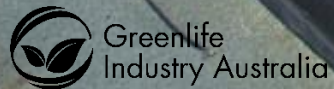


ACIL ALLEN

The Australian nursery industry

An environmental scan

August 2024



1 Overview

This report provides an overview of the sector to inform industry development through a state of the industry profile, a SWOT and discussion of various growth options. It draws together insights from the annual Australian production nursery survey, PESTLE scan and two focus groups.

Nurseries are life

The Australian nursery industry stands as a resilient and adaptable sector, demonstrating significant potential for future growth despite challenging economic and climatic conditions. With a diverse product range, the industry supports a wide array of businesses, from small family-run nurseries to large commercial operations. This diversity contributes to urban greening, climate change mitigation, and biodiversity preservation, highlighting the industry's environmental significance.

Current landscape

The nursery industry is highly fragmented with low market share concentration. Despite the challenges, businesses have managed to hold the

unit price of plants sold over the past two years, showcasing some pricing flexibility.

By 2030, the industry is projected to grow to a gross value of \$3.2 billion, driven by consistent demand for nursery products and urban development.

Economic downturns and inflation reduce disposable income, impacting household spending on non-essential items such as plants.

The industry is susceptible to extreme weather events and climate change, which can negatively impact plant growth, commercial plantings and consumer interest in gardening. Regulatory compliance and increased input costs, including labour, pose additional operational challenge.

Plants are part of the solution for challenging times

The resilience of the nursery industry and the diverse plant product offering provides a solid base for adapting to changing economic conditions and seasonal variability. As with all primary industries nurseries deal with market and climate volatility. Managing risks and realising opportunities are part of business as usual and a road to better business in the future.

Thrive not just survive

Beyond plants, the industry contributes to Australian's livelihood through more than 20,000 full time equivalent (FTE) jobs¹ and adding \$2.5 billion of value to the economy². The intersect of the industry with our physical environment and people also provide many additional benefits to society.

Growth opportunities for the way forward

The nursery industry's future growth will be driven by its importance to the environment, leveraging its strengths, addressing its weaknesses, exploiting available opportunities, and mitigating potential threats.

Embracing ESG practices and technological advancements, coupled with a focus on people and industry workforce development create opportunities for sustainable industry growth and resilience.

¹ DTER, 2024. 2022-23 Production Nursery Data Capture Report, Nursery Industry Statistics 2020-21 to 2024-25 (NY2100).

² ACIL Allen, 2023.

2 State of the industry

The nursery industry has a diversity of plant products, each with unique characteristics, markets and customers. This diversity is a testament to the industry's adaptability and commitment to supporting various sectors, from home gardening, environmental initiatives, landscaping to large-scale commercial horticulture.

Diversity of plants add value to many industries

Plants make our cities more liveable, our environments healthier and our food production systems more secure.

The latest survey estimates 2.3 billion plants were sold by nurseries ranging from trees to seedlings for the landscaping, gardening, public open space, revegetation, food and fibre production industries (Figure 2.1).

By value perennials, trees and shrubs are the largest category. Sales are down approximately 3% in 2022-23 (Figure 2.2) due to the economic downturn.

Figure 2.1 Market share by plant category in 2022-23 (%)

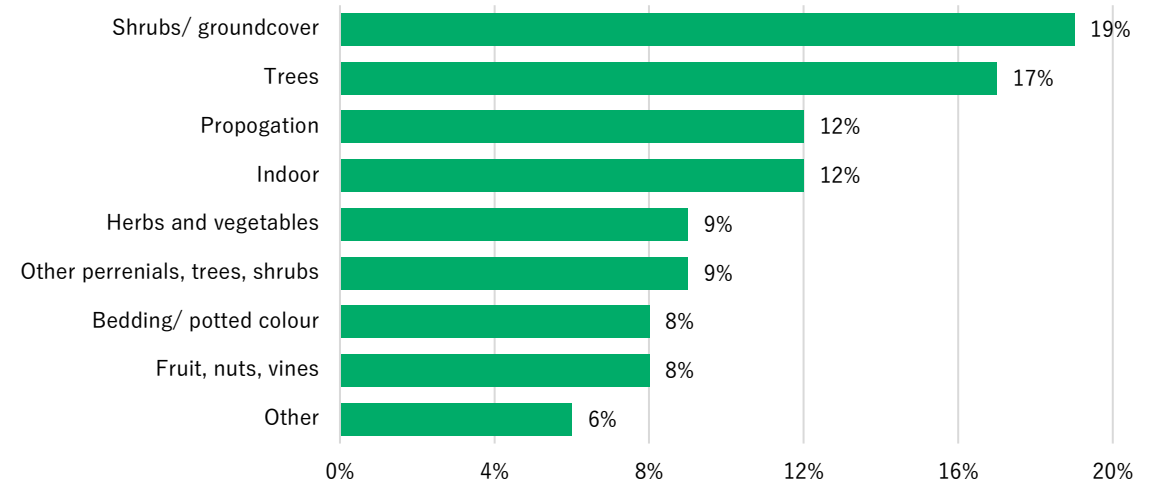
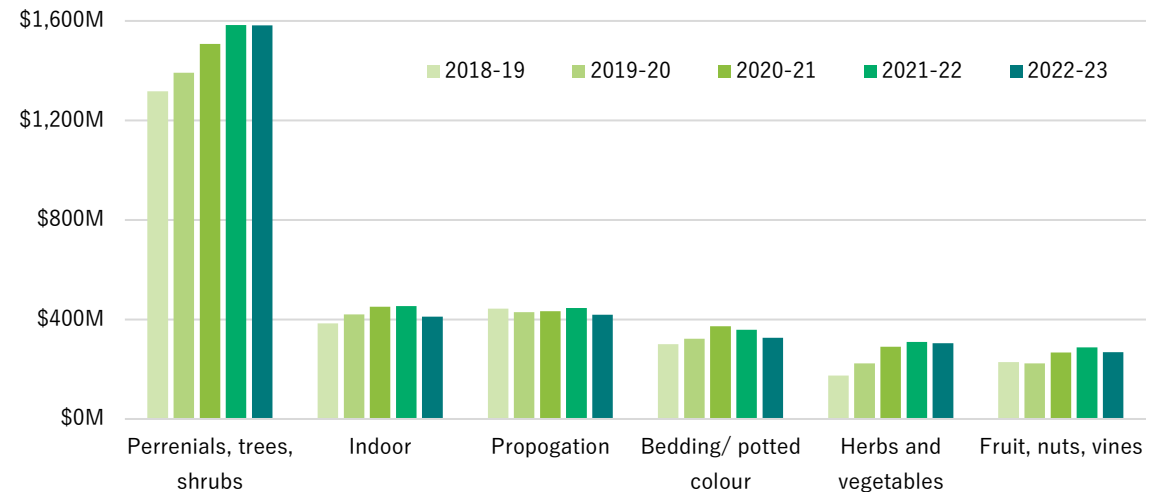


Figure 2.2 Value of sales by plant category in 2022-23 (\$ million)



Source: DTER 2024

Production nurseries

The nursery industry supports a wide range of production nurseries, from small family-run businesses to large commercial companies. The 2022-23 survey estimates there are **1,620** production nursery businesses in Australia (Figure 2.3).

In 2021-22 industry consisted of small (33% with turnover less than \$500,000), medium (37% with turnover between \$500,001 and \$2M) and large (31% with a turnover greater than \$2.01M) businesses. Larger businesses represent 78% of plant sales (Figure 2.4).

Larger businesses are more likely (71%) to sell to big box retailers. Big box retail plant sales values are increasing (56% of retail sales and 33% of production nurseries).

There may be opportunities to diversify sales channels, such as focusing on the environmental, urban greening (government), landscaping sectors or having multiple sales channels to reduce reliance on 'big box' retailers.

The industry survey³ shows sales value are stabilising after a period of growth following COVID-19. Figure 2.3 Number of production nurseries (nurseries)

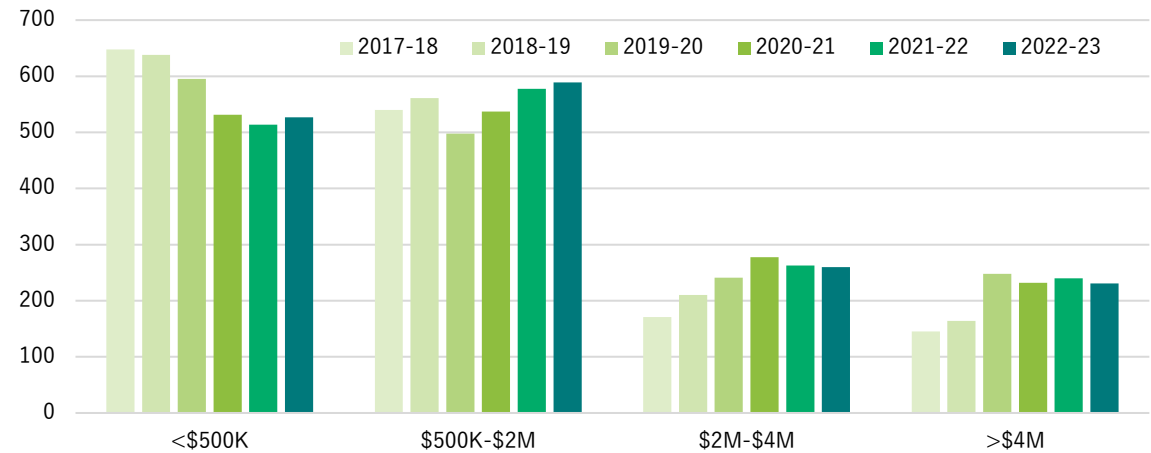
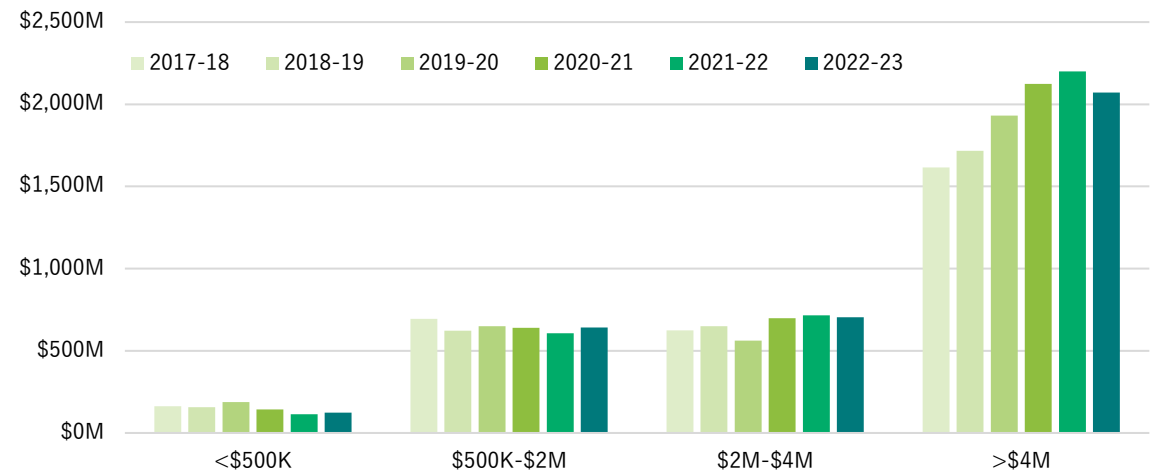


Figure 2.4 Value of production including sales to wholesalers (\$ million)



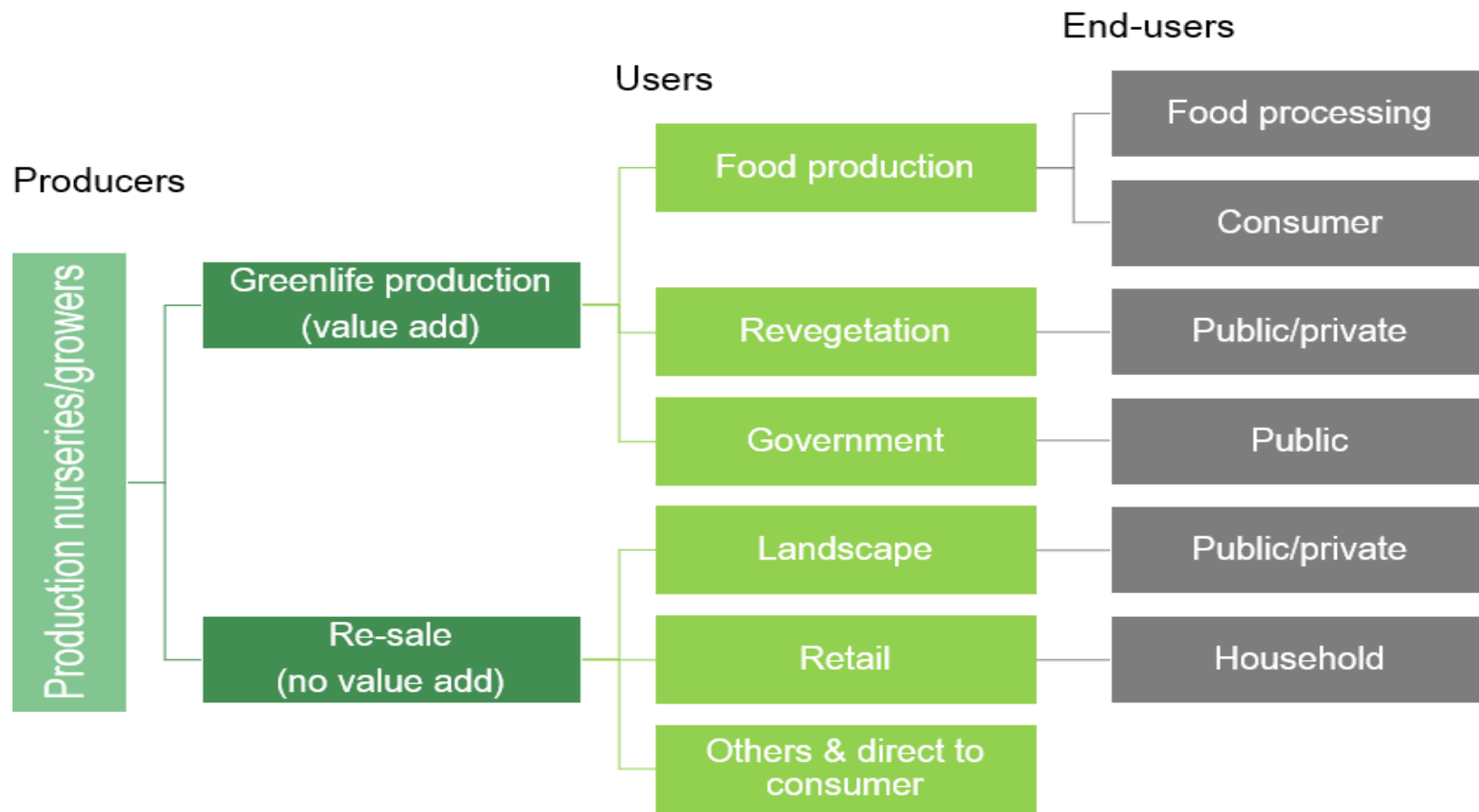
Source: DTER 2024

³ Caution required with interpretation - allocating sales to plant categories and providing an accurate number of plants sold (due to selling trays etc.) continues to be a challenge for many businesses.

Multiple markets and the value chain

The industry has multiple market channels across the value chain (refer Figure 2.5). Retail represents the largest market share at 42% and \$1.50 billion of total sales value. Wholesale nurseries (22%, \$776 million), landscape, builders and developers (14%, \$492 million), and primary industries (11%, \$386 million) are other significant sales channels. Less significant by market share and value include other and direct to consumer (6%, \$207 million), revegetation (3%, \$100 million) and government (3%, \$91 million). Over 99% of Australian nursery production is consumed domestically.

Figure 2.5 Nursery industry value chain, market channels

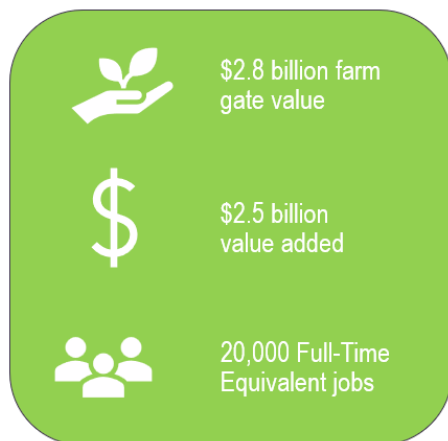


Source: ACIL Allen

Industry contribution

Australian wholesale nursery production businesses were estimated to have 20,000 full-time equivalent (FTE) jobs in 2022-23. In terms of value add, the industry was estimated to have directly and indirectly contributed \$2.5 billion to the Australian economy. Refer Figure 2.6.

Figure 2.6 Industry contribution



Source: ACIL Allen and DTER, 2024

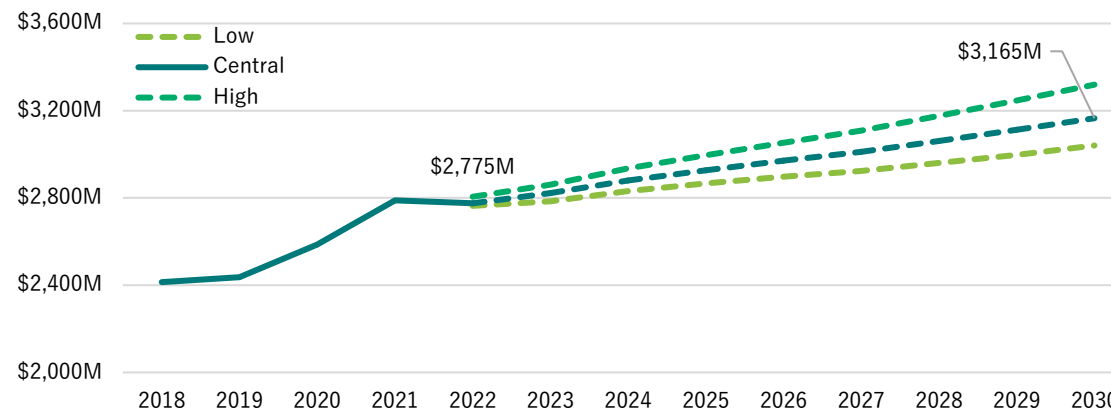
This is more than three times the next highest horticulture industry of 'other vegetables'. By 2030, it has been estimated that the nursery industry will have a gross value of \$3.2 billion.⁴ (Figure 2.7.)

The nursery industry is a significant commodity group within Australia's horticultural industry, contributing around 15% of its total farm gate economic contribution in FY2022. Much of this economic contribution originates from New South Wales/ACT, Queensland and Victoria, in roughly equal proportions.⁵

The Australian nursery industry's impact extends beyond economic contribution. Additional benefits of the industry include:

- Positive impacts on human mental health and well-being and food production.⁶
- Enhancements to urban environments by promoting green spaces and improving air quality. Trees and plants mitigate climate impact, soil erosion and reduce urban heat island effects.
- Contribution to biodiversity preservation by conserving and propagating rare, endangered, and native plant species.
- Plant research and development which drive innovation in biosecurity, horticulture and agriculture through producing high-quality, disease-resistant, and climate-adapted plant varieties, contributing to healthy environments and food security.

Figure 2.7 Industry value projected to 2030 under three growth scenarios (\$ million)



Source: ACIL Allen

⁴ CIE. 2023. Contribution of Australian horticulture Industry, A General Equilibrium Analysis

⁵ CIE. 2023. Contribution of Australian horticulture Industry, A General Equilibrium Analysis

⁶ Shanahan, D. F., Astell-Burt, T., Barber, E. A., Brymer, E., Cox, D. T. C., Dean, J., ... & Gaston, K. J. 2019. Nature-based interventions for improving health and wellbeing: The purpose, the people and the outcomes. *Sports*, 7(6), 141.

Situation and outlook

Economic conditions

Australia continues to face challenging economic and climatic conditions. All industries are dealing with similar issues – higher input costs including labour and the contraction of household spending.

Economic downturns and inflation reduce disposable income, impacting household spending on items such as plants.

In addition, many agricultural and regionally based industries are finding it challenging to attract and retain workers.

Although the nursery industry is stable overall it is important to consider the broader operating environment that is facing the nursery industry and Australia as a whole as margins tighten.

Climate change and seasonal variation

Climate impacts the supply side of many of Australia's primary industries and nursery industry is also susceptible to weather events and climate change generally.

Extreme weather conditions, such as droughts, wind or heavy rainfall, negatively impacts plant

nurseries and consumer interest in gardening and commercial plantings, leading to reduced demand.

The recent survey shows 68% of nursery businesses report that severe weather is already having an impact on their business, more than all other impacts listed. One of these impacts is the cost of insurance which has increased significantly. Noting that you cannot insure for stock loss or plastic covers.

However, variation in seasonal weather patterns also impacts the nursery industry more specifically on the demand side. Demand for nursery products is seasonal, peaking during spring and autumn leading to extended periods of low sales.

ESG preferences

ESG attributes are becoming more valued by society but are still largely driven by consumer preferences.

However, larger businesses are increasingly subject to organisational performance metrics related to ESG and compliance is increasingly becoming more regulated.

The significance of ESG has increased since COVID-19, with more organisations and investors looking to improve their performance and reporting. The rise of mobile and social technologies has provided consumers with more information.

In 2021, a reported 85% of Australians were looking for greater transparency around sustainability and ethical practices.⁷ Empowered consumers will continue to play a greater role in future business and policy decision making.

The rising cost of living and doing business may mean that any consumer premiums commanded from ESG products are not sustainable in the short term. However, economic conditions change and market sentiment and increasing regulatory focus would indicate that now is an opportune time to bring nursery businesses in line with best ESG practices.

Industry sentiment

Industry sentiment was well aligned with projected industry value with 80% of those surveyed in 2022-23 being positive about the industry's future. The most common explanation of industry confidence cited by respondents in the latest industry survey was consistent or sustained demand for nursery products. Specific sources of growth mentioned were urban greening, climate change mitigation and adaptation, housing and commercial development and the home gardening movement.

However, sentiment is now beginning to shift inline with declining economic conditions. The up-coming 2023-24 industry survey will provide further insight into the industry's situation and outlook.

⁷ CouriersPlease 2021. *New research reveals 9 in 10 Aussie consumers more likely to purchase ethical and sustainable products* [Media Release]. Australia: CouriersPlease, 31 August 2021.

3 SWOT analysis

This scan presents the internal industry environment, its strengths and weakness as well as the external environment with its threats and opportunities.

Strengths

A diverse range of products and businesses

The nursery industry produces a variety of plants including ornamentals, vegetable seedlings, native plants, and trees for food production. There are many types of businesses across multiple market channels and the value chain.

Investing in the future

The 2022-23 survey shows on-going investment by nurseries in infrastructure (45%), technology (31%) and education (31%).

More than just economic contribution

Nurseries mean liveable cities, healthier environments and food security and offers potential to remove carbon from the atmosphere.

Research & development

The industry benefits from ongoing research and development efforts aimed at improving plant varieties, pest and disease management, and production techniques.

Weaknesses

Collaboration is challenging

As the industry consists of many businesses and multiple channels it can be hard to coordinate and collaborate on big issues.

Vulnerable to weather

The industry is susceptible to weather events, which negatively impact plant production (costs) and can reduce consumer demand.

Facing rising costs and labour shortages

Increasing input costs, including insurance and labour, pose challenges to profitability.

Barriers to adopting technology

Implementing technologies can be expensive and may require specific skills to apply.

Opportunities

People

People play a pivotal role in the Australian nursery industry, serving as the backbone of its operations.

Leverage ESG trends

Embracing environmental, social, and corporate governance (ESG) practices can enhance reputation and attract environmentally conscious consumers.

Technological advancements

Adoption of technologies like automated irrigation systems, climate control, and pest management can enhance production efficiency and plant quality.

Industry growth and export potential

The nursery industry is projected to grow to a gross value of \$3.2 billion by 2030, driven by consistent demand. The export market for Australian plants, particularly high-quality and unique species, is another area of potential growth.

Threats

Economic downturns

Economic challenges like inflation and reduced spending negatively impacts sales of plants.

Climate change and biosecurity

Ongoing climate change and biosecurity risks pose immediate and long-term risks to stability and growth.

Concentrated supply chains

Competition from large retailers with significant buying power puts pressure on smaller nurseries.

Potential for increased (regulatory) compliance

The trend towards businesses and supply chains providing greater assurance and requirements under the ESG umbrella could pose additional operational challenges in the future.

4 Growth options

Although there may be many potential opportunities for future industry growth there are three areas aligned with the situation and outlook, the diversity of the industry and its positive future focus. These areas can be leveraged through collaboration and include, working with people to grow and develop the industry's capability and capacity, leveraging the trend towards ESG and embracing technological change.

What can we aspire to?

An aspirational value proposition aligned with nurseries is summarised in Box 4.1. Realising growth takes commitment and focus. This environmental scan has outlined opportunities that are central to industry growth and that can help to actualise such aspirations: People; Best practice; Technology and Collaboration.

For links to existing industry resources refer to Box 4.2.

Box 4.1 Value proposition aspirations

Livable cities

Plant production in nurseries promotes green spaces and contributes to improving the urban environment. Trees and plants help improve air quality, reduce urban heat island effects, and mitigate soil erosion. For example, a 10% increase in vegetation cover could reduce daytime urban surface temperatures by approximately 1°C.⁸

Healthy environment

Nurseries play a role in conserving and propagating rare, endangered, and native plant species, contributing to biodiversity preservation and ecological balance. Australia is home to a vast array of plant species found nowhere else in the world, such as eucalypts, acacias, and banksias. These plants form the basis of diverse ecosystems, providing habitats and food sources for many animal species. Efforts need to be focused on protecting Australia's unique plant species to maintain biodiversity and ecosystem resilience.

Secure food

Nurseries produce edible plants such as fruits, vegetables, and herbs. Nurseries are important in providing high-quality, disease-resistant, and climate-adapted plant varieties that contribute to food security. Research has highlighted the role of nurseries in developing and providing climate-adapted plant varieties essential for primary production, and the need to collaboration between nurseries, farmers, and horticultural extension services to promote the adoption of these varieties⁹.

Source: ACIL Allen

Box 4.2 Resources for industry

People related resources

Resources can be accessed at: [Australian Plant Production Standard \(APPS\) – Australian Plant Production Standard \(APPS\) \(nurseryproductionfms.com.au\)](https://www.nurseryproductionfms.com.au)

Technical advisors (GIA Extension Officers for each state) are available to advise production nurseries free of charge and are funded by the levy under the NY20001 Nursery Industry Biosecurity and Sustainability project.

Greenlife Industry Australia's e-learning portal can be accessed at: [Access a Course | Intuto](#) (Registration required)

Best practice/ESG guidelines

Resources can be accessed at: [Technical Service Providers – Australian Plant Production Standard \(APPS\) \(nurseryproductionfms.com.au\)](https://www.nurseryproductionfms.com.au)

Note that guidelines must be purchased, however access to the eLearning website is free as are all technical articles and videos on the APPS website. The Ethical Nursery Stock Specification is a part of the NIASA BMP guidelines.

⁸ Coutts, A. and Harris, R. 2013. Urban Heat Island Report: *A multi-scale assessment of urban heating in Melbourne during an extreme heat event: policy approaches for adaptation*, Victorian Centre for Climate Change Adaptation Research

⁹ Zulfqar, F., and Thapa, G. B. 2017. Adoption of climate-smart agricultural practices: A review, *Environmental Management*, 59(4), 599-614.

How can we get there?

People

People play a pivotal role in the Australian Production Nursery Industry, serving as the backbone of its operations and growth. The industry relies heavily on a skilled and knowledgeable workforce to cultivate, nurture, and market a diverse range of plant products. The increasing uptake of new technology also requires people with technical skills and ability.

Nurseries can be located close to metropolitan areas as well as in regional centres and rural areas. Location facilitates easy access to markets, workforce, and resources, enhancing business operations and growth potential.

National programs administered through Hort Innovation, such as the Green Industry Growing Leaders Program, are designed to support the development of a skilled workforce. Interactions and knowledge exchange with peers in these programs and through conferences are highly valued by the industry. These initiatives not only enhance skills but also foster a sense of community and collaboration within the industry.

Promoting the nursery industry as a professional career choice can attract more skilled workers. Highlighting the multifaceted nature of running a nursery business can help to develop career pathways, job security, and the positive impact of

the industry on the environment can make it an appealing option for job seekers, including recent graduates and career changers.

Identifying future skill sets and collaborating with training providers can enhance workforce development. By anticipating industry trends and technological advancements, nurseries can ensure their workforce is equipped with the necessary skills to thrive in a rapidly evolving market.

Implementing a young leader and development program could engage young professionals and promote industry growth. These programs can provide mentorship, leadership training, and career advancement opportunities, helping to cultivate the next generation of industry leaders.

Offering flexible working arrangements to those working in administrative or technical roles could allow the industry to access a larger pool of labour. Flexible schedules, remote work options, and part-time positions can attract a diverse workforce, including parents, students, and individuals seeking work-life balance.

Best practice and ESG

Increased transparency around sustainability and ethical practices meets the growing consumer demand for such information. Providing clear, accessible information about sustainability efforts can build trust and loyalty among customers.

Nurseries can align their practices with ESG by adopting and promoting sustainable and ethical

practices. These can enhance the reputation of nurseries and attract environmentally and ethically conscious consumers. Implementing environmentally responsible production methods, reducing waste, and using sustainable materials are ways to align with ESG principles.

There are many areas where best management practices have direct benefits to nurseries that align with industry priorities and market-regulatory requirements, such as biosecurity and hygiene, OH&S, chemical use, environmental pollution, water use efficiency. These can form the foundation of targeted and collaborative initiatives.

Aligning with ESG trends is increasingly important as larger businesses face growing regulatory and performance pressures related to ESG compliance. Nurseries that proactively adopt these practices can gain a competitive edge. Early adoption of ESG standards can position nurseries as leaders in sustainability and ethical business practices.

Technology

Advancements in technology, such as automated irrigation systems, climate control, and pest management solutions, can enhance production efficiency and plant quality.

Nurseries that adopt these technologies can improve their competitiveness and operational effectiveness by reallocating labour to higher value tasks, minimising resource usage, and increasing yield.

While technological advancements offer significant benefits, the cost of implementing new technologies and the confidence needed to apply the technology can be prohibitive for some nurseries.

Continuous investment in research and development, particularly in creating climate-adapted and disease-resistant plant varieties, supports both the operational resilience and market position of nurseries. These technological improvements also contribute to broader industry sustainability efforts.

Nurseries that embrace technological change can differentiate themselves in the market. By staying ahead of technological trends, nurseries can offer superior products and services, attract a tech-savvy workforce, and streamline operations for better profitability.

The adoption of digital tools, such as inventory management systems, e-commerce platforms, and customer relationship management (CRM) software, can enhance business operations. These tools enable nurseries to efficiently manage their inventory, reach a broader customer base online, and provide personalised customer experiences.

If the industry is serious about realising the opportunities provided by cost effective technology there needs to be focus on removing barriers to adoption through education and training programs for example.

Increased collaboration

Collaboration can play a crucial role in helping the nursery industry realise growth opportunities and aspirational value proposition (Box 4.1).

By fostering connection, partnerships and working together, nurseries can leverage shared resources, knowledge, and expertise to address challenges and capitalise on opportunities more effectively.

Collaboration beyond traditional partnerships may open doors to innovative approaches and ways to advocate for changes that are difficult for a single industry to achieve.

By working together and focusing on people, best practice ESG, and technology, the nursery industry can position itself for robust growth and sustainability. Investing in workforce development, embracing sustainable practices, and leveraging technological advancements will enable nurseries to thrive in a competitive and ever-changing market.

Reference group members & organisations

Reference group member	Organisation
Barry Naylor	Greenlife Industry Australia (GIA) Queensland extension officer
Celeste Cook	GIA
Colin Groom	Domus Nursery and Western Australia representative
George Russell	Hort Innovation – Nursery industry partnerships manager
Hamish Mitchell	Specialty Trees – Victoria representative
Jack Beattie	JCLM Farming and Tasmania representative
Jason Pearce	Queensland representative
Jo Cave	GIA
John McDonald	GIA Biosecurity Manager
John Williams	Australian Bureau of Statistics
Kieran Studders	Big Leaf Nursery and Queensland representative
Lucy Noble	Hort Innovation Project manager
Luke Francis	South Australia representative
Malcolm Thompson	Colourwise Nursery and NSW representative

Nursery Fund (NY21000)

**Hort
Innovation**
Strategic levy investment

**NURSERY
FUND**

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