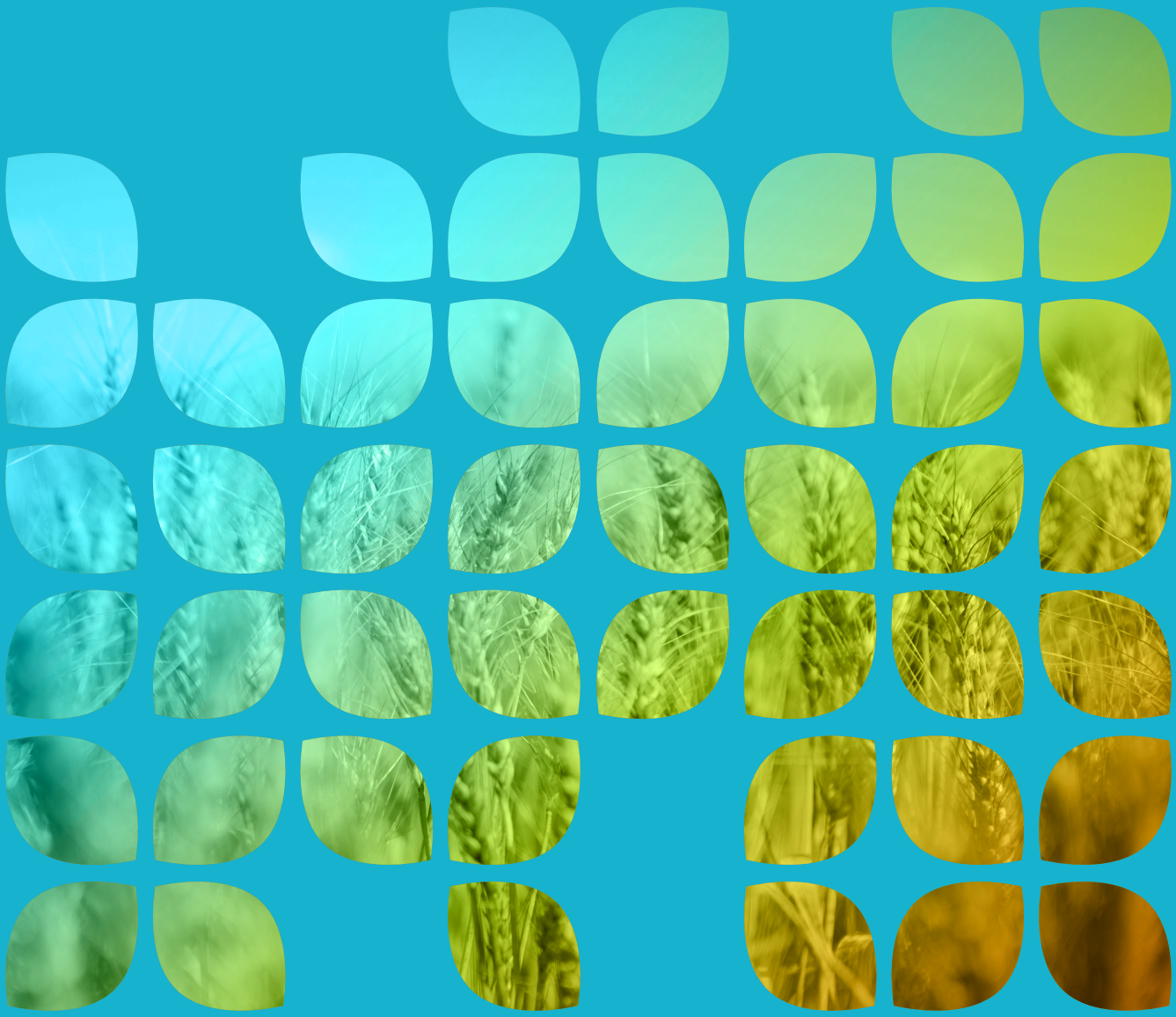


Strategic Priorities for the Western Australian Grains Industry 2035+

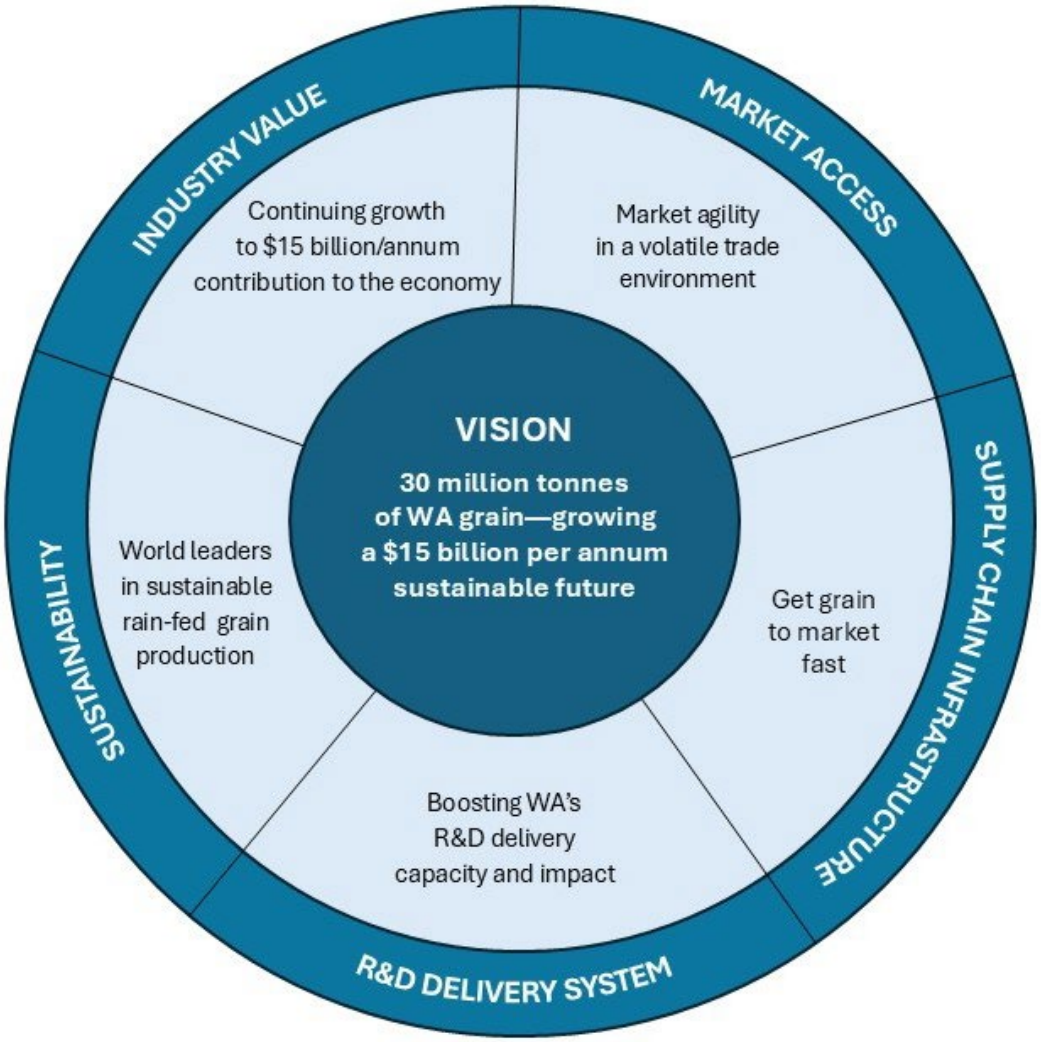
Growing Western Australia's agricultural powerhouse

Industry draft October 2025

Vision: 30 million tonnes of WA grain—growing a $15 billion/annum sustainable future.

The five strategic priorities that have the greatest potential impact for the WA grains industry over the decade to 2035 and which require a shared understanding and the collective involvement and support of key industry stakeholders to address have been identified through extensive industry consultation and are presented here to guide collaborative industry action. While focussing only on these five strategic priorities, the critical importance of the many other issues that are 'business as usual' for growers, businesses and organisations involved in the grains industry is acknowledged, but these are not dealt with in this document.

The five strategic priorities:



A number of commodity specific issues were also identified during the consultation process. These were recorded[(i)] and have been shared with State and national organisations for which these issues may have relevance.

The WA Grains Industry

Production of grain by 3,500 WA grain growers annually contributes in the order of $12 billion to the State's economy. The major grain crops are wheat, barley, canola, oats and lupins and the industry is characterised by its critically important export focus with more than 90 percent of the state's annual grain production being exported annually. Domestic processing of grain products including oat flakes and flour, malted barley, wheat flour, canola oil, and stockfeed are also important contributors to the WA economy and diversify the WA grain industry. Potential also exists for the growth of new industries requiring WA grain or grain by-products, whether exported as raw ingredients or processed in WA.

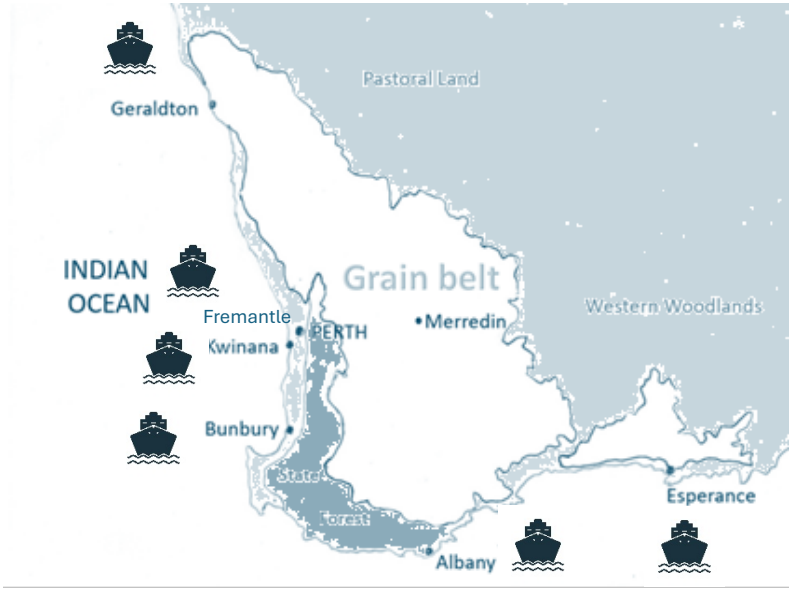
WA produced a record 26.4 million tonnes (mt) of grain in the 2022/23 season. Whilst climate change is expected to impact production in the future, seasonal variation will remain and input costs will continue to rise, WA is expected to achieve harvests of up to 30mt based on ongoing lifts in grain productivity and an ongoing shift from livestock to grain production. The Co-operative Bulk Handling Group, WA's major storage and handling logistics company, is actively preparing to store and handle a harvest of this size.

The origin of the strategic priorities

The WA Government, through the Department of Primary Industries and Regional Development, funded GIWA on behalf of the WA grains industry to develop *Strategic Priorities for the WA Grains Industry* covering the decade to 2035.

These were developed through extensive consultation with WA grain supply chain representatives and informed by consultation with, and the strategic plans, policies and priorities of relevant State and national industry organisations servicing the grains industry.

Western Australia's grain belt is situated in the south west corner of the State; bordered by state forest to the west and nature reserve and pastoral land to the east, and experiences a mediterranean climate



17.5 million hectares agricultural land

9 million hectares grain crops

7.6 million hectares diverse native vegetation

Relatively reliable winter rainfall & hot dry summer

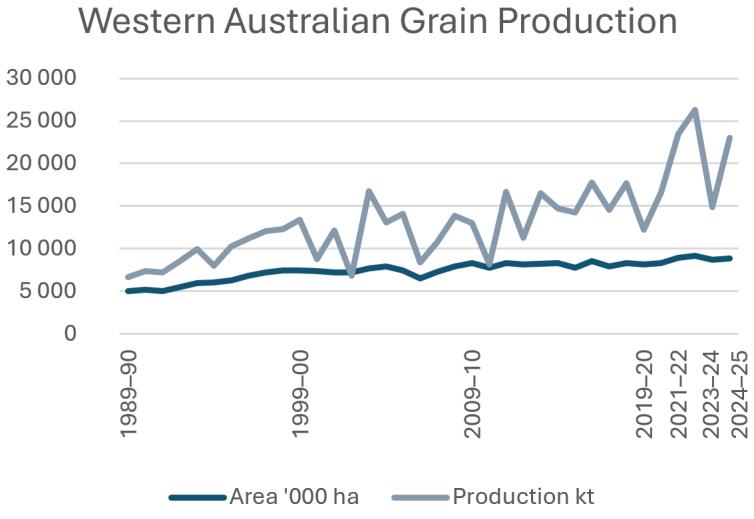
WA soils are naturally low in fertility, low in water-holding capacity & many have low pH

3500

Grain farms, between 2000–20,000 ha 90% family owned

Western Australia has tripled its grain production over the past 30 years

Yield (t/ha) increases from better varieties, improved agronomy & scale-up efficiencies



2024/25 Western Australian grain production and exports

Australia's largest producer and exporter of wheat, barley, canola, oats and lupins

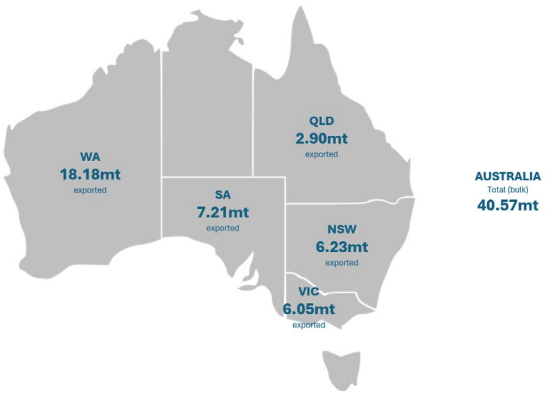
$12 billion
Gross Production Value

22.5 mt
grain harvested

	Tonnes harvested (2024/25)
Wheat	12, 500,000
Barley	5,900,000
Canola	2,900,000
Oats	700,000
Lupins	500,000

> 90%
of harvested crop was exported

Bulk exports by state 2021–22



4800km
regional rail network to get grain to port

The WA grains industry invests in its future, supporting research, development, and extension

WA grain growers invest

$60 million
in RD&E levies

$8 million
in state Biosecurity Levies

WA grain growers return

$40 million
in royalties that support future crop variety improvement

Pillar 1: Market Access

Market agility in a volatile trade environment

The decade ahead to 2035 is facing a period of increased uncertainty and market disruptions as the world order for trade resets and grapples with the balance between national self-interest and the inherent benefits of free trade.

A combined top-down and bottom-up approach is critical in developing and maintaining market access. From a bottom-up perspective, working with overseas customers to assist them to evaluate and source Australian grains helps them to influence their government's policies and remove or reduce the impact of trade restrictions. It is in their commercial interest to do so. From a top-down perspective, it is important for foreign governments to understand the value proposition of Australian grain, and for Australian government officials to be fully informed on all aspects of the Australian grain supply chain and the impacts and consequences of trade barriers.

Current state of play

Geopolitically, global trade is becoming more difficult. Conflicts, impeded freight routes and market barriers have all impacted WA's grain marketing patterns in recent years. Protectionism is likely to see constant changes to tariffs, sanctions and quotas affecting global grain trade. Changes in consumer preferences and government policies both in Australia and internationally in relation to environment, social and governance (ESG) issues, biofuels and food security are also expected to add to the uncertainty surrounding market conditions.

Australia has traditionally been disadvantaged by the levels of subsidisation and government policies in other countries competing for our export markets. This is more likely to increase than decrease in the current geopolitical environment.

Non-tariff barriers, including phytosanitary requirements, remain a key area of disruption and uncertainty underpinning market access. Meeting importing countries requirements to demonstrate pest, weed and disease freedom or compliance with requirements relating to the presence of chemicals, toxins and heavy metal contaminants are a direct industry cost.

Protecting Australia's biosecurity status is also critical to maintaining market access. As trade limiting pests such as Khapra Beetle or Karnal Bunt are not currently in WA, it remains critical we continue to keep them out. Biosecurity preparedness requires industry and government cooperation, with contingency planning, surveillance and diagnostic capacity being critical elements. However, Plant Health Australia (PHA) has identified ongoing concerns for Australia's industry-wide biosecurity preparedness.

Impact

WA exports more than 90% of its grain production and is consequently impacted by global market access issues more than any other Australian grain producing state. The impact of major changes in international trade patterns due to the imposition of tariffs and non-tariff barriers, embargoes and subsidisation can have large positive or negative impacts on access to specific markets and the value of WA's grain exports.

The introduction of an 80% tariff on barley by China in 2022 provided clear evidence of the impact geopolitics can have on global trade. It is estimated that the effective loss of the Chinese market reduced barley value by $30 to $40 per tonne, amounting to an impact of approximately $150 million per annum in lost revenue to growers.

Conversely, the positive Free Trade Agreement with the Philippines resulted in a 15% tariff being removed from Australian wheat imports, resulting in approximately $1 billion per annum in value being returned to the Australian wheat industry.

Predicting the introduction of a specific market barrier such as the Chinese barley tariff, import quotas or a new phytosanitary requirement is almost impossible, but it is almost certain there will be material market access disruptions over the next ten years that will impact WA's export grains.

Recommended actions

Strengthen government-to-government trade facilitation

As the largest grain exporting state in Australia, and therefore the most vulnerable when exposed to trade disruptions, it is imperative that the interests of the WA grains industry are embedded in the machinery and processes for government-to-government facilitation of Australian grain trade. The Department of Foreign Affairs and Trade (DFAT), the Department of Agriculture, Fisheries and Forestry (DAFF), Austrade and the WA Invest and Trade Offices (WATO's) need to be regularly briefed on specific risks and opportunities for the WA grains industry. Grains Australia, Department of Primary Industries and Regional Development (DPIRD) and the Grain Industry Association of Western Australia (GIWA) should work closely together to proactively and regularly provide these briefings on behalf of the WA grains industry.

Grains Australia, GIWA, the Co-operative Bulk Handling Group (CBH) and DPIRD regularly collaborate to service inbound government and commercial grain-focused trade delegations and each needs to be adequately resourced to continue to undertake this important function.

Maintain strong WA involvement and support for Grains Australia

Grains Australia has a critical role in providing market education and market access support functions to enhance the competitiveness and profitability of the Australian grains industry.

Grains Australia is the lead institution, supported by Grain Trade Australia (GTA), in providing advice and input into the Australian Government trade negotiations through DFAT, Austrade and the activities of DAFF's 15 agricultural counsellors. It is imperative that Grains Australia is well resourced to undertake its market access and market education functions.

With WA's dependence on export, it is essential that the WA industry has a strong representation and involvement in Grains Australia and provides support for those services that promote and assist the WA grains industry to meet the needs of our customers.

Establish a Perth-based Grains Hub

There is an opportunity to create a Grains Hub as a 'shop front' to promote Australian grain quality and ESG credentials to frequently visiting grains-focused government and business trade delegations. The lack of a Grains Hub in WA, the nation's biggest grain exporting state, is a clear gap compared to Australia's major grain export competitors.

Enhance industry biosecurity awareness and diagnostic capacity in WA

Biosecurity risks to WA grain export markets are managed by Federal and State Governments in conjunction with PHA and supported by Federal and State Government investment in diagnostic services, and government and industry investment in surveillance.

Given the risk of a real or alleged detection of a high-risk pest in WA grain exports, it's essential that DPIRD has modern diagnostic labs and sufficient resources to conduct scenario testing and respond rapidly to biosecurity threats.

Strong and regular communication and information sharing between government and industry is vital for incident contingency planning, to improve pest and disease surveillance, and to ensure a timely response to any biosecurity threat or incursion.

Indicators of success

- Grains Australia is well supported by industry to fulfil its market access and market education functions.
- A Grains Hub established in Perth that provides a grains industry 'shop front' for Australian grain exports.
- WA retains its status as a low biosecurity risk grains exporter.
- Minimal trade related constraints due to the collaborative efforts of industry and government.

Pillar 2: Supply Chain Infrastructure

Get grain to market fast

CBH is by far the most significant operator and owner of supply chain assets in WA, but it relies heavily on public infrastructure such as rail, port facilities and roads as well as the services of independent suppliers such as freight providers and rail asset operators. The other established exporters, Bunge and container packers as well as local processors, manage some or all of their own transport, storage, handling and shipping, but also access CBH services for grain via domestic outturns into their respective businesses. There is also some opportunistic bulk loading outside of the CBH supply chain in ports other than Kwinana.

Whilst CBH manages its capital infrastructure for its up country receival depots, the State rail network is leased and managed by ARC Infrastructure, a subsidiary of the Canadian multinational Brookfield Corporation.

Between 85 and 95% of grain harvested each year passes through CBH storage and handling services. Farm to receival storage is exclusively by road using farmer owned trucks and contractors, with a mix of road and rail to get grain to port. There has been a 70% increase in the average amount of bulk grain transported to the state's ports in the last five years compared to the average 12 years ago. An average of 3.9mt was transported by road and rail to Albany port in each of the past 5 years; 3.1mt to the ports of Esperance and Geraldton; and 8.2mt to Kwinana.

The State and Federal Governments provide the bulk of the capital funding for the rail and port upgrades and upgrade of roads which are used by the grains industry. Major road upgrades are managed by Main Roads WA which has a rolling 20-year investment priority plan. Local government also has a significant role in managing local roads.

Major road and port projects require long-term planning and complex funding negotiations with the Australian Government. To support informed decisions, detailed cost-benefit analysis of rail and road transport options must consider the impact of climate change on grain production patterns and volume, and shipping schedules that maximise export value.

Current state of play

The newly re-elected Cook Government in 2025 announced plans to 'buy back' the 49-year lease of rail assets which a previous State Government had privatised. In announcing the Government's intent, the media release provided the following explanation of why the Government was taking this action:

> *"This is all about supporting our plans to diversify our economy, unlock future local jobs and retain WA's economy as the strongest for future generations. Supporting the growth of our critical industries is a key priority for our Government and bringing freight rail back into public hands is a key way we can do that. The demands on the State's freight rail network have grown significantly and we want to make sure we're moving as much by rail to and from our ports as possible. Rail is the most efficient way of moving our goods to and from the ports, and with greater control, we can ensure Government investment promotes better use of the network."*

The WA Government has engaged Ernst & Young (EY) to assess the commercial value of the regional rail network, with a review due by February 2027. This will inform potential changes to the current

lease and consider other users beyond the grains industry, including mining, tourism, freight, and Perth's Metronet.

Meanwhile, rising truck load sizes—from 25 tonnes in 2002 to 62 tonnes in 2023—are increasing pressure on roads, prompting ongoing upgrade demands. The Department of Transport and Major Infrastructure (DTMI) is developing a new regional freight strategy, alongside the Revitalising Agricultural Region Freight Strategy and the South-West Supply Chain Strategy, which will influence grain exports via Bunbury Port.

The containerised export of raw and processed grain from WA is significant. Oats, oat flakes, barley, malt and pulses are all commonly containerised for export. Smaller niche crops that can become highly valuable crops are invariably established through the container trade. However, WA's container supply chain is expensive and dependent on the aging Fremantle port infrastructure. Planning for a new Westport container terminal to replace the current facilities in Fremantle Harbour has commenced, but Westport is unlikely to be operational until well after 2035.

Impact

The value of WA's grain exports relies heavily on the ability to ship as much grain as soon as possible in the six-month period after harvest to take advantage of the higher prices on offer prior to the northern hemisphere harvest commencing.

From an export capacity perspective, in addition to that exported via the CBH system (the annual record being 19.7mt in 2023), Bunge exports up to 1mt, container packers can export between 500kt and 1mt and domestic value adders such as malting and oat milling, export another 500kt of grain products. All parts of the supply chain have grown over the past 10 years and will need to continue to grow to keep pace with harvest size. Failure to do so will create a supply chain capacity gap.

During the large harvests of 2021 and 2022, price differentials between market and local bid reached $100 per tonne due to the inability to get grain to port at the time of higher global prices. Estimates of the impact vary but range up to $1 billion in lost value to growers. In addition to not being able to realise value capture opportunities when they occur, unsold grain must be held incurring storage and working capital costs.

Limited rail and road capacity from receival sites to ports is the main barrier to fast grain export. Investing in infrastructure to remove these bottlenecks offers major benefits for the industry and the State.

Shifting more grain by rail can reduce transport costs, increase road safety and reduce road network maintenance costs. Each additional million tonnes of grain moved by road requires around 12,500 road train movements — underscoring rail's importance.

Investment by the State Government in port infrastructure is also an important factor that impacts on the costs of shipping through vessel size and throughput constraints.

Recommended actions

Maintain a strong advocacy for State and Federal investment in rail, road and port improvements

WA's grains industry participants need to be proactive, and protected by appropriate non-disclosure agreements, provide industry data necessary to support the business cases for investment in transport and port infrastructure.

Investing in rail infrastructure to boost train speeds and load capacity would significantly enhance WA grain export value by enabling faster post-harvest shipping.

Indicators of success

- The South West rail network to be under an ownership and management structure that allows investment and growth that drives efficiency for grain transport and optimises value for the State.
- Significant progress in the development towards a new container port at Kwinana and fit for purpose investment in all ports servicing the grains industry.
- Appropriate investment in roads for the efficient transport of grain and improved safety for all road users.

Pillar 3: R&D delivery system

Boosting WA's R&D delivery capacity and impact

WA's internationally competitive grains industry has been built on decades of research and development (R&D) linked to extension and advisory services which has seen numerous impactful innovations adopted by growers.

WA soils, climate and grain farming systems are different to other parts of Australia, and vastly different to many other grain growing regions in the world. Whilst much of the genetic, agronomic and technical advances may have had their genesis from a global science effort, they have been tailored through local R&D to fit the WA production environment and the demands of existing and emerging export market opportunities.

There is a significant lag phase from when scientific discoveries are made and full industry impact is realised. In many cases it can take up to 30 years[1] (e.g. Genetically modified (GM) crops, new herbicides, new tillage systems). Currently we are harvesting the rewards of historic R&D investment, including much of the R&D that will drive WA's ability to grow 30mt by the end of this decade. The long term, multidisciplinary cooperation between public and private sector R&D teams that is critical to successful implementation, such as the transformative direct drill cropping revolution in WA last century, is far less evident in the current R&D delivery system.

Current state of play

Over the past 20-years the R&D delivery system in WA has become increasingly fragmented with specific science discipline expertise dispersed across a wider range of organisations and private businesses and an increasing proportion of R&D effort is deployed in discrete short-term projects. While there have been upsides, fragmentation has reduced multidisciplinary linkages and innovation synergies and there is less opportunity for engagement and co-design.

The focus on discrete short-term projects leads to young researchers missing out on co-learning opportunities with other scientists, growers and the broader industry. In addition, the focus on short term projects does not provide a clear pathway for long term R&D career progression, particularly that available in entities with a larger critical mass and a diversity of experienced personnel.

Many in WA's grains industry believe WA's current R&D capacity — including infrastructure, expertise, and organisational support — is inadequate to meet long-term needs of the industry.

The current WA R&D delivery system is shaped by:

- DPIRD being impacted by legacy budget cuts from the former Department of Agriculture and Food resulting in a steady loss of grains R&D expertise and ageing infrastructure,
- four universities and CSIRO in Perth are involved in different aspects of grains research and are also under budget pressure,
- a range of small and large private sector businesses providing high quality specialist breeding, agronomic or crop protection expertise,
- Grower groups engaging more directly in applied on-farm R&D, and
- many R&D providers increasingly reliant on short term GRDC funded projects.

DPIRD maintains a valued applied grains R&D capacity in the regions and has stated its desire to strengthen collaboration across government, academia and the private sector to capture more funding for strategic science and to support longer term research programs[2]. DPIRD also provides critical capacity in biosecurity and protecting WA's natural resource base, as well as supporting industry development through applied research, building competitiveness, diversification and securing markets.

The GRDC expects to invest $1.5 billion in research, development and extension (RD&E) over the next five years and has robust processes to engage with growers and other sources to identify research priorities and apply different investment pathways to deliver outcomes[3]. GRDC investment policies focus on the entity considered best placed to lead and conduct aspects of the project and have a priority to engage with providers that can make appropriate co-contribution of resources to projects. Many projects may be led by R&D providers in other states, or in some cases overseas, to address issues that are important to WA grain growers. While this may deliver the desired R&D outcome, it does not grow WA's own R&D capacity.

There have been several attempts by DPIRD and the industry over the past two decades to explore and develop R&D delivery models that would overcome the constraints arising from the reduction in public investment in grains R&D capacity in WA. This has resulted in little significant change.

Impact

The economic value of past grains research is easily demonstrated by the uplift achieved in grain yields against a warming and drying climate trend. Allowing for the decline in real prices and an increase in the area sown, the cumulative value of WA's additional grain production since 1990 is worth over $50 billion[4]. A large proportion of this productivity gain is likely attributed to better crop varieties and refined agronomic practices, with the remainder due to larger capacity machinery and efficiencies from larger scale farm operation.

The WA grains industry can expect on-farm productivity to continue to increase over the immediate coming decade due to technology and innovation based on prior R&D. However, the long-term prosperity of the industry will be challenged unless there is sufficient investment in R&D capacity to generate further advances in grain productivity and to address product quality and sustainability attributes to meet the requirements of WA's export markets.

The industry believes there is a significant risk that by 2035 there will be even less WA State Government investment in grains productivity R&D as the Government prioritises biosecurity and environmental resource protection. It is also likely that the Commonwealth Government will come under increasing fiscal pressure to reduce its matching contributions to grower research levies.

Recommended actions

Review options to optimise the R&D delivery in WA

R&D capacity in WA needs to be better equipped and scaled to tackle existing and future productivity challenges and increasing competition in export markets. While retaining core production research, the R&D delivery system also needs to be agile and responsive to rapidly evolving industry needs.

There are a range of R&D models working in Australia and overseas that can offer insights and there are valuable lessons to be learned from previous WA experience.

Issues to be reviewed would include:

- Understanding WA's current and future-needed expertise, infrastructure and financial resources for strategic (basic) and applied grains R&D.
- Reviewing possible R&D delivery models and processes for improved ways to engage the end-users of research in co-design and extension.
- Effective mechanisms for capacity building for RD&E personnel, with an emphasis on future-facing skills.

Encourage the co-location of key public and private sector R&D providers as a catalyst for greater networking, cooperation and innovation

The function of the Perth based Grains Hub as a 'shop front' for the customers of WA grains would be further enhanced if it facilitated the permanent collocation of, or at least the ability to have a strategic presence, of key industry organisations, businesses and government agency representatives. This would demonstrate a "team" approach to our grain customers, while also facilitating information sharing and ideas generation amongst those sharing the facility.

Ensure adequate applied R&D resources to support the profitability and sustainability of WA grain production.

While national and international research significantly and undeniably benefits WA grain production, targeted investment is needed in WA to address local applied R&D challenges and export-focused issues.

Long-term success of the WA grains industry will require sufficient investment to attract, develop and retain skilled personnel in key applied R&D areas.

- Plant breeding – to develop climate-resilient, high-quality varieties that improve productivity and reliability and meet export standards and reduce emissions.
- Farming systems – to boost productivity and resilience through locally adapted crops, rotations, and agronomic practices.
- Sustainability – to meet regulatory and market expectations by improving indicators like emissions, water use, soil health, and biodiversity.
- Biosecurity – to enhance prevention, surveillance, and rapid response to pest and disease threats."

Ensure the R&D investment setting processes have access to advice on the priority issues from across the grain industry supply chain

There is an ongoing need for a whole of supply chain perspective into specific grain commodity research and investment priorities. The Grains Australia and GIWA Commodity Councils, by providing a perspective from across the supply chain, can make a valuable contribution to the investment strategies of funders and providers.

Indicators of success

- Clarity in the State Government and DPIRD's specific roles as an investor and as a provider of grains R&D services for the next decade.
- A pipeline of next generation scientists and researchers with better defined career pathways.
- Better connected and resourced cropping and grain product R&D capacity is operational with long term year funding of programs to build capacity and sustain expertise.
- Appropriate linkages between applied research and universities involved in underpinning science.
- A Perth-based Grains Hub that provides a "shop front" for customers of Australian grain and enables the physical and virtual co-location of key public and private sector entities to stimulate greater collaboration, co-operation and industry engagement in grains RD&E.
- An increased investment of GRDC funds on the ground in WA.
- Greater global technology provider partnerships working on WA grains industry issues.

Pillar 4: Sustainability

World leaders in sustainable rain-fed grain production

The Australian grains industry has always been responsive to societal expectations. Whether it's land use management, chemical use or gene technology, agricultural practices are heavily regulated by governments and industry codes of conduct. Likewise, the WA grains industry has always had a strong focus on sustainability and is a global leader in sustainable rain-fed grain production.

The lack of reliance on irrigation puts the WA grains industry amongst the most water-use-efficient cropping systems in the world. WA growers' strong focus on the amelioration of soils with the addition of lime and gypsum and strategic use of mechanical soil amelioration techniques is contributing to ongoing improvement in water and fertiliser use efficiencies.

WA's geographic isolation and high biosecurity standards and dry harvest and summer conditions result in reduced chemical applications for pests, weeds and diseases and negligible energy needs for drying harvested grain compared to other grain growing areas in the world. The WA grains industry was an early adopter of minimum or no tillage systems that minimise soil erosion and enhance water retention. The WA grains industry is also world leader in grain storage to minimise insect damage and the presence of fungi and mycotoxins.

Nevertheless, the future of the WA grains industry depends on ongoing applied research to continuously improve productivity and sustainability and meet regulatory, social and market expectations.

The focus on sustainability improvement over the coming decade will be on:

- reducing emissions intensity – likely to command the most attention as Australian federal and state governments develop and adopt sector targets to meet international commitments, and
- nature positive actions –to halt and reverse biodiversity loss. The WA grains industry's requirement to meet regulatory or market driven nature-positive objectives may take some time to become apparent, but will likely focus on soil health, protection of remnant vegetation, and revegetating unproductive land.

Current state of play

Grain Growers Limited (GGL) and Grain Producers Australia (GPA) have formed a Council to develop an Australian Grains Sustainability Framework (GSF). The GSF is intended for tracking and reporting the sustainability performance of Australian grain farming over time. It will provide a national-level view, using evidence-based data and a transparent, impartial approach. In addition, Grain Trade Australia (GTA) have a Code of Practice and an ESG statement that provides members with voluntary self-management guidance for all operators in the Australian grain supply chain on ESG matters.

Reducing emissions intensity

In September 2025, the Australian Government announced its target to reduce greenhouse gas (GHG) emissions by between 62 and 70% by 2035 below 2005 levels on its way to a target of net zero by 2050. The grains industry, like all industries across Australia, is expected by the Australian and State Governments to reduce its GHG emissions to contribute to Australia's commitment to reducing emissions.

The three main GHG emissions from the grains industry are carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). The Carbon Neutral Grain Pilot project[5], which examined WA's grain production GHG emissions, found that more than 70% of all GHG grains industry emissions are from Scope 1 on-farm operations. Fertiliser and crop residues contribute more than 50% of these emissions. The other emissions come from Scope 3 pre-farm sources and 95% of these emissions are generated during the production of fertilisers and herbicides/pesticides used on-farm. Scope 2 emissions were negligible at the on-farm stage of crop production.

Nature positive

Nature positive laws aimed at improving environmental protection and biodiversity conservation are expected to be passed by the Australian Government early in the coming decade as part of a broader initiative called the Nature Positive Plan[6], which aims to balance environmental protection with sensible development. It is expected this will include a requirement for mandatory disclosures for all large businesses and financial institutions to assess and disclose their impacts and dependencies on nature by 2030.

Agricultural businesses and food supply chains across the globe are increasingly adopting nature-related financial disclosures to align with investor and market expectations.

Impact

Over the next decade, the WA grains industry will face growing pressure to reduce greenhouse gas emissions and enhance natural capital to:

- secure market access and trade benefits,
- meet consumer and community expectations, and
- comply with government regulations addressing climate change and nature-positive goals.

WA growers already face certification requirements under the International Sustainability and Carbon Certification (ISCC) scheme for exporting canola to Europe. While most WA grain exports aren't yet subject to sustainability standards, it's widely expected that political and consumer-driven criteria will soon apply more broadly.

Financial and insurance institutions are also increasingly aligning with carbon and natural capital markets, offering incentives like differential premiums to support sustainable practices. Though not yet widespread, this trend is expected to grow significantly over the next decade driven by customer and shareholder expectations.

The Australian Government now requires large companies to report baseline emissions and reduction efforts, and this is likely to be extended to smaller businesses. It has also introduced the Australian Carbon Credit Unit (ACCU) Scheme, enabling carbon credit trading. More WA grain

growers are expected to register projects to offset their own emissions or to monetise emissions reductions.

While compliance may increase costs, emission-reducing practices often lower input use, potentially offering savings for inputs such as fertilisers and herbicides. Profitable and sustainable grain farming in WA will continue to require inputs in the form of chemicals, fertilisers and energy for machinery and it is unlikely that grain farm production in itself could reach net zero emissions without production-limiting on-farm revegetation or investment in off-farm offsets.

Future R&D and farming practices will focus on reducing emissions intensity (GHGs per tonne of grain produced), which accounts for seasonal yield variation. WA's low rainfall, limited runoff and ephemeral waterways also reduce runoff risks, a key natural capital concern in other regions.

Recommended actions

Support growers and industry participants to understand which practices most affect GHG emissions in their operations.

Growers need to understand the sources of farm emissions and collect data to report emissions intensity to be able to unlock future market opportunities and comply with regulatory requirements that could come into effect in the coming decade.

WA growers already have access to programs and resources to reduce emissions and explore carbon farming, with demand for these is expected to grow. Establishing baseline emissions is a key first step to meet future reporting needs and strengthen WA's position in global markets.

A universal carbon accounting model is still lacking, and scaling farm-level data to industry-wide totals remains a challenge. Accelerated work is needed to standardise emissions measurement nationally and globally.

Given WA's co-mingled grain storage and handling system, the goal should be to aim for scaled up data that represents port zones or particular cropping practices. There may also be opportunities for segregating low carbon grain for niche markets.

Prioritise investment in collaborative RD&E projects that lead to lower emissions intensity for grain production

Reducing nitrogen fertiliser emissions is key to lowering GHGs. Solutions include green ammonia, slow-release fertilisers, improved crop breeding, and legumes. Precision agriculture using Artificial Intelligence (AI) tools, satellite imagery, and yield mapping enables targeted application of fertilisers, lime and chemicals, reducing emissions per tonne of grain.

Alternatives like biostimulants and biologicals have potential to reduce the amount of synthetic chemicals used in weed, pest and disease control.

Soil amelioration can markedly improve water and fertiliser use efficiency. While most WA grain production is on inherently infertile soils, opportunities exist to improve soil biology and soil health.

Investment in RD&E and industry collaboration is essential to deliver practical, region-specific solutions that balance productivity and sustainability. Priorities include:

- carbon farming and revegetation on low-productivity land,
- climate adaptation knowledge and tools for managing increasing variability and extreme weather events,
- biodiversity enhancement through remnant vegetation management and revegetation, and
- soil health as a foundation for long-term productivity and resilience.

Strengthen Industry–Government Collaboration on Sustainability

Foster greater collaboration between industry and government to provide clear, consistent guidance and direction on sustainability initiatives, opportunities, and requirements relevant to the WA grains sector.

This should include:

- Support for the development and recognition of sustainability frameworks that reflect both policy goals and practical realities for growers.
- Improved communication and coordination across agencies and industry bodies to reduce confusion and duplication.
- Accessible information and tools to help growers understand and respond to emerging sustainability expectations, including carbon accounting, biodiversity stewardship, and climate resilience.
- Joint investment in extension services and training to build capacity and confidence across the sector.

A coordinated approach will ensure growers are supported to make informed decisions, adopt best practices, and contribute meaningfully to WA's broader sustainability and emissions reduction goals.

Consideration also needs to be given by governments to ensuring a balance to ensure agricultural land use remains viable and is not disproportionately impacted by offsetting activities from other sectors.

Indicators of success

- Standardised baseline measurement and reporting of GHG emissions across the grains supply chain from farm to customer.
- Evidence that WA grains GHG emissions intensity is reducing over time and meeting targets set by the Australian and State Governments.
- R&D investment delivers locally applicable solutions to reduce WA grain industry GHG emissions intensity and improve natural capital.
- The Grains Sustainability Framework, being developed by GPA and GGL, is recognised by governments, the public, and export markets as the Australian grain industry's commitment to improving sustainability.

Pillar 5: Industry Value

Continuing growth to $15 billion/annum contribution to the economy

There is currently no unified messaging to highlight the grains industry's economic value and its sustainability and quality credentials to Australian governments, the Australian public and our international markets.

Current state of play

Multiple national and WA organisations speak for the grains industry, but there is currently no coordinated messaging to governments, the public, or export markets. However, the recently increased resourcing for Grains Australia, coupled with Grain Trade Australia's activities, presents an opportunity to unify and strengthen industry communication.

Without coordinated messaging, the grains industry's economic value and sustainability efforts risk being overlooked or misunderstood by the public and policymakers.

Consumers are increasingly relying on social media as a primary source of information. Public and consumer expectations around issues such as food safety and sustainability—often shaped by opinion and ideology rather than science and initiated or propagated by social media influencers—can impact the profitability of grain farming and potentially even freedom to operate. The advent of AI tools such as Chat-GPT and Microsoft Co-Pilot have seen a step-change in how internet-based content can be discovered and summarised, which increases the risk of consumers being misled simply by the search terminology they used, or by incorrect or malicious information on the internet.

Emissions reduction, biodiversity protection, and nature-positive practices are rising priorities, alongside long-standing concerns about chemical use. Gene technology also continues to also be subject to divided acceptance in the marketplace.

To avoid regulatory and market barriers and increasing cost impositions to production, the grains industry must demonstrate it meets the expectations of governments, customers, and society.

Impact

Over the next decade, the WA grains industry will face growing demands in four key areas.

- Market access: ESG certification is increasingly required by global buyers, with the European Union (EU) leading the way—initially impacting canola and lupin exports.
- Regulation: Governments are moving toward mandatory emissions and nature-positive reporting, requiring growers to track and disclose environmental impacts.
- Finance: Banks and insurers are indicating they will favour low-emission farms, likely offering better terms to ESG-aligned operations.
- Public perception: Misinformation or lack of trust in Australia's gene technology and agricultural chemical regulators could threaten access to essential inputs and future crop varieties.

Failure to address consumer and buyer concerns risks losing market access, diverting grain to lower value uses, or increasing costs, thereby threatening market viability.

Banning of critical inputs could have a catastrophic impact on productivity. No-till farming, which reduces soil erosion, improves soil structure and moisture retention and boosts yields, relies on effective chemical weed control. A change to a more expensive or less efficacious suite of chemical inputs or reverting back to delayed sowing and aggressive tillage practices would increase costs, increase erosion, reduce yields and increase carbon emission intensity.

Genetic technologies offer productivity and health benefits, but public mistrust could block their use.

Agriculture is often overlooked by metropolitan voters and politicians. As WA's largest agricultural sector, the grains industry must be recognised as vital, sustainable, and economically significant. It delivers strong regional employment and community benefits and is a major contributor to the wealth and diversity of the State's economy.

Consumers are more likely to be focused on ESG issues related to livestock and horticulture and it is important that the grains industry works in concert with the other agricultural industries in messaging to consumers. Lessons from the mining sector could help build public trust. Without public support, regulatory pressure and financial penalties imposed by banks and insurance companies seeking to de-risk their investments could limit the industry's freedom to operate.

Recommended actions

A coordinated strategy and messaging from national and WA industry stakeholders is essential to proactively address public concerns with empathy, build trust and political capital, and meet global market expectations for sustainability.

Collaborative development of the Grain Sustainability Framework

To strengthen communication on the grain industry's sustainability credentials, it is recommended that the Grains Sustainability Framework under development by GPA and GGL also include participation and endorsement from Grains Australia and GTA. This would unify national and state grower interests, align with GTA's Code of Practice and ESG Statement, and create a single framework covering production and the supply chain. Grains Australia and GTA could then use it in international trade and regulatory discussions. The framework should also align with the National Farmers Federation's (NFF) Agricultural Sustainability Framework.

Appoint 'brand ambassadors' at the national and state level

Consideration should be given to appointing national and WA-based brand ambassadors to represent the grains industry in media discussions on sustainability, environmental stewardship, emissions reduction, and economic contribution.

Make positive grain industry stories discoverable

There is a need to compile positive and engaging, scientifically sound grain industry stories that are backed by verifiable data and make them readily discoverable on a consumer/customer facing platform like Grains Australia's website. Stories that promote such things as the sustainable nature of Australian grain farming, our family farming culture, the health benefits of grains, our relationships with our trading partners, and Australia's contribution to ensuring global food security would help to positively promote the value of the grains industry.

Indicators of success

- Increased promotion and recognition of the Australian and WA grains industry's sustainability credentials in export markets.
- Positive, data-backed stories of the Australian grain industry readily discoverable in customer facing locations.
- Australian farming practices remain free from unjustified restrictions imposed by importing countries.
- Increased positive media coverage of the grains industry in metropolitan Perth and greater awareness among parliamentarians, influencers, business leaders, and the public.

At a glance: Strategic Priorities for the Western Australian Grains Industry 2035+

PILLAR	OBJECTIVE	ACTIONS
Market access Market agility in a volatile trade environment	Develop and maintain markets for 30mt/annum of WA grain.	• Strengthen Government-to-Government trade facilitation. • Maintain strong WA involvement and support for Grains Australia. • Establish a Perth-based Grains Hub. • Enhance biosecurity awareness and diagnostic capacity in WA.
Supply Chain Infrastructure Get grain to market fast	State Government stewardship and investment to improve rail, road and port infrastructure	• Maintain a strong advocacy for State and Federal investment in rail, road and port improvements.
R&D delivery system Boosting WA's R&D delivery capacity and impact	The WA grains industry to exert greater influence on R&D capability, priority setting and investment planning in WA.	• Review options to optimise the R&D delivery in WA. • Encourage the co-location of key public and private sector R&D providers as a catalyst for greater networking, cooperation and innovation. • Ensure the R&D investment setting processes have access to advice on the priority issues from across the grain industry supply chain.

Sustainability World leaders in sustainable rain-fed grain production	Position the WA grains industry as a global leader in sustainable, low-emission, nature-positive grain production.	• Support growers and industry participants to understand which practices most affect GHG emissions in their operations. • Prioritise investment in collaborative RD&E projects that lead to lower emissions intensity for grain production. • Strengthen Industry–Government Collaboration on Sustainability.
Industry Value Continuing growth to $15 billion/annum contribution to the economy	Meeting market expectations as a trusted and reliable source of sustainably produced grain	• Collaborative development of the Grain Sustainability Framework. • Appoint 'brand ambassadors' at the national and State level. • Make positive grain industry stories discoverable

Glossary

AI	Artificial Intelligence
ACCU	Australian Carbon Credit Unit
CO_2	Carbon dioxide
CFI	Carbon Farming Initiative
CBH	Co-operative Bulk Handling Group
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Department of Agriculture, Fisheries and Forestry
DFAT	Department of Foreign Affairs and Trade
DPIRD	Department of Primary Industries and Regional Development
DTMI	Department of Transport and Major Infrastructure
ESG	Environment, social and governance
EU	European Union
GM	Genetically modified
GTA	Grain Trade Australia
GIWA	Grain Industry Association of Western Australia
GRDC	Grains Research and Development Corporation
GSF	Grains Sustainability Framework
GHG	Greenhouse gas
ISCC	International Sustainability and Carbon Certification
CH_4	Methane
mt	Million tonnes
NFF	National Farmers Federation
NGER	National Greenhouse and Energy Reporting
N_2O	Nitrous oxide
PHA	Plant Health Australia
R&D	Research and development
RD&E	Research, development and extension
Scope 1	All GHG emissions on-farm from agricultural activity
Scope 2	GHG emissions from the production of purchased electricity
Scope 3	All GHG emissions associated with producing inputs such as fertilisers, herbicides, services etc.
WA	Western Australia
WATO	Western Australia Invest and Trade Office

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