

Growing a healthier Australia

The Fresh Produce Industry Roadmap From \$9 billion to \$20 billion in 2030

White Paper 2019



Australian
Fresh Produce
Alliance

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About

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,
- Mitolo Group,
- Mackay's Banana Marketing,
- Driscoll's,
- 2PH Farms,
- LaManna Premier Group,
- Rugby Farming,
- Freshmax, and
- 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	Mandarins
Apricots	Mango
Asparagus	Mushrooms
Avocado	Nectarines
Baby Broccoli	Onions
Baby Corn	Oranges
Bananas	Peaches
Beetroot	Pears
Blackberries	Pineapples
Blueberries	Plums
Broccoli	Potatoes
Broccolini	Cucumber
Brussel Sprouts	Raspberries
Butternut Pumpkin	Salad leaf
Cabbage	Spinach
Cauliflower	Strawberries
Celery	Sweet Corn
Cherries	Table grapes
Fioretto	Tomatoes
Green Beans	Water Cress
Herbs	Wombok
Lemons	
Lettuce	

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Executive Summary

The Australian fresh produce sector is a major economic presence in regional Australia, sustaining many communities through capital investment in farms and new production techniques, employment growth and attracting government support for key infrastructure, including roads, transport hubs, telecommunications and irrigation schemes. We can grow the Australian fresh produce industry to \$20 billion by 2030 by increasing our access to consumers in growing markets, addressing key farm gate challenges and investing in industry fundamentals. At this rate of growth (8.5% pa), the fresh produce sector will be an important positive contributor to Australia's economic growth.

From 2013 to 2017, the Australian fresh produce (fruit and vegetable) sector grew from \$7 billion to a \$9 billion industry. At the same time, fresh produce exports nearly doubled from \$654 million to \$1.179 billion. Fresh produce is grown across Australia, from citrus in the South Australian Riverland, to leafy green vegetables on the outskirts of our major cities in peri urban areas, to berries in Far North Queensland and avocados in Western Australia. The sector's footprint is vast, and this not only reflects its growth trajectory but also the opportunities that exist both domestically and internationally.

The fresh produce sector also 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.

Much work remains to be done on securing technical market access to our key export markets and this requires a whole of government approach in recognition of the fact that the issues to be negotiated are many and varied, including treatment protocols. The case for giving fresh produce priority at the negotiating table is supported not only by the opportunities currently going begging with some of our biggest trading partners, but also the economic benefit that is derived for many regional communities. A whole of government approach is required when negotiating not only free trade agreements, but the multitude non-tariff barriers that continue to exist even after the conclusion of a successful bi-lateral agreement. This includes the Department of Foreign Affairs and Trade and the Department of Agriculture working closely together to negotiate technical protocols and ultimately trade access.

There are many challenges facing the sector, including climate change, reliability of labour supply, water security, reduction of waste throughout the supply chain, export market access and the need to continually drive productivity in both harvest and post-harvest practices. The sector must continue to change, refine and develop the way it does things. For example, the use of protected cropping for the growing of a wide variety of fruit

and vegetables is not only more efficient and delivers improved yield per hectare of production, it also actively addresses and mitigates the risk of climate change, especially extreme and unpredictable weather events.

The availability of labour is another significant challenge, with the sector relying on temporary and seasonal migrant workers to harvest crops. This comes with both a legal and ethical responsibility, and the sector must improve its practices and reputation in this area. This means zero tolerance for the use of illegal workers and the deliberate underpayment of wages. At the same time the sector must continue to invest in developing its permanent local workforce, allowing young people to establish a career in agriculture and continue to live and work in their local regional community.

As with many forms of agriculture, fresh produce relies on water as a key production input. This is yet another 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. Typically, 10mm of rainfall on a 10 hectare glasshouse roof is the equivalent of 1 megalitre of water captured. While 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. 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.

Research and development must be focussed on addressing the strategic issues facing the sector including sustainability, trade, biosecurity, pollination and food safety. More focussed R&D will deliver benefits for growers and taxpayers through an industry which continues to grow and provide safe and nutritious fruit and vegetables, economic opportunities across the country and export income.

The sector is focused on reducing waste throughout the supply chain. Government and the community at large have an expectation that where possible, packaging is only used to ensure product integrity, safety, convenience, longevity and to reduce the incidence of food waste. It is also recognised that effort must be made to use packaging, which is not only made from recyclable product, but which is also recyclable and compostable, with the ultimate aim being the establishment of a circular economy.

The fresh produce sector deserves a prominent seat at the table when it comes to the future direction of agriculture and farming. This is due recognition for the role it plays in so many areas, whether it be the economic activity and employment it generates in regional and rural communities, the export income earned from clean and green fresh produce, or the role it plays in contributing to the health and well-being of the population, the fresh produce sector is undoubtedly a key player in Australia's future success.

Executive Summary continued

Farm Gate

People – Implement an agricultural workforce strategy which includes specific measures for fresh produce.

Water – Implement a water policy which provides clear direction as to the security of water rights, their trading and how such rights are used in the production of agricultural commodities.

Pollination – Implement agreed trials to determine the effectiveness or otherwise of using bumblebees for crop pollination in Tasmania, while continuing to support pollination research as a priority.

Consumer

Health – Support consumer trends around convenience and the availability of fresh produce to improve the health of all Australians.

Export – Adopt a whole of government approach to Technical Market Access, and share our expertise with key trading partners.

Economy and Environment

Regional Development – Acknowledge the major role of the Australian Fresh Produce Industry across rural and regional Australia as a significant employer and investor.

R&D – Adopt a policy of streamlining agricultural Research and Development, and Marketing, to focus on key industry challenges, reduce duplication, and deliver outcomes on strategic issues for growers.

Sustainability – Adopt a Sustainability Framework which acknowledges the significant contribution of Australia's fresh produce farmers to Australian families and the Australian environment.

Food Safety – Adopt an industry led approach to addressing the underlying issues in food tampering and food safety.

Packaging – Implement a national, coordinated policy on packaging, food waste and recycling.



Recommendations

That the Australian Government:

Consumers

1. **Consider how governments can support consumer trends around convenience and the availability of fresh produce to improve the health of all Australians**, ensuring existing government programs and incentives better support fruit and vegetable consumption.
2. **Adopt a whole of government approach to Technical Market Access, and share our expertise with key trading partners.** The future growth of the fresh produce industry is dependent on securing technical market access into key export markets, this must be a priority for the Australian Government's international engagement.

Farm Gate

3. **Implement an agricultural workforce strategy which includes specific measures for fresh produce**, providing a visa, training and regional development framework allowing the fresh produce industry to continue employing significant numbers of Australians while also drawing on international workers through the Seasonal Worker Program and Working Holiday Program during peak harvest times.
4. **Implement a water policy which provides clear direction as to the security of water rights, their trading and how such rights are used in the production of agricultural commodities.** This should be coupled with a focus on efficiency of use, including the necessary public and private investment in technology and infrastructure to promote the capture, recycling and reuse of water without adversely affecting the natural environment.
5. **Implement agreed trials to determine the effectiveness or otherwise of using bumblebees for crop pollination in Tasmania**, while continuing to support pollination research as a priority.

Industry Fundamentals

6. **Acknowledge the major role of the Australian Fresh Produce industry across rural and regional Australia as a significant employer and investor.** Consider how existing government policies and programs can support all fresh produce companies to continue growing.
7. Adopt a policy to **streamline agricultural Research and Development, and Marketing, to resolve key industry challenges**, reduce duplication and drive innovation and automation to deliver economic growth not only to horticultural producers but through the broader supply chain and regional economy.
8. **Adopt a Sustainability Framework which acknowledges the significant contribution of Australia's fresh produce farmers to Australian families and the Australian environment**, through the production of fresh and nutritious food, while improving yield relative to input use and promoting sustainable and responsible stewardship of our natural environment.
9. **Adopt an industry led approach to addressing the underlying issues in food tampering and food safety**, with a focus on coordinating the key players across multiple government and regulatory jurisdictions to deliver cohesive and considered responses.
10. **Implement a national, coordinated policy on packaging, food waste and recycling** which provides a framework for industry, governments, retailers and consumers to implement business, consumption and behavioural change for the benefit of the environment and Australian families.



Introduction

The Future of Fresh Produce – as prepared by industry

The purpose of this White Paper is to focus on the future of the Australian Fresh Produce industry and outline the business priorities for industry and the policy actions and frameworks that are necessary to have in place to support the continued development and success of industry.

The Australian fresh produce industry can grow from the current \$9 billion industry turnover to a \$20 billion industry by 2030 but this can only be achieved through a cooperative and collaborative effort between Australian families, fresh produce companies, retailers and governments to achieve the objective of 'Growing a Healthier Australia'.

An industry in growth

Horticulture is the second largest and fastest growing sector in Australian agriculture. Horticulture exports were nearly \$2.2 billion for the last financial year – a 27 per cent increase on the previous year.

The importance of Asian markets should not be understated, with horticultural exports to China having nearly doubled over the past financial year from \$424 million to \$834 million and more than a third of Australia's total horticulture exports purchased by China, Japan and Hong Kong.

Of the total \$13.2 billion Australian horticulture sector, fruit and vegetables (fresh produce) account for more than 70 per cent of the total. The Australian fresh produce industry has some of the strongest growth prospects into the future not only within agriculture but across the Australian economy.

The need for united leadership

In 2019, the Australian Fresh Produce Alliance (AFPA) was formed by fresh produce growers to develop pragmatic solutions to the challenges facing industry. To date the Alliance members have made specific public commitments aimed at growing the industry, including:

People

- Continuing to develop opportunities for Australians, particularly young people, to work in the industry and pursue career pathways while providing them with an opportunity to continuing living in regional Australia,
- Improving the sector's employment practices and reputation, including through proactively meeting all health and safety, employment, and duty of care requirements and obligations, and developing practical solutions to build a sustainable workforce,

- Collaborating to identify and mitigate the risks of modern slavery and poor labour practices in supply chains, and reporting under the Modern Slavery Act 2018,

Packaging

- Ensuring that the role of packaging is focused on providing consumers with freshly grown, healthy and nutritious food, while minimising food waste,
- Implementing the April 2018 agreement by state and federal Environment Ministers that '100 per cent of Australian packaging be recyclable, compostable or reusable by 2025 or earlier to cut down on the amount of waste we produce'.
 - a. More than 75% of Alliance members' current retail packaging (by volume) is recyclable, compostable or reusable.
- Removing any non-functional or surplus packaging by designing it for optimal efficiency to maintain product freshness and maximising the availability of nutritious food,
- 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, and
- Working with industry, suppliers, recyclers, and retailers to deliver outcomes, and encouraging the development of environmentally sustainable packaging.



Consumers

1. Nutrition and Health

AFPA members feed all Australian families

Good nutrition is something that benefits all people and can be provided through regular consumption of fresh produce. The Australian Fresh Produce industry is committed to supplying the freshest, cleanest and healthiest produce to every Australian family. The private and public benefits 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.

The World Health Organisation (WHO) has recommended adults consume 400g of fruits and vegetables daily. In the Australian context, the Australian Guide to Healthy Eating recommends that Australian adults eat a minimum of 2 serves of fruit a day and 5–6 serves of vegetables a day.

Fruits and vegetables have historically held a place in dietary guidelines because of their concentrations of essential vitamins and minerals, which humans are unable to synthesize themselves. Essential vitamins include (but are not limited to) A, C, E and B group vitamins. These play a variety of important roles in the human body, including maintaining healthy eyes and skin, acting as antioxidants to protect cells from damage, and contributing to healthy reproduction and growth. Essential minerals include (but are not limited to) potassium, magnesium, calcium, phosphorus and selenium. These also play important roles, such as maintaining blood pressure and bone health, and contributing to normal muscle and nerve functioning.

High nutrient foods such as fresh fruit and vegetables are also beneficial to human health in playing a role in preventing oxidation and inflammation, lowering lipid effects, and providing beneficial effects on blood pressure. Studies suggest that regular consumption of fruits and vegetables may play an important role in preventing chronic disease, including cardiovascular disease¹, type II diabetes², dementia³, and some cancers⁴. However, many people are not getting the right nutrition or the necessary amount. This is particularly so in Australia where 96% of the population consume less than half of the WHO recommended daily intake.

We know fruit and vegetables are good for us but why don't we eat more?

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

2 daily serves of fruit. The National Health Survey also found that 1 in 13 Australian adults (7.5%) met the guidelines for serves of vegetable, whilst only 1 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.

Research⁵ by Victoria University's Mitchell Institute links a range of factors to the increase in overweight and obese Australians including the fact that *'new suburbs and regional areas are at substantial distances from metropolitan centres and other communities. (and) These places seldom have the physical infrastructure that supports healthy lifestyles'* including access to fresh food. As part of a comprehensive and holistic strategy to support the health of Australian families, we must consider the links between convenience, health, and lifestyle. Anecdotally, the rise in convenience options for fresh produce in retail stores, and weekly meal kit offerings are at some level meeting the needs of Australian consumers.

We need a 'fresh' approach to national health policy which considers consumer trends, works with industry to amplify positive trends, and provides better holistic planning and integration in health and nutrition policy. Governments at all levels can directly influence the habits and nutrition of Australian consumers through targeted educational campaigns and government procurement policies, which can be used to lead the way in providing healthy food options in government funded programs, sport and recreational centres and activities.

1. Crowe et al., 2011
2. Carter et al., 2010
3. Hughes et al. 2010
4. Barrett and Lloyd, 2012, Nutrition Australia, 2018, Key et al., 2004
5. www.mitchellinstitute.org.au/news/obesity-rate-depends-on-where-you-live/

Consumers continued

Growing a healthier Australia

The Australian domestic market is a key focus for AFPA members, who are working together with retailers to provide new and exciting varieties of fruit and vegetables for Australians. An increase in demand for fruit and vegetables will mean better returns to farmers through expansion of production and farm size. An increase in fruit and vegetable consumption by all Australian families will lead to healthy families, efficiencies in public health expenditure, more profitable farmers, and stronger agricultural communities.

Recommendation 1

Consider how governments can support consumer trends around convenience and the availability of fresh produce to improve the health of all Australians, ensuring existing government programs and incentives better support fruit and vegetable consumption.

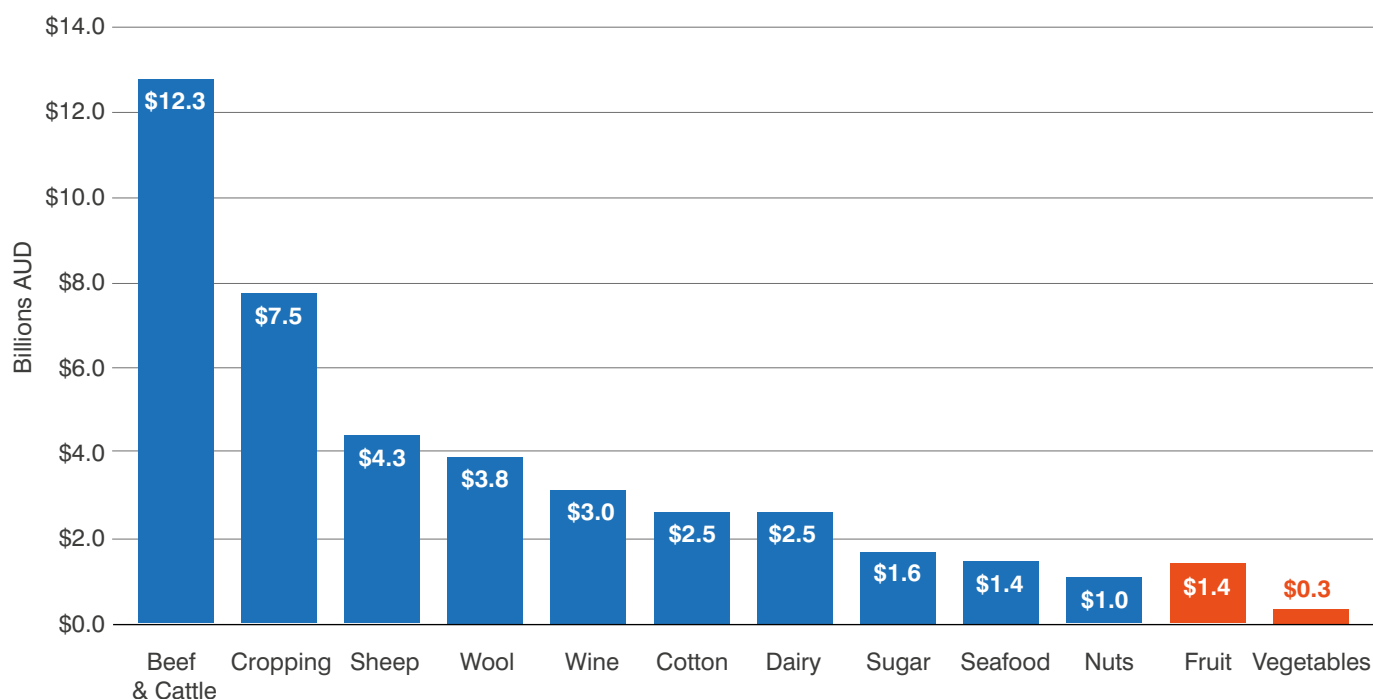
2. Trade and Market Access

Where are all the consumers?

According to data from Rural Bank, Australian agricultural exports totalled approximately \$50 billion in 2018/19⁶ with fruit and vegetable exports \$1.7 billion of this total (see chart below). The Australian Bureau of Agricultural Resource Economics and Sciences (ABARES) notes that while approximately 70% of total Australian agricultural production is exported, approximately only 18% of horticulture production is exported.

Exports are key to the growth of Australian agriculture in order to meet the ambitious target of a \$100 billion agricultural industry by 2030. Access to and expansion of new global markets is key to the long term growth of the fresh produce sector and the flow on benefits to regional jobs, families and communities. While Australia's horticulture industry has traditionally been domestically focussed, fruit exports have grown by 20% annually for the last 8 years and vegetable exports have nearly doubled over the last 7 years.

Value of Australian Agricultural Exports 2018/19



6. www.ruralbank.com.au/for-farmers/ag-answers/trade-report?utm_source=IndustryPartnerPromo&utm_medium=Email&utm_term&utm_content=PartnerComms&utm_campaign=Trade2019

Consumers continued

Australian horticulture:

- is the fastest growing agriculture sector,
- has had some of the strongest and consistent export growth in recent years,
- is not facing production constraints in the same way other sectors are,
- has significant scope to adopt new production practices,
- is not a commodity focussed sector and secures price premiums with consumers in key markets, and
- has significantly expanding production volumes over the long term that need to be exported.

Opportunities and Challenges

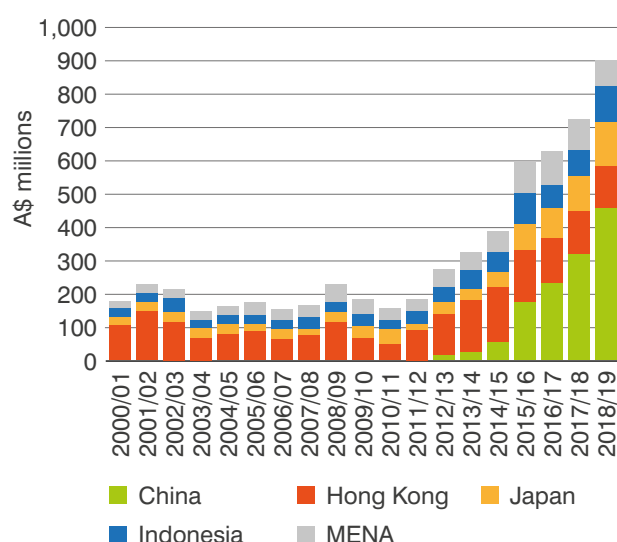
One of the strengths of the fresh produce industry (fruit and vegetables) is that more than 100 products are grown in Australia. The challenge is that each product often needs a specific technical market access protocol to be agreed with our trade partners. This differs for beef or wheat for example where a single technical market access protocol will allow these products to be exported to China, enabling single exports under a single protocol. For fresh produce, there are different stand-alone protocols for citrus, table grapes, mangoes, and

cherries with each product following requiring a new protocol. Therefore, the development of each new technical market access protocol is a long-term investment by both government and industry.

Recent expansion of Australia's fresh produce exports have been underpinned by growth of table grape exports as well as growth from citrus and summerfruit. The continued increase in production volumes will enable further export growth however more protocols are required to diversify the export profile. Australian 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 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.

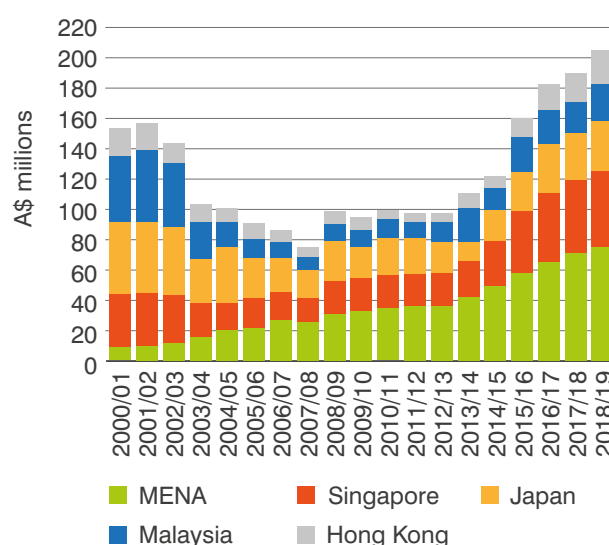
Value of top 5 Australian fruit export markets



Demand for Australian fruit from China has been the major driver of the growth in export value.

Source: *Australian Agricultural Trade 2018/19*, Rural Bank

Value of top 5 Australian vegetable export markets



The MENA region has been the largest growth market for Australian vegetables over the long-term.

Consumers continued

The Australian citrus industry provides a case study of the benefits of export. The volume of Australia's citrus exports increased on average 8 per cent annually over the last ten years. By value, exports (\$428 million) comprise over half the total production value (\$798 million) of the citrus category. For oranges in particular the export story is even more stark with 75 per cent of Australia's oranges being exported to high value markets across Asia. The growth of Australia's citrus exports has underpinned jobs, investment, and infrastructure across some of Australia's key regional communities. The ongoing success of the citrus industry underpins rural communities by providing jobs for families, which in turn ensures people live and work in our regional communities. The opportunity for fresh produce is to replicate the citrus export story across more than 100 fruit and vegetable products for the benefit of Australian families and our broader community.

Australia is fortunate to be located near Asian markets which collectively have over 1 billion middle and upper class consumers. Where Australia has achieved market access, our fresh produce commands a strong price premium due to both reputation for clean product of high provenance, and the quality of supply. The fresh produce industry's opportunity is to build on recent success and gain technical access across products and countries, and hence hold a premium product position and reputation across diversified markets.

The Australian Fresh Produce Alliance is seeking:

1. Greater Commonwealth leadership, including a whole of government approach, with a focus and urgency on securing technical market access for fresh produce into our key export markets. This must include the participation of skilled DFAT trade negotiators in order to help successfully conclude market access negotiations.

2. More resourcing of the Department of Agriculture and Water Resources to ensure that two way trade in fresh produce continues to develop (reducing an impediment to export growth).
3. Commitment to, and funding of, a new \$10 million technical exchange program with China and Japan as key export markets. The program would be industry led and have a minimum 5 year funding initially (this could be directed through Hort Innovation and the existing Commonwealth funding contribution). Horticulture Innovation Australia and the existing Commonwealth funding contribution).

Recommendation 2

Adopt a whole of government approach to Technical Market Access, and share our expertise with key trading partners.

The future growth of the fresh produce industry is dependent on securing technical market access into key export markets, this must be a priority for the Australian Government's international engagement.



Farm Gate

3. People

What about robots?

The labour intensive nature of the fresh produce industry means it is a significant employer and many of the operational day to day tasks cannot be mechanised due to the delicate nature of picking and packing and the expectations of consumers. While robotics and other technology are being applied across some harvest and post-harvest activities, the more than 100 products grown and harvested creates complexity in designing technology to harvest and pack the produce.

Who is employed?

The 14 member companies of the Australian Fresh Produce Alliance employ more than 22,000 people across 11,500 full time equivalent roles. The continued development of strong local workforces in fresh produce across rural, regional and metropolitan areas is key to the future of the industry. The opportunity for young Australians to work in high skilled jobs in the local community is a focus for a number of companies.



More than 100 production locations of the Australian Fresh Produce Alliance.

Farm Gate continued

Sourcing a reliable supply of people to work in fresh produce is a significant challenge, with the sector relying on temporary and seasonal migrant workers to harvest crops. While there are a significant number of Australians employed in the industry, during peak harvest there is a reliance on temporary workers, including those from overseas. There is both a legal and ethical responsibility, and the sector must improve its practices and reputation in this area. This means zero tolerance for the use of illegal workers and the deliberate underpayment of wages. At the same time the sector must continue to invest in developing its permanent local workforce, allowing young people to establish a career in agriculture and continue to live and work in their local regional community.

Continued development of the Seasonal Worker Program is providing benefits for companies and for Seasonal Workers. As Seasonal Workers understand the business and integrate into the local community there are a range of benefits. The Working Holiday Maker Visa is also a key program providing people to support peak harvest labour requirements in recognition of the importance for growers to be able to achieve optimal harvest outcomes. Over the medium term, we must develop and implement an agricultural workforce strategy which includes specific measures for fresh produce. This strategy must provide a visa, training and regional development framework allowing the fresh produce industry to continue employing significant numbers of Australians while also drawing on international workers through the Seasonal Worker and Working Holiday programs during peak harvest times.

The Australian Fresh Produce Alliance is developing a reliable, productive and diverse workforce as part of the long term sustainable growth of the fresh produce industry. The key elements of this approach must be improved productivity and global competitiveness by supporting people with better technology, training and conditions. A better trained and supported workforce is likely to be more productive and earning more.

What are AFPA members doing?

The Australian Fresh Produce Alliance is committed to creating an industry culture of pro-active management by improving the sector's employment practices and reputation, through meeting all employment and duty of care requirements and obligations. Industry is also working with retailers, suppliers and growers to ensure that industry can adopt and maintain management systems required to comply with relevant laws and standards relating to sustainable and ethical employment.

What are we seeking?

The Australian Fresh Produce Alliance is seeking greater integration between ethical sourcing compliance programs to ensure effective auditing of industry in an efficient manner. Consistent regulation and certification of labour hire companies is also to ensure all industry players are meeting required standards. To this end the Alliance supports a legislative approach from the Australian Government to create a consistent national framework for the regulation of labour hire companies.

Recommendation 3

Implement an agricultural workforce strategy which includes specific measures for fresh produce, providing a visa, training and regional development framework allowing the fresh produce industry to continue employing significant numbers of Australians while also drawing on international workers through the Seasonal Worker and Working Holiday programs during peak harvest times.

4. Water

Water isn't just a rural issue

Water policy is critical for every Australian family regardless of where they live. Fresh fruit and vegetables are key to every Australian's health, as is fresh drinking water. Water policy must focus on ensuring certainty of access to this precious resource and its efficient use. The Australian Government through appropriate policy settings and regulatory mechanisms should support and promote:

1. Clear direction as to the security of water rights and the trading of such rights,
2. Efficiency of use, including investment in the capture, recycling and reuse of water, and
3. The continued development and expansion of water storage.

Farm Gate continued

Water and Horticulture

Horticultural growers have relatively fixed water demands that must be met each year to ensure production levels and to keep long lived perennial plantings alive. For this reason, most horticultural growers prefer to hold high reliability water entitlements to meet a large proportion of their annual water demand. When high reliability entitlements receive less than 100 per cent allocation, horticultural growers have historically needed to enter the allocation market to buy additional water to sustain their plantings.

The Federal Government Department of Agriculture website describes the purpose of water markets as follows:

Water markets are a key mechanism by which Australia manages water scarcity while still supporting economic growth⁷.

While the Murray Darling Basin Authority (MDB) website notes that water markets “create incentives for water to be moved to higher-value uses.” There is no apparent definition of what constitutes a ‘higher value use’ however it can be inferred that it derives a higher economic return. Fruit and vegetable production has been found to be of a relatively high value use across Australian agriculture and is of course part of every Australian’s diet.

The Australian Government commissioned ACCC Murray-Darling Basin water markets inquiry is a welcome development in considering the operations of water markets, market trends, actions of market participants, public information and the management of water. Key considerations for this inquiry and broader water policy must include:

1. **A National Approach** to Australia’s water security needs to be the long term objective with the harmonisation of regional and state based approach to water planning, regulation and investment,
2. **Water Trading Market** needs to be appropriately regulated to ensure transparency, and ensure confidence in the operation of the market. With greater visibility of current practices, any suggestion of inappropriate behaviour can be addressed by existing competition and regulatory authorities,
3. **Private Environmental Funds** which purchase water on the open market for environmental purposes should have their investments recognised as part of the environmental allocation and an equivalent agriculture offset returned to the water market, and

4. **Participation of Financial Investors and Foreign Ownership** should be addressed through the operation of a regulated water trading market. The investments and activities of all water investors should be managed against the objectives of an overall water policy and
5. **Selective Investment into Water Infrastructure** where relatively modest investments (e.g. in weirs, connecting pipelines) can capture flood waters that are otherwise lost through flows to the ocean. A small number of these investments can store water during the year, and/or distribute excess water to improve water security close to high value horticulture.

Agricultural production can be highly volatile in the short term due to Australia’s variable climatic conditions year on year. The added long term impact of climate change requires a combination of adaptive and mitigative measures. While industry has been implementing a range of water efficiencies, production modifications and investment in new plant varieties, there has been a lack of investment in national water storage projects. With weather and climate becoming more varied it is important that we have sufficient infrastructure to capture and harvest rainfall, as part of a sustainable approach to the Australian environment and economy. A lack of infrastructure means we are not able to make the most of high rainfall events and manage water as the precious resource that it is. Increasing Australia’s water capture and storage must be viewed as a prudent and practical water management mechanism, to mitigate against the volatility that accompanies dry conditions and drought, rather than being portrayed as a ‘grab’ for more water.

Recommendation 4

Implement a water policy which provides clear direction as to the security of water rights, their trading and how such rights are used in the production of agricultural commodities. This should be coupled with a focus on efficiency of use, including the necessary public and private investment in technology and infrastructure to promote the capture, recycling and reuse of water without adversely affecting the natural environment.

7. www.agriculture.gov.au/water/markets

Farm Gate continued

5. Pollination

What's the buzz about?

The global challenges in maintaining insect populations have been documented over a number of years. Bees in particular have been under pressure from climate change, the alleged impact of pesticides, while also falling victim to the spread of pest and disease. Bees play a key role in pollinating fruit and vegetables – a task that is difficult to replicate by other means.

The pollination of crops is essential to the efficient production of healthy and nutritious fresh produce for all Australians. With bee populations under pressure globally, industry needs Federal and State Government support to implement trials of alternate pollinators, including bumblebees, as soon as practicable.

Expanded research is required to support bee pollination of fresh produce, with a focus also required on bee health, alternate pollinators and pollination in different production systems (such as protected cropping). While there is commercial research underway, pollination is a key global challenge and an obvious strategic research priority for the Australian Government and levy investment in the Research and Development Corporation system.

Bumblebees are used as crop pollinators around the world and are particularly effective in glasshouse protected cropping environments. Their buzz or sonic pollination technique is

ideal for pollinating crops such as tomatoes, strawberries, blackberries and capsicums. International experience also demonstrates that the use of bumblebees increases the potential for greater yield and fruit quality. Their use in Europe is promoted as being important to the growing and supply of 'clean and green' fresh produce.

With regard to alternate pollinators, the Alliance previously welcomed the Federal Government's April 2019 commitment to amend the Environment Protection Biodiversity and Conservation (EPBC) Act to allow a State or Territory to approve the trial and use of bumblebees for the pollination of protected horticultural crops. More than two years ago a Senate Committee examined whether feral bumblebees in Tasmania should be allowed to be used in a protected horticultural crop pollination trial. The Committee, which was made up of Labor, Liberal and Greens Senators unanimously recommended the EPBC Act be amended to allow for a trial.

Recommendation 5

Implement agreed trials to determine the effectiveness or otherwise of using bumblebees for crop pollination in Tasmania, while continuing to support pollination research as a priority.



Industry Fundamentals

6. Regional Economic Development

AFPA Members are committed to developing rural and regional Australia

The capacity to sustain and promote economic development that provides jobs and appropriate incomes in regional Australia is not only important to relieving population pressure on our capital cities, but to also ensure people have the opportunity to remain in, or migrate to regional areas to pursue careers and raise their families.

Fresh produce has a significant economic footprint across regional Australia where circa 30% of our nation's GDP is generated. In many regional areas fresh produce growers are the major economic presence and the direct and indirect employment they provide generates a significant economic multiplier effect. Alliance members provide employment for up to 22,000 workers across their various grower networks, with these jobs being overwhelmingly located in regional areas.

The employment opportunities in fresh produce are many and varied, ranging from unskilled work (Harvesting, Packing) to semi and highly skilled occupations with defined career pathways (Agronomists, Quality Assurance, Finance, Tradespeople etc.).

The Alliance supports the Federal Government's Regional Australia – A Stronger Economy Delivering Stronger Regions 2018 – 19 statement and in particular notes the government's commitment to 'invest in decentralisation and provide the conditions that encourage private sector businesses to take advantage of the opportunities outside of our capital cities by relocating to the regions'⁸. The broad range of government policy and programs must support rural and remote company operations including through remote area allowances and arrangements such as Fringe Benefits Tax concessions and exemptions. Another clear example is provision of remote area concessions and arrangements for private use of company vehicles as employees travel longer distances for business in remote locations.

Continued private sector investment and activity must be supported by the necessary public investment and expenditure focused on establishing and regenerating key infrastructure and institutions. This investment needs to include:

- Water infrastructure aimed at enhancing storage capacity, efficiency of use and recycling. This includes the building of dams, pipelines, irrigation schemes and water treatment plant,

- Roads and transport infrastructure, including rail which establishes direct access to market routes and recognises the importance of an integrated supply chain in which fresh produce is highly perishable and needs to be supplied to the end consumer in the shortest possible timeframe,
- IT infrastructure that will allow business to utilise 21st Century communications, including cloud based and blockchain technology, both in the field and office. If agriculture is to realise its ambitious goal of becoming a \$100 billion sector, then it must have access to IT that enhances productivity, reduces costs and frees up capital to be invested more productively in activities which generate economic growth,
- Reliable and affordable energy infrastructure including solar and battery storage which recognises the critical importance of cold chain management in the fresh produce supply chain,
- Continued access to R&D tax incentives for private investment in new technologies, and Fringe Benefits Tax concessions and exemptions, including for high labour input businesses such as fresh produce,
- Educational institutions which allow young Australians to remain in regional areas to complete their education and pursue qualifications and training with the ability to obtain employment with local businesses and to embark on a career pathway, while also providing a reliable labour supply to business.

There is a mutual benefit to such private and public investment, having not only a positive effect on economic growth, but also the associated social benefits that come from investment in services including health care and public amenities such as for sport and recreation. These are all key to making regional Australia an attractive and desired place to live, and a preferred destination for those from metropolitan areas.

Recommendation 6

Acknowledge the significant role of the Australian Fresh Produce industry across rural and regional Australia as a significant employer and investor. Consider how existing government policies and programs can support all fresh produce companies to continue growing.

8. Regional Australia – A Stronger Economy Delivering Stronger Regions 2018–19, Statement by The Honourable Michael McCormack MP, Deputy Prime Minister, Minister for Infrastructure and Transport, 8 May 2018.

Industry Fundamentals continued

7. Research and Development, and Marketing

Industry is investing heavily in R&D and technology

The Australian fresh produce industry is using technology to actively manage and address various challenges, including the ever rising cost of production, most notably labour, environmental factors such as climate change, the availability of non-renewable resources, the need to reduce produce and process wastage, the threat of pest and disease and ever growing global competition.

There is significant ongoing private investment in the development and adoption of new plant varieties to improve quality, yield and resistance to pest and disease. This investment provides growers with improved returns and consumers with higher quality produce. Ongoing investment in world leading product IP and innovative growing methods is critical to maintain and enhance the quality of produce. Increasing investment in harvest and post-harvest practices has a wide range of benefits including with regard to traceability, food safety, product quality and reducing food waste.

Private investment in new agronomic and growing practices have been a focus to deliver improved yields per hectare of crop compared to existing growing methods. As an example, comparisons on key metrics such as yield, total plants, crop length, water use efficiency and production between substrate glasshouse tomato crop production, and field crop production are illustrative.

Considering tomato production on 1 hectare (10,000 m²), the following comparisons can be made. In the field, there are 11,000 plants per hectare, in a glasshouse it is 34,000 per hectare. In the field, seven kilograms of tomatoes are produced per square metre, compared to 65 kilograms in a glasshouse. For field crops, 7 months is the typical length of a crop, compared to more than 11 months for a glasshouse substrate tomato crop. Finally, there is also a major difference in water use and efficiency, as an example, in field production in one region uses 216 litres of water per one kilogram of tomatoes grown, while a particular glasshouse uses only 49 litres per one kilogram of tomatoes grown.

Australian Government policy must support continued private investment in new plant varieties, new production techniques, harvest technologies, post harvest management, and technology enabled expansion to support a more efficient, profitable and sustainable fresh produce industry.

Introduction to Research and Development Corporations and R&D

Agricultural research, development and marketing functions in Australia are performed by governments, universities, companies, institutes, and a range of other stakeholders. Within this complex framework there are:

15 Rural RDCs (Research and Development Corporations) across agriculture, fisheries and forestry industries in Australia. Each one is tasked with delivering tangible and practical improvements for their industries in terms of productivity and profitability, sustainability, and the community. They do this through strategic and targeted investments in and partnerships for research, development and adoption, and in some cases, market access, market development and promotion.

9. www.ruralrdc.com.au/about/



Industry Fundamentals continued

There are a range of differing views as to on the benefits, costs, systems and structures that are utilised by Rural Research and Development Corporations (RDCs) and the best way forward. Before considering these it is important to recall the legislated purpose of the system through the Primary Industries Research and Development Act 1989 (page 1&2):

- (a) ... for the funding and administration of research and development relating to primary industries with a view to:
- (i) increasing the economic, environmental and social benefits to members of primary industries and to the community in general by improving the production, processing, storage, transport or marketing of the products of primary industries; and
 - (ii) achieving the sustainable use and sustainable management of natural resources; and
 - (iii) making more effective use of the resources and skills of the community in general and the scientific community in particular; and
 - (iv) supporting the development of scientific and technical capacity; and
 - (v) developing the adoptive capacity of primary producers; and
 - (vi) improving accountability for expenditure on research and development activities in relation to primary industries; and
- (b) ... for the funding and administration of marketing relating to products of primary industries.

Purpose of the Rural Research and Development Corporations

There would be few who would argue that there is not a strong need for continued investment in agricultural research and development to support the long term development of Australian agriculture. Much of the discussion is therefore focussed on the 'who, what, when and where' of that research and development.

Since the establishment of the RDC system Australian agriculture has become more globally integrated and connected, where technology plays a significantly greater role in production, marketing and the supply chain; and consumers demands have shifted markedly. The breadth of research underway has increased significantly which is reflected in the research portfolios of RDCs. In a modern environment of many participants, global research programs, and rapid technological development, every organisation must focus its efforts, resources and attention.

It is clear from the Primary Industries Research and Development Act 1989 that the system was designed to meet a combination of strategic and 'public good' objectives.

This reflects funding from 'compulsory industry levies' and Australian Government contributions funded by Australian taxpayers. The Australian Fresh Produce Alliance notes that the original objectives remain as relevant as ever and if the RDCs were dismantled there would need to be another collective mechanism established to support the strategic and 'public good' objectives.

A way forward?

The Australian Fresh Produce Alliance proposes a way forward for the Australian RDC system based on a realignment of focus, structure, and systems.

1. Focus

As grower funded organisations working closely with industry it was probably inevitable that without strong strategic frameworks directing research that each RDC would be drawn into the many and varied issues which exist in agriculture. This has led to research funding being spread thinly across many 'priorities', duplication across the RDC system, and as some would contend – a lack of outcomes. A useful approach to focussing the RDC programs will be to:

- Focus on research priorities which provide strategic and 'public good' benefits to contributing industries and the Australian taxpayer,
 - Undertake research to address strategic challenges which won't otherwise be addressed by other parties, and
- Avoid short term ad hoc research topics which will be met by other parties.

Once the long term strategic objectives or challenges are reviewed and assessed against 'public good' objectives, key issues become apparent. A framework of fresh produce strategic issues are outlined below. Addressing these are crucial to the continued sustainability and growth of the Australian fresh produce industry.

Framework of Fresh Produce Strategic Issues

1. Sustainability

- Climate Change
- Water
- Packaging

2. Trade

- Market Access
- Industry Capability Development
- Technical Exchange with key export markets

Industry Fundamentals continued

3. Biosecurity

- Managing pest and disease
- Integrated Pest Management
- Chemical use

4. Food Safety

- Systems
- Science based approach
- Application of technology

5. Pollination

- Research into bees and flies
- Alternate pollinators
- Pollination across different production systems

With regard to what an RDC should not do, once an industry agrees by majority vote to implement a levy, an individual levy payer is compelled by law to pay the levy. If RDCs were to undertake advocacy or 'political lobbying' it creates a conflict of interest whereby a grower who is paying a compulsory levy is participating in, or being represented, by an entity (an RDC) which they are not voluntarily participating in.

Further, if an RDC participates in advocacy or 'political lobbying' while receiving an Australian Government funding it creates a conflict of interest whereby an RDC is 'encouraging or criticising' an investor. This could lead to a range of accusations, and is also a poor platform from which to undertake advocacy. For these reasons, the Australian Fresh Produce Alliance does not support an advocacy or 'political lobbying' role for RDCs, particularly Horticulture Innovation Australia Limited (HIAL).

There is however a clear role for RDCs in establishing data and evidence for Australian agriculture across key issues such as sustainability, labour, trade, biosecurity, food safety and other matters. This information can be used by governments and industry bodies in the development of policy and programs.

2. Structure

It comes as no surprise that the key challenges for fresh produce (sustainability, trade, biosecurity, food safety, and pollination) are highly relevant to all plant industries and agriculture as a whole. We must consider the objective and outcome as the priority moving forward, rather than the structure of organisations or the RDC framework in isolation.

For fresh produce and horticulture more broadly, there are currently 37 levies collected by HIAL as the industry services body for horticulture. While there is more than \$100 million invested by Hort Innovation annually, there are significant inefficiencies in administering 37 different levy funds. If it is accepted that the purpose of the RDC system is to address strategic challenges and provide 'public good' outcomes, 37 different levies are an inconsistent structural approach to strategic research in the horticulture industry – fruit, vegetables, nuts, nursery and garden, and cut flowers.

With regard to cross RDC collaboration on whole-of-agriculture issues, the Government implemented the Rural Research and Development for Profit¹⁰ program to drive the priorities identified in the Agricultural Competitiveness White Paper. This program has been successful in driving collaboration across RDCs on the issues identified but has not led to substantial ongoing collaboration on other issues.

The Government needs to consider implementing a collaborative approach to strategic agricultural issues in RDCs funding deeds. An example might be an RDC which has a significant track record in market access and extensive international network taking a lead in trade and market access for RDCs. An RDC with a track record and demonstrated capability in extension and adoption activities for farmers could lead this work across multiple sectors. This would ensure that the content and industry specialists remain to support their individual industries while leveraging the systems, platforms and networks of other RDCs in specific areas. The Government should consider allocating part of the Commonwealth funding contribution to across-agriculture strategic challenges in order to drive collaboration.

There have been some suggestions that 15 RDCs is too many and they could be merged to create efficiencies and better outcomes. With levies being collected by industry it is important that farmers maintain a connection to 'their RDC' to support adoption, farmer engagement and RDC relevance. While a merge of all RDCs into one plant and one animal RDC might be a step too far and create large bureaucracies rather than RDCs responsive to their stakeholders, potential mergers might be identified against a review of industry strategic challenges and issues which would improve outcomes for growers and taxpayers.

10. www.agriculture.gov.au/ag-farm-food/innovation/rural-research-development-for-profit

11. 'Our Common Future', Brundtland Commission 1987

Industry Fundamentals continued

3. Systems

The last key piece of realignment which needs to occur is a review of systems across RDCs. All levy payers should have access to their levy return through a levy payer register and the ability to communicate directly with their RDC. The levy payer register and direct communication with levy payers should form the basis of modern communication, extension and adoption in Australian agriculture.

In consideration of the strategic challenges of the industry and the research program and portfolio it will become clearer what other system requirements might exist across RDCs. The balance will be establishing systems which reflect the needs of the levy payers, research programs and ultimately value for taxpayers.

Recommendation 7

Adopt a policy to streamline agricultural Research and Development, and Marketing, to resolve key industry challenges, reduce duplication and drive innovation and automation to deliver economic growth not only to horticultural producers but through the broader supply chain and regional economy.

8. Sustainability

AFPA members committed to generations of sustainable farming

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’¹¹. 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. With the impact of climate change becoming more evident, the fresh produce industry is increasingly focused on measures to mitigate the impacts and risks associated with climate change.

Increased sustainability and resilience often go hand in hand and specific examples include a move to protected cropping to mitigate the impact of extreme weather events, more effectively manage crop inputs including water and fertiliser, and improve efficiency of yield measured against per unit of input. Protected cropping has the benefit of also 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.

A number of companies are also geographically diversifying their production, with some having a production footprint across multiple locations in order to grow and provide produce to Australian families year round, while managing the impact of climate change in different regions. Industry also has significant ongoing investments in new varieties with a focus on disease resistance, yield improvements and higher quality produce.

Effective integrated pest management is vital to managing and reducing input use (such as chemical sprays) and controlling pest and disease on farm. A holistic approach to farm production improves environmental sustainability through management of the environment over the long term. This holistic approach supports biodiversity, soil health and water conservation.

Energy is a 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 growers 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 maintaining a controlled environment, including refrigeration and cooling. Waste to energy is a significant opportunity for horticulture operations to use waste plant material and while this is in the early stages of development, there is strong interest from the sector.

The Australian Fresh Produce industry is adopting a wide range of technology and modern business practices including temperature monitoring through the supply chain, irrigation and plant monitoring, and supply chain optimisation. 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 8

Adopt a Sustainability Framework which acknowledges the significant contribution of Australia’s fresh produce farmers to Australian families and the Australian environment, through the production of fresh and nutritious food, while improving yield relative to input use and promoting sustainable and responsible stewardship of our natural environment.

Industry Fundamentals continued

9. Product Integrity

Companies invest in food safety

The integrity of Australia's fruit and vegetable products is key to consumer confidence, nutritional benefits and enjoyment, and also vital to profitability and commercial viability through the supply chain. Growers and the entire fresh produce supply chain invest in product integrity through refrigeration, food safety systems and processes, production and storage techniques, and correct handling procedures through the supply chain. There are three areas where government and industry must work together to ensure product integrity: food safety, addressing food tampering and effective crisis management.

What is food safety?

Food safety underpins the success of the entire fresh produce industry. Production systems, packing processes, packaging, transport, refrigeration, handling and sales systems are all designed to support food safety through to consumption. Industry is working with providers on new trials to measure temperature through the supply chain, develop new traceability methods to track produce through the supply chain, and develop records of product movements. Recent food safety incidents have been isolated to specific products and production systems. These incidents have been managed effectively and not affected the broader fresh produce supply chain.

How do we keep consumers safe?

Food tampering is the deliberate and malicious contamination of food. There have been a number of food tampering incidents which affected specific products but also had a detrimental

effect on fresh produce overall. The increase in penalties for food tampering is a step in the right direction. We need a consistent national approach to any intentional tampering of the food supply as it undermines consumer confidence and affects industry's ability to deliver food to Australian families.

What if things go wrong?

When there is a crisis, effective management of the issues through a coordinated response from industry and government is essential. With the prevalence of social media and instant reporting of issues, there must be a coordinated response which provides consistent messaging and clear information for consumers untainted from bias or emotion. The Australian Fresh Produce Alliance is asking the Australian Government to adopt an industry led approach to addressing the underlying issues in food tampering and food safety, with a focus on coordinating the key players across multiple government and regulatory jurisdictions to deliver cohesive and considered responses.

Recommendation 9

Adopt an industry led approach to addressing the underlying issues in food tampering and food safety, with a focus on coordinating the key players across multiple government and regulatory jurisdictions to deliver cohesive and considered responses.



Industry Fundamentals continued

10. Food Waste, Packaging and Recycling

AFPA members focussed on reducing waste

The Australian Fresh Produce Alliance has focussed on key elements of the fresh food produce cycle including food waste, packaging and recycling.

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 the produce as it travels through the supply chain. Recycling of the packaging (and the food waste) is a critical step which needs greater attention to ensure we are actively managing and reducing our collective environmental impact.

Work to Date

In 2018 the AFPA commissioned research aimed at examining and understanding the role packaging fulfils in minimising food waste, and maximising quality control in order that Australian consumers can eat fresh quality produce on a regular basis. The Alliance recognises there is concern about the level and type of 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.

The main findings 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 plate compared to having no packaging at all;
- Packaging material and packaging formats should work synergistically to provide product protection and shelf life as it travels through the supply chain and
- Packaging reduces the chances of product bruising or damage through reducing direct touching and handling.

This research is also important when considering that an estimated 7.3 million tonnes of food valued at \$20 billion is lost or wasted in Australia every year. This waste is occurring at a time of growing rates of obesity in our adult and child population due to poor dietary intake of fresh fruit and vegetables, leading to the development of preventative and chronic diseases amongst the population, including type 2 diabetes.

The research also identifies a number of key recommendations focused on further work, including:

- a better understanding of food waste that occurs in the home post retail purchase;

- education for consumers on the role of packaging and why it is used for certain types of fresh produce;
- a focus on a 'circular economy' approach to packaging, involving producers, retailers and government (local, state and federal) coming together to identify ways in which to reduce packaging waste and improve recycling and reuse;
- further work on clarifying the value of packaging in product safety, with an emphasis on 'ready to eat' fresh produce and
- the extent to which packaging plays a role in maintaining and enhancing sensory aspects of fresh produce, such as look, taste and smell.

Next Steps

The Alliance also recognises that it must work to reduce packaging where it reasonably can and to identify forms of packaging which provide greater opportunity for not only recycling, but also the manufacture of plastic packaging from recycled content. This is definitely an area where the AFPA intends to do more work.

Recommendation 10

Implement a national, coordinated policy on packaging, food waste and recycling which provides a framework for industry, governments, retailers and consumers to implement business, consumption and behavioural change for the benefit of the environment and Australian families.





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