22, average per farm



Notes: Size groups determined by farm business turnover. Small (less than $250,000), Medium ($250,000 to $750,000), Large ($750,000 to $2million), Very-large (more than $2million). Source: ABARES

While farmers can employ effective strategies for coping with short term fluctuations in climate, farm incomes are being adversely affected by longer term trends towards higher temperatures and lower winter rainfall. ABARES modelling (Hughes et al. 2022b) estimates that changes in seasonal conditions over the period 2001 to 2020 (relative to 1950 to 2000) have reduced annual average broadacre farm profits by 23%, or around $29,200 per farm. These impacts have been most pronounced in south-western and south-eastern Australia, with northern Australia and the coastal higher rainfall zones tending to be less affected (Figure 17).

Figure 17 Effect of recent (2001 to 2020) seasonal conditions on farm profit



Notes: Simulated broadacre farm profit with current (2015–16 to 2018–19) farms and commodity prices and recent (2000–01 to 2019–20) climate. Map presents interpolated farm-level percentage changes (relative to 1949–50 to 1999–2000 climate), calculated using a Symmetric Mean Absolute Percentage Error (SMAPE) metric. Source: ABARES farmpredict model (Hughes, Lu et al. 2021)

While there is still much uncertainty over the long run impacts of climate change on Australian agriculture, climate model projections provide some insight into the range of climate futures, and adaptation pressures, farmers may face.

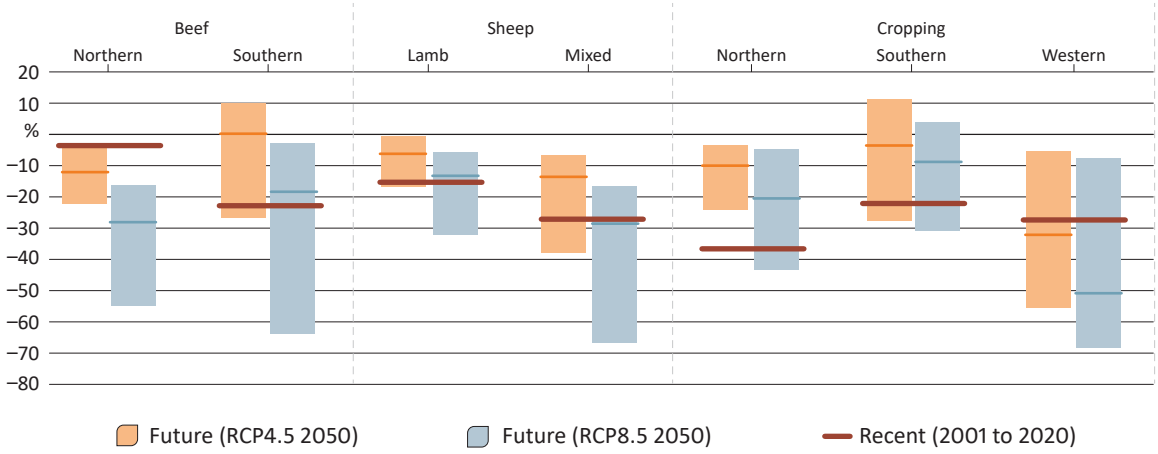
ABARES has undertaken modelling to estimate the potential effects of deteriorating climate conditions on farm profitability under various climate scenarios called Representative Concentration Pathways (RCPs)[1] (Hughes & Gooday 2021). As the analysis does not account for the offsetting positive effects of farm adaptation or technological improvement (or any changes in global commodity prices), the results are not projections of outcomes in 2050, but rather estimates of 'adaptation pressure' faced by regions and sectors.

Cropping farms in western Australia are more heavily impacted than other regions under both future climate scenarios, mainly due to the more substantial projected declines in winter rainfall and the resulting effects on crop yield (Figure 18).

Projected impacts in the beef and sheep sectors under the RCP4.5 scenario remain relatively modest. For most scenarios changes in profit are smaller than those observed under the recent climate period. However, impacts in the livestock sector become much more significant under the RCP8.5 scenario due to the larger projected temperature increases.

1 The RCP8.5 scenario assumes limited curbing of global emissions, such that CO2 concentrations reach around 540 ppm (parts per million) by 2050. Alternatively, the RCP4.5 scenario assumes a more rapid reduction in global emissions – peaking by 2040, and CO2 concentrations reaching around 485 ppm by 2050.

Figure 18 Potential relative change in farm business profit relative to historical (1950–2000) climate, broadacre farms by industry and by region

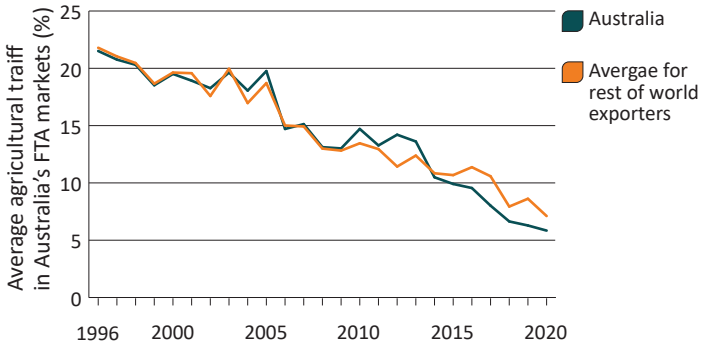


Modelled percentage change in average farm profits relative to historical period (1950 to 2000) Source: Hughes et al. 2022

Tariffs and trade barriers

Australian agricultural exporters enjoy a relatively low tariff environment. Australia has entered into 17 free trade agreements, providing Australian agricultural exporters an advantage in key destination markets (Figure 19). Australia's free trade agreements have meant that Australian agricultural exporters have faced similar and recently improved market access compared to other exporters. Nonetheless, it is important for Australia to continue pursuing improvements to market access, to reduce the risk of competitors closing in on Australian exporters' tariff advantages.

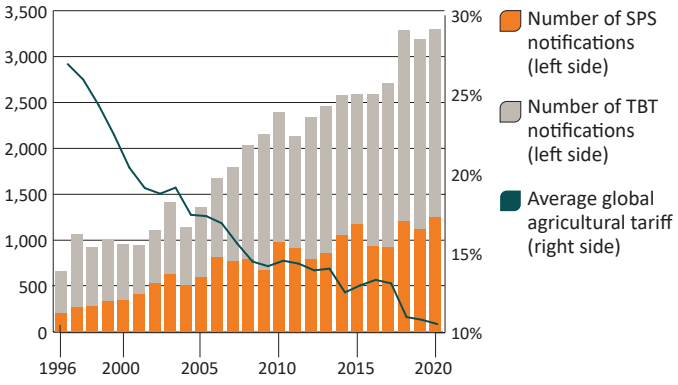
Figure 19 Tariffs faced by Australia's agricultural exporters in key markets have fallen compared to competitors



Source: ABARES

As bilateral tariffs have fallen, exporters have benefitted from improved terms of trade. However, as agricultural tariffs around the world have fallen, the number of non-tariff measures (NTMs) – policy measures applied to traded goods excluding tariffs – has risen (Figure 20). NTMs can include legitimate biosecurity-related policies such as food safety regulations and pest control measures. Some NTMs, such as food safety requirements, may even signal quality to buyers and improve trade outcomes. It is important to ensure that as the number of non-tariff measures rises, these are not used for protectionist purposes to create additional barriers to trade.

Figure 20 The average bilateral agricultural tariff has fallen since 1995 while the number of NTM notifications has risen in the same time period



SPS: sanitary & phytosanitary measures, TBT: technical barriers to trade. Source: ABARES and WTO

Sustainability and competitiveness

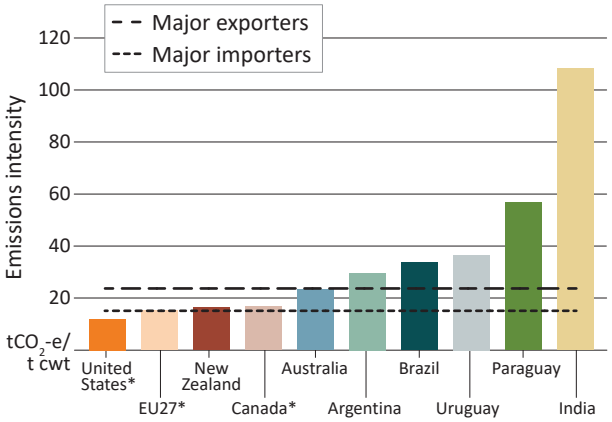
Sustainability is an increasingly important attribute to both consumers and investors in all markets, including agriculture, and sustainability credentials are being included in trade policies and investment criteria in many countries (KPMG 2022). For example, the European Union (EU) is considering the implementation of a carbon border adjustment mechanism applied to emissions-intensive imports (currently excluding agricultural products). An increasing number of companies are using frameworks such as the Taskforce for Climate-Related Financial Disclosures (TCFD) as a baseline for voluntary reporting of climate-related risks, and some governments are also considering mandatory adoption of the TCFD (CCA 2022; KPMG 2022). Similarly, the Taskforce on Nature-related Financial Disclosures framework is being developed as a global risk management and disclosure framework for organisations to report and act on nature-related risks.

Farmers have incentives to improve sustainability, both from a trade and competitiveness point of view, as well as to improve their long run productivity. On the emissions front, Australia's farm sector averages around 14-16% of national greenhouse gas emissions (DCCEEW 2022a). Emissions vary depending on seasonal conditions. Agriculture's share of total emissions in Australia is slightly above the global average (13%) (FAO 2021). The profile of future emissions from the sector, expected to increase from 16% in 2022 to 20% in 2035 (DCCEEW 2022b), will likely increase pressure on the sector to reduce its aggregate emissions. It is likely that this, and an increasing focus on emissions within trading arrangements, will create incentives for emissions reductions in the sector in future. There is already evidence of strong farm adaptation responses to the recent climate shifts with improvements in technology and management practices helping to increase farm productivity (Hochman et al. 2017; Hughes et al. 2017).

Reflecting these climate and market trends, Australia's major agricultural industries have developed sustainability frameworks. For example, the beef industry (which accounts for over half of Australia's GHG emissions) provides annual Australian Beef Sustainability Framework updates of the industry's sustainability progress against 53 indicators, and the red meat industry has a goal to be carbon neutral by 2030. The National Farmers Federation and other stakeholders are currently developing an Australian Agriculture Sustainability Framework for use in sustainability-related trade and market access negotiations, and to help companies meet sustainability requirements.

On many criteria, Australia's agricultural industries are already very sustainable compared to our competitors in global markets. For example, the average emissions intensity (EI) of Australian beef is estimated to be lower than beef from our main competitors (Figure 21). However, our extensive grazing production systems can mean that the estimated emissions intensity of Australian beef is higher than producers in some major markets like the EU or USA.

Figure 21 Emissions per unit of beef produced, 2008–2017



Source: Greenville et al. 2020

While farmers can reduce the emissions intensity of production through low-cost measures such as herd management and planting trees on farms (AgriFutures 2022), substantial reductions in agricultural emissions will require the development of products to reduce methane production from ruminant livestock (Black et al. 2021). 80% of Australia's agricultural CO2-e (carbon dioxide-equivalent) emissions are methane from ruminant livestock.

Some of these are already available for some industries, such as feed supplements for intensive livestock farming, which reduce methane emissions from ruminant livestock. However, international research collaboration will be required to develop and deploy these opportunities across the farm sector over coming decades, and achieve globally meaningful reductions in agricultural GHG emissions.

One practical way to improve sustainability outcomes could be to remove existing agricultural support policies, which distort global agricultural markets and impede productivity growth in the sector. Countries currently spend around $611 billion a year in trade and production distorting agricultural support such as subsidies and tariffs (OECD 2022). Removing this support can reduce the GHG emissions associated with food production by shifting production into more efficient products and countries, thereby contributing to improved agricultural productivity and less food waste (Fell et al. 2022). Doing so will also improve global food security, household welfare and economic growth. Australia is already doing its part, with very low levels of support to farmers; but ongoing effort in multilateral frameworks is required to achieve global benefits.

Figure 22 Improvements to economic, social and environmental outcomes when all agricultural support (trade barriers and domestic support) is removed

Source: Fell et al. 2022, based on ABARES modelling

However, the incorporation of sustainability indicators in trade can come with some risks. There are many ways to measure and define sustainability. It is important that future policies recognise the different approaches taken to achieve sustainability in different regions, while also providing consistent and credible information to consumers and investors. Effective implementation of these policies has the potential to provide a powerful incentive to farmers to further improve the sustainability of their production systems, and deliver important environmental outcomes.

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Cataloguing data
This publication (and any material sourced from it) should be attributed as: ABARES, 2023, Snapshot of Australian Agriculture 2023, ABARES Insights, Canberra, March, DOI: https://doi.org/10.25814/rk1z-qm36. CC BY 4.0.

ISSN 2209-9123

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Acknowledgements
This work draws on a wide range of material produced by ABARES and its staff. This edition was prepared by Quin Welsford-Brink from the Farm Data and Analysis program.

Acknowledgement of Country
We acknowledge the Traditional Custodians of Australia and their continuing connection to land and sea, waters, environment and community. We pay our respects to the Traditional Custodians of the lands we live and work on, their culture, and their Elders past and present.