



Department of
Primary Industries and
Regional Development

*We're working for
Western Australia.*

Primary Industries Plan

2020–2024





Important disclaimer

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Contents

Ministers' foreword	2
Industry at a glance	4
Export snapshot	7
COVID-19 coronavirus and Western Australia's primary industries	8
Vision for primary industries	11
The strategic context	17
Strategic initiatives	27
Strategic theme 1: Protect and enhance the condition of our natural resources	28
Strategic theme 2: Build trust in Western Australia's primary production.....	32
Strategic theme 3: Maintain and build competitiveness.....	36
Strategic theme 4: Differentiate, value-add, and diversify primary industries	40
Strategic theme 5: Secure and grow markets	44
Strategic science	47

Ministers' foreword



**Hon Alannah MacTiernan MLC,
Minister for Regional Development;
Agriculture and Food**

Western Australia's primary industries contribute more than \$10 billion to the State economy each year.

They ensure the prosperity of the State by directly supporting 39,300 jobs in farming, fisheries and forests, with another 16,900 related jobs in the food and beverage manufacturing sector.

The Primary Industries Plan 2020–2024 supports our vision of a more sophisticated, diverse and globally competitive sector.

It builds on our position of strength as a producer of clean, safe, premium food and depends on our effective response to climate change, biosecurity and the protection of our natural resources, including soil health and water availability.

Growth and expansion into targeted markets remain at the heart of the Plan, which complements the State's economic blueprint, *Diversify WA*.

The operating environment of primary industries has been affected by COVID-19, and the pandemic will affect Western Australians' lives and the way that primary industries do business. While there are certainly challenges associated with these conditions, they also provide our innovative primary industries with opportunities to grow and diversify. This Plan is a roadmap to maintain, and grow, the contribution of primary industries to Western Australia's prosperity.

I look forward to working with primary producers, Government, industry and other stakeholders on the implementation of this strategy.



**Hon Peter Tinley AM MLA,
Minister for Fisheries**

Fisheries is a global industry, and of vital importance to Western Australia.

Bringing more than half a billion into the State economy, and employing around 5,500 Western Australians, our fisheries industry is noted for its sustainability credentials and for delivering higher value products that command premium prices around the world.

Prominent examples include Western Rock Lobster and other fisheries certified by the Marine Stewardship Council.

Demand for our seafood is dominated by the burgeoning middle class in Asia, while domestic consumption is also rising. Ongoing investment in aquaculture investment is further diversifying our industry base.

The Primary Industries Plan acknowledges the unique contribution that the fisheries industry makes to Western Australia and the importance of protecting and enhancing its competitive advantages.

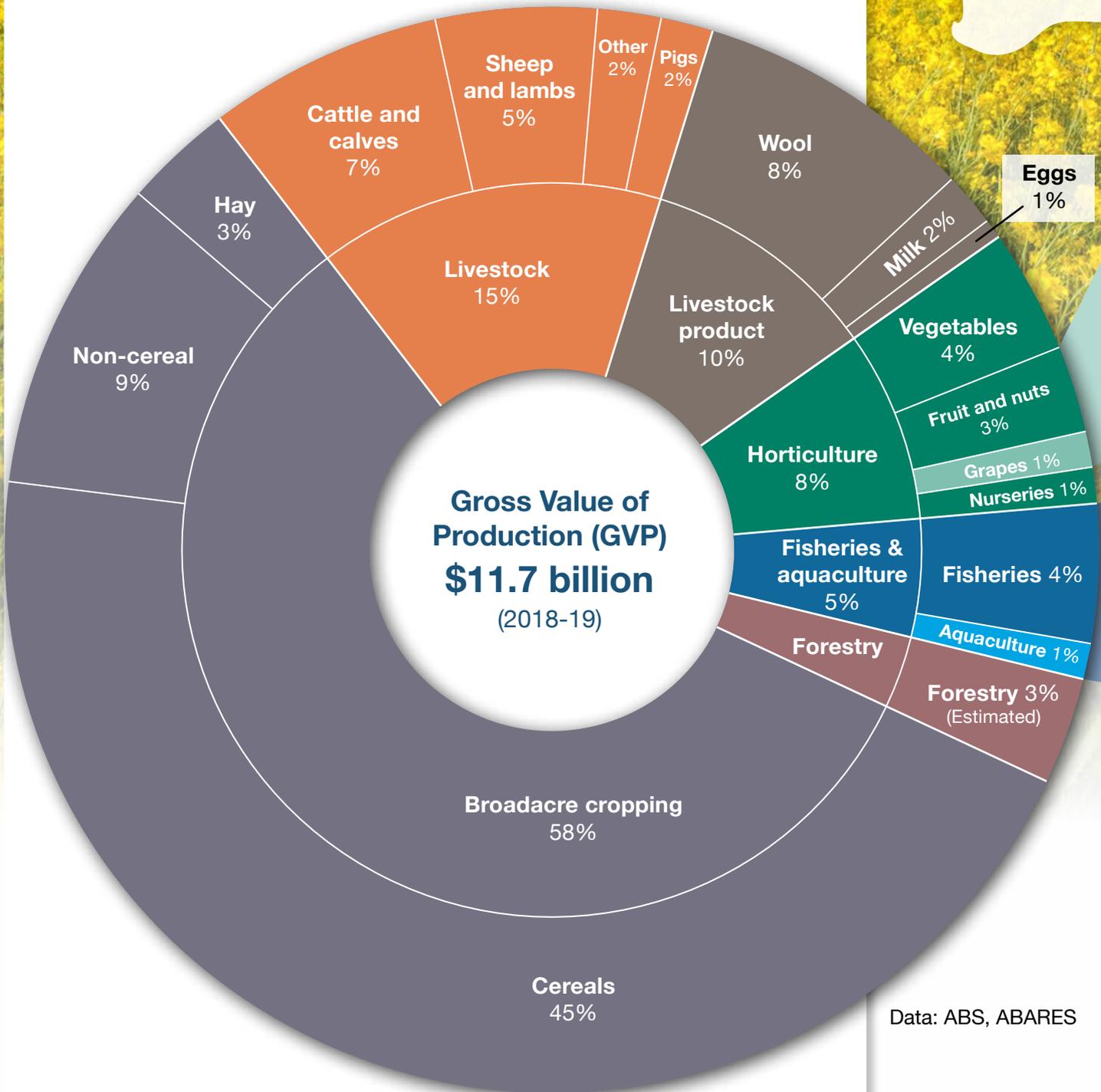
The Government has demonstrated its commitment to our valued fishing and aquaculture industries through its early support to the industry at the onset of the COVID-19 pandemic. The Government will continue to work with industry to maintain and revive market access and explore new opportunities to respond to the unfolding pandemic. This Primary Industry Plan provides a robust roadmap to Primary Industry stakeholders to navigate through these challenging times and capitalise on emerging opportunities.

I am confident that the initiatives presented in this Plan will ensure a strong and secure future for our local seafood industry.

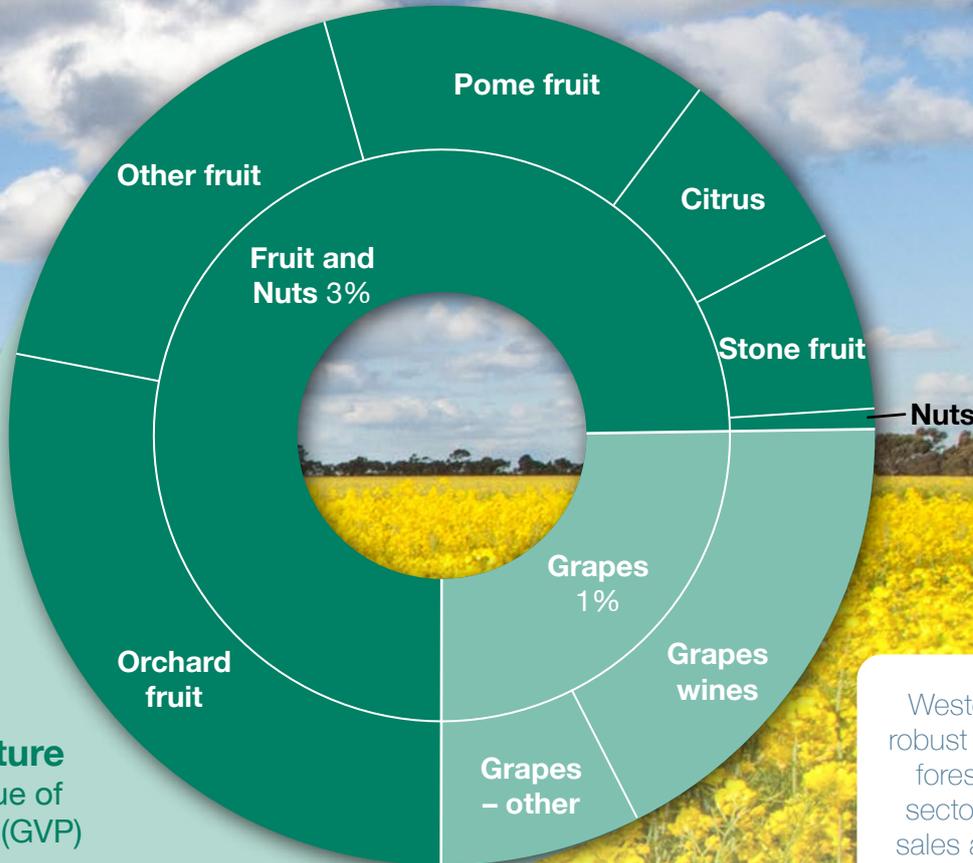
Industry at a glance

- Primary industries¹ have played an important part in the history and development of Western Australia. They are integral to the fabric of our cities and regions, and a critical part of our economy.
- Western Australia has a diversity of established industries spanning broadacre grains, pastoral, seafood and horticultural industries.
- Production is dominated by broadacre and mixed farming systems, including grains, meat and livestock, and sheep and wool.
- Numerous emerging industries—including avocados, wine, aquaculture, and food and beverage manufacturing—add to the increasing diversity of the sector.

¹ For the purpose of this Plan, primary industries exclude mining and energy resources sectors.

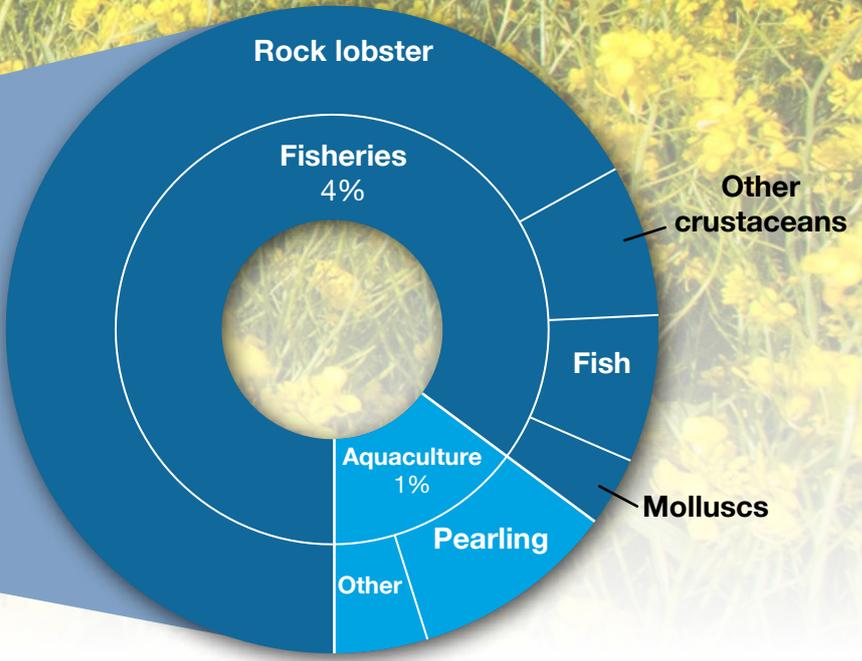


Data: ABS, ABARES



Horticulture
Gross Value of Production (GVP)
\$1 billion
(2018-19)

Western Australia has a robust food, beverage and forestry manufacturing sector which had a total sales and service income
\$7.8 billion



Fisheries & aquaculture
Gross Value of Production (GVP)
\$0.6 billion
(2018-19)

Agriculture, Fisheries, Aquaculture, Forestry and support
39,300 jobs

Food and Beverage, and Forestry manufacturing
19,100 jobs

Total
58,400 jobs

Source: Average 2018-19 Labour force data, ABS



Broadacre crops

The State's productive and globally competitive grains sector is underpinned by favourable climate and conditions, and sustained industry and government investment in research and development, logistics and biosecurity. Our mature grains industry has a track record of innovation and responsiveness to market and consumer demand, including the adoption of new and improved genetics and agronomic techniques.



Sheep

Western Australia produces some of the finest lamb, mutton and wool in the world. Recent record lamb and wool prices are sustaining prosperity in many broadacre mixed farms across the grainbelt. The State's farmers have a proud history of exporting live sheep and are increasingly adopting animal welfare best practices.



Beef

Western Australian beef free ranges across the northern and southern regions of the State. This distribution allows year-round supply, meeting any market specification. The industry is supported by rigorous biosecurity and animal welfare controls.



Seafood sector and aquaculture

The State has some of the finest, most sought after, seafood in the world. The seafood sector, particularly western rock lobster, is recognised as a global leader in sustainability and delivers a premium product to consumers worldwide. Aquaculture is consistently identified as providing a significant opportunity to increase fisheries production, volume and value in Western Australia.



Horticulture

Western Australia grows a diverse range of top-quality horticultural crops from the Ord River Irrigation Area in the north to the Gascoyne River at Carnarvon, the coastal sands near Perth and throughout the cooler south-west. These horticultural systems produce high value tropical and temperate fruits, vegetables, table and wine grapes, and cut flowers. The sector has experienced strong growth driven by demand from Asia and beyond, for healthy, safe and clean produce.



Wine

The State produces 5% of Australia's total wine volume, but 12% of the total wine value and 30% of fine wines. Western Australia's fine wines are produced in nine wine-producing regions, each with their own distinctive styles and varieties.



Forestry

Our forests provide a range of economic, social and environmental benefits to the people of Western Australia. Forestry production covers about 8% of the State's landmass, primarily in the southern regions. Sustainability principles guide the harvesting of natural forests and agri-forest businesses that operate plantations of native and introduced species on both public and private land. Western Australia is Australia's largest producer of aromatic sandalwood.

Export snapshot



Agriculture, food, fibre, fisheries and forestry exports were valued at

\$8.4 billion

(2018–19)



Grains, cereals, pulses, oilseeds, beef, sheep and lobster accounted for

92% of exports

(2018–19)

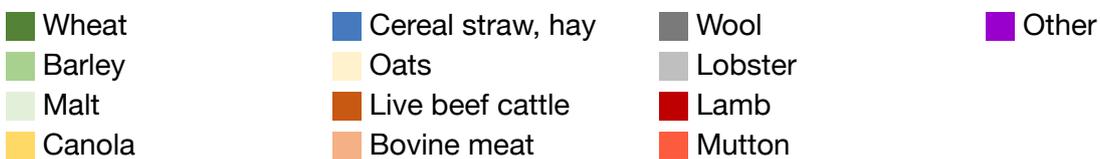
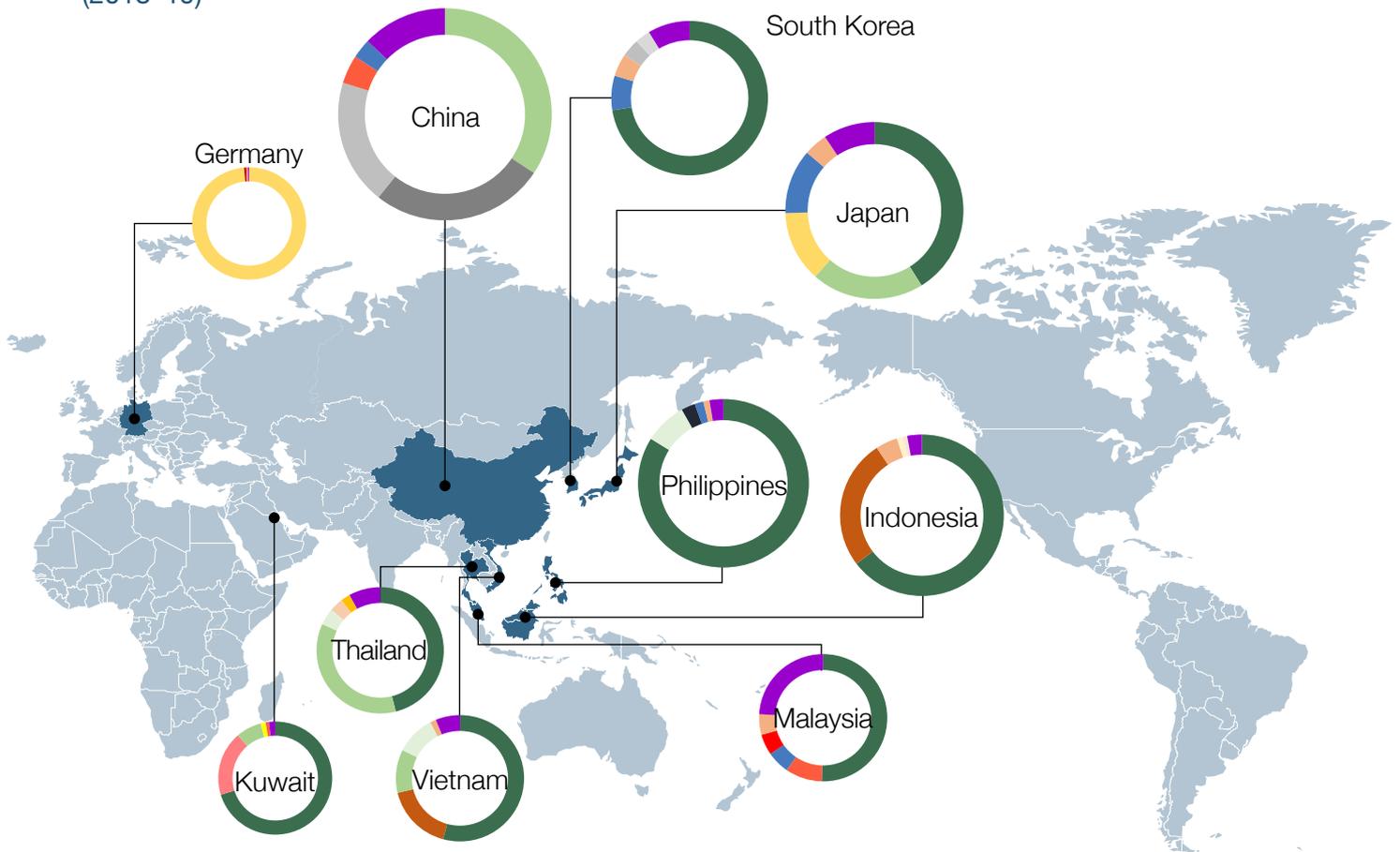


60%

of export receipts are derived from six Asian nations

Top 10 export destinations

(2018–19)



Source: ABS, ABARES, DPIRD

COVID-19 coronavirus and Western Australia's primary industries

During the first half of 2020, the COVID-19 coronavirus pandemic caused unprecedented social and economic disruption. To mitigate the spread of the virus, countries responded with broad-ranging measures, affecting:

- People – behaviour and mobility
- Markets – politics, growth and access
- Supply chains – input and freight disruptions
- Operations – remote working and new health and safety protocols

It is anticipated that the pandemic will amplify a number of trends that affect primary industries, including:

- Increasing emphasis on food system reliability and integrity, including safety and security with demonstrable traceability.
- Reconnecting communities with food, including food for health and wellbeing, and locally supplied food.
- Increasing awareness of food-security and self-reliance regarding production inputs.
- Maintaining and building internationally competitive freight and supply chain logistics.
- Increasing efforts to maintain and diversify international markets.
- The rapid uptake of digital solutions on-farm and through the supply chain to the purchaser and consumer.

Further to these, primary industries will need to continue to ensure safe workplaces, and manage supply chain disruptions due to intrastate, interstate and international movement restrictions.

Though the impacts of the pandemic are not fully understood, the trends that have been seen globally have re-affirmed the fundamentals of this Plan, with the pandemic reprioritising a number of the Plan's key initiatives, notably those supporting technological innovation, and strengthening our freight and logistics capacity to deliver to international markets in the post COVID-19 environment.

Understanding the impact on demand and supply

The impact of the pandemic is not well understood; however, it is clear it will be significant and will likely cover the duration of this Plan (2020–2024).

The International Monetary Fund is forecasting a 3% contraction of global economic activity, worse than the 2008 Global Financial Crisis. The United Nations expects the pandemic will result in a 10.5% deterioration of working hours – equivalent to a loss of 305 million full time jobs and will affect around 1.6 billion people working in the informal economy. On a national level, the Federal Treasury estimated that the measures designed to stop the spread of the virus would decrease the Gross Domestic Product by 10% in the June 2020 quarter, the equivalent of \$50 billion being wiped from the national economy.

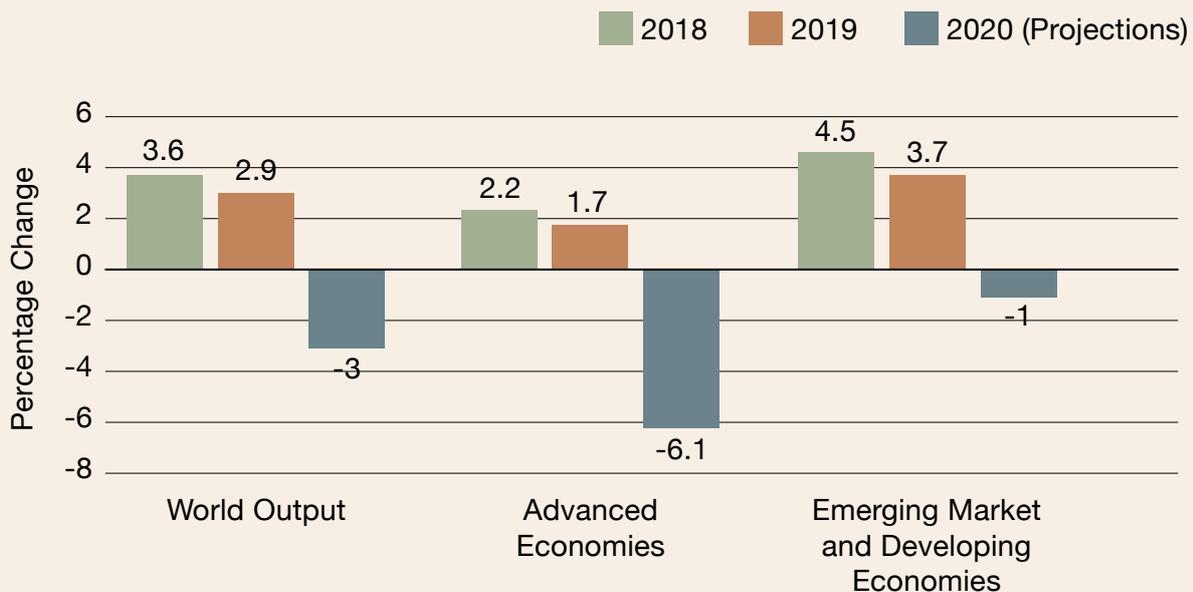
The pandemic is unlikely to significantly affect the demand for essential foods and food products. However, potential declines

in incomes will affect some consumers' ability to pay, resulting in lower demand for some products. Premium, non-essential food products, driven by discretionary spending, are likely to be significantly impacted on over the short term.

It is difficult to predict the impact on products feeding into manufacturing processes, such as wool and wood products. It is anticipated that overall demand will be depressed, as consumers delay the purchase of clothes and other non-essentials.

(Derived from ABARES, *Impacts of COVID-19 on Australian agriculture, forestry and fisheries trade, 2020*)

The IMF forecasts a substantial decline in economic growth due to the virus in the immediate term



Overview of World Economic Outlook Projections (Source IMF)



...by 2030, increasingly sophisticated, diversified and globally competitive primary industries will make a significant contribution to creating prosperity across Western Australia.



Vision for primary industries

The agricultural, seafood and forestry industries, collectively referred to as primary industries, are of vital importance to the prosperity of the State and the wellbeing of Western Australians.

Primary industries underpin the economic and social fabric of regional Western Australia, which is home to one-fifth of the State's population.

Primary industries are vital to the stewardship of the State's natural resources and provide a major connection for Western Australians with the State's natural environment. Food and fibre production supports value chains that create jobs and grow exports to expand the State's economy.

Western Australian Government support to primary industries

The Western Australian Government delivers knowledge, policy, regulation and industry development capability to support the State's primary industries to grow and prosper, to the benefit of both regional and metropolitan communities.

By supporting the growth and development of primary industries, the Government seeks to create enduring prosperity for all Western Australians.

We will:

- **Protect** – to manage and provide for sustainable use of our natural resources, water and soils, and to protect Western

Australia's brand and reputation as a reliable producer of premium, clean and safe food, products and services.

- **Grow** – to enable the primary industries sector and regions to increase international competitiveness and grow in value and social amenity, strengthening these key pillars of the State's economy.
- **Innovate** – to support a culture of scientific inquiry, innovation and adaptation across primary industries and regions to boost industry transformation, sustainability, economic growth and employment.

Primary Industries Plan

The objectives of the Primary Industries Plan ('the Plan') are to set clear priorities for investment and to establish a platform for strengthened collaboration between government and primary industries.

It sets out how the Department of Primary Industries and Regional Development (DPIRD) and other Western Australian Government agencies, Commonwealth Government, industry, communities, and other stakeholders will work together to sustain the prosperity of the State's primary industries.

A key purpose of the Plan is to give effect to the State's broader economic development policy. Together with other economic development initiatives, the Plan will contribute to the State Government's priorities of creating jobs, strengthening and diversifying the economy and creating stronger regions.

The State's primary industries are well-placed to expand and diversify the regional Western Australian economy. The Plan reflects and supports the State's economic development framework, *Diversify WA*. To align itself with the framework, the Plan will regularly report on the diversification of the primary industries sector.

We will report our progress in delivering the Plan's outcomes, including trends in:

- employment
- primary production
- food and beverage manufacturing
- export market distribution.

The overall success of the Plan will be evaluated in 2024 and a new plan developed for the next five years.





The Plan describes the industry context, identifies key themes that will guide Government's efforts, and outlines current and new initiatives to improve conditions for Western Australia's primary industries.

Implementation

To be implemented over the period 2020 to 2024, this Plan will enable the Government, industry, and communities to more effectively collaborate to support Western Australia's primary industries.

As lead agency, DPIRD will oversee the implementation of the Plan in consultation with primary industries.

We will:

- **Actively engage and partner** with industry at enterprise, industry and representative organisation level, and support the strengthening of industry leadership.
- **Play a lead role** within Government to advocate for the regulatory, policy and program support required to implement the Plan.

- **Work closely** with relevant government agencies at State and Commonwealth level to deliver outcomes for industry.
- **Directly deliver programs** including coordinating and participating in the delivery of foundational research and development activities.
- **Work with industry** to understand the impact of COVID-19 on primary industries and assess the direction of the Plan in light of these evolving conditions.

Implementation will be focussed through reporting on progress on each of the Strategic Initiatives identified in the Plan.



Leadership

Strategic context



WA is a small supplier to a large and growing market



WA producers face increasing competition



Consumer expectations of product, production systems and nutritional values will continue to grow



Product and market concentration of WA primary industries is significant



Climate change, including a drying climate in parts of the State, will affect production conditions



Ownership and management of agribusiness in WA will continue to evolve



WA food manufacturing costs are expected to remain high



Competitive advantage



Proximity to and established trade relationships with growing middle-class food and beverage markets



Agronomic and climate conditions that facilitate a diversified primary production base at scale, across forestry, fisheries and food production



Capacity to produce superior quality products verified through established standards of food quality and safety systems



Regulatory framework that provides for high standards in sustainable production, labour relations, animal welfare and biosecurity



WA is free of many significant pest and diseases which supports and enables trade and market access



A diverse industry that creates the opportunity for innovation in all aspects of farming and primary industries



A community that supports and values the State's primary industries



Strategic knowledge, science & technology



Local, regional, national and global impacts of COVID-19 on markets and supply chains

Strategic initiatives

1. Protect and enhance the condition of our natural resources



1. Sustainable management of fish and aquatic resources
2. Sustainable management of land and soil resources
3. Systems-based agriculture, fisheries, aquaculture and forestry
4. Climate change strategy
5. Environmental biosecurity

2. Build trust in WA's primary production



1. WA biosecurity
2. Animal welfare
3. Industry Standards
4. Industry-led certification

3. Maintain and build competitiveness



1. Applied research to maintain and increase productivity
2. Growth through Ag-Tech and digital connectivity
3. Building business resilience
4. Primary industries workforce
5. Improved logistics for supply chain competitiveness

4. Differentiate, value-add and diversify primary industries



1. Projects of strategic importance
2. Expand value-add agribusiness sector
3. Agri-food Cluster Development Program
4. Diversification of agribusiness opportunities
5. WA Aquaculture Development Plan
6. Aboriginal participation
7. Forest industries

5. Secure and grow markets



1. Industry growth partnerships
2. Targeted in-market development
3. Strengthening market access and marketing
4. Prioritise investment in a strong and integrated Australian Export Grains Innovation Centre

Outcomes

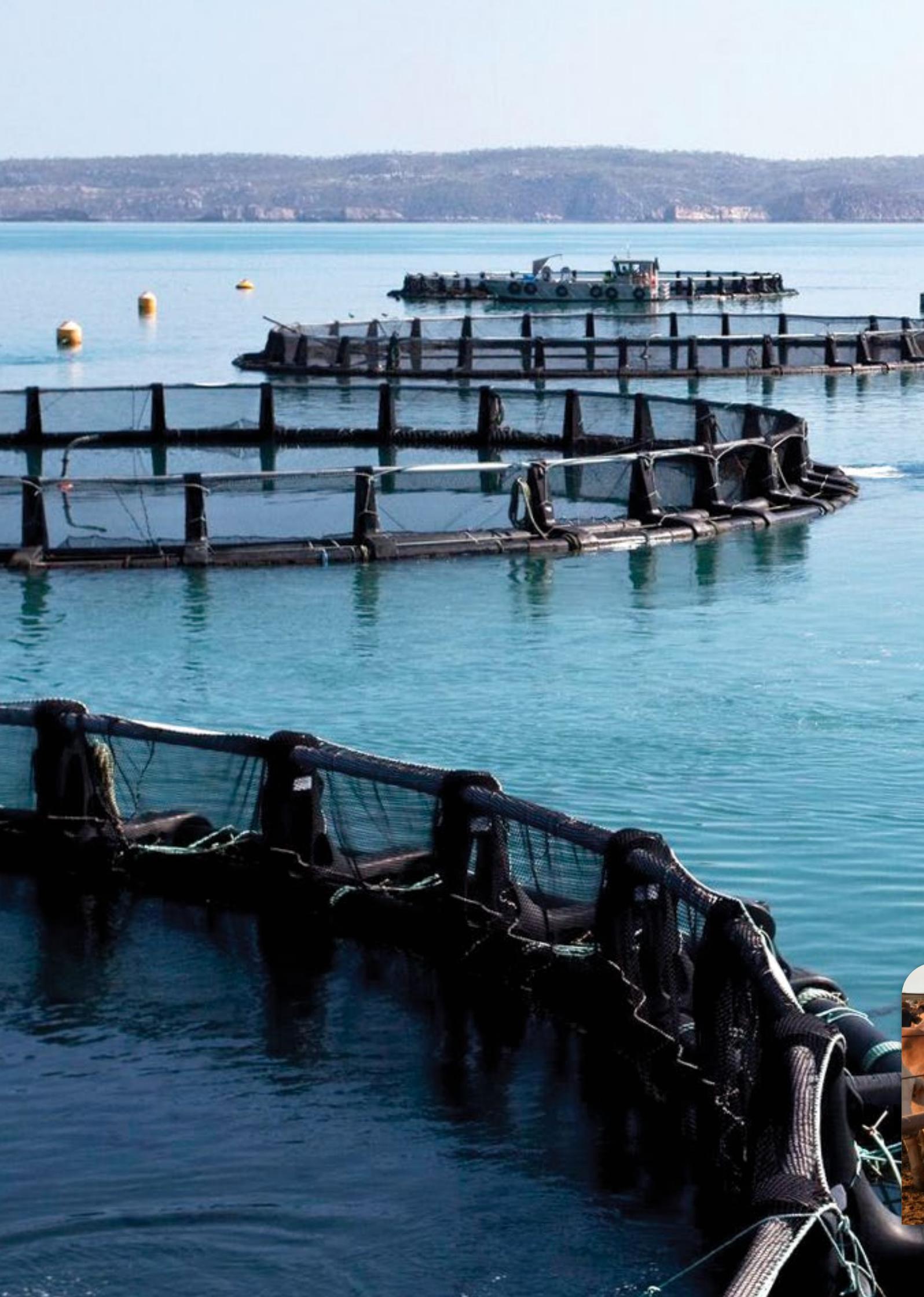
Key Outcomes

Growing and de-risked Western Australian primary industries, based on a wider range of high integrity products servicing a more diverse portfolio of markets

Sector Indicators

Monitor trends in:

- Production
- Food and beverage manufacturing
- Market distribution
- Employment
- Exports



The strategic context

Western Australian primary industries have competitive advantages that can benefit from global agri-food megatrends. The most prominent of these is rapid growth in the global middle-class consumer market.

Competitive advantages of Western Australian primary industries:

- Proximity to and established trade relationships with large and rapidly growing middle-class food and beverage markets.
- Agronomic and climate conditions that facilitate a diversified primary production base at scale across agriculture, fisheries and forestry.
- Capacity to produce superior quality products verified through established standards of food quality and safety systems.
- Regulatory framework that provides for high standards in sustainable production, labour relations, animal welfare, and biosecurity.
- WA is free of many significant pest and diseases which supports and enables trade and market access.
- A diverse industry that creates the opportunity for innovation in all aspects of farming and primary industries.
- A community that supports and values the State's primary industries.

To capture the benefits of these competitive advantages, there are opportunities, risks, and constraints that need to be navigated. The Plan identifies seven trends that set the strategic context for primary industries and informs the State Government's strategic response.





Western Australia is a small supplier to a very large and rapidly growing market

The global food market is large and growing rapidly. International supply chains will continue to connect producers to growing populations, creating opportunities for primary industries globally.

Globally, Western Australia is a small supplier - the current \$8.4 billion (2018–19) value of agriculture and food exports is less than one

percent of the international trade of USD \$1.6 trillion. The true opportunity for Western Australia primary industries lies in targeted markets - by 2030 there will be 4.9 billion, mainly urbanised, middle-class consumers globally, of which two-thirds will be in Asia.

Western Australian primary producers face increasing competition

Escalating global food demand will increase agricultural production across most commodities. Global trends include increasing yields, allocations of land to agriculture and forestry, investment in irrigation infrastructure, aquaculture and supply chains.

Most of this new production capacity is from Eastern Europe, Asia and Latin America, which have lower production costs and proximity to large markets.

Climate change is also creating opportunities for increased production of bulk grain commodities in colder climates in the northern hemisphere.

This emerging production base provides significant competition for primary producers in traditional commodity markets.

Competition will also increase in the more discerning middle-class consumer markets as new producers improve their biosecurity, animal welfare, and sustainability credentials. Western Australian primary industries must continue to build and demonstrate the product attributes valued by middle-class food consumers.

There will also be increased international scrutiny on Western Australia's pest and disease status. As trading partners strengthen their own biosecurity systems to Western Australia must continue to demonstrate that it is free of many significant pest and diseases to support new and existing market access.

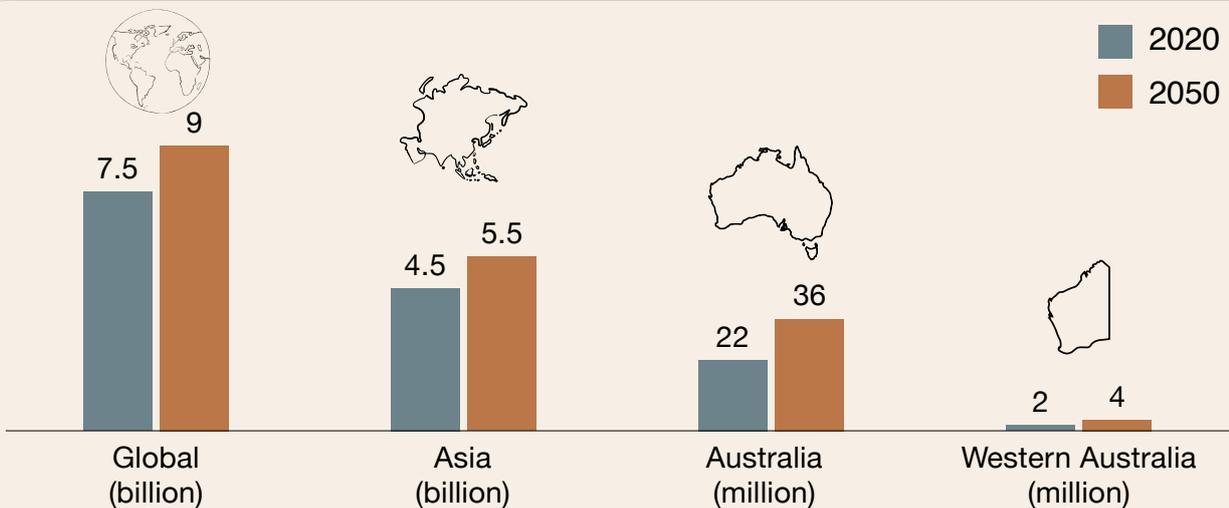


Consumer expectations of product, production systems and nutritional values will continue to grow

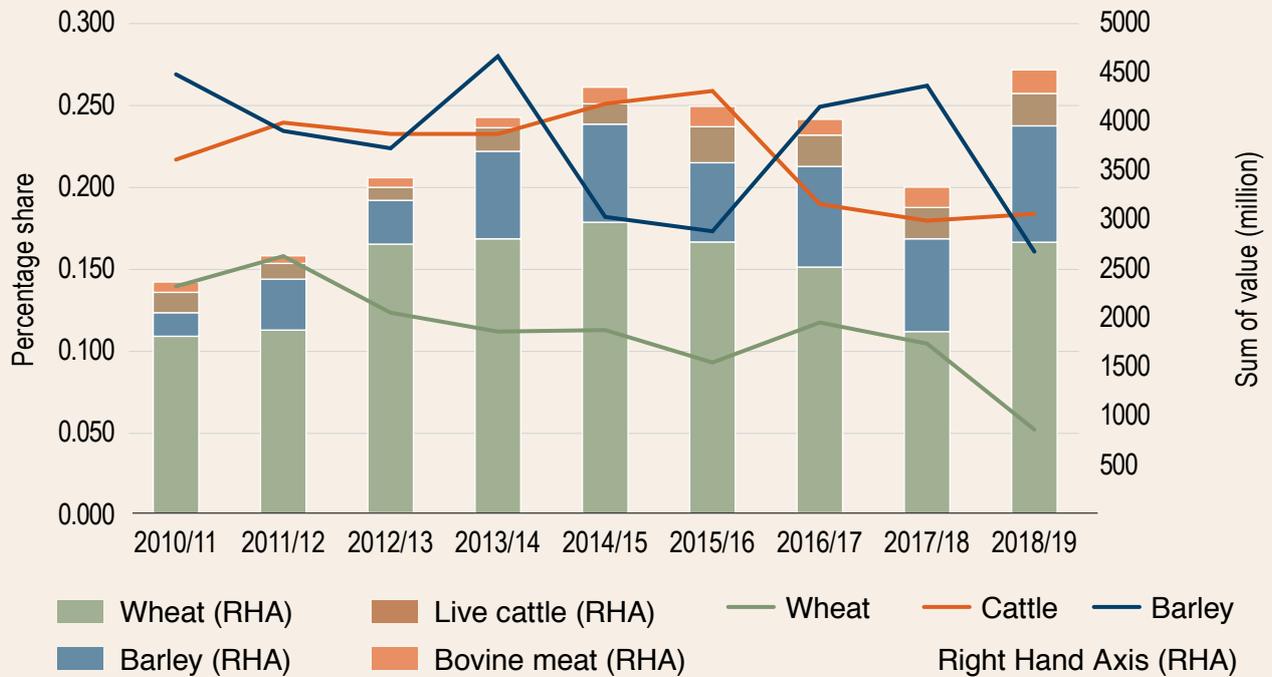
Premium product and production expectations are becoming increasingly sophisticated in emerging middle class and premium markets. This is resulting in higher demand for those quality attributes for which Western Australian products are renowned. In particular, there is an increasing demand for high quality, safe and ethically-produced products, supplied through supply chains which can demonstrate

product quality and integrity, high animal welfare standards and sustainable production practices. Supply chains servicing these market needs are likely to be the main drivers of growth in Western Australian primary industries. The recent experience of COVID-19 is expected to further increase consumer awareness of food safety and integrity.

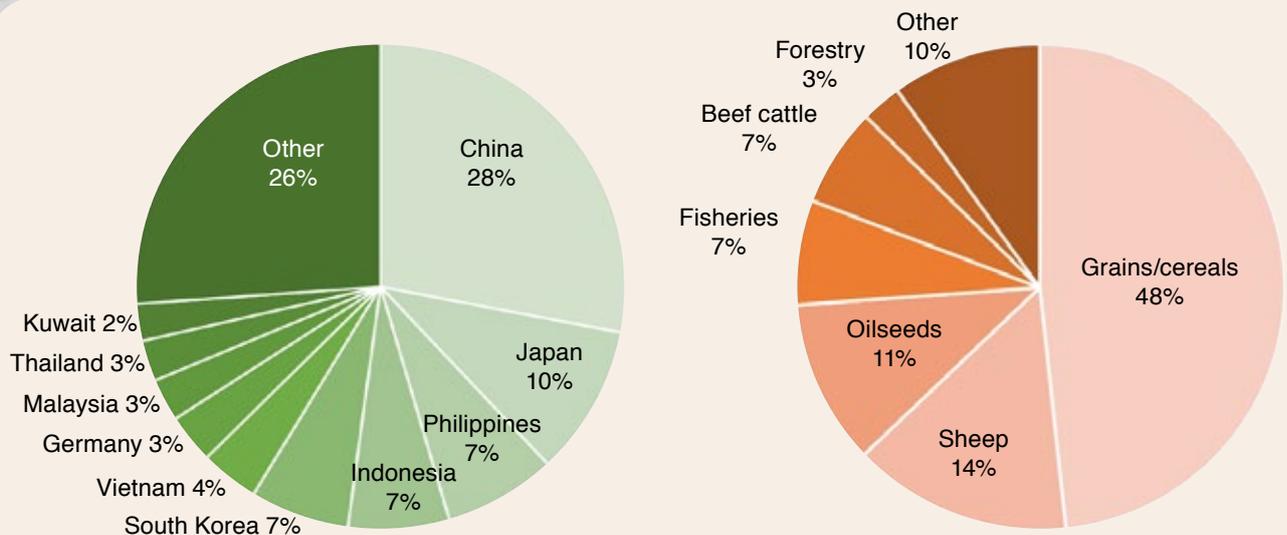
Global population growth provides significant opportunities



While exports are increasing, our share in the global market is declining



Western Australia's export markets and products are significantly concentrated



Product and market concentration of Western Australian primary industries is significant

Western Australia's primary industries are highly concentrated:

- Agriculture is an important sector for most Western Australian regional economies, however the majority of our gross value of production (approximately 70%) is produced by mixed-farming, broadacre operations.
- Around 80% of Western Australian primary industry gross value of production is from four key sectors – grains, sheep, beef/cattle, and Western Rock Lobster.
- Across the sectors, around 70% of the State's gross value of production is produced by 20% of agribusinesses.
- Downstream value-adding to Western Australian primary products is limited, with around 80% of production exported as commodities in either raw forms or with limited post-farmgate value-adding.

- Western Australian primary production supplies over 50 international markets across Europe, the United States, the Middle East and North Africa. However, around 60% of primary industries export receipts are sourced from sales to six Asian nations – China, Indonesia, Vietnam, Japan, South Korea and the Philippines.

This industry profile creates both opportunities and risks. Changes to local agronomic conditions, biosecurity concerns, competition, and geopolitical stability could impact the ability of primary industries to grow and prosper. The disruption to markets and supply chains during the COVID-19 pandemic, for example, highlights the importance of diversification across products and markets.

These risks can be managed by taking advantage of Western Australia's extensive and diverse land and water environments to diversify and expand the primary production base - accessing new markets and growing existing markets outside of the six predominant nations.

Cost competitiveness driven through productivity improvements and improved supply chains are both important strategies to improve cost competitiveness, particularly under the current conditions of uncertainty.



Climate change will continue to drive change in primary production conditions in Western Australia

In response to climate change, production conditions will continue to change. Across the State, average temperatures are rising, with a drying trend and a greater number of extreme heat days being experienced over the last 30 years. Annual precipitation in the south-west is expected to continue to decline, while an expected increase in the rainfall intensity of tropical cyclones in central and northern regions may be tempered by reduced frequency.

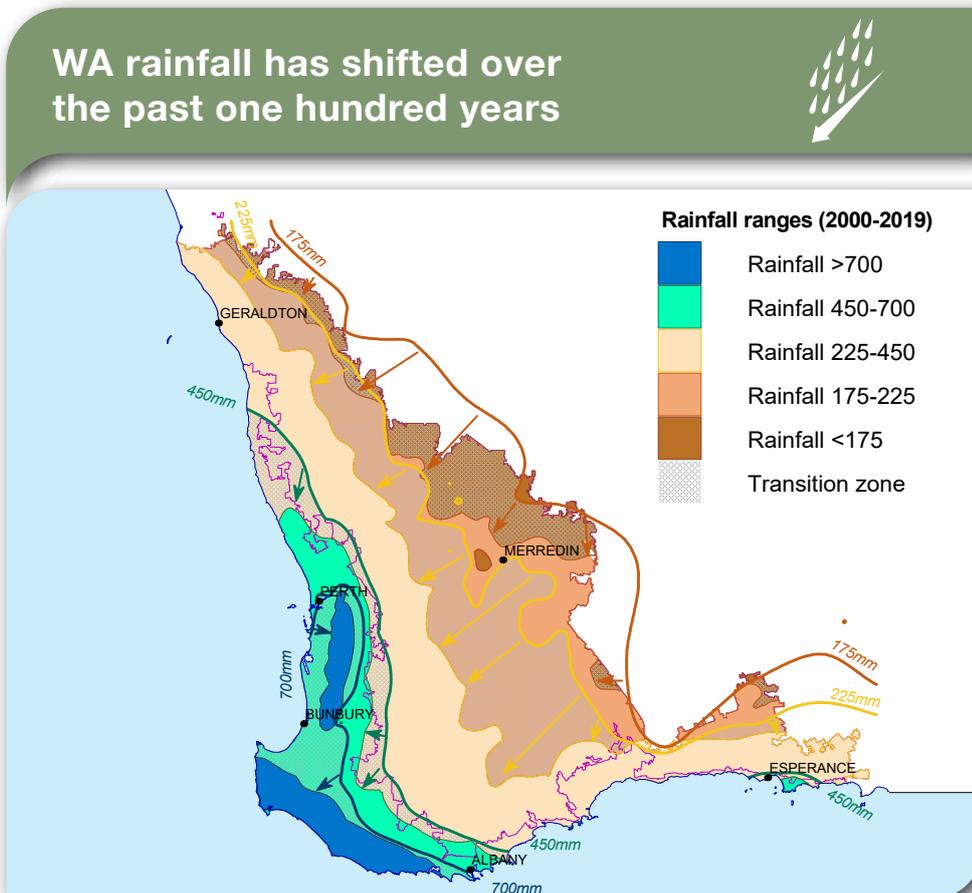
Climate change will also result in higher ocean temperatures and acidification, affecting the habitat, abundance and, in some cases, continued viability of key commercial aquatic species in existing locations.

Growth in trade and travel combined with changing disease vectors could increase the

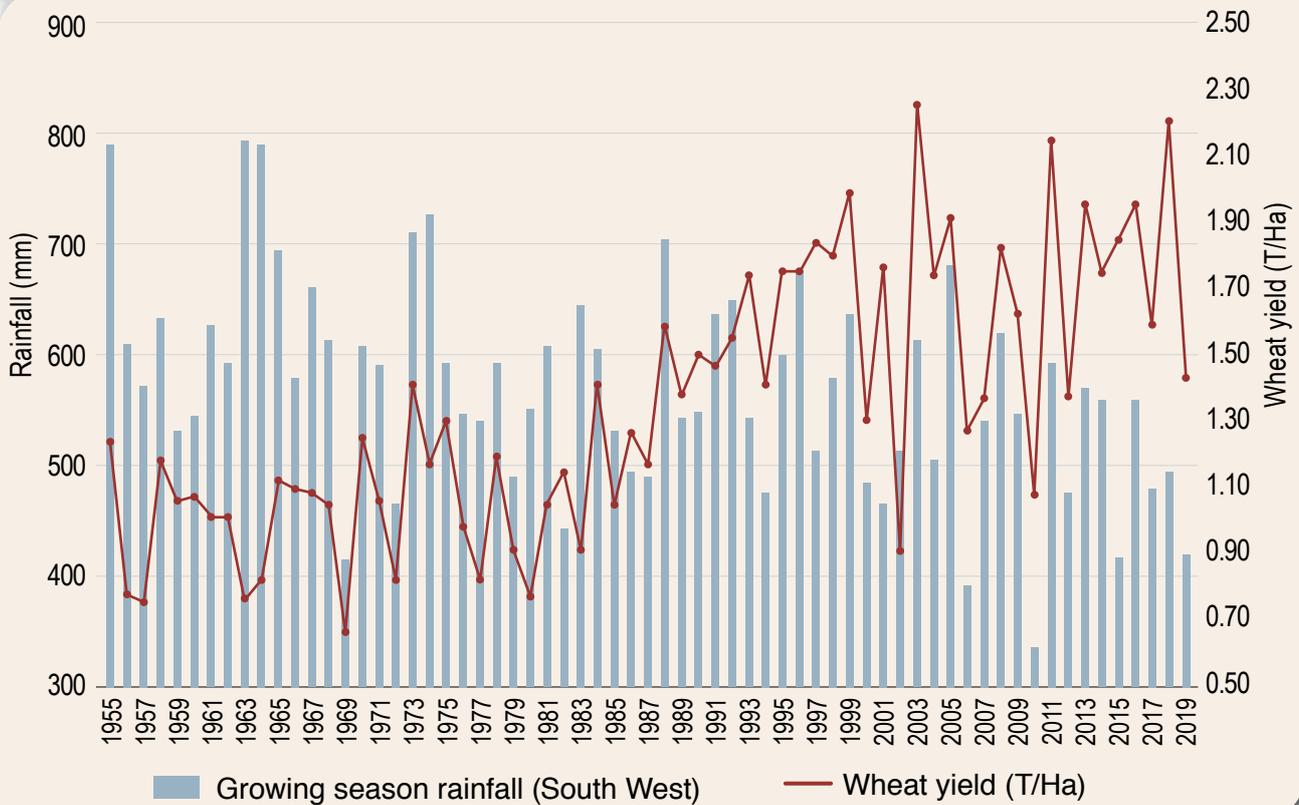
incidence of pest and disease outbreaks, threatening Western Australia's biosecurity status. This risk is exacerbated by the development of new production areas and systems that could create an environment for new pests and diseases, endangering agriculture, fisheries, aquaculture and forestry.

Ongoing natural resource management and biosecurity are critical to maintaining and building Western Australia's competitive advantage.

Agricultural and seafood industries have been successfully managing climate change for several decades. However, with trends towards rising temperatures, more extreme events and reduced rainfall set to continue, there will continue to be significant pressure to adapt agricultural and fisheries practices.



More grain from less rain



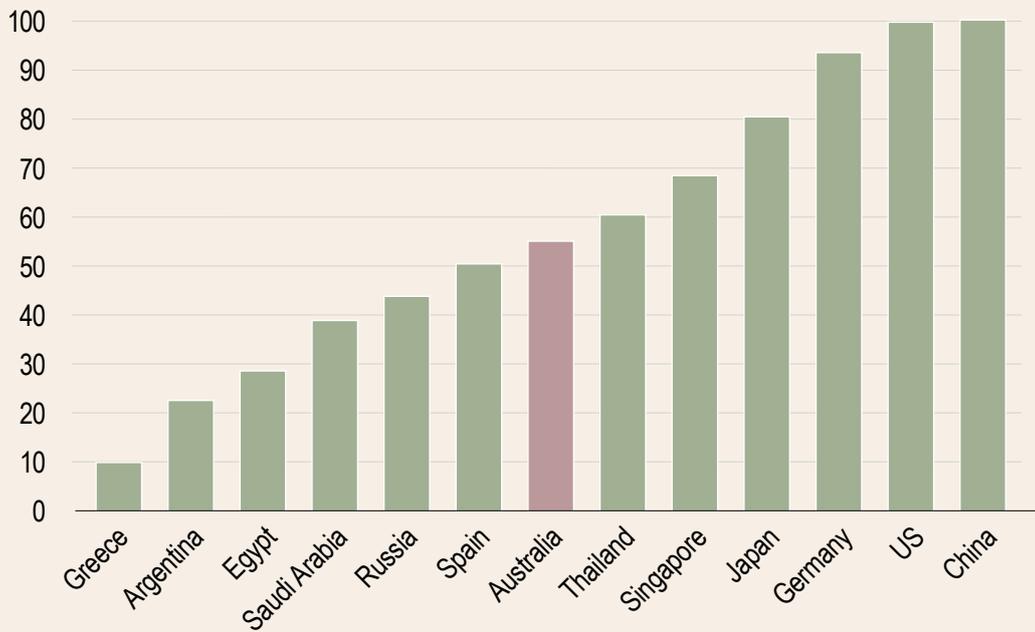
Ownership and management of agribusinesses in Western Australia will continue to evolve

Over the next decade, ownership and management of agribusinesses in Western Australia will change:

- A younger, more diverse and technologically engaged generation of agribusiness owners and operators will emerge.
- Increasing corporate investment is likely, with overseas investors (including pensions funds) now major agricultural landholders in Western Australia (In 2018-19, 18.3% of agricultural land had some level of foreign interest - ATO, 2020).
- Family-owned agribusinesses will continue to consolidate and adopt professional management structures and controls.
- There is likely to be increased ownership and management of agribusinesses by Aboriginal interests.
- Most Western Australian food and beverage processing businesses will need to grow to compete nationally and internationally.
- Primary producers will need to increasingly explore and engage with value-adding opportunities and emerging and/or niche sectors to respond to market demand and opportunities.

Across industries, producers will need to access investment that is supported by an efficient agri-food sector capital market. Western Australian agribusinesses will need to work to be investment-ready and able to secure the right investors for their business.

Our international manufacturing competitiveness remains a challenge



2016 Global manufacturing competitiveness index (Deloitte)



Western Australian food manufacturing costs remain a challenge

Australia has higher total manufacturing costs than our main trading partners and competitors. This, combined with a relatively volatile Australian dollar, is a challenge to the international competitiveness of Australian manufactured goods. The COVID-19 pandemic highlights these risks, particularly the dependence of primary industries on imported production inputs and accessing international markets.

Given the concentration of small and medium sized food and beverage exporters, a small local market and long distances to other markets, this predicament is more pronounced in Western Australia than the eastern states of Australia.

Because of this, downstream agribusiness in Western Australia will likely only be feasible where they can achieve one or more of the following:

- secure domestic markets
- capture the competitive advantages of unique aspects of Western Australia to access markets, and/or achieve premium prices
- use partnerships across supply chains to penetrate and maintain share in larger export or eastern states markets
- achieve cost advantage through economies of scale.

Creating an environment that maximises the competitive advantage to Western Australian primary industries and builds strong partnerships across the full supply chain to export markets will be key to expanding our downstream food and beverage sector in the State.





WA GROWN
CHERRY
TOMATOES
3.99 ea



WA GROWN
ICEBERG
LETTUCES
2.49 ea



WA GROWN
BABY COS
LETTUCES
1.99 ea



WA GROWN
GOURMET
LETTUCES
1.99 ea

Strategic initiatives

To take advantage of Western Australia's competitive advantages, this Plan identifies five strategic themes with supporting initiatives to drive growth in the State's primary industries by guiding and aligning State Government, Commonwealth Government and industry action.



1

Strategic theme 1

Protect and enhance the condition of our natural resources

Ensure sustainable management and stewardship of our natural resources underpins the productivity and competitiveness of Western Australia's primary industries.

Developing and maintaining agricultural, fishing and forestry systems that sustain and enhance the condition of our natural resources is the foundation of a prosperous future for our primary industries. The State Government has a legislative responsibility to manage, protect and provide for the sustainable use of natural resources related to the State's primary industries, on behalf of all Western Australians. In the context of climate change, shifting weather patterns, drought, soil salinity and acidity, changing distribution of significant pests and disease and new and emerging biosecurity threats, the Government must fulfil its environmental protection and sustainability obligations, concurrently with its support for

the adaptation of farming, fishery, and forestry systems to meet consumer expectations.

Government will work with, and support industry to protect Western Australia's brand and reputation as a reliable producer of premium, clean, ethical, and safe food products. Sophisticated models of regulation and partnerships between industry and Government are essential to ensure sustainable resource management.

Strategic initiatives

1. Sustainable management of fish and aquatic resources

1. Ensure aquatic resources are managed within sustainable limits.
2. Use a risk-based approach to ensure the key elements of the aquatic ecosystem are maintained and the management systems are robust, effective and work to facilitate development by:
 - a. scientifically assessing the risks to our fisheries and aquatic resources and publishing *The State of our Fisheries and Aquatic Resources* report.
 - b. developing and reviewing legislation, regulation, policies and plans to ensure management arrangements continue to respond appropriately to resource level risks, including to those habitats on which fisheries production depend.
 - c. working with stakeholders to support the delivery of sustainable aquatic resource outcomes, including increased industry and community engagement in fisheries and marine compliance activities.
3. Facilitate future opportunities for growth and value adding within the sustainable limits and optimal use of the resource.

2. Sustainable management of land and soil resources (land condition and soil health)

- Ensure agricultural and pastoral regions are managed to improve the land and soil condition of Western Australian terrestrial resources:
1. Reinstate the Soil and Land Conservation Council and elevate the role of the Soil and Land Commissioner.
 2. Deliver on the Auditor General recommendation in relation to rangelands condition monitoring assessment and reporting by implementing the risk-based pastoral lands framework.
 3. In consultation with industry and community develop a State Soil Health Strategy to:
 - a. report on the state of Western Australian soils
 - b. report on the status of key threats including salinity, acidification, sodicity, compaction and water repellence
 - c. consolidate and report on strategies to improve soil condition and mitigate threats.
 4. Develop and review legislation, regulation, policies and plans, including inspection, monitoring and compliance, to ensure management arrangements support the regulation of soil and land conditions in Western Australia.

(Continued following page)

Strategic initiatives continued

3. Systems-based agriculture, fisheries, aquaculture and forestry

1. Identify farm, aquaculture, fishing and forestry management systems that enhance the economic value of primary production and also improve the condition of our natural resources, including:
 - a. conservation tillage, improving soil organic matter, and ameliorating subsoil constraints to root growth
 - b. the integration of crop and livestock production
 - c. reducing the carbon footprint; carbon farming
 - d. regenerative agriculture
 - e. sustainable water use for irrigated agriculture and horticulture
 - f. restoration of the capacity of pastoral lands
 - g. identification and management of aquaculture zones.
2. Support business planning for a future with less secure water including support for more efficient use of water, identifying opportunities for on-farm desalination, and transitioning businesses to be more resilient to reductions in water availability.
3. Provide a flexible planning framework to safeguard natural resources and concurrently accommodate innovation and diversity in agriculture, fishing, forestry and value adding industries.

4. Climate change strategy

Provide leadership in land and marine-based responses to climate change:

1. Understand and report greenhouse gas emissions from primary industries and food supply chains.
2. Understand and promote the role of livestock in reducing the carbon footprint of farming and rangeland restoration.
3. Support the development of new technologies that drive energy and economic transformation in agriculture.
4. Undertake strategic investment to improve the drought resistance of primary industries and communities, including brackish groundwater, on-farm desalination, smart dams and waste water use.
5. Develop mitigation strategies to stabilise and reduce net greenhouse gas emissions from primary industries.
6. Implement climate adaptation strategies including research into changing marine ecosystems, development of drought tolerant grain, pasture systems, and improved tools for managing climate risk at farm or business scale.
7. Develop markets for land and marine-based carbon capture.

5. Environmental biosecurity

Provide systems for the delivery of environmental biosecurity:

1. Develop and review legislation, regulation, policies and plans that support the delivery of environmental biosecurity by all stakeholders.
2. Play a key role in delivering preventative activities, surveillance and diagnostic programs, and eradication and containment efforts for significant environmental pests and diseases.
3. Support industries and communities to manage established environmental pests and diseases through the provision of science, advice and strategies.
4. Support primary industries through regulatory approval processes that meet the requirements for the sustainable management of the State's environment and water resources.



2

Strategic theme 2

Build trust in Western Australia's primary production

Ensure primary industries meet the expectations of trading partners and consumers that food and fibre are sustainably produced.

Western Australia enjoys a competitive advantage in producing food and fibre that is free of many significant pests and diseases, and is supported by a strong traceability and product integrity framework. This competitive advantage can only be captured if the State's credentials can be demonstrated and communicated to its markets and customers. Competition in commodity markets will drive Western Australian primary industries to focus increasingly on supply chains that service the growing, more discerning middle-class food consumer. This is a market where an increasing number of consumers seek assurance or verification of products that facilitate personalised nutrition and health

benefits. They will also require evidence-based environmental and ethical credentials that reflect the wider social and community expectations of primary industries. In light of the health and food supply issues due to the COVID-19 pandemic, it is anticipated that there will be an increased focus on producers' ability to demonstrate food safety, quality of products and the stability of supply.

Western Australian producers are able to meet these expectations, delivering a high standard of safety, and integrity that is built on a robust and transparent regulatory framework underpinned by effective policy, implementation, monitoring and compliance arrangements.

The product credentials of Western Australian primary production can be enhanced by initiatives that build consumer and market confidence in:

- Environmentally sustainable and responsible production of food, including agricultural production, fisheries and forestry products.
- A non-polluted primary production environment, including best practice in minimising chemical and antibiotic usage, and freedom from many significant pests and diseases.
- High animal welfare standards.
- Fair trade and labour conditions.
- Aboriginal production systems.

High food standards, environment stewardship performance, and quality systems have the potential to provide Western Australia with

an advantage over competitors. Western Australian fisheries, in particular, are world leaders in sustainable production, with multiple Marine Stewardship Council (MSC) certifications.

The State Government's role is to ensure that Western Australia has transparent, robust, and efficient frameworks for managing biosecurity, animal welfare, and ethical and sustainable production. These frameworks enable both government certification for trade and industry-driven initiatives such as voluntary certification systems and digitally enabled supply chains. Together, these facilitate traceability and verification of product credentials from the source of production to the consumer.

Strategic initiatives

1. WA biosecurity

1. Maintain and strengthen the State biosecurity program to protect Western Australia from significant pests and diseases that may damage the productivity, profitability, market access, and reputation of Western Australia's primary industries.
2. Use a risk-based approach to ensure the biosecurity system is robust and effective:
 - a. Prevent the introduction, establishment of pests and diseases of significance through science and effective regulation.
 - b. Provide effective biosecurity emergency preparedness, response, and recovery to minimise the impact of pests and diseases that do occur.
 - c. Increase industry and community engagement in biosecurity, including understanding the importance of prevention and early detection for minimising the impact of biosecurity threats and incursions, and the role of industries and communities in surveillance and reporting of pests and disease and in biosecurity responses.
 - d. Maintain and improve surveillance and diagnostic capability, biosecurity data and intelligence systems, and appropriate regulatory systems.
 - e. Strengthen partnerships across State and Commonwealth Government, industry, and the community to increase biosecurity response capability and capacity.

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Strategic initiatives continued

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| 2. Animal welfare | <p>Develop animal welfare systems that meet community expectations and enhance the reputation of Western Australian Agriculture.</p> <ol style="list-style-type: none">1. Deliver regulatory reforms to enable the delivery of appropriate animal welfare, including the development and implementation of the National Animal Welfare Standards and Guidelines and the development of regulations under the <i>Fish Resources Management Act 1994 (WA)</i>.2. Modernise the <i>Animal Welfare Act</i> to ensure it can support regulatory reforms, including a change in focus from the detection of acts of cruelty to setting and monitoring welfare standards in livestock production and processing.3. Work with industry, the RSPCA and other bodies to support the implementation and compliance with this regulatory reform.4. Continue to build knowledge, understanding and relationships with stakeholders to deliver improved animal welfare outcomes. |
| 3. Industry Standards | <p>Support the development of national industry standards and guidelines where new technology, and changing farming methods provide a competitive advantage, improved productivity, and/or price premium to Western Australian primary industries.</p> |
| 4. Industry-led certification | <p>Provide government support and endorsement of product assurance standards, process verification and/or industry sustainability index plans for primary producers and supply chains.</p> <ol style="list-style-type: none">1. Continue to support the maintenance and expansion of fisheries with certification under the Marine Stewardship Council (MSC).2. Support the development and adoption of industry-led standards.3. Support industry to promote the traceability, integrity and sustainability of Western Australian primary products, including through appropriate certification systems. |



3

Strategic theme 3

Maintain and build competitiveness

Invest in research and development and infrastructure to ensure Western Australian primary industries increase business competitiveness in the global marketplace.

Productivity growth remains an important goal for primary industries worldwide. Historically, Western Australian primary industries have achieved an average total factor productivity growth of approximately 1.4% per annum.

Productivity growth requires continued investment to promote new technologies, targeted research and development, and support for educational institutions. This will provide workers and business owners with the skills required to adopt these new technologies and research outcomes. Improved connectivity and integrated data systems along the supply chain are critical to support productivity gains. Across all sectors, research is needed into farming systems that reduce input costs. The

COVID-19 pandemic has also highlighted the risks associated with primary industries' dependence on imported production inputs.

Government will work with industry to enable the development of innovative higher productivity business models, underpinned by sophisticated market intelligence, applied technology and partnerships across supply chains. We will support the development of the new skills required by those business models.

Adverse events such as bushfires, biosecurity incursions, and changing climatic conditions also affect primary industry productivity. Government will continue working with industry to increase the resilience of the sector and support it during such events.

Strategic initiatives

1. Applied research to maintain and increase productivity

1. Undertake targeted research and development in areas that will drive innovation and commercial outcomes for the State's grains, livestock, horticulture, fisheries, aquaculture and forestry industries.
2. Co-invest and collaborate with industry and other research organisations to ensure primary industries have access to new products, technologies, and systems that are suitable under WA conditions, including under a changing climate, in the areas of:
 - a. plant and animal genetics
 - b. agronomy and livestock production
 - c. soil health and crop/pasture nutrition
 - d. management of pests and diseases
 - e. resilient and profitable farming systems
 - f. aquaculture production and fisheries productivity
 - g. product quality and integrity to meet market and consumer expectations.
3. Engage with industry organisations, grower groups and advisors across all sectors as an effective mechanism to ensure research relevance, rapid adoption of new technology, and the development of a collective knowledge base.
4. Work with industry to understand, manage and mitigate the industry's dependency on imported production inputs.

2. Growth through Ag-Tech and digital connectivity

1. Support the development of a vibrant technology sector that, supports primary industries in Western Australia.
 - a. Improve on-farm digital connectivity through commercial grade broadband access in key rural and regional areas through the Digital Farms Program.
 - b. Work with industry and leverage existing international capabilities to promote innovation in technologies that integrate data and the internet of things to increase business competitiveness.
 - c. Increase use of online portals and digitised processes to provide a better service to primary industries, consumers and communities and businesses that support our primary industries.
 - d. Support remote working opportunities that provide high-quality, reliable employment to improve regional economic resilience.

3. Building business resilience

1. Work with industry and State agencies to build resilience and the ability to adapt to change, whether to a changing climate or rapidly changing markets, through strengthening primary industries business management and planning skills.
2. Work with Commonwealth and State agencies to provide support to reactivate and recover those businesses severely affected by the COVID-19 pandemic.

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Strategic initiatives continued

4. Primary industries workforce

Work with industry to plan for and deliver strategies to meet the permanent and transient workforce needs of primary industries.

1. Work with the Food Fibre Timber Industry Training Council, Department of Training and Workforce Development (DTWD), Department of Education and Commonwealth Government to support secondary, vocational, and tertiary students to pursue a career in primary industries, and to determine training requirements and delivery to build a highly skilled workforce.
2. Work with DTWD to promote and extend the availability of accredited and non-accredited courses in areas such as agricultural machinery and automation, technology, agribusiness management; occupational health and safety; and natural resources management.
3. Work with governments to ensure appropriate employment and Visa arrangements are in place to support transient workforce needs.
4. Support the development of innovative and higher productivity business models through professional development opportunities for agribusiness.
5. Develop capacity building initiatives in agriculture that create skills and pathways to employment and business ownership for Aboriginal people.
6. Support programs that develop a workforce that better represents the community through initiatives that boost inclusion of underrepresented communities and women, particularly in management roles.
7. Work with industry to identify opportunities for the remote WA primary industries sector to provide certainty to consumers that the State's industries comply with national labour relations standards.
8. Work with industry and business to support primary industry workers affected by COVID-19 related restrictions and requirements.

5. Improved logistics for supply chain competitiveness

Strengthen Western Australia's road, rail and marine logistics networks to support primary industries and regional communities.

1. Work across government to strengthen primary industry truck and rail freight routes to improve supply chain competitiveness.
2. Work with the Department of Transport and Westport Taskforce to advocate for optimal maritime logistics arrangements for existing and emerging primary industries businesses across the State.
3. Work with the Commonwealth to identify key transport hubs for both exports and input importation, across agriculture, fisheries and forestry.
4. Partner with industry to support the growth of aviation export facilities, particularly through the Perth International Airport.
5. Support the development of aquaculture supply chains.
6. Support industry to manage supply chains and logistics requirements under changing COVID-19 conditions.



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Strategic theme 4

Differentiate, value-add, and diversify primary industries

Increase the resilience of Western Australian primary industries by:

- **Differentiating Western Australian food and fibre products to secure market access and, where possible, price premiums for our raw and processed premium and niche products.**
- **Value-adding to primary produce to meet customer demands in target markets.**
- **Diversifying the range of Western Australia's primary industry products.**

Opportunities to diversify exist where research, technological innovation, and new production systems have the potential to disrupt, or intensify traditional production systems. Western Australian producers have already begun to adopt such practices. Examples include, lupin production to improve soil health and productivity, more pivot irrigation in unimproved rangelands and adjustment of herd and flock genetics to meet consumer preferences.

Efforts to expand value-adding to Western Australian primary production need to consider the State's structural manufacturing costs. With a smaller domestic market, local producers may need to shift to international exports to achieve scale sooner than their eastern Australian counterparts. Successful value adding will likely be in areas where the State's producers can mitigate cost handicaps through competitive advantages in target markets. This will require focusing on product

attributes that are based on Western Australia's competitive advantages, that cannot be easily replicated elsewhere, and that ideally attract a price premium. This should be supported by leveraging and marketing a premium brand positioning for the State, together with delivering opportunities to support investment to achieve diversification goals.

Food and tourism sectors can be linked to primary industries and is an avenue for

diversification, differentiation, and value-adding, particularly with respect to recreational fishing, traditional produce, and premium food and beverage sectors, including wine.

While agribusiness managers and capital markets are best suited to navigate the risks of downstream investments, government can support and facilitate private sector-led endeavours that are also in the interests of the State.

Strategic initiatives

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| <p>1. Projects of strategic importance</p> | <p>Provide lead agency support, working across government and with Regional Development Commissions, to navigate regulatory and approval pathways for priority agribusiness projects where there is significant investment and a plan to drive jobs growth and/or industry development.</p> |
| <p>2. Expand value-add agribusiness sector</p> | <p>Support start-ups and small- and medium-sized enterprises (SMEs) with high growth potential and/or innovative products or production methods:</p> <ol style="list-style-type: none"> 1. Build networks of expert service providers along the supply chain. 2. Provide advice on regulatory and approval pathways. 3. Provide matching grants, tailored investment ready and advisory programs to encourage entrepreneurial development and growth. |
| <p>3. Agri-food Cluster Development Program</p> | <p>Focusing on priority established and emerging clusters of agri-food, fisheries and forestry businesses, this program will:</p> <ol style="list-style-type: none"> 1. Identify and capitalise on strategic opportunities for co-location of enterprises to attract investment, share logistics and provide access to natural resources in order to achieve critical scale in production. 2. Provide support to develop business cases for the development of shared infrastructure and priority investment opportunities. |
| <p>4. Diversification of agribusiness opportunities</p> | <p>Identify suitable land and water resources to support new projects of strategic importance.</p> <ol style="list-style-type: none"> 1. Develop northern Western Australia irrigation, including in the Ord and Fitzroy Valley to support agricultural development, including cotton and other new industries. 2. Deliver diversification projects in established agricultural regions - Myalup Primary Industries Reserve, Southern Forest Project and peri-urban food production zones. 3. Identify opportunities to diversify and improve the productivity and sustainability of rangelands enterprises. |

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Strategic initiatives continued

5. WA Aquaculture Development Plan

Through the State's Aquaculture Development Plan support aquaculture industry development over the next 10 years.

6. Aboriginal participation

Support Aboriginal communities and entrepreneurs to develop land and sea-based enterprises that support Aboriginal employment in primary industries:

1. Support Aboriginal enterprises seeking to develop new enterprises.
2. Extend support to Aboriginal communities, including owners of traditional lands, to develop skills in primary production and business.

7. Forest industries

Grow the forest and agri-forestry sector and diversify Western Australian forestry products and markets:

1. Support the Forestry Products Commission and other stakeholders to implement the Djarlma Plan, including the establishment of a South-West WA Regional Timber hub.
2. Work with the Forest Products Commission to promote farm forestry through the Djarlma Plan.



5

Strategic theme 5

Secure and grow markets

Grow markets through industry partnership and new market development underpinned by strengthening Western Australia's reputation, provenance, and brand recognition for delivering customer-valued products.

Western Australia is well positioned to increase the volume, value and diversity of primary industry exports. Industry development and trade facilitation through relationship development in target markets is essential to realising this.

Product differentiation is equally important. Western Australia will only capture value from product quality attributes if those attributes are associated with Western Australia. In a global economy, producers and supply chains need to differentiate themselves. Measures to establish and build traceability and provenance are needed to meet new consumer expectations. A dynamic global marketplace demands a flexible approach to reach key target markets.

With the growth in savvy, digital-native middle-class consumers, provenance and traceability measures need to be credible and meaningful.

This will require collaboration between the State and Commonwealth Governments and industry. Government assurances of state, regional and property status for specified pests and diseases is an essential component of maintaining existing trade and supporting new markets. Such assurances will provide a competitive advantage to our producers to access new markets and strengthen our position in established markets.

While there is currently no comprehensive understanding of how the COVID-19 pandemic will affect global markets, it is clear that it will have significant impacts, at the very least in the short and medium term. Western Australian primary industries need to understand, and ultimately, adapt to the changes in the global marketplace to ensure it can maintain existing, and grow future markets.

Strategic initiatives

- 1. Industry growth partnerships**

Establish an Industry Growth Partnership Program to support sector wide initiatives that:

 1. Provide clear market opportunities for new products, product differentiation, value-adding, and/or targeting of premium export markets.
 2. Create transformational outcomes for the sector.
 3. Require medium-to-long-term (approximately five year) project commitment.
 4. Are industry-led and government-supported, with cash and in-kind contributions to support partnerships along the value chain.
 5. Capture opportunities to leverage investment.
 6. Are risk-managed through milestone and stage-based project management.

- 2. Targeted in-market development**

Strengthen relationships in key existing and new markets for Western Australian agricultural and food products:

 1. Promote Western Australian produce to end-customers, supply chains and Governments.
 2. Support industry to undertake in-market development in high priority markets.
 3. Develop targeted programs with industry to improve international competitiveness.
 4. Organise in-bound and out-bound trade delegations.
 5. Work with regional producers, businesses and Regional Development Commissions in the preparation of investable agricultural projects for promotion to a domestic and foreign investor audience.
 6. Understand the impacts of the COVID-19 pandemic and undertake concerted effort to maintain existing markets and build new markets in the post-pandemic global marketplace.

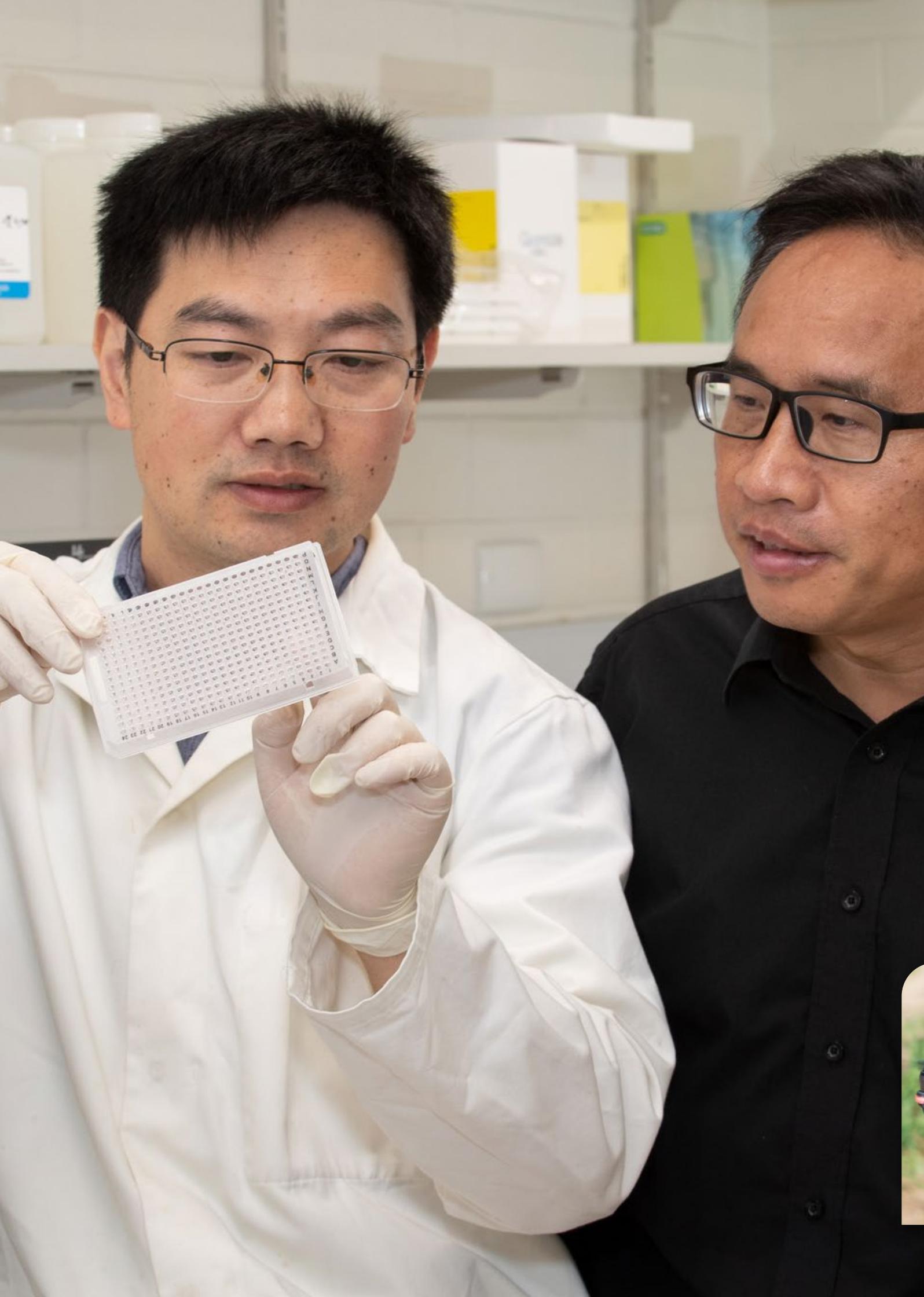
- 3. Strengthening market access and marketing**

Promote and build a strong brand for Western Australian agricultural and aquatic food and forestry products:

 1. Advocate for Western Australian industry priorities to enable new and improved market access.
 2. Deliver targeted surveillance and diagnostic programs to prove pest and disease status to meet market requirements.
 3. Work with the Commonwealth to optimise national traceability systems for Western Australian agribusinesses.
 4. Sponsor and support events such as the 'WA Food Show Case' in collaboration with the Buy West Eat Best program and Tourism WA, to showcase the best of our premium local food and beverage produce to the Western Australian community and tourism markets.

- 4. Australian Export Grains Innovation Centre (AEGIC)**

Prioritise investment in a strong, integrated AEGIC to continue providing market intelligence and research to match Western Australian grain qualities and functionality to the needs of premium export markets.



Strategic science

To support Western Australia's competitiveness, Government, research bodies and industry must work collaboratively to maintain and build world class science and innovation systems.

The State Government will maintain scientific capability in disciplines that underpin core business activities, such as fisheries stock assessments, land and water assessments, biosecurity measures, and the research and innovation that keeps Western Australian industries internationally competitive.

We will work in partnership with industry and research institutions to recruit and reskill in areas of critical need in order to align our activities with this Primary Industries Plan.

DPIRD's regionally located facilities and equipment will be also rationalised and modernised to enable world-class, field-based research and development.



Western Australia's primary industries strategic science and innovation roadmap

The case for nurturing the primary industries science ecosystem is strong. Strengthened collaboration across Government, academia, and the private sector will capture more national and international funding for strategic science and projects aligned with desired economic, environmental, and social outcomes.

Leadership and collaboration will be used to develop strategies to:

- Attract the best talent and technology to Western Australia in areas of critical need.
- Support and fund longer-term research programs designed to ensure ongoing profitability and sustainable use of natural resources in Western Australia.
- Access market intelligence to inform agribusinesses of consumer trends and market insights and identify supply chain efficiencies and opportunities fit for optimisation through the application of technology.
- Optimise Western Australia's total return on investment from research levies paid by its primary producers.
- Bring together expertise from the national scientific research system to develop opportunities for primary industry in Western Australia, using the State Government's research investment to leverage other investment.
- Build up strong, robust science, and evidence to assess and monitor natural resources.
- Support traditional ecological knowledge and Aboriginal primary production.
- Develop best practice systems to protect intellectual property in Western Australian primary industries, including Aboriginal primary production.





GOOD FISH
DOES ANYWHERE
Checked: (Lewis Carroll)

GANTT CHART

Checked:

REMOVE BLANKET AFTER USE
PULL DOWN TAPS TO RELEASE



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