



*AUSTRALIA'S TREE NUT INDUSTRY
SNAPSHOT 2022*

Growing for Success

TOWARDS 2030

The Australian Nut Industry Council

Formed in 1988, the Australian Nut Industry Council (ANIC) is the federation of seven tree nut growing industries. ANIC is a not-for-profit organisation, led by a board representing the seven nut sectors and an Executive Officer. Collectively, the board and Executive Officer design and implement a wide range of activities to grow the Australian nut industry.

The members of ANIC and their representatives (*as at 01/01/2022*) are:

| | |
|--|------------------------|
| Almond Board of Australia | Brendan Sidhu (Chair) |
| Australian Macadamia Society | Jolyon Burnett |
| Australian Pecan Association | Richard Sampson Genest |
| Australian Walnut Industry Association | Nick Downes |
| Chestnuts Australia Inc. | Brian Casey |
| Hazelnuts Growers of Australia Inc. | Darren Baguley |
| Pistachios Growers Association Inc. | David Crawford |



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Foreword



Growing for Success 2022 provides a great snapshot of both where and how the Australian tree nut industry has developed with future production predictions. It outlines an exciting future and opportunities to invest and expand the industry.

I would like to acknowledge the contribution from Minister Littleproud and the Department of Agriculture, in supporting the industry through the Agriculture Trade and Market Access Co-operation grant funding (ATMAC). This will assist in the marketing of our products internationally as we respond to the increase in production.

The data supports the expansion into new markets to achieve the long-term sustainability of the nut industry and reward the considerable investment in new production capability to achieve our industry and sector goals.

I wish to thank the seven nut industry groups for their cooperation and the Department of Agriculture in supporting the work of ANIC through this edition.

Brendan Sidhu,
Chair ANIC



The seven Australian tree nut industries voluntarily come together under the Australian Nut Industry Council (ANIC) which works to deliver efficiencies to the industry in areas of commonality and collective action throughout the supply chain. Through ANIC the nut industries work together sharing resources, experience and ideas to advance the industries and promote the benefits of Australian-grown nuts.

The Australian Nut Industry Council produces *Growing for Success* to be used by different sections of industry to assist in planning investment decisions, whether in new plantings, processing, marketing, or new markets, and builds on previous editions.

The data is up to date and provides a good base to begin due diligence around potential investment decisions and planning for the future as well as providing current and verified industry trends and analysis.

Cathy Beaton
Executive Officer, ANIC



Table of contents

| | |
|-----------|---|
| 3 | Why Australian nuts? |
| 4 | Growth continues for Australian tree nuts |
| 6 | Sustainable in every way |
| 7 | Australian Tree Nut Industry - Growing stronger |
| 8 | Growing domestic consumption |
| 9 | International consumption grows more |
| 10 | Trade & exports |
| 12 | Nuts for health |
| 13 | 2030 Vision |
| 14 | Industry Snapshots |
| 15 | Almonds |
| 16 | Chestnuts |
| 17 | Hazelnuts |
| 18 | Macadamias |
| 19 | Pecans |
| 20 | Pistachios |
| 21 | Walnuts |



Why Australian nuts?



The Australian tree nut industry is among the most sophisticated, highly mechanised and environmentally aware nut industries in the agricultural world, having developed in a competitive, globally-focused environment. Australia is the seventh largest producing country in the world for tree nuts. Australian nuts are successful - abroad and at home - because of several reasons:

IN-SEASON NUTS – ALL YEAR ROUND

Australia provides reliable and premium quality supply in the northern hemisphere off-season. The Australian tree nut crop is timed perfectly to supply northern hemisphere markets for the critical Christmas/religious festivals trade, a shipping schedule that challenges northern hemisphere competitors. The benefit for the international nut trade and consumers is that they now have access to a ready supply of fresh nuts all year round.

CLEAN, GREEN AND SUSTAINABLE

Consumers today not only want foods that are of good quality, but also that have been produced safely and sustainably. Australia is recognised internationally as a ‘clean and green’ producer, more so than other nut producing countries. This reputation is constantly being safeguarded by attention to biosecurity and environmental issues by both governments and growers. It is a powerful marketing point of difference.

TOP QUALITY FROM TOP GROWERS AND PROCESSORS

Australian tree nut growers are producing some of the best quality nuts in the world from farms big and small across the nation. All are highly regarded for their freshness, flavor, taste and quality.

Australian processing systems are considered world class and help provide consumers with the confidence that Australian nuts are safe and reliable. Investment in technology and infrastructure means processors are now at the leading edge in world’s best practice in cracking, shelling, sorting, grading, scanning, packing, tracking and delivery. They are now also innovating to expand markets through the processing of value-added products.

INVESTMENT IN RESEARCH, DEVELOPMENT AND EXTENSION (RD&E)

Australian growers are at the global forefront for efficiency of inputs, nut yields per hectare and quality – results of their ability to adopt the very latest innovations and practices in production.

Investment in RD&E across all sectors of the tree nut industry is significant, resulting in world leading practice in new varietal development, water efficiencies, nutrition, biological controls, harvesting and post-harvest. The understanding and practice of growing high quality nuts in Australian conditions is constantly improving.

The nut industries have utilised the Australian Government RD&E and marketing levy models in partnerships which have assisted in the rapid growth in productivity and export earnings over the last decade. For example, tree nut industries have been long term active partners with Australia’s research and development corporations like Hort Innovation and AgriFutures Australia.

EXPORT FOCUSED

Due to Australia’s relatively small population, farmers here are acutely aware of the need for, and needs of, export markets and the importance of supplying reliable lines of high quality product.

STRONG LEADERSHIP

Australia’s tree nut industries have strong, well-organised industry associations which support growers in funding RD&E and marketing initiatives, as well as proving technical advice. All have a focus on ensuring growers have the best advice, as well as working to expand markets, both domestically and overseas.

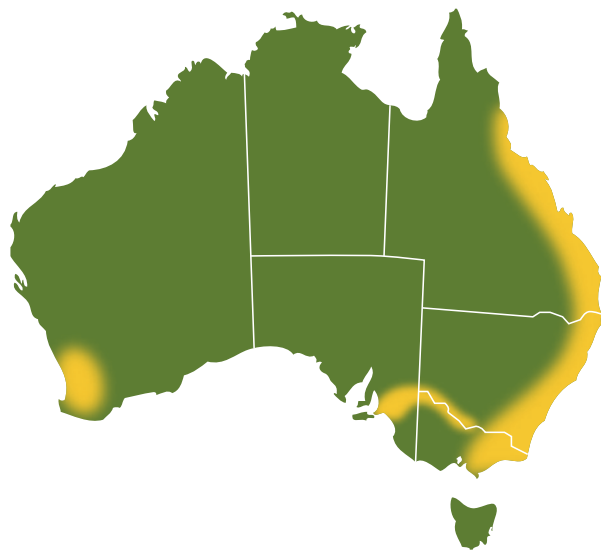
The Australian Nut Industry Council works collectively with government at a national level to help development international markets further.

Field days in each tree nut industry allow growers and suppliers to industry to share ideas like the use of aerial drops of pheromones to attract bees for pollination



Growth continues

~ for Australian tree nuts



The Australian tree nut industry is a national success story in Australian agriculture. The farm gate value in 2021 was over AU\$1.2 billion, making the industry not only a significant contributor to the Australian rural and regional economies, but also contributing more than a third of Australia's horticultural exports.

Just in the last five years the industry has seen significant new plantings across all tree nuts, particularly in almonds and macadamias. With a lead time of 5-10 years, this expansion is likely to push the farm gate value to well over \$2 billion by 2030.

Tree nuts have been grown in Australia for over 100 years and productivity has never been higher. With gross revenue per hectare ranging up to \$30,000, this is accompanied by economic returns to the community that are 10 to 20 times higher than the

return from traditional row crops. It is not surprising therefore that across Australia the industry is seeing growers changing from their existing crops to tree nuts.

Strong markets, sound business models and free trade agreements with key export nations have all led to more than half a billion dollars of new investment per year in recent years to expand national production. By 2025 the macadamia industry is predicting an almost 50% increase in area of production from 36,000 hectares in 2021 to 46,000 in 2025. With many hectares of almond orchards coming into production over the next few years, production is expected to rise by more than 50 per cent from 124,000 tonnes in 2021 to 187,000 tonnes in 2025.

All tree nut sectors in Australia are growing. Pistachios are predicted to increase production 100% on 2021 levels by 2025, and chestnuts by more than 15% in the same period. By 2025 walnut production is forecast to increase by 38% and pecans by nearly 60%. Hazelnuts will see a massive increase from around 1,000 tonnes to 6,000 tonnes as production increases at the 2,000 hectare Agri Australis farm.

The expansion of the nut industries generates flow-on business to associated sectors such as input suppliers, beekeeping, plant nurseries and local economies. Employment opportunities in the tree nut industry and supporting sectors remain strong.

The nut sector has sustained growth in domestic consumption of 5.6% year on year over the last 20 years. The industry retail value of the domestic market exceeds \$1.5 billion per annum (2021). On the export front in 2021 almonds, macadamias, walnuts, pecans and chestnuts exports to more than 65 countries totaled nearly \$1.5 billion.

Almonds and macadamias are in the top four of Australia's most valuable horticultural export commodities with almonds coming in at number one.



Export sales of tree nuts overall are forecast to increase from \$1.47 billion in 2021 by 86% to \$2.7 billion by 2030.

Australian nuts attract a premium in markets that appreciate food safety, product quality and reliability of supply chains.

Overseas buyers recognise Australia as the source of premium quality nuts, which are especially prized in the northern hemisphere. The industry is focussed on developing programs to ensure market opportunities are maximised both domestically and internationally and is working closely with government to develop new markets overseas.

Driving all activities across the tree nut industries is a commitment to sustainability. Research and development is paramount, growers are committed to better practice whether it be related to plant biosecurity, environmental issues such as water efficiency and climate change, and the social licence of communities in which they operate.

The potential for large economic losses from these threats are exacerbated because of the longevity of production within tree nut crops (25 to 100 years) in comparison to those industries with shorter production cycles (annual and biennial crops). Programs that protect the long-term investment of the tree nut industries from these risks are continually being updated and need to feature strongly in government policy.



Pistachio plantings are expected to increase to more than double by 2030.



Sustainable, in every way



Sustainability has been, and will continue to be, an ongoing commitment for the Australian tree nut industry.

Growers, processors and marketers are committed to best practice in the ways they do business and sustainability is critical to the industry's continuing success. Sustainability is now expected worldwide – by consumers, investors and governments.

The concept reaches into every part of the Australian tree nut industry. Growers are committed to using water as efficiently as possible, reducing impacts on the environment by building soil health, reducing the use of pesticides and herbicides, and recognising the social licence with which they operate in their local communities, as well as their contribution to these communities.

'Clean and green' is the advantage that Australia has in the global agricultural marketplace and nut growers realise the challenges to protect the environments in which they operate.

Considerable investment continues to be made into Research and Development programs to improve productivity through varietal development and selection, orchard management and crop

protection, as well as developing new markets which will welcome the quality of Australian nuts and the safe, ethical way in which they are produced.

Much of this investment is made through Hort Innovation, a national body which works with horticulture to improve the productivity and global competitiveness of specific industries.

Australia's tree nut industries are committed to Hort Innovation's Australian-grown Horticulture Sustainability Framework, with four pillars:

- 'Nourish & Nurture' recognises the role of Australian horticultural produce in improving diets, health and wellbeing by providing safe, quality food and greenlife.
- 'People & Enterprise' identifies the strong links between the people, enterprises, communities and economic value of Australian-grown horticulture.
- 'Planet & Resources' focusses on reducing any impacts on the natural environment and on the dependence of horticultural production on resources, biosecurity and resilience to climatic variability.
- 'Less waste' is about reducing all forms of waste in horticultural production.

Within the pillars there are 17 focus areas that align with the United Nations' Sustainable Development Goals.

Goals such as 'Communities'. They are the lifeblood of Australian horticulture and the tree nut industries are part of communities in all Australian states, contributing significantly to their economic well-being, as well as that of the national economy.

Plus 'Good Health and Well Being'. Regularly eating nuts has been shown to contribute to heart health, reduce overall mortality and the risk of developing type 2 diabetes, assist with weight management, reduce the risk of cancer and contribute to good health in so many other ways. What a great attribute towards being sustainable!

'Climate action'. Nuts grow on trees – trees which capture and store a significant amount of carbon both above and below the ground over their 25 years plus lifecycle. Another tick on the sustainability framework.

ANIC is also a member of INC – the International Nut & Dried Fruit Council – which is committed to sustainable growth in the global industry. It has identified nine of 17 Sustainable Development Goals set by the United Nations that the nut industry can help achieve by 2030.

Best practice is all about continuous improvement – doing things better and sustainably, so that in 2030 the Australian tree nut industry will be the best it has ever been, in every way.

Sustainability will contribute to the vision that not only will Australia's tree nut industry surpass a value of \$2 billion by 2030, but it will be in great shape for the future beyond.



Research at the Mildura Smart Farm is utilising drones (foreground) and also LIDAR which is used in mapping orchard canopy, flowers, fruit and yield.

Australian tree nut industry

~ growing stronger



Capital and expertise have combined to drive the expansion of area under nut cultivation in Australia. The industry is now a mixture of large 'corporate' farms and medium to small-sized family farms. Average farm size continues to rise.

Tree nut production in Australia is dominated in scale by almonds and macadamias. Almonds represent more than 50% of the total area planted and the tonnage produced. The macadamia, Australia's iconic native species, accounts for approximately one third of both area planted and tonnage produced.

In 2021, the farm gate value of the industry reached over \$1.2 billion. This represents a 289% increase since 2011. Accounting for the current wave of expansion being experienced across the industry, this value is forecast to increase from 2021 by 50% by 2025, and a further 15% on that by 2030.

Tree nuts continue to provide an attractive alternative to the traditional but lower value Australian crops under pressure from overseas competitors. Nut growing converts land from these other crops with relatively lower financial returns per hectare to intensive crops with a high return per hectare of land and per megalitre of water.

Tree nut industries require long-term investment in capital, technological skills and research, development and extension (RD&E). With the support of RD&E funding from the Australian Government and our own nut industry levies, Australia is now producing some of the highest nut yields per hectare in the world. Long-term breeding programs aimed at improved varieties are also in place.

A foundation for the industry's growth has been widespread adoption of global best practice by growers, who have successfully adapted this knowledge to Australian conditions. Advanced production systems with new tree architecture and harvesting methods are addressing the challenges of growing in semi-arid environments. Industry led RD&E programs are developing new varieties to increase the productivity and resilience of nut trees, while investment in irrigation technology is achieving higher water use efficiency (returns per megalitre of water applied are up to \$3,000).

The Australian tree nut industries are widely respected around the world for their knowledge and culture of innovation. Australia enjoys a reputation across the world for unsurpassed food-safety and environmental standards. Our relative isolation has generally provided Australian agriculture with a pest and disease-free environment, but biosecurity remains a critical factor in ensuring this continues.

The tyranny of distance generally means that most agricultural commodities carry a high export freight cost to our major markets. By contrast, the high value of nuts compared to most broadacre crops means the freight cost is a small component.

From orchard to processing to value adding, the Australian tree nut industry has excelled. Underpinning this success are many factors including adaption to a variety of climatic and agronomic zones, excellent infrastructure and processing systems, investment in RD&E and skilled growers and advisors.

AREA PLANTED, PRODUCTION AND FARM GATE VALUE OF AUSTRALIAN TREE NUTS (ACTUAL/FORECAST)

| Area Planted, ha | 2011 | 2021 | 2025 | 2030 |
|-----------------------|---------------|----------------|----------------|----------------|
| Almonds | 26,944 | 60,000 | 63,000 | 65,500 |
| Macadamia | 18,000 | 36,000 | 46,000 | 57,600 |
| Walnuts | 2,790 | 4,100 | 4,500 | 5,500 |
| Pecans | 1,400 | 2,115 | 3,374 | 3,374 |
| Chestnuts | 1,240 | 1,500 | 1,700 | 1,900 |
| Pistachio | 900 | 1,900 | 2,800 | 4,000 |
| Hazelnuts | 140 | 2,750 | 3,000 | 4,000 |
| Total hectares | 51,414 | 105,365 | 126,374 | 141,874 |

| Production, tonnes | 2011 | 2021 | 2025 | 2030 |
|---------------------------------|---------------|----------------|----------------|----------------|
| Almonds, kernels | 37,626 | 124,000 | 187,000 | 198,500 |
| Macadamia, kernel equivalent | 8,978 | 17,388 | 21,420 | 27,405 |
| Walnuts, kernel equivalent | 1,728 | 6,500 | 9,000 | 11,000 |
| Pecans, kernel equivalent | 1,540 | 1,620 | 2,520 | 3,450 |
| Chestnuts, inshell | 1,100 | 1,300 | 1,500 | 1,700 |
| Pistachio, inshell | 1,100 | 3,000 | 6,000 | 12,000 |
| Hazelnuts, kernel equivalent | 32 | 400 | 2,600 | 3,400 |
| Total Production, tonnes | 74,560 | 195,434 | 291,405 | 335,740 |

| Farm Gate Value \$m | 2011 | 2021 | 2025 | 2030 |
|---------------------|--------------|----------------|----------------|----------------|
| Almonds | \$188 | \$882 | \$1,330 | \$1,411 |
| Macadamia | \$88 | \$287 | \$347 | \$444 |
| Walnuts | \$14 | \$66 | \$92 | \$112 |
| Pecans | \$19 | \$13 | \$24 | \$35 |
| Chestnuts | \$9 | \$10 | \$15 | \$20 |
| Pistachio | \$11 | \$33 | \$66 | \$132 |
| Hazelnuts | \$0 | \$12 | \$47 | \$62 |
| Total \$m | \$329 | \$1,281 | \$1,921 | \$2,216 |

Growing domestic consumption



Healthy eating trends and increasing consumer support for Australian 'clean and green' grown produce are driving sales of tree nuts in Australia.

The marketing investment by industry has also contributed greatly to the consistent growth in domestic consumption of tree nuts through direct promotion and marketing programs.

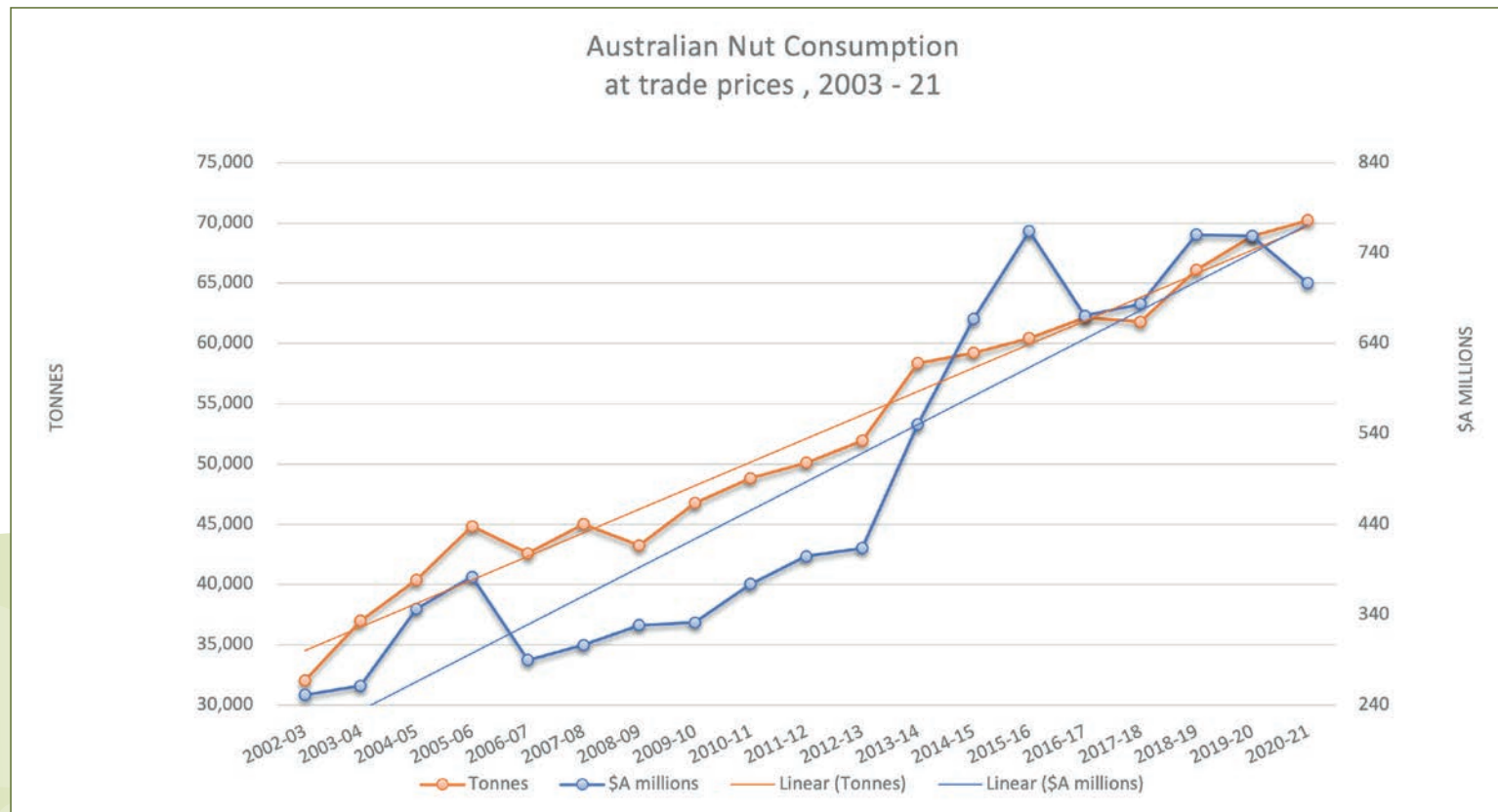
The Nuts for Life program facilitated by the Australian Nut Industry Council (ANIC) in partnership with Australian tree nut industry members has played a strong role in communicating the health benefits of eating nuts.

The program is now principally funded by voluntary contributions from the nut industry from all sectors of the supply chain – a testament to their commitment to the product.

Nuts have been included in the Australian Dietary Guidelines and this has helped to reinforce the health benefits of nuts to consumers. Australian nut consumption (at trade) has more than doubled since 2002-3, reaching 70,218 tonnes in 2020-21. This represents an average compound growth of 6%.

The Australian nut crop is heavily consumed in local markets and any shortfall between domestic demand and available supply is met by imports. The almond, macadamia, walnut and pecan industries have all been developed with a strong international focus and are increasingly exporting as their production bases grow.

With domestic consumption over 70,000 tonnes in 2020-21 this would value the sales on current trade prices at over \$700 million, or an estimated retail value of \$1.5 billion.



Source: Nuts for Life



International consumption ~ grows more

World demand for nuts is growing at about 6.5% a year, well above natural population growth. This expansion is coming from an increasing awareness of the health benefits of nuts, an increasing prosperity of the middle class in developing economies, and the development of many new food products using nuts as an ingredient such as nut milks and protein bars.

For the two biggest selling nuts, almonds and macadamias, each had more than 300 new products incorporating them coming onto the market in 2019.

Developing economies, such as India, China, Eastern Europe and the Middle East are all showing strong and growing demand for tree nuts. While nuts are not luxury foods they have traditionally been beyond the pockets of the poor. As disposable incomes rise, consumption of traditionally more expensive foods like nuts increases.

The evidence and trends therefore suggest that as economic growth and incomes increase in developing countries, so will their demand for nuts.

Australian almonds are actively marketed at major international trade shows and macadamias have been successfully marketed into Asian countries as a premium nut through sophisticated marketing programs.

Nuts are an ingredient that adds taste, texture and health credentials to a wide range of food and beverage products so the value-added market is rapidly growing.

The Australian tree nut industries are looking to their future expansion not only driven by a steady growth of the Australian market, but more importantly by selling into a growing consumer base across the world.



More innovative products are being produced every year incorporating nuts for their health value.

Trade & exports



In line with growing international consumption, tree nuts continue to perform strongly in the export sector, dominating Australia's horticultural exports.

Tree nuts account for more than a third of all horticultural exports and are valued at over AU\$1.47 billion (2021). Prospects for export growth are also strong. The Australian tree nut industry is likely to surpass AU\$2.2 billion in export sales by 2025, and AU\$2.7 billion by 2025.

This is largely thanks to the powerful and persistent worldwide dietary trend and a strong set of local production values that emphasise food safety and eating quality, as well as excellent social and environmental stewardship credentials.

Australia currently exports nuts to around 65 countries. The principle barriers to expanding exports are the tariffs that remain in some key existing and some potential new markets. These tariffs restrict nut consumption by increasing the price to the importing market, in some cases prohibitively.

Free trade agreements (FTAs) between Australia and Japan, China, Taiwan and South Korea have seen exports of Australian-grown nuts increase dramatically to these markets in the last few years. These FTAs have led to nut tariffs being phased out in those countries. These FTA markets still offer significant potential for growth, while there are now enhanced opportunities with the new UK FTA. Other markets such as India, a major nut importer, offer even more potential.

AUSTRALIAN TREE NUT EXPORT VOLUME AND VALUE

| Exports, tonnes (FY) | 2011 | 2021 | 2025 | 2030 |
|------------------------------|---------------|----------------|----------------|----------------|
| Almonds, kernels | 24,483 | 84,000 | 142,000 | 154,000 |
| Macadamia, kernel equivalent | 8,905 | 12,834 | 17,564 | 23,020 |
| Walnuts, kernel equivalent | 1,312 | 2,600 | 4,500 | 6,750 |
| Pecans, kernel equivalent | 721 | 283 | 1,434 | 2,157 |
| Chestnuts, inshell | 671 | 5 | 100 | 300 |
| Pistachio, inshell | 300 | 1,000 | 2,000 | 7,000 |
| Hazelnuts, kernel equivalent | - | 3 | 40 | 120 |
| Total exports, tonnes | 57,069 | 131,238 | 210,394 | 250,337 |

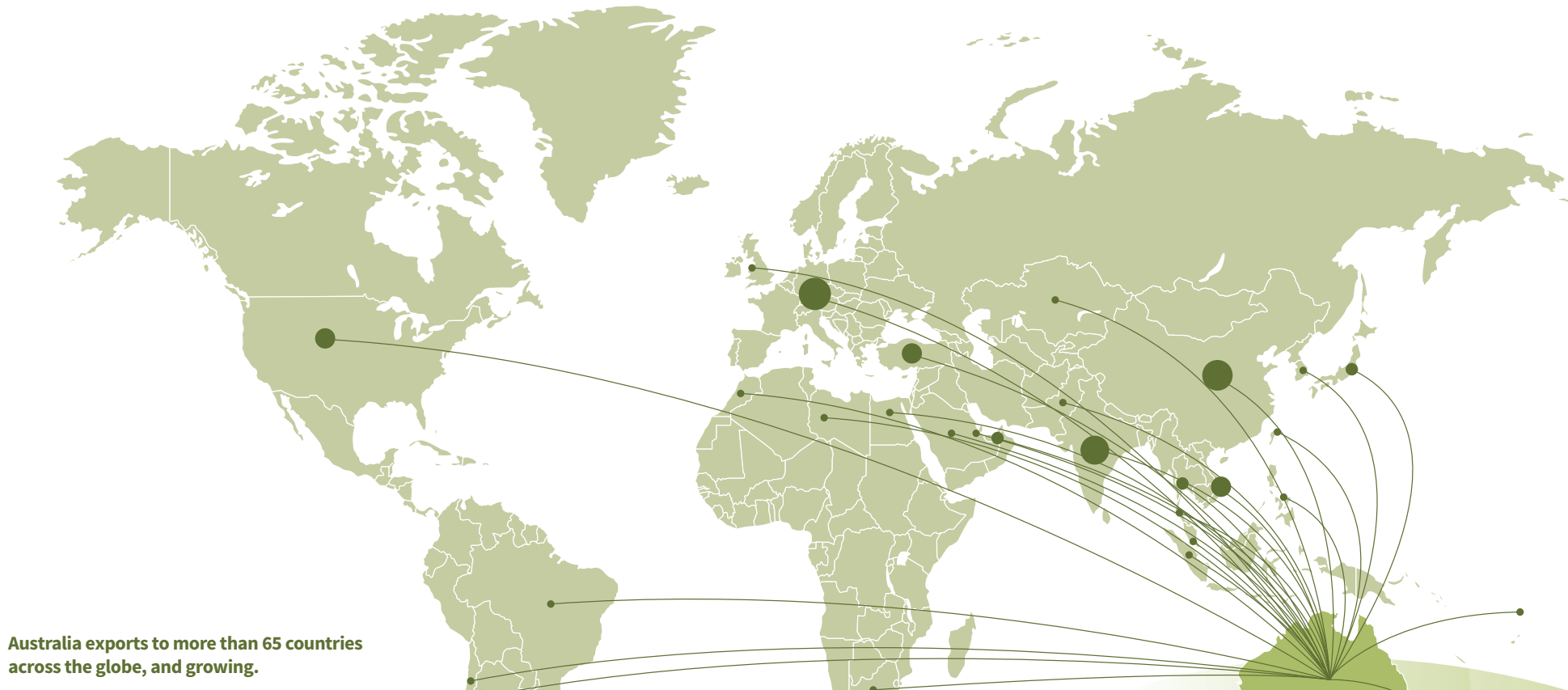
| Exports, value \$m | 2011 | 2021 | 2025 | 2030 |
|-------------------------|--------------|----------------|----------------|----------------|
| Almonds | \$135 | \$597 | \$1,010 | \$1,095 |
| Macadamia | \$71 | \$835 | \$1,115 | \$1,462 |
| Walnuts | \$10 | \$25 | \$43 | \$65 |
| Pecans | \$11 | \$3 | \$16 | \$26 |
| Chestnuts | \$3 | \$0.4 | \$3 | \$9 |
| Pistachio | \$2 | \$9 | \$18 | \$60 |
| Hazelnuts | \$- | \$0.7 | \$4 | \$12 |
| Export value \$m | \$232 | \$1,470 | \$2,209 | \$2,729 |



The development of export markets is supported by Australian tree nuts being present at major international trade shows.



AUSTRALIAN TREE NUT EXPORT MARKET FORECAST 2025



Australia exports to more than 65 countries across the globe, and growing.

| Top growing export regions | 2020-2021 Tonnes kernel equiv. | 2025 Forecast Tonnes kernel equiv. |
|----------------------------|-----------------------------------|---------------------------------------|
| NE Asia | 33,670 | 42,900 |
| Europe | 18,947 | 39,700 |
| Central Asia | 12,259 | 32,200 |
| SE Asia | 9,059 | 21,900 |
| Middle East | 5,440 | 9,500 |
| Africa | 535 | 4,800 |
| Latin America | 919 | 3,700 |

Nuts and health

Nuts have earned their place as an essential food within healthy dietary patterns, thanks to the significant role they play in delivering essential nutrients. They are ‘nature’s own vitamin pills’ – small packages that contain more than 28 different nutrients, with each nut containing their own unique combination.

Nuts are nutrient-dense foods. They contain high levels of protein and fat, mostly unsaturated fatty acids as healthy mono- and polyunsaturated fats. They are also rich in dietary fibre, vitamins (e.g., folic acid, niacin, vitamin E, vitamin B6), minerals (e.g., copper, magnesium, selenium, phosphorus, potassium and zinc), and contain many bioactive substances such as antioxidants, phytosterols and other phytochemicals. Nuts are cholesterol free and are naturally low in sodium and sugar.

Decades of research have highlighted the positive health effects of nuts. Today, more than 2,000 scientific research studies have been published substantiating the positive effect of regular nut consumption on human health.

Regularly eating nuts has been shown to contribute to heart health, reduce overall mortality and the risk of developing type 2 diabetes, assist with weight management and reduction, reduce the risk of cancer, improve sperm quality and cognitive function, and overall, promote good health [1-4].

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A HANDFUL OF NUTS A DAY IS ASSOCIATED WITH:

- 29% reduced risk of coronary heart disease [1]
- 22% reduced risk of mortality [1]
- 21% reduced risk of cardiovascular disease [1]
- 15% reduced risk of cancer [1]
- 13% reduced risk of type 2 diabetes [5]
- 7% reduced risk of stroke [1]
- 7% reduced rate of overweight and obesity [4]

Given their high fat content, nuts have until very recently, been perceived as a food likely to cause weight gain and to negatively affect insulin sensitivity. However, research shows that adding nuts to habitual diets does not cause weight gain, and may in fact reduce the risk of overweight and obesity.

According to a report by the Australian Institute of Health and Welfare (6) the health protective effects of nuts are, in some cases, more important than vegetables. So, a handful of nuts every day, as part of a balanced diet, is just as essential for good health as eating enough fruits and vegetables.

To take all of these positive messages to the community the tree nut industry across the supply chain voluntarily has invested in health education through the Nuts for Life program, which began in 2003.



2030 Vision

~ Driving nut consumption into the future



Apparent consumption data from the Australian tree nut industry shows that consumption has increased – more than doubling in volume and tripling in value since 2003. Yet nut consumption amongst Australians still remains chronically low. Combined data show that on average, Australians consume around 6g per day – far short of the public health target of 30g per day - despite improved perceptions of the health benefits of nuts.

For the health benefits of nuts to be fully realised, Australia needs more people eating more nuts more regularly, which is why Nuts for Life has developed the 2030 Vision for the industry.

The Nuts for Life 2030 Vision provides direction and clarity for the industry, to work together towards the clear, common goal of elevating the importance of nuts within healthy and environmentally-sustainable diets.

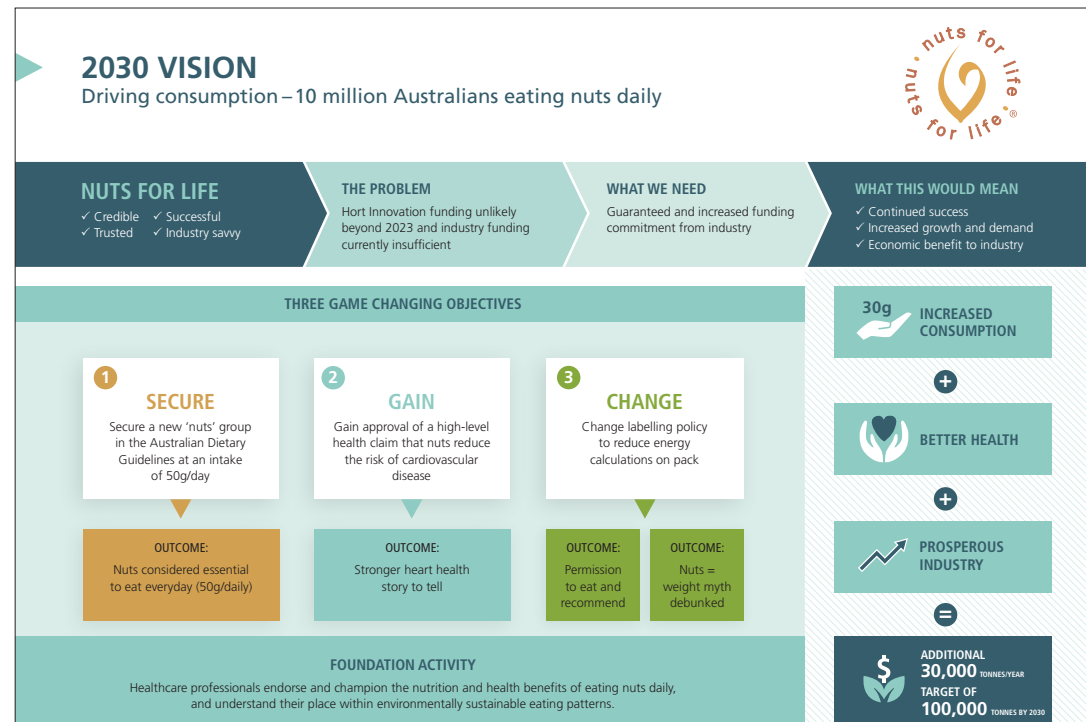
THE TARGET:

By 2030, 10 million Australians will be eating nuts daily, generating an additional \$350 million for the Australian nut industry.

The three novel, industry-changing objectives to help achieve this are:

1. Boost the prominence of nuts in the Australian Dietary Guidelines. Nuts are essential for good health – similar to fruit and vegetables. They've earned a greater 'piece of the pie', and this should be reflected in the next Dietary Guidelines, due to be released in 2024.
2. Gain a high-level health claim for nuts for use on pack. In the minds of health professionals and the Australian public this would show clearly just how crucial nuts are for heart health.
3. Change labelling policies to reduce the energy (or kilojoule) values on pack for nuts. Nuts provide our bodies with up to 30% less kilojoules than what's currently listed on nutrition labels. The existing labelling system is outdated, and that needs to change.

Driving demand growth and increased consumption will result in significant health benefits to Australians and economic benefits to the industry. Ultimately, the Vision will help all sectors of the nut industry to prosper into the future.



Industry Snapshots



Almonds

Australian almonds are in demand from buyers all around the world who recognise their premium quality and the commitment of Australian almond growers to sustainable farming practices. The industry has invested significantly in added-value processing and offers an enhanced supply capability for the full valued-added range of almond products. The farmgate value of the Australian almond industry is forecast to exceed \$1.4 billion by 2030



PRODUCTION AREAS

- There are five major growing regions in Australia:
 - Adelaide and the Riverland** (South Australia)
 - Sunraysia** (Victoria)
 - Riverina** (New South Wales)
 - Swan Region** (Western Australia)
- Ownership structures are diverse with orchards owned by sole producers, family enterprises, both private and public companies, and investment funds.

CURRENT PRODUCTION

- Production in 2020 was 114,427 tonnes of kernel.
- The four major varieties grown in Australia include: Nonpareil (46%); Carmel (32%); Price (9%); and Monterey (7%) with other varieties making up the remainder. Of note is that the Monterey variety has increased its share of planting to 11%, so its share of production will similarly grow as trees mature.

- Approximately 61% of almond production (kernel) comes from Victoria's growing regions, followed by 20% from South Australia, 18% from New South Wales and 1% Western Australia.
- * Increased production capacity of value-added almond products such as almond meal, slivered almonds, flaked almonds, almond paste and almond butter position the Australian almond industry to help their customers grow with innovative solutions.

INDUSTRY POTENTIAL

- The industry continues its growth trajectory in production based on the new plantings over the past five years. The Australian almond crop is forecast to grow from 124,000 tonnes in 2021 to 187,000 tonnes in 2025. As ongoing new plantings are expected to plateau, the 2030 crop is forecast to reach 210,000 tonnes.
- Global consumer demand for almonds has increased significantly over the past two years due to the growth in available supply. The world's major producing region, California, has increased its production by 35% with shipments growing by 26% in that time. Consumer demand, while taking some time to grow in alignment with this increase, is reaching up to the supply line. With the pressures of drought conditions in California, global supply is expected to steady over the short to medium term.
- Demand is being driven by improving living standards in major export markets, the range of new food products using almonds as an ingredient and the increasing consumer awareness of the health benefits of almonds

MARKETS: PRESENT AND FUTURE

- The mainstreaming of plant-based foods across the globe has elevated the demand for almonds. The versatility and health benefits of the almond as an ingredient continues to drive consumption as the diets of many seek alternative protein sources. As the Southern Hemisphere's largest almond

producer the growth of the Australian almond industry in both its kernel and value-added almond range means that it is a reliable supplier for 12 months a year.

- From an export perspective, Australian almonds are being chosen as a trusted brand in more than 50 countries which highlights a well-diversified market reach. The short to mid-term challenges for meeting demand will be significantly influenced by overcoming the ongoing global sea freight congestion.
- Almonds continue to be Australia's most valuable horticultural export product.
- While the Free Trade Agreement with China encouraged increased shipments over the past two years, the Australian almond marketers remain close to their customers in the key established markets of Europe, India and the Middle East. All these core markets are experiencing growth as Australian almond exports move into multiple sales destinations.
- Marketing and promotion programs funded by industry levies in the US and Australia have been effective in increasing their respective domestic per capita consumption and targeted overseas market development.

COMPETITIVE ADVANTAGES

- Australian orchards produce the same varieties as the California almond industry, providing a reliable alternative sourcing option. Given the shipping constraints, procurement teams are spreading their risk and sourcing wider than ever before to minimise the risk of inventory shortfalls.
- Counter-seasonal production to California provides buyers with fresh product and often greater access to kernel sizes that are so popular with retailers and the premium end of the market.
- Superior crack-out rates (in-shell to kernel ratio) is significant in markets preferring in-shell product.
- Free Trade Agreements in Asia (eg: China, Thailand and Japan).
- Australia's geographic proximity to expanding Asian markets.

Chestnuts

The Australian industry continues to develop new processing techniques for frozen peeled chestnuts, chestnut meal, flour and puree products. These value-added products are now being successfully marketed locally and overseas.



PRODUCTION AREAS

- The Australian chestnut industry operates in the southern states of Australia, including
 - NSW:** Around Orange, Southern Tablelands, Blue Mountains and Batlow
 - Tasmania:** Northern and Central
 - Victoria:** North-east and Central; East of Melbourne
 - South Australia:** Adelaide Hills
 - Western Australia:** South-west
- Approximately 70% of the national crop is grown in north-east Victoria.
- The main varieties grown are Red Spanish, Purtons Pride and De Coppi Marone. Chestnuts flower during November and December and are harvested from March through to May.
- Many chestnut orchards are small family-owned orchards, but there are several large-scale commercial plantings and the average size of new orchards is increasing.

CURRENT PRODUCTION

- In 2021, chestnut production was valued (farm gate) at \$9.8 million based on a production of 1,220 tonnes in-shell.
- In 2021 the industry comprised around 301,000 chestnut trees grown on approximately 1,500 hectares. The industry estimates that with more trees being planted, farm gate value will increase to approximately \$12 million by 2023.
- The industry is primarily focused on the domestic market with approximately 2% exported, mainly to Asian markets.
- Production, based on a 2-year average, is about 1,235 tonnes in-shell a year of fresh chestnuts. (2020 - 1,250 tonnes and 2021 - 1,220 tonnes.)

INDUSTRY POTENTIAL

- Chestnut production is expected to increase to 1,400 tonnes in-shell by 2023 as young orchards come into production.
- New varieties and improved orchard management techniques have reduced time to bearing and resulted in increased nut yield, nut size and ease of peeling.
- Some chestnuts are handpicked but more growers have moved to being fully mechanised as a result of development of new harvesting machinery.
- Growers continue to plant and re-work older trees to more consumer-friendly varieties.

MARKETS: PRESENT AND FUTURE

- Chestnuts are highly valued in Europe, the USA, Japan, China and Korea.
- Most growers sell their crop through the fresh wholesale markets.
- Current chestnut consumption in Australia is estimated at 1,300 tonnes in-shell, which is satisfied by domestic production.
- Small quantities of fresh and frozen peeled chestnuts are exported to Japan and Singapore.
- The Australian industry continues to develop new processing techniques for frozen peeled chestnuts, chestnut meal, flour and puree products. These value-added products are now being successfully marketed locally and overseas and have the potential to expand the overall market for chestnuts.

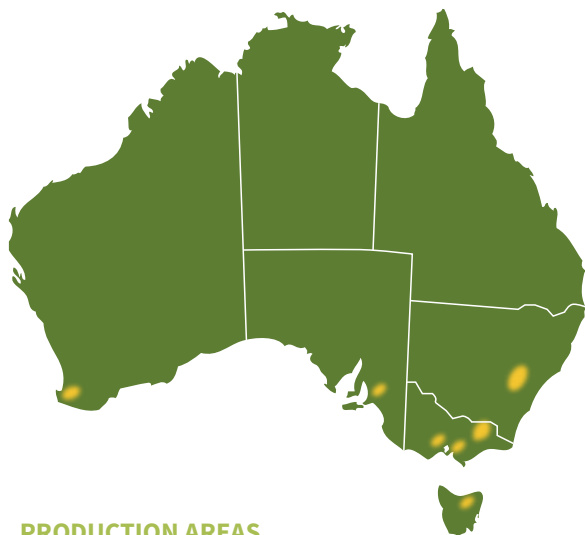
- The chestnut industry is seeking new export markets for fresh and frozen peeled chestnuts to sustain increased production.
- Nut size is important in the fresh chestnut market and new pruning techniques have enhanced this quality.

COMPETITIVE ADVANTAGES

- Australian chestnuts are fresh in the northern hemisphere off season and are highly regarded in Japan for great flavour and quality appeal.
- With the exception of New Zealand, importing fresh chestnuts into Australia is prohibited.
- Australia is free from insect pests such as the Chestnut Gall Wasp and Chestnut Weevil.
- Australia's pest-free status means chestnuts are produced without insecticides.
- The Eradication Program for Chestnut Blight undertaken by Chestnuts Australia Inc in partnership with Agriculture Victoria remains ongoing. While this fungal disease has devastated orchards and native forests overseas, it is under control and regular surveys aim to eradicate it completely.
- The Australian chestnut industry is consumer focused and the latest tree varieties being selected are based on ease of peeling and superior flavour. Overseas, yield is generally given a higher priority than eating quality in varietal selection.

Hazelnuts

The industry is set for rapid expansion. As young orchards come into commercial bearing, the industry estimates hazelnut production by 2023 will be 2,200 tonnes of kernel (5,500 tonnes in-shell) with a farm gate value of \$40 million.



PRODUCTION AREAS

- Hazelnuts are mainly grown in the temperate areas of south-eastern Australia. Main production regions are the Central Tablelands of New South Wales around Orange, Narrandera, and northeast Victoria around Myrtleford. They are also grown in central and eastern Victoria and increasingly in northern Tasmania. There are small levels of production in Queensland, South Australia and Western Australia.
- Many hazelnut operations are small orchards of up to 6,000 trees although this is slowly changing with the average size of new hazelnut orchards increasing and more productive varieties being planted.
- Most orchards are family operated enterprises. Hazelnuts generally take seven to 10 years to come into commercial production.
- The major on-farm investment in hazelnuts by Ferrero, one of the world's largest confectionery manufacturers, has seen its wholly owned subsidiary, Agri Australis, plant one million trees across 2,100 hectares near Narrandera in NSW over the last four years, with trees beginning to move into full production.

CURRENT PRODUCTION

- In 2021, hazelnut production was valued at \$4.7 million (FGV). There is approximately 2,500 hectares planted (including Agri Australis) to hazelnuts, consisting of around 1.3 million trees.
- Production is currently about 160 tonnes of kernel equivalent (400 tonnes in-shell), which will increase dramatically as recently planted orchards begin producing commercial quantities.
- New areas of hazelnut plantings have extended into southern NSW, eastern Victoria and throughout wider regions of Tasmania.

INDUSTRY POTENTIAL

- The industry is set for rapid expansion. As young orchards come into commercial bearing, the industry estimates hazelnut production by 2023 will be 2,200 tonnes of kernel equivalent (5,500 tonnes in-shell) with a value of \$40 million (FGV).
- Growth in hectares under production is also expected as farmers look towards increased crop diversity.
- Until recently, it was thought that hazelnuts would only thrive in Tasmania and the cooler, higher altitude regions of Victoria and New South Wales. Plantings in warmer regions such as Mudgee and Narrandera are doing well which suggests that other areas may be suitable for production.
- Interest in growing hazelnuts in Australia is increasing with a key driver being the opportunity to offer fresh Australian hazelnuts to the domestic consumer. As more production comes on-stream, Australian hazelnuts will increasingly become an import replacement crop for restaurants, premium quality confectioners, patisseries and 'foodies'.

MARKETS: PRESENT AND FUTURE

- Current domestic consumption of Australian hazelnut kernel equivalent is relatively small at about 160 tonnes (400 tonnes in-shell) a year. Domestic consumption of imported hazelnut kernel is 1,800 tonnes, equivalent to 4,500 tonnes in-shell.
- Australia imports 3,500 tonnes of hazelnut product primarily from Turkey each year and mainly as kernel which is generally used by mass market confectioners.

- Australian hazelnuts in-shell are sold at farmers' markets, fruit shops, health food shops and co-operatives. There are several boutique cracking facilities producing kernel which is sold through the internet, at farmers' markets and to confectioners and patisseries. Some producers value-add to their kernels by making confectionery and health food products, hazelnut oil, flour and meal.
- Locally grown kernels receive a price premium and are sought after by restaurants, confectioners and patisseries because of the fresh taste of the local product compared to imported kernel.
- Demand for hazelnuts is increasing globally and as awareness of the health benefits of including nuts in the daily diet grows, consumption continues to increase.
- There is potential for exporting in-shell to Asian markets where foodstuffs produced under high safety standards are preferred.
- Between 2,500 and 3,000 hectares of well-managed plantings would meet Australia's current and future requirements.
- There is also potential to provide fresh, high-quality counter-seasonal product to northern hemisphere markets.

COMPETITIVE ADVANTAGES

- Australia is free from Eastern Filbert Blight, a serious disease affecting the industry in the US.
- Because of the absence of serious pests and diseases in Australia, hazelnuts are produced with little use of herbicides and pesticides and some organically certified hazelnuts are now being produced in Australia.
- Australian production is well supported by research, leading to improved, more efficient and sustainable production systems.

Macadamias

By 2030 Australia will have over 57,000 ha planted to macadamias, with production of 87,000 tonnes in-shell and an export value of over \$1.46 billion.



PRODUCTION AREAS

- Macadamias are grown along the eastern seaboard of New South Wales and Queensland, from Port Macquarie in the south, through to the Atherton Tablelands in the north and a small growing region south of Perth, WA. About half of the Australian crop is produced in NSW and half in QLD.
- Production is expanding most rapidly in Bundaberg (QLD) and the Clarence Valley (NSW). New plantings are also being developed in Mackay and Maryborough in Queensland and in the Richmond Valley in NSW.
- Ownership structures are diverse and comprise a combination of family-owned orchards, first time farmers, agri-business corporates and international and joint venture investments.
- The scale of new plantings is increasing. Currently in excess of 3,000 ha a year is being planted.

CURRENT PRODUCTION

- Production in 2020 was 50,300 tonnes @ 10% in-shell. Total area under macadamia production is almost 33,000 ha (2021).
- Production for 2021 is forecast to be 55,200 tonnes in-shell (at 10% moisture), up 10% from 2020 levels. The kernel equivalent is approximately 17,388 tonnes.

INDUSTRY POTENTIAL

- The industry is in the middle of its fastest growth since the early 1990s. There are new plantings in established regions such as the northern rivers of NSW and Bundaberg in Queensland. New plantings are also occurring in Mackay, Maryborough and Emerald (QLD), and the Richmond Valley (NSW). Bundaberg became the single largest growing region in 2016.
- The recent resurgence in new plantings has seen almost 1.5 million trees or 10,000 ha established in the last five years. There are currently around eight million macadamia trees under cultivation. Of these, about one third are yet to reach full production.
- By 2030 approx. 57,000 ha will be planted to macadamias, representing 87,000 tonnes in-shell or over 27,000 tonnes kernel equivalent.
- Global demand currently exceeds supply although it is anticipated that global supply may double in the years to 2030. Proactively, in 2021, the Australian industry contributed to the establishment of the World Macadamia Organisation (WMO). The WMO represents macadamia-growing countries from across the world and is focused on promoting macadamias globally and to stimulate growth in existing and untapped markets. A voluntary grower levy funds Australia's membership. It is anticipated that demand will continue to outstrip global supply.
- Consumption is increasing as a result of increasing interest in healthy foods and an increasing awareness of the versatility of tree nuts.
- The biggest growth in demand is currently coming from Asia, where urban consumers in particular are focussed on health, convenience and new products.
- The in-shell market has grown from almost nothing to a third of global consumption in seven years, and the kernel market remains strong globally. Seventy-five percent of kernel sales are in just five markets. Other major nut consumer markets such as Indonesia, India and eastern Europe remain as yet undeveloped.
- Macadamias currently represent around 2% of the world trade in tree nuts. As both awareness and production increase, the Australian Macadamia Society predicts continued growth in the industry.

MARKETS: PRESENT AND FUTURE

- Around 20% of Australian macadamias are sold in-shell, mainly to China where consumers favour in-shell product over kernel. They are flavoured and cut to allow hand cracking with a key.

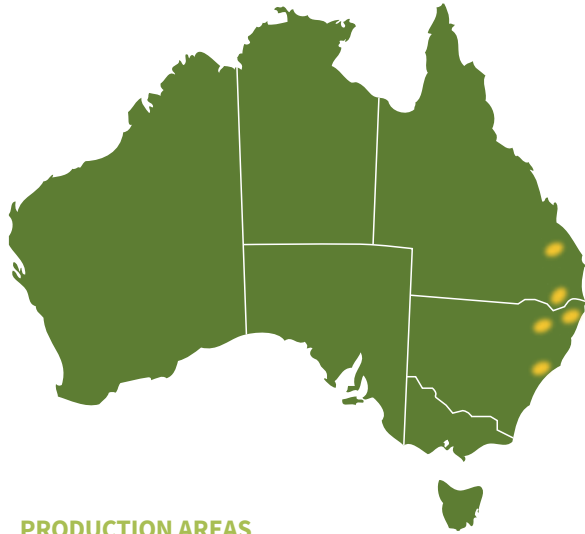
- Approximately 80% of Australian macadamias are sold as kernel. Kernel is processed for snack food lines and as an ingredient in confectionery, cereals, ice-cream and bakery products. There are also growing markets for food oil and beauty products and alternative plant-based products like milks and cheeses.
- The domestic market consumes about 20% of total production, 99% of which is sold as kernel.
- 7,500 tonnes of kernel were exported in 2020/21 and around 11,000 tonnes in-shell. This represented about 80% of total industry production and had value of \$230 million.
- Asian markets are showing the greatest growth driven by increasing trade interest and consumer awareness. In the last few years new market development campaigns have supported the product in China, Taiwan and Korea.
- Consumption of macadamias is increasing in China and this market is expected to continue to grow significantly.
- Promotion of health benefits is a support driver of demand and, combined with new market penetration, is expected to underpin further industry growth.
- Consumer insights research indicates there is considerable opportunity to leverage macadamias' unique attributes to elevate products and brands and remove barriers to consumption.

COMPETITIVE ADVANTAGES

- Macadamias are the only Australian native food plant to be widely traded internationally.
- Australian farms and processors have high product standards, with a demonstrated capacity to produce superior kernel.
- Through the Australian Government's National Residue Survey, the Australian macadamia industry can demonstrate over 20 years of 100% compliance with all relevant standards.
- There is a strong financial commitment to domestic and export market development and on-farm research funded by a statutory grower levy on production. The \$1.5million generated through the R&D levy leverages an annual investment of around \$5m and the industry also spends around \$2.5 million on marketing efforts across its priority markets.
- Australia holds the only natural germplasm resource for macadamias and has spent over \$10 million across the last ten years on a comprehensive breeding program. The first new varietal releases from the program occurred in 2018, and early indications are that yield increases of 30% are possible.
- The industry has a strong, all of supply chain representative body, the Australian Macadamia Society, which is driving further

Pecans

Production of Australian pecans is set to surge over the next decade with more plantings and trees reaching maturity. Much is earmarked for export, as the crop is counter seasonal to the northern hemisphere so fresh Australian pecans can be shipped into major markets in the pre-Christmas season and, importantly, in time for the Chinese New Year.



PRODUCTION AREAS

- The majority of the Australian pecan crop is produced under irrigation in the Gwydir Valley, east of Moree in northern inland New South Wales.
- Smaller scale production extends from the Hunter Valley and Nelson Bay on the NSW Central Coast to the Mid North Coast near Kempsey, and the North Coast around Lismore.
- Pecans are also grown in Central Queensland around Mundubbera and Eidsvoll, in the South East in the Lockyer Valley and south to the NSW border.
- Small plantings also exist in South Australia and Western Australia.

CURRENT PRODUCTION

- The area under pecan orchards nationally is currently 2,115ha, producing approximately 2,800 tonnes in-shell (1,600 tonnes of kernel).
- With pecan trees taking 10 years or more to reach full production there is a substantial lag time before new plantings impact crop size. After a long period of stagnation rapid production increases are now happening.

- Global production remains concentrated in US and Mexico which together account for 90% or more of the world crop. South Africa continues to expand production with small but significant crops also to be found in Central and South America.

INDUSTRY POTENTIAL

- ‘Trawalla’ farm, established on an original 700ha by the Stahmann family in the early 1970s and further expanded in the years since, remains the major large-scale orchard in Australia but a number of new smaller orchards have been planted in recent years and are now adding to production figures.
- These new orchards, together with recent plantings by Stahmann Webster, will result in a massive increase in production by 2025 from 2,800 MT to 4,400MT. More pecan developments are expected in coming years, by both existing growers and new entrants to the industry, further increasing future production.
- Pecans are extremely long-lived and remain highly productive for more than a century, making them a genuine long-term investment.

MARKETS: PRESENT AND FUTURE

- The bulk of Australian production is sold as kernel for domestic consumption with distribution split between retail and manufacturing channels.
- Stahmann Webster operates Australia’s largest pecan processing plant in Toowoomba, Queensland, from which it supplies in-shell and kernel products to domestic and international markets. Other smaller processors, including Organic Pecan Enterprises and the new Australian Pecan Farmers Cooperative supply mostly local markets.
- Australian pecan kernel exports find their way to all corners of the globe, from North America to Europe, the Middle East and East Asia.
- Australian pecan exports are set to increase rapidly as trees mature with the prediction that export revenue will rise from \$2.6m in 2021 to \$15.7m in 2025, then to more than \$25m in 2030.

- Pecans constitute less than 5% of world tree nut trade and their consumption is still mainly concentrated in the US, where they are a native nut. However, demand in Asia, Europe and the Middle East is growing steadily. As a result, the pecan market has been strong in recent years, especially since the entry of China to the world market in the early 2000s.
- Pecans have many marketable health benefits, among which their exceptionally high level of antioxidants (one of the highest of all natural food products) is most noteworthy.
- The Nuts for Life campaign continues to play an important role in bringing such benefits to the attention of Australian consumers, and it has been influential in continuing consumption growth in Australia.

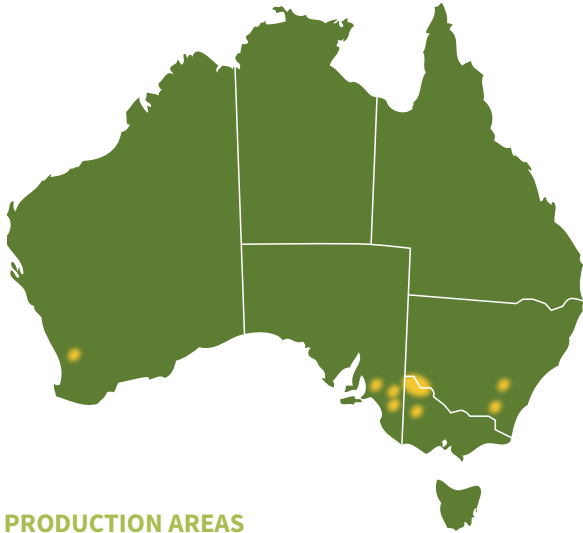
COMPETITIVE ADVANTAGES

- Australian pecans are harvested in the northern hemisphere off season meaning that fresh Australian product can be shipped into major markets in the pre-Christmas season and, importantly, in time for the Chinese New Year.
- The Australian pecan industry has been fortunate to remain free from troublesome scab disease which blights much of the production in the US.
- Innovative production techniques mean that the bulk of the Australian crop is grown without the use of chemical pesticides.
- Australia’s clean and green image is underpinned by the robust food safety regimes required in Australia that are validated by internationally recognised QA systems. As a result, there is strong interest in Australian pecans by a health conscious middle class that is increasing, particularly in our Asian region.



Pistachios

There is significant potential for increasing production in Australia to meet domestic demand. Australian consumption of pistachios is currently 4,200 tonnes a year in-shell and has been increasing at 9% a year (compound) since 2000.



PRODUCTION AREAS

- The major pistachio production areas are along the Murray River Valley between Swan Hill in Victoria and Waikerie in South Australia. Further plantings are in Pinnaroo in South Australia, central west Victoria and the Riverina in NSW.
- There are a small number of growers in central New South Wales, southern Victoria and Western Australia though these only currently produce small yields.
- A central commercial processing facility is located at Robinvale in Victoria.
- The pistachio industry includes a mix of medium-sized and smaller operations. The bulk of the crop is produced on medium-sized orchards.

CURRENT PRODUCTION

- The total area under pistachio production in 2021 was 1,900 hectares.
- Australian pistachio production averages 3,000 tonnes in-shell per year (2-year average).
- The industry is expanding, with new plantings of about 150 to 200 hectares per annum. The planting rate is now increasing.

INDUSTRY POTENTIAL

- By 2024, the area under pistachio production is expected to increase to 2,000 hectares, producing a crop of 4,500 tonnes in-shell for a farm gate value of \$50 million.
- Pistachios are an attractive crop because of their hardiness in drought conditions, tolerance of poor soil and water, long tree life and resistance to common orchard pests and diseases.
- Improved orchard management and quality processing techniques have established a profitable and sustainable industry in Australia.
- The established commercial processing and marketing facility in Robinvale has allowed growers to concentrate on pistachio production and provides a mechanism for maintaining product quality.
- Pistachio production in Australia is fully mechanised, requiring minimal labour and ensuring international competitiveness.
- New processing facilities are underway to handle the expected increase in production in the future.

MARKETS: PRESENT AND FUTURE

- There is significant potential for increasing production in Australia to meet domestic demand. Australian consumption of pistachios is currently 4,200 tonnes a year and has been increasing at 9% a year (compound) since 2000 (2020 data).
- About 50% of this domestic demand is currently met through imports.
- Furthermore, the demand for pistachios is increasing globally and in Australia because of increased awareness of the health benefits of including more nuts in the daily diet.
- Pistachios are mainly consumed as a snack food, which is a market sector that is currently growing in western countries.
- Consumption of snack foods is also increasing in developing countries in tandem with disposable incomes.
- The market for pistachio kernels in the baking and food services sectors continues to expand steadily.

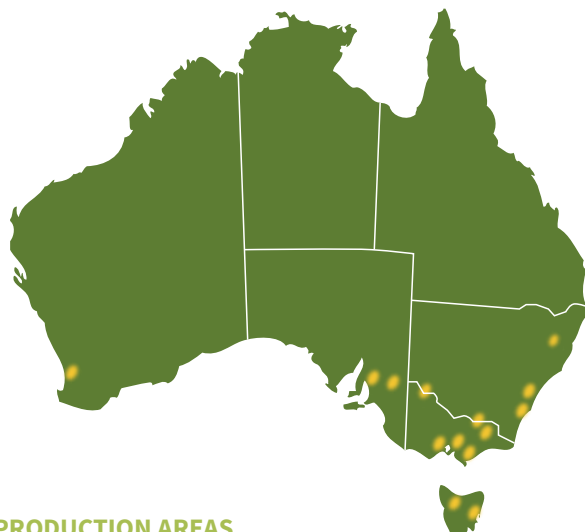
COMPETITIVE ADVANTAGES

- Australian pistachios are harvested fresh during the northern hemisphere off-season.

- Over the past 22 years the Pistachio Growers' Association Inc has led the development and administration of a wide range of research projects funded by industry and matching funds from the Australian government through Hort Innovation. The outcomes of these projects have been significant for the existing 60 pistachio growers, but of greater significance in the development of a new horticulture option for the River Murray Valley. By improving the economic performance of existing pistachio orchards, proof of viability has been shown to other farmers, leading to an expansion of the industry.
- The Australian pistachio industry established the position of Pistachio Research Field Officer in 2003 and since then the appointees have undertaken world quality research, particularly related to the Australian bred variety 'Sirora'. This research is enabling Australian producers to achieve some of the highest productivity globally.
- Pistachio crops in Australia are less troubled by pests than they are overseas. Lower chemical use reduces the cost of production and facilitates the clean, green image that the industry presents.
- Pistachio farming is capital intensive, ensuring that Australia can compete with lower wage cost producers such as California and Iran, the two major suppliers of pistachios.

Walnuts

Locally produced walnuts now supply total domestic in-shell demand, while demand is strong for good quality Australian walnuts in export markets, with about 40 – 45% of Australia’s walnut production currently being exported.



PRODUCTION AREAS

- The Australian walnut industry has grown significantly in recent years due to growth in the establishment of large-scale commercial plantings. Major production areas are on the east coast of Tasmania, the Goulburn Valley near Shepparton and the Murray Irrigation area near Kerang and Swan Hill in Victoria and in the Riverina (near Griffith and Leeton) in New South Wales.
- Small scale orchards are scattered in the Ovens Valley, Gippsland and Central region of Victoria, Southern Highlands and Central Tablelands of New South Wales, the Adelaide Hills and Riverland regions of South Australia, and in south-west Western Australia.
- The Australian industry is a mix of small, older orchards and new, more extensive orchards. Most orchards are family operations, but the majority of area under cultivation is managed as large non-family enterprises.

CURRENT PRODUCTION

- The production of Australian walnuts in 2021 was in excess of 6,350 tonnes of kernel (12,700 tonnes in-shell). Farm-gate value was \$60 million and the export value approximately \$25 million.

- Over 4,000 hectares representing in excess of 1.2 million mature and developing walnut trees were under cultivation in 2021. This number is expected to rise to 4,300 ha by 2023 as existing growers expand their orchards and new growers enter the industry. This expansion is expected in both existing and new regions.
- Stahmann Webster Limited is Australia’s largest walnut grower, owning and/or managing more than 3,000 ha of orchards. When mature, these orchards are expected to produce over 9,000 tonnes of kernel (18,000 tonnes in-shell) per annum.

INDUSTRY POTENTIAL

- Investment in new orchard establishment continues through both current enterprises and new entrants. Orchards established in the last five years have provided a firm base on which to further develop the industry.
- Investment in new processing facilities continues with a new facility being built at Tatura, Victoria, in 2020 and operational for the 2021 season. This adds additional processing capacity to manage future increases in production particularly in Victoria.
- New varieties and improved propagation, along with better orchard management and irrigation techniques have reduced time to bearing and increased nut yield.
- Australia is in a favourable position for walnut production across the southern hemisphere because of the suitability of climatic conditions, water, soil types and topography and capital raising ability.
- Factors that encourage investment in Australian walnut production include:
 - the absence of most walnut pests and diseases in Australia;
 - the fact that walnuts are wind pollinated;
 - continuing strong global demand for walnuts; and
 - solid sustained growth in consumption, largely driven by the increasing awareness of the health benefits of walnut consumption.

MARKETS: PRESENT AND FUTURE

- Annual domestic consumption of walnut is currently 600-800 tonnes in-shell and 4,900 tonnes of kernel (9,800 tonnes in-shell equivalent).

- Locally produced walnuts now supply total domestic in-shell demand. Australian in-shell walnuts are sought by the domestic market because of their superior flavour and freshness compared to imported product.
- Most in-shell walnuts are sold through fresh produce markets and farmers markets. Walnuts are also sold through major retail chains and into the bakery and confectionery industries.
- Demand for kernel is increasing as consumers move towards year-round kernel consumption rather than seasonal walnut in-shell consumption.
- Several cracking facilities are currently operating, along with a new state-of-the-art cracking facility at Leeton in New South Wales.
- Demand is strong for good quality Australian walnuts in export markets, with about 40 – 45% of Australia’s walnut production currently being exported.
- Global growth in demand for walnuts has been maintained since 2011. World consumption has been increasing at a steady rate of around 4% per year. This is expected to continue with the continuing awareness of the health benefits of nut consumption. Markets are also increasing due to growing middle classes consuming more healthy foods. Domestically, appreciation for locally grown foods has increased, helped along the way by new ‘country of origin’ labelling laws.

COMPETITIVE ADVANTAGES

- Australia is a reliable exporter of off-season walnuts to the northern hemisphere.
- Australia is free from many walnut pests and diseases affecting other countries, so chemical use is low in Australian walnut production.
- Free Trade Agreements have also assisted with some growth into participating countries, breaking down some of the barriers to new market development.



“ Just in the last five years the industry has seen significant new plantings across all tree nuts, particularly in almonds and macadamias. With a lead time of 5-10 years, this expansion is likely to push the farm gate value to well over \$2 billion by 2030.”

