



Inquiry into food security in Australia

**The House Standing Committee on
Agriculture**

December 2022

About the Australian Fresh Produce Alliance

The Australian Fresh Produce Alliance (AFPA) is made up of Australia's key fresh produce growers and suppliers. The members include:

- Costa Group
- Perfection Fresh
- Montague
- One Harvest
- Pinata Farms
- Fresh Select
- Mackay's Banana Marketing
- Driscoll's
- Australian Produce Partners
- Premier Fresh Australia
- Rugby Farming
- Freshmax
- Fresh Produce Group.

These businesses represent:

- half the industry turnover of the Australian fresh produce (fruit and vegetables) sector - \$4.5 billion of the \$9.1 billion total
- a quarter of the volume of fresh produce grown in Australia - 1 million of the 3.9 million tonne total
- more than a third of fresh produce exports - \$410 million of the \$1.2 billion export total
- more than 1,000 growers through commercial arrangements, and
- more than 15,000 direct employees through peak harvest, and up to 25,000 employees in the grower network.

The key issues the AFPA is focusing on include:

- packaging and the role it plays in product shelf life and reducing food waste landfill,
- labour and the need for both a permanent and temporary supply of workers,
- market access to key export markets for Australian produce,
- product integrity both within and outside of the supply chain,
- pollination and research into alternative sources, and
- water security, including clear direction as to the allocation and trading of water rights.

The AFPA's aim therefore is to become the first-choice fresh produce group that retailers and government go to for discussion and outcomes on issues involving the growing and supply of fresh produce.

Products grown by AFPA Member companies include:

Apples	Blueberries	Cherries	Nectarines	Raspberries
Apricots	Broccoli	Fioretto	Onions	Salad leaf
Asparagus	Broccolini	Green Beans	Oranges	Spinach
Avocado	Brussel Sprouts	Herbs	Peaches	Strawberries
Baby Broccoli	Butternut	Lemons	Pears	Sweet Corn
Baby Corn	Pumpkin	Lettuce	Pineapples	Table grapes
Bananas	Cabbage	Mandarins	Plums	Tomatoes
Beetroot	Cauliflower	Mango	Potatoes	Water Cress
Blackberries	Celery	Mushrooms	Cucumber	Wombok

Summary

A profitable and sustainable fresh produce industry is in Australia's national interest - this should be reflected and properly weighted in the considerations and decisions of our policy makers and governing bodies, but currently, it is not and as a result Australia is increasingly at risk of losing its food security.

This inquiry examines the national production, consumption and export of food, access to key inputs, the impacts of supply chain distribution on the cost and availability of food and the opportunities and threats associated with climate change – all important areas in relation to Australia's food security. In order to genuinely strengthen and safeguard food security in Australia, the production of food, which includes on-farm horticulture production, must be well understood and at the forefront of policy making in Australia.

Key to strengthening and safeguarding Australia's food security is ensuring that the operating environment for Australian food producers is sustainable. The Australian Fresh Produce Alliance (AFPA) is making a concentrated effort in several key areas to support the industry's long-term viability and seeks to work with government and stakeholders on these key areas and other priorities to improve Australia's food security. These focus areas are:

1. Improved access to consumers both in Australia and overseas
2. Developing a productive and returning workforce for the fresh produce industry
3. Developing resilient supply chains
4. Ensuring sustainable production of fresh produce

Ensuring that our population has access to fresh produce, which is both affordable and of a high quality, is a responsibility that the sector and our food and grocery retailers take very seriously. The financial impost on both state and federal health budgets relating to the treatment of preventative chronic diseases mandates that more be done to ensure every Australian has access to food that is healthy and nutritious.

Increasing Australia's fresh produce exports through improved technical market access must be viewed as a positive for food security. Fresh produce exports play an important role in Australia's food security because access to export markets provides premium pricing to growers, which enables scaling and investment in produce businesses, and the regional communities in which they operate. The result of improved exports is possible to see in the domestic market with improved capacity, capital and consistent supply of domestic product. Improved technical market access, and the subsequent trade that will flow from this, is critical in safeguarding Australia's fresh produce industry.

In order to support two-way trade, a strong and effective biosecurity system is essential. An effective biosecurity system unlocks trading potential, while also protecting our domestic production. To ensure the ongoing production of fresh produce in Australia, significant attention must be paid to our biosecurity system. An incursion of a pest or disease of significance is a major threat to Australia's food security, and on that basis thorough, a well-resourced and appropriately funded biosecurity system is a public good, safeguarding food for all Australians.

Typically, labour is the largest cost unit in fresh produce businesses, accounting for up to 60 per cent of the total cost of production in some instances; the development of a productive and returning workforce for the fresh produce industry is therefore critical in terms of ensuring productivity within the industry and efficient production of fresh produce. The fresh produce industry's workforce can be broadly separated into three functional areas, each with their own requirements and solutions – harvest labour, technical expertise and management and administration.

Wholistic workforce policy for the fresh produce industry will drive food security outcomes. The horticulture industry is reliant on seasonal and temporary migrant workers to harvest crops; however these harvest roles underpin ongoing full-time employment in the sector and are vital to ensuring Australians can access food. Modelling work, commissioned in 2020 by the AFPA and completed by Deloitte Access Economics, identified that a significant reduction of the number of temporary migrants in horticulture would result in a 60% increase in the price of fruit and vegetables (by kilogram) for Australian consumers. With record low unemployment, and the majority of Australians employed in the services sector, the link between migration and food production is more important than ever in addressing food security.

Australia is generally considered to be highly food secure due to the abundance of food produced and exported, however this production requires hundreds, if not thousands of inputs, which are delivered through a complex and globally intertwined supply chain. This is particularly true within the fresh produce sector, with a strong reliance on imported inputs to manufacture fresh produce, including seed, fertiliser, machinery and packaging. Understanding the industry's supply chain is essential, imported inputs as well as domestic inputs, including water, gas, fuel and electricity. In order to support food security, government must map industry's supply chains to ensure that in the event of significant disruption, key inputs will continue to be available to produce food.

The COVID pandemic demonstrated that closures and reduction in capacity of key infrastructure in the fresh produce sector can quickly lead to product shortages on shelves and an inability for Australians to access fresh produce. The fresh produce industry's supply chain extends directly to consumers, with fresh produce growers sending fresh produce across Australia daily. Investment in road and rail infrastructure, as well as safeguarding critical infrastructure such as distribution centres for retail and wholesale, must also form part of government consideration on how to ensure food security within Australia.

To future proof access to fresh produce in Australia, it is important that a wholistic view of sustainability is taken by government and stakeholders, being that a business' sustainability has three factors (a 'triple bottom line') – people, planet, and profit. Central to this is the understanding that if a business itself is not sustainable, then it cannot contribute to broader goals and objectives. This is particularly relevant with regard to the ongoing conversation on environmental sustainability within the agriculture sector. There must be a careful balance between worthy environmental objectives (reduction of non-functional packaging, carbon emission reductions, water use efficiency, soil improvement etc.) and the ongoing, effective production of food for Australians. Where this balance becomes too weighted to one side, there can be poor outcomes for farmers, the industry's long-term sustainability and for consumer access to affordable, healthy fresh food.

At a high-level, the overarching outcome of this inquiry should be to elevate the significance of the fresh produce industry in Australia within the government's agenda, with the aim of generating a greater whole-of-government effort to support our industry's viability and growth. It is only with a favourable operating environment, which encourages and enables the sustainable production and distribution of affordable fresh produce for all Australians can Australia be considered food secure.

Areas of Focus and Recommendations

Improving access to Australia's fresh produce

That Government:

- better support Australian household access to and the consumption of nutritious fresh produce, in an effort to create a healthier society, lower levels of preventative illness and disease in the population and relieve the pressure on future health budgets.
 - As part of this effort, commit to the inclusion of household fruit and vegetable consumption as a wellbeing measurement of the 2023/24 Budget, to drive government-wide action and investment toward supporting improved access to fresh produce and a healthier Australia.
- support the continued growth of Australian fruit and vegetable exports, which will underpin the industry, its growing workforce, private investment, and new infrastructure, by providing:
 - greater Commonwealth leadership, including a whole of government approach, with an urgent focus on securing technical market access for fresh produce into key export markets.
 - more resources to the Department of Agriculture, Fisheries and Forestry to ensure that two way trade in fresh produce continues to develop and impediment to export growth can be reduced.
- deliver on its commitment to establish long-term, sustainable funding for biosecurity, which is not dependent on trade levies or new taxes on farmers but drawn from central funding in recognition of biosecurity being of national interest and for public good.

Developing a productive and returning workforce for the fresh produce industry

That Government work with industry to:

- review the current approach to skilling and training workers within the fresh produce industry with a commitment to invest in improvements and initiatives, such as better supporting on-the-job training with employers
- continue building a positive employment and workplace culture in the industry through the development of policies and programs that are future focussed and support a productive, diverse, and sustainable workforce, as well as by implementing a National Labour Hire Licensing Scheme and increasing funding to the Fair Work Ombudsman
- expand the PALM scheme through increased investment in its resources and backend systems and by working collaboratively with partner countries to ensure the program remains sustainable, of mutual benefit and a continuing success; and
- recognise the importance of existing visa pathways to the industry, and how the visa framework could be improved to better meet the holistic needs of the horticulture industry by enabling employers' better access to the skills and people that support the ongoing production of food.

Developing resilient supply chains

That Government:

- undertake a detailed mapping exercise of key supply chain inputs and, with this information, create a program of work and investments to build a more resilient supply-chain, including through domestic capability improvements.
- That the Government invest in regional infrastructure, communities and industries that support the production and distribution of fresh produce to Australian households and international markets.

Ensuring sustainable production of fresh produce

That Government:

- recognise that environmental objectives and ambitions, whilst widely supported and progressed by industry, need to be considered alongside Australia's food security and the industry's ongoing ability to produce fruit and vegetables in a strained commercial environment.
- implement a nationally coordinated policy on packaging, food waste and recycling that provides a framework and guidance for industry, retailers and consumers and supports investments in much needed recycling infrastructure.

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Introduction

Food Insecurity – A growing issue

The Australian Parliament's Agriculture Committee has commenced an inquiry into food security in Australia. The Committee will inquire into and report on strengthening and safeguarding food security in Australia, including examining:

- National production, consumption and export of food;
- Access to key inputs such as fuel, fertiliser and labour, and their impact on production costs;
- The impact of supply chain distribution on the cost and availability of food; and
- The potential opportunities and threats of climate change on food production in Australia.

Broadly, Australian food security can be measured in two ways. Firstly, is there enough domestic production of food to feed the current population, and secondly, do Australians have access to sufficient, nutritious food to meet their needs and support a healthy life. Exploring food security as simply a measurement of “do we have enough food”, misses the opportunity to address food security from the perspective of access to food and address a number of fundamental challenges that are creating food insecurity in Australia.

Current evidence suggests there are many Australians struggling with food insecurity. A national survey by Foodbank Australia found that more than one in six Australian adults are severely food insecure, and 1.2 million children are living in food insecure households. This is a national crisis, and if left unaddressed it will lead to lasting adverse health implications and a high cost to our economy. The inability to access food is being driven by countless factors, such as household mortgage stress, petrol prices, utility prices and other household expenses. The issues preventing families from putting food on the table should be considered and addressed with urgency by governments and responsible organisations.

However, while it is of paramount importance that swift action be taken to support Australian households, what cannot be understated is the role of the domestic fresh produce industry in guaranteeing Australians access to sufficient, safe, and nutritious food. Without a domestic manufacturing or production capability for fresh produce, Australians would be entirely reliant on imported produce. Supply chain disruptions experienced across the economy during the COVID pandemic demonstrated that an over reliance on imported fresh produce is inherently risky for Australia's food supply, and ultimately Australian's ability to access food.

Events over the past few years, such extreme weather, supply-chain disruptions, and labour shortages, have strained the industry's ability to maintain supply. Like any business, farms are also struggling against high inflation, energy costs and other economic headwinds. The agriculture industry is one of the most exposed to rising interest rates, collectively \$94 billion in debt. Today, large sections of Australia's fresh produce industry are closer in comparison to manufacturing than traditional farming, requiring large capital investments for processing plants, equipment and infrastructure in order to meet the demand for fresh, safe and affordable fresh produce.

In addition to pressure on the industry to supply affordable fresh produce, there is increasing pressure on industry to make a greater contribution to environmental objectives. The industry recognises the threat of climate change to production and supports action, but this conversation must be balanced between the need for environmentally sustainable production and distribution of fresh produce and ensuring that fresh produce businesses are economically sustainable, and that Australian's are able to maintain access to fresh produce.

While there is no silver bullet to address food security, an important starting point is recognition that creating economically sustainable food production businesses is critical. An operating environment that enables and encourages food production will stand Australia's food security in good stead.

Background

Australia's diverse growing regions support a thriving horticulture industry that ensures the ongoing production of fresh, healthy fresh produce for Australians - a critical contribution to Australia's food security.

In 2020-21 the value of Australia's fruit and vegetable production was \$10.67 billion.

More than 100 fruit and vegetable varieties are grown in Australia. The majority of production occurs in eastern Australia, primarily Queensland and Victoria, where over half of the industry's production value is grown (Figure 2).

Varying growing conditions across Australia mean the mixture of fruit and vegetable crops differ between each state and territory. Table 1 provides the top commodities (by production value) of each state and territory.

Growing conditions also vary within states. Some regions have ideal conditions for certain crops, providing the local growers with a competitive advantage and leading to high concentrations of single-variety production. For example, in 2020-21, Shepparton (Victoria) produced over a third of Australia's apples supply (97,673 of 284,897 tonnes) and Cairns (Queensland) produced close to 90 per cent of Australia's Banana supply (305,296 of 346,035 tonnes).

Figure 1: Gross value of fruit and vegetable production by State and Territory

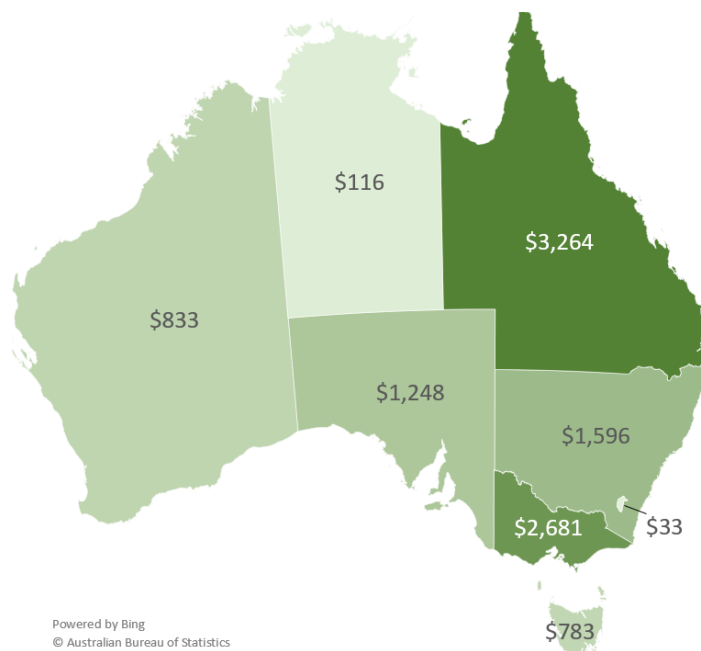


Table 1: 2020-21 Highest Value Horticulture Commodities in State and Territories

State	Top Commodities*		
QLD	Bananas (\$633m)	Strawberries (\$200m)	Mandarins (\$191m)
NSW	Oranges (\$315m)	Berries (\$254m)	Tomatoes (\$103m)
VIC	Grapes** (\$402m)	Apples (\$321m)	Mushrooms (\$146m)
SA	Potatoes (\$248m)	Oranges (\$196m)	Apples (\$143m)
WA	Carrots (\$96m)	Avocados (\$91m)	Potatoes (\$79m)
TAS	Potatoes (\$165m)	Berries (\$147m)	Apples (\$74m)
NT	Mangoes (\$70m)	Melons (\$23m)	Grapes** (\$6m)
ACT	Apples (\$33m)	NP	NP

Source: ABS data –2020-21 Value of Agricultural Commodities Produced

*ABS categories 'all other fruit' and 'all other vegetables' are excluded.

** Grapes excludes wine varieties

NP = not provided

The production of fresh fruit and vegetables is a key pillar of the Australian agriculture supply chain, which employs an estimated 1.6 million people. Australia's fresh produce sector is estimated to directly support between 65,500-80,000 full-time-equivalent positions; in 2020–21, recent ABARES survey data indicates the number of workers in horticulture peaked at 146,300 in Summer and early Autumn (as most employees are engaged on a temporary basis to support seasonal harvests). The fresh produce sector also underpins countless regional and rural communities across Australia, supporting local business and services through its direct and indirect employment and investments.

Based on the latest data from the Australian Bureau of Statistics estimate, as of June 2021 there were around 19,000 fruit, vegetable and nut growing businesses, with over half turning over less than \$200k per annum and around two-thirds being non-employing (table 2).

Table 2: Fruit, Vegetable & Nut Businesses – Turnover & Employment Size

Turnover	Zero to less than \$50k	\$50k to less than \$200k	\$200k to less than \$2m	\$2m to less than \$5m	\$5m to less than \$10m	\$10m or more	Total
2021 Businesses	6,741	5,196	5,768	843	292	257	19,081

Employment	Non-Employing	1-19 Employees	20-199 Employees	200+ Employees	Total
2021 Businesses	12,576	5,691	773	46	19,081

Source: ABS Counts of Australian Business 2021 data – Number of Businesses Operating at the end of the financial year

Within the industry, collectively the AFPA’s membership represents half the value of production turnover (\$10.67 billion), more than 15,000 direct employees through peak harvest, 1,000 plus growers through commercial arrangements, and up to 25,000 employees across their grower network.

Improving access to Australia’s fresh produce

Supporting more Australians to access fresh produce

Australia’s fruit and vegetable industry supplies the nation with healthy, safe and nutritious fresh produce. The domestic consumption of fruit and vegetables, and therefore production, has grown alongside Australia’s population, however many people are not getting the right nutrition or necessary amount to support a healthy lifestyle. Ninety-six (96%) of the Australians consume less than half of the World Health Organisation (WHO) recommended daily intake of 400g of fruits and vegetables.

Good nutrition is something that benefits all people and can be provided through regular consumption of fresh fruit and vegetable. The Australian fresh produce industry is committed to supplying the freshest, cleanest and healthiest produce to every Australian family. The private and public benefits of a healthy diet are significant, including better individual health, lower levels of illness and disease in the population and reduced spending in health budgets on preventative illness and chronic disease.

In the Australian context, the Australian Guide to Healthy Eating recommends that Australian adults eat a minimum of two serves of fruit a day and five to six serves of vegetables a day. Fruits and vegetables have historically held a place in dietary guidelines because of their high concentration of essential vitamins and minerals, which humans are unable to synthesize themselves. Studies suggest that regular consumption of fruits and vegetables play an important role in preventing chronic disease, including cardiovascular disease, type II diabetes, dementia, and some cancers.

Despite the well documented benefits, consumers do not eat sufficient quantities of fruit and vegetables. The latest National Health Survey found that just over half (51.3%) of Australian adults met the guidelines for the recommended minimum two daily serves of fruit, that one in 13 Australian adults (7.5%) met the guidelines for serves of vegetable, and only one in 20 (5.4%) met both the fruit and the vegetable recommendations. These rates have remained fairly consistent over time, thus, there appears to be a local deficiency in people consuming the fresh produce they need to stay healthy.

An inadequate intake of fruits and vegetables, with an associated increase in consumption of processed foods can subsequently lead to an insufficient intake of essential vitamins and minerals. This may increase the risk of adverse health effects associated with micronutrient deficiencies. As an example, over recent decades the rates of chronic disease, including type 2 diabetes, have been increasing both in adults and children. It is predicted that, by 2023, health expenditure for illness and disease associated with type 2 diabetes will have risen \$1.4 billion to \$7 billion per year, due mostly to increasing weight gain. Also, if current Australian trends continue, an estimated 83% of men and 75% of women aged over 20 years will be

overweight or obese by 2025. Therefore, it is important to utilise strategies which ensure access to food that is nutritious, both for the individual and in to address broader public health issues and associated budgetary impacts.

Food security must not be viewed solely as “is there enough food” but rather, is there enough nutrition available to Australians to meet public health objectives. The fresh produce sector plays an important role in society’s efforts to address preventative disease, including obesity and type 2 diabetes. Ensuring that our population has access to fresh produce that is both affordable and of a high quality is a responsibility that the sector and our food and grocery retailers take very seriously. The financial impost on both state and federal health budgets relating to the treatment of preventative chronic diseases mandates that more be done to ensure every Australian has access to food that is healthy and nutritious.

There is a strong intersection between the fresh produce industry and associated agricultural policy and broader health policies and actions. With increasing government health spend, concern over Australian’s, particularly children’s access to unhealthy, overly processed food there are a range of government interventions to prevent poor dietary choices. There is not currently a cohesive view on how horticulture policy (e.g. ability to access harvest workers) has a direct impact on the ability for Australian families to access fresh food. Ensuring Australian’s are able to better access fresh produce is key to improving the health of Australians.

An increase in fruit and vegetable consumption by all Australian families will lead to a healthier nation, efficiencies in public health expenditure, more profitable farmers, more prosperous regional communities and a stronger, more secure domestic agricultural industry.

Recommendation 1: That Government better support Australian household access to and the consumption of nutritious fresh produce, in an effort to create a healthier society, lower levels of preventative illness and disease in the population and relieve the pressure on future health budgets.

- As part of this effort, commit to the inclusion of household fruit and vegetable consumption as a wellbeing measurement of the 2023/24 Budget, to drive government-wide action and investment toward supporting improved access to fresh produce and a healthier Australia.

International trade – growth potential for the Australian fresh produce industry

Access to more consumers, and more markets, is vital to the sustainability of Australia’s fresh produce growers and industry. Australia is fortunate to be located near Asian markets which collectively have over 1 billion middle- and upper-class consumers.

Expanding access to international consumers supports domestic development of fresh produce businesses, and with that a greater level of resilience. Unlike the broader agriculture industry that exports around 72% of its total value, horticulture only exports 11% of its fresh produce to foreign markets.

Growth in domestic consumption of fruit and vegetables as outlined above, remains stable at the rate of population growth, therefore in order to grow Australia’s fresh produce businesses, access to more consumers is necessary; this can only be achieved through improved technical market access for Australian horticulture.

Citrus and table grapes are two (of a handful of) horticulture commodities that have benefited from improved technical market access and now export at scale. Once new technical market access was achieved for these commodities, between 2009-10 and 2019-20, citrus exports doubled in value from \$235m to \$540m, and table grape exports grew sevenfold from \$85m to \$623m. The supply chains of both these products are now two of the most robust and well developed in horticulture. The expansion of these industries through export have driven investment in regional communities, increased innovation and ensured the ongoing domestic production and domestic supply of tables grapes and citrus for Australian consumers.

Figure 2: Value of Australian Agricultural Exports

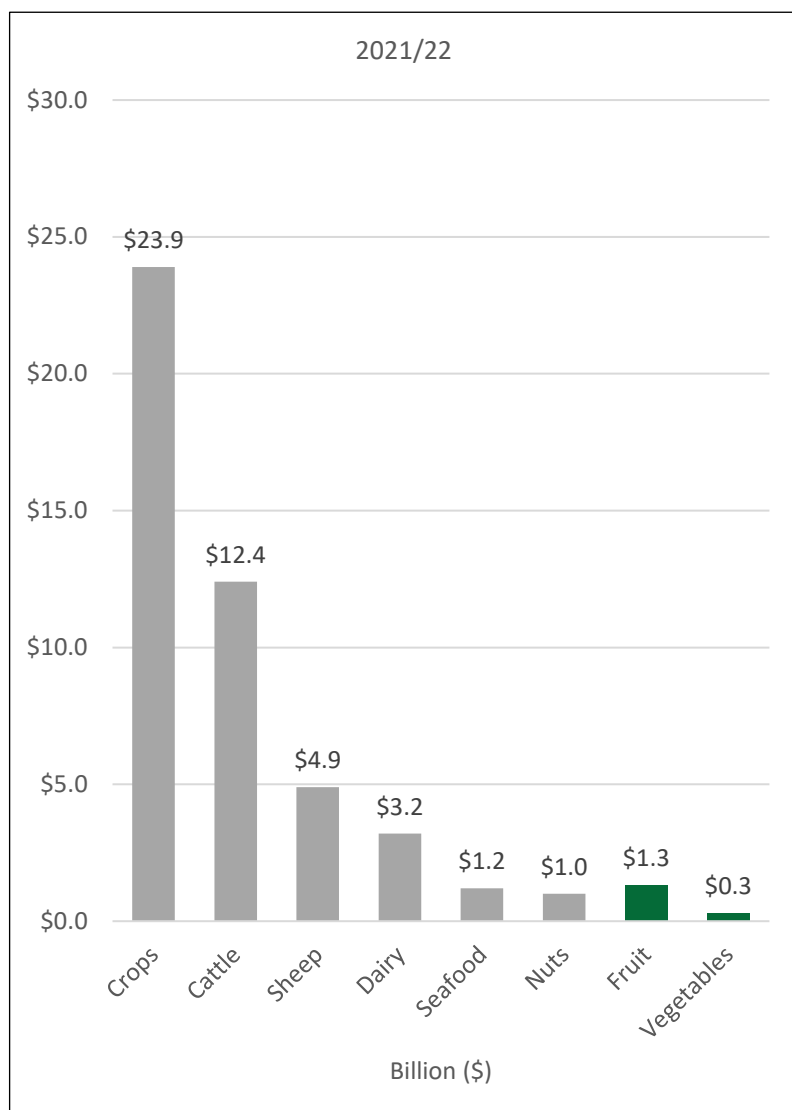


Figure 3: Australia’s top fruit and vegetable export markets

Destination	2021/22 (\$ million)	% share
Fruit		
China	\$272	21.70%
Hong Kong	\$132	10.60%
Japan	\$126	10.10%
Vietnam	\$116	9.20%
Indonesia	\$106	8.50%
Singapore	\$83	6.60%
Thailand	\$72	5.70%
New Zealand	\$54	4.30%
Philippines	\$50	4.10%
Malaysia	\$50	4.00%
Vegetable		
Singapore	\$47	16.4%
UAE	\$33	11.5%
Malaysia	\$27	9.4%
United States	\$21	7.5%
Hong Kong	\$20	6.9%
Thailand	\$22	7.6%
Saudi Arabia	\$17	5.9%
South Korea	\$14	4.8%
Japan	\$13	4.6%
Taiwan	\$12	4.3%

Trade Opportunities and Challenges

Australian produce is highly regarded and sought after around the world for its superior-quality and safe reputation. More than 100 different products are grown across Australia, a major strength of our national fresh produce industry. The challenge is that each product often needs a specific technical market access protocol to be agreed with our trade partners. This differs for beef or grain where a single technical market access protocol will allow these products to be exported to an international market, enabling exports under a single protocol. In some instances, market access is required at a varietal level (e.g. specific variety of table grapes) adding to complexity. Therefore, the development of each new technical market access protocol requires long-term investment by both government and industry.

In the fruit sector, Australia’s production of berries and avocados continues to grow strongly, and new technical market access protocols are required to export the significant growth in production. For other products such as apples and the range of tropical fruits where production growth is steadier, technical market access protocols providing access to premium consumers is essential.

In the vegetable industry, carrots are exported to a wide range of countries and is a demonstration that high quality Australian produce can compete around the world. As vegetable farmers replicate the success of carrot exports with onions and other high value crops like asparagus, leafy vegetables and herbs, it is essential that government negotiators work with industry to establish and maintain technical market access.

While opportunities exist in many markets to grow fresh produce exports, focus should first be on countries that have shown an appetite for Australia's premium (priced) produce and can support a substantive volume of trade, for example Japan. Looking beyond the short-term, work should also focus on gaining new access to developing markets, where the population's discretionary purchasing power is increasing (i.e. Vietnam and India).

Improved market access for Australia's horticulture products also provides an opportunity for Australia to align our food security goals with that of like-minded partner countries. There is an opportunity to leverage strong relationships, like that of Australia and Japan and other levels of cooperation for example security agreements to develop improved trading conditions for horticulture products.

Gaining and growing exports to both established and developing markets will require a concentrated effort from across Government, support for industry in market and investments in Australia's technical trade / scientific capacity.

The aim is to replicate the success of citrus, table grape and carrot exports across the sector, enabling the industry to reach its potential as a major economic contributor to Australia's national prosperity and strengthen domestic production.

Recommendation 2: That Government support the continued growth of Australian fruit and vegetable exports, which will underpin the industry – its growing workforce, future investment, and infrastructure, by providing:

- greater Commonwealth leadership, including a whole of government approach, with an urgent focus on securing technical market access for fresh produce into key export markets.
- more resources to the Department of Agriculture, Fisheries and Forestry to ensure that two-way trade in fresh produce continues to develop and impediment to export growth can be reduced.

A strong biosecurity system to protect two-way trade

Australia's biosecurity is of national interest. A significant incursion of pest or disease could cripple sectors of the agriculture industry, limiting production and hindering Australian household access to fresh food.

There is currently heightened attention around Australia's biosecurity in response to the spread of livestock diseases to neighbouring countries and the arrival of varroa mite, impacting our bee population and by association crop pollination, however interest and focus on biosecurity must be maintained.

A strong and effective biosecurity system enhances the fresh produce industry's ability to trade, while also protecting our domestic production. In order to ensure the ongoing production of fresh produce in Australia, significant attention must be paid to our biosecurity system. Funding models (both for export and import) that rely on a "user pays" model for biosecurity do not consider the net-benefit or public good created for all Australians by effectively managing biosecurity.

Biosecurity is a clear example where a failure of government policy or program can have a significant effect on Australia's food security. Significant pests of concern for horticulture such as citrus canker, brown marmorated stink bug, and leaf miner would all have a substantial impact on the production and distribution of fresh produce and in some cases, eliminate valuable export markets that drive industry growth and sustainability.

Complacency in managing and appropriately funding biosecurity highlights how the value of food production in Australia is undervalued.

Recommendation 2: That Government deliver on its commitment to establish long-term, sustainable funding for biosecurity, which is not dependent on trade levies or new taxes on farmers but drawn from central funding in recognition of biosecurity being of national interest and for public good.

Developing a productive and returning workforce

Sustaining Australia's fresh produce supply and the sector's growth requires a more concentrated effort on the development of the sector's workforce. To support the long-term viability of the industry, the AFPA are focused on five key elements of developing our workforce:

1. Employing Australians
2. Skilling Australians
3. Supporting horticulture employers and SMEs
4. Expanding and improving the Pacific Australia Labour Mobility Scheme
5. Ongoing development and improvement of visa pathways

As industry continues to grow, both in terms of increased production and value, so too does the workforce demand across all skill levels. Members of the AFPA seek to employ and skill more Australians in the industry as it is essential to sustaining the future of food production in Australia. The horticulture industry, and in particular roles within the harvest workforce, are often associated as a pathway for unemployed Australians to return to work. Noting the low levels of unemployment, government support for programs developed with employers to provide a graduated return to work pathway would be welcomed. Reframing success in this space, to a smaller number of candidates, who are able to have ongoing success in the workforce will have longer term benefits for individuals and employers.

There is a growing demand for more skilled workers in fresh produce businesses, including technical, managerial, and administrative roles. These are typically long-term, full-time roles held by Australians and permanent residents in regional communities. The fresh produce sector is finding it increasingly challenging to meet its skilled workforce requirements. A report by Food Innovation Australia finds the agriculture workforce needs 'substantially stronger technical skills (+21 per cent) and Managerial skills (+ eight per cent) by 2025 to facilitate the sector's continued growth and competitiveness'. The AFPA seeks to work with government to employ and skill more Australians through the development of long-term strategies that focus on sustained growth of the workforce.

As of June 2021, the Australian Bureau of Statistics estimate there are around 19,000 fruit, vegetable and nut growing businesses, with over half (11,937) turning over less than \$200k per annum. The figures indicate that while there are a large number of horticulture businesses in Australia, most of these businesses would be considered SMEs. Improving the broader operating environment, as well as providing direct support to SMEs to help them be best-practice employers, is important to the sector's broader workforce development. Introducing the National Labour Hire Licensing Scheme (a government commitment) and increasing the funding of the Fair Work Ombudsman to support more enforcement and education will also help to uplift the horticulture industry and its employees.

Migration will continue to play a key role in the horticulture industry. The expansion of the Pacific Australia Labour Mobility (PALM) scheme over recent years from 8,000 workers to 20,000 workers in the horticulture industry demonstrates the importance of migrant workers to the sector, but also how a well-regulated, purposeful immigration program can support the economy. An expansion of the PALM scheme, coupled with a review of the industry's visa framework is critical to ensure that the industry is able to access the right skills and people to support ongoing industry growth, and importantly, continue to provide Australians with fresh fruit and vegetables.

Industry supports the introduction of a Harvest Work Visa (HWV) that complements the PALM scheme and other existing visa pathways, including the Horticulture Industry Labour Agreement (HILA) and Temporary Skills Shortage (TSS) pathways. Acknowledging the need for migrant workers in the sector, a fit for purpose visa framework that offers appropriate pathways, protections and regulations is an important way forward in both addressing current workforce shortages, enabling workforce planning and filling skills gaps.

Other factors that need to be addressed to support the industry's workforce development and improved employment opportunities include access to suitable accommodation in key production areas. While a national issue, the ongoing shortage (and rising cost) of accommodation in regional areas is a major inhibitor to attracting workers. Housing temporary harvest workers is a particular challenge in many growing regions. Solutions to the accommodation challenges in the horticulture sector must be nuanced and focus on delivering scaled, affordable and fit for purpose accommodation.

While there is no simple solution for the workforce challenges that industry and the economy more broadly face, it is important that industry and Government work closely together on a broad approach to recruiting, training, skilling and retaining workers. Supporting employers to improve employment opportunities and practices within the horticulture industry will support improved outcomes for workers and ensure Australian households ongoing access to fresh fruit and vegetables.

Recommendation 3: That Government work with industry to:

- review the current approach to skilling and training workers within the fresh produce industry with a commitment to invest in improvements and initiatives, such as better supporting on-the-job training with employers
- continue building a positive employment and workplace culture in the industry through the development of policies and programs that are future focussed and support a productive, diverse, and sustainable workforce, as well as by implementing a National Labour Hire Licensing Scheme and increasing funding to the Fair Work Ombudsman
- expand the PALM scheme through increased investment in its resources and backend systems and by working collaboratively with partner countries to ensure the program remains sustainable, of mutual benefit and a continuing success; and
- recognise the importance of existing visa pathways to the industry, and how the visa framework could be improved to better meet the holistic needs of the horticulture industry by enabling employers' better access to the skills and people that support the ongoing production of food.

Developing resilient supply chains

Not just paddock to plate

Australia is generally considered to be highly food secure due to the abundance of food produced and exported, however this production requires hundreds, if not thousands of inputs, which are delivered through a complex and globally intertwined supply chain.

The supply-chain feeds into and beyond 19,000 horticulture producers, each with their own unique requirements to suit their crops, climate, processing and numerous other variations. Horticulture businesses then 'assemble' their inputs to create a product fit for market and household consumption.

Well reported imports include chemicals, fertilisers, and machinery, but for some sectors, packaging, seeds and other inputs are equally as vital.

As an example, approximately 200 million berry punnets are imported annually. For fresh produce, packaging can play an important role in the integrity and protection of food as it travels through supply chains from farm to plate. Without these imported punnets, berries could not move safely through the supply chain, be collected from grocers or stored at home without increased food waste and poor consumer experiences. The importance of access to packaging, a key import, cannot be understated.

China is Australia's most significant supplier of intermediate inputs, followed by the US, United Arab Emirates, and other Asian and European countries. Events over the past 24 months have put immense strain the supply of inputs to farms, impacting production volumes and price.

The depth and complexity of global supply-chains was exposed by COVID-19 pandemic, during which global trade fell by 8.9%. To prevent the spread of the virus, the international movement of goods was suspended in many places, before restarting with stringent health protocols i.e. Queensland ports required freighters to undertake a 14 day quarantine before offloading. Economy-wide, many Australian businesses are still experiencing uncertainty, price increases and delays as a consequence of the pandemic's disruption.

In October 2020, ABARES undertook some modelling in relation to COVID-19 challenges and found that *"disruptions to supplies of imported inputs would impact agriculture, forestry and fishing sectors more than demand shocks. Our modelling analysed a hypothetical proportional reduction in demand for exports or supply of imported inputs. It found that the impact of imported input supply disruptions on production was*

around 1.7 times greater than a demand shock. This makes sense. A demand shock generally reduces prices, but products still find a market. But limits to inputs also limits the ability to produce". ABARES also noted "Domestic workarounds may be possible, meaning products will still find their way to consumers. However, workarounds will come at a higher cost, and will partially erode margins and increase consumer prices".

Other events have also destabilised global supply chains, such as the war in Ukraine. Ukraine and Russia previously exported 28% of global fertilizers made from nitrogen, phosphorous, and potassium, which has obvious implications for Australian food producers.

Despite disruption and adversity in the global supply chain, food producers have largely maintained the supply of fresh fruit and vegetables to consumers, but at greater difficulty and higher cost, which is contributing to food insecurity. AFPA members have looked to diversify their supply base and introduce other mitigation measures to avoid volatility in the future but in some instances, there is no substitute for an overseas product, or the alternative has its own challenges.

While boosting local production of imported inputs is supported in general, it will take significant investment in Australia's workforce, manufacturing capabilities and infrastructure to replicate the quantities required and be commercially viable. It is also true that in some instances Australia simply doesn't have the right mix of ingredients or volume (domestically) to decouple from the global supply chain.

Inputs sourced from overseas are only part of the challenge, locally sourced inputs like access to gas, electricity and water are also vital to the growing and manufacturing of food for Australians. The substantial increases in the costs to access utilities at a manufacturing level is further straining producers' ability to be profitable while producing food.

Recent gas price increases, of up to 400 per cent, are driving up the production costs for fruit and vegetable companies. With the increase in all energy costs, there are few alternatives or substitutes.

An example is glass house tomato production in Australia, whereby gas is a key input used to regulate the temperature of the glasshouse enabling consistent high yield production of high-quality tomatoes for Australian consumers. Overtime, many farmers of products including tomatoes, have moved production from field to protected cropping. This move has enabled growers to better manage seasonal variability and account for changes in weather and to produce a higher yield with fewer inputs. However, now with skyrocketing input costs of power and gas, this transition is under threat.

Energy is another key production input to fresh produce supply chains, including for packing lines and refrigeration. Investment in renewable energy, particularly solar and battery storage, is expected to increase as producers seek greater reliability of supply. This is particularly important in rural and regional areas where growers operate in dispersed locations and rely on consistent energy supply for their operations, such as maintaining a controlled environment (i.e. cooling produce).

As with many forms of agriculture, water is also a key production input. This is an area where farmers have recognised the need to become more efficient. Water efficiency measures have been implemented with a focus not only on efficiency of use, but also on the capture, reuse and recycling of water. Over the last decade, the citrus industry has almost halved its use of water per hectare of crop by investing in highly precise and accurate drip irrigation. Glasshouse growers are also able to capture large quantity of water for use, 10mm of rainfall on a 10 hectare glasshouse roof is the equivalent of 1 megalitre of water captured. The sector must continue to invest in and find ways to improve its water use per hectare of production and to address risks associated with water security and availability.

Recommendation 4: That Government undertake a detailed mapping exercise of key supply chain inputs and, with this information, create a program of work and investments to build a more resilient supply-chain, including through domestic capability improvements and encouraging a trusted supplier network.

From the Farm Gate to consumers

Once ‘assembled’, produced and packaged, Australia’s fresh fruit and vegetable begins its journey from ‘farm to fork’.

Fresh produce is highly perishable, it must be moved quickly and efficiently to provide an adequate shelf-life and meet consumer expectations. As a result, much of Australia’s fresh produce is harvested and distributed within 1-3 days.

From the farm gate to the point of sale, the transportation of fresh produce relies greatly on heavy vehicle operators, who are in short supply and under strain from rising fuel costs and other factors. The regional road network plays a significant role in the distribution of produce. In some areas, fresh produce transportation is hampered by degraded or a lack-of appropriate road infrastructure. Across many routes, farmers have no choice but to use multiple older, smaller vehicles because structures (i.e., bridges) cannot support an adequate mass.

Producers also utilise rail to move produce around Australia, however, certain legs of the rail network are at capacity or require frequent maintenance at short notice due to the state of the infrastructure. The lack of availability of freight via rail is compounding challenges in the road freight sector, requiring more movements of trucks and more drivers at a time where industry is already stretched to meet existing requirements. Recent flooding in and around key production areas has also impacted key infrastructure (road and rail) and tested the resilience of Australia’s ability to move produce during extreme weather events.

Once in the domestic supply chain, fresh produce is generally funnelled into highly concentrated pathways towards the retailers or state markets. In 2018, Roy Morgan Research Institute found that Australia’s two largest supermarkets captured more than 51% of Australia’s fresh fruit and vegetable market. Australia’s two largest retailers typically have few major distribution centre in each capital city/state, making them central to Australia’s supply of fresh produce. This is in addition to Australia’s wholesale markets, operating as another key distribution point. The large number of producers, supplying into relatively few points of distribution proved a key risk during the COVID pandemic where shutdowns of this critical infrastructure limited Australians ability to access food – demonstrated by shortages of fresh produce on shelf.

This concentrated supply-chain creates efficiencies but requires a high-level of risk mitigation to avoid issues such as the disruptions experienced during the COVID-19 pandemic.

Recommendation 5: That the Government invest in regional infrastructure, communities and industries that support the production and distribution of fresh produce to Australian households and international markets.

Ensuring sustainable production of fresh produce

AFPA members have taken a wholistic view of sustainability, which is that sustainability is about people, planet and profit – understanding that if a business itself is not sustainable, then it cannot contribute to broader goals and objectives. This is particularly relevant with regard to the ongoing conversation on environmental sustainability within the agriculture sector. There must be a careful balance between worthy environmental objectives (reduction of non-functional packaging, carbon emission reductions, water use efficiency, soil improvement etc.) and the ongoing, effective production of food for Australians.

Where this balance becomes too weighted to one side, there can be poor outcomes for farmers, the industry’s long-term sustainability and for consumer access to affordable, healthy fresh food.

Environmental Sustainability

AFPA members are committed to sustainable farming businesses that continue to deliver produce that supports a healthy diet while mitigating the impacts of these operations of the growing environment.

Sustainable development has been defined as ‘development that meets the needs of the present without compromising the ability of future generations to meet their own needs’. While fresh produce is key to a

healthy diet for current and future generations, there are a range of actions which can be undertaken to improve the sustainability of the industry.

Increased sustainability and resilience often go hand in hand, specific examples include more effectively managing crop inputs, such as water and fertiliser, improving the efficiency of yield measured against per unit of input and a move to protected cropping to mitigate the impact of extreme weather events. Protected cropping also has the benefit of providing the opportunity for more effective rain harvesting and recycling. There are both economic and environmental benefits to be derived from this, including reduced water costs and improved drought resilience.

When weighing up options, AFPA members take a holistic and pragmatic approach to improving environmental sustainability that supports biodiversity, soil health and water conservation. This holistic approach includes investments in new varieties with a focus on yield improvements, higher quality produce and disease resistance to managing and reducing input use (for example chemical sprays).

The broader fresh produce industry is adopting a wide range of technology and modern business practices including temperature monitoring through the supply chain, and optimisation of the supply chain. These tools and technology are making businesses more efficient, reducing waste and increasing profitability which all underpin long term environmental and economic sustainability.

Government and private investment, programs and investment which support the uptake of technology, adoption of modern business practices and efficient resource management will assist the Australian fresh produce sector to manage the impact of climate change and improve the overall sustainability of the sector.

Recommendation 6: That Government recognise that environmental objectives and ambitions, whilst widely supported and progressed by industry, need to be considered alongside Australia's food security and the industry's ongoing ability to produce fruit and vegetables in a strained commercial environment.

Food Waste, Packaging and Recycling

The Department of Climate Change, Energy, the Environment and Water report that an estimated 7.3 million tonnes of food valued at \$20 billion is lost or wasted in Australia every year.

Food waste through the supply chain is an economic and environmental loss that all parties are seeking to minimise. Packaging plays a key role in minimising food waste, extending shelf life and protecting produce as it travels through the supply chain. Management of food waste and recycling of packaging are critical steps which need greater attention to ensure we are actively managing and reducing our collective environmental impact.

The AFPA commissioned research completed by RMIT, to examine and understand the role of packaging in minimising food waste, and maximising quality control to support Australian consumption of fresh quality produce on a regular basis.

The AFPA recognises there is concern about the level and type of plastic packaging that is used for fresh produce. As the research demonstrates, there are practical reasons for using packaging for certain fresh produce, whether it be to ensure product integrity in the supply chain, extend shelf life and/or avoid food waste – both of which have significant environmental and social benefits.

The main findings of this research were that:

- Packaging of fresh produce does help to avoid and reduce food waste, by protecting the integrity of the product in the supply chain
- Packaging increases and extends produce shelf life from farm to fork compared to having no packaging at all
- Packaging materials and packaging formats should work synergistically to provide product protection and shelf life as it travels through the supply chain

The AFPA recognises that waste in all forms presents its challenges, and this requires a holistic approach.

Therefore the design and application of the packaging we use is also aimed at minimising packaging waste. The AFPA have committed to a number of measures, in order to minimise packaging waste:

1. Ensuring that the role of packaging is focused on providing consumers with freshly grown, healthy and nutritious food, and minimising food waste.
2. Removing any non-functional or surplus packaging by designing it for optimal efficiency to maintain product freshness and maximising the availability of nutritious food.
3. Reducing the amount of packaging through the broader supply chain, and working toward developing a circular economy for packaging (where current packaging is recycled into new packaging) including recycled content.
4. Working with industry, suppliers, recyclers, and retailers to deliver outcomes, and encouraging the development of environmentally sustainable packaging.

Importantly, the challenges with fresh produce packaging cannot be addressed solely by industry or even the supply chain, the AFPA seeks to engage with government on action to improve Australia's domestic recycling capabilities, and welcomes the announcement from the House of Representatives Standing Committee on Climate Change, Energy, Environment and Water of an inquiry into Australia's plastic waste problem, including the nation's plastics management framework. The recent breakdown of soft plastic recycling scheme operated by REDcycle, demonstrates that more needs to be done to support recycling in Australia. This inquiry should lead to more investment and support for recycling in Australia.

Recommendation 7: That Government recognise that environmental objectives and ambitions, whilst widely supported and progressed by industry, need to be considered alongside Australia's food security and the industry's ongoing ability to produce fruit and vegetables in a strained commercial environment.

AFPA Recommendations: Inquiry into food security in Australia

1. Improving access to Australia's fresh produce

That Government:

- better support Australian household access to and the consumption of nutritious fresh produce, in an effort to create a healthier society, lower levels of preventative illness and disease in the population and relieve the pressure on future health budgets.
 - As part of this effort, commit to the inclusion of household fruit and vegetable consumption as a wellbeing measurement of the 2023/24 Budget, to drive government-wide action and investment toward supporting improved access to fresh produce and a healthier Australia.
- support the continued growth of Australian fruit and vegetable exports, which will underpin the industry, its growing workforce, private investment, and new infrastructure, by providing:
 - greater Commonwealth leadership, including a whole of government approach, with an urgent focus on securing technical market access for fresh produce into key export markets.
 - more resources to the Department of Agriculture, Fisheries and Forestry to ensure that two way trade in fresh produce continues to develop and impediment to export growth can be reduced.
- deliver on its commitment to establish long-term, sustainable funding for biosecurity, which is not dependent on trade levies or new taxes on farmers but drawn from central funding in recognition of biosecurity being of national interest and for public good.

2. Developing a productive and returning workforce for the fresh produce industry

That Government work with industry to:

- review the current approach to skilling and training workers within the fresh produce industry with a commitment to invest in improvements and initiatives, such as better supporting on-the-job training with employers
- continue building a positive employment and workplace culture in the industry through the development of policies and programs that are future focussed and support a productive, diverse, and sustainable workforce, as well as by implementing a National Labour Hire Licensing Scheme and increasing funding to the Fair Work Ombudsman
- expand the PALM scheme through increased investment in its resources and backend systems and by working collaboratively with partner countries to ensure the program remains sustainable, of mutual benefit and a continuing success; and
- recognise the importance of existing visa pathways to the industry, and how the visa framework could be improved to better meet the holistic needs of the horticulture industry by enabling employers' better access to the skills and people that support the ongoing production of food.

3. Developing resilient supply chains

That Government:

- undertake a detailed mapping exercise of key supply chain inputs and, with this information, create a program of work and investments to build a more resilient supply-chain, including through domestic capability improvements
- That the Government invest in regional infrastructure, communities and industries that support the production and distribution of fresh produce to Australian households and international markets.

4. Ensuring sustainable production of fresh produce

That Government:

- recognise that environmental objectives and ambitions, whilst widely supported and progressed by industry, need to be considered alongside Australia's food security and the industry's ongoing ability to produce fruit and vegetables in a strained commercial environment.
- implement a nationally coordinated policy on packaging, food waste and recycling that provides a framework and guidance for industry, retailers and consumers and supports investments in much needed recycling infrastructure.