



Australian Government
Department of Agriculture,
Fisheries and Forestry



Future
Drought
Fund



Department of
Primary Industries and
Regional Development



**GROWER
GROUP
ALLIANCE**
Together we grow

This program is jointly funded through the Australian Government's Future Drought Fund and the WA Department of Primary Industries and Regional Development.

FarmElevate
PLAN WITH PURPOSE

INDUSTRY NEEDS ANALYSIS



AUGUST 2025

agdots
CONNECTED. PEOPLE. POWER.

 **Spinebill
Consulting**

Acknowledgement of Country

agdots acknowledges the Traditional Owners of the lands on which we work. We extend our continuing appreciation for the ongoing custodianship of the Traditional Owners. We pay respect to their ancient and continuing cultures, their connections to the land, and to the Elders, past, present and emerging.

agdots Project Team

Sue Middleton

Sue Middleton has the capacity to generate agreement and build consensus in difficult and contested stakeholder environments. Sue has a real-world perspective on how to make community organisations successful and has 30 years experience in successfully brokering Government intent and industry capacity.

Michael Mysong

Spinebill Consulting supports community-based organisations to build capacity, develop place-based solutions, and achieve enduring outcomes for people, nature and Country. Michael brings over 25 years of experience working with communities, scientists and land managers to shape practical responses to cultural and natural resource challenges.

agdots WA

ABN: 89 654 113 635
agdots.com.au

With climate contribution from Verity Morgan-Schmidt, CEO Agzero WA.

Disclaimer

agdots is not responsible for the results of any actions taken on the basis of information or errors in, or omissions from the Report; and

agdots disclaims any liability to any person in respect of anything or the consequences of anything, done or omitted to be done in reliance upon the whole or any part of the contents of this document; and

If legal advice or other expert professional assistance is required, the services of a competent professional person should be sought.

This independent report is intended to inform the FarmElevate program only and does not represent the views of GGA, Future Drought Fund, DPIRD or DAFF.

Contents

Executive Summary	4
SECTION 1 REPORT DEVELOPMENT	
1.1 Purpose	7
1.2 Report Structure	7
1.3 Program Context	8
1.4 Methodology and Data Sources	8
1.5 Resilience Framework and Key Concepts	10
SECTION 2 INDUSTRY OVERVIEW	
2. Industry Overview	13
2.1 Sector Overview	16
2.2 Business Structures, Trends and Workforce	19
2.3 Regional Resilience Profiles and Planning Insights	23
2.4 Benchmarking Insights	32
SECTION 3 KEY CHALLENGES AND PRESSURES	
3. Key Challenges and Pressures	39
3.1 Enterprise-Level Pressures	39
3.2 Systemic External Pressures	43
3.3 Exposure and Vulnerability	46
SECTION 4 SKILLS AND CAPABILITY GAPS	
4. Skills and Capability Gaps	49
4.1 Enterprise-Specific Capability Gaps	49
4.2 Barriers and Conditions for Participation	52
SECTION 5 DELIVERY MODELS	
5. Capability Development and Delivery Models	55
5.1 Target Capability Areas	55
5.2 Delivery Platforms and System Integration	58
5.3.2 Delivery Priorities and Recommendations	60
SECTION 6 FUTURE DIRECTIONS	
6. Future Directions and Sector Drivers	62
6.1 Adaptive Enterprise Strategies	62
6.2 Innovation and Adoption Dynamics	63
6.3 Market Compliance Pressures	64
6.4 System-Level Priorities for Capability Development	66
SECTION 7 CONCLUSION	
7. Conclusion	68
7.1 Synthesising Key Insights	68
7.2 Strategic Implications for Delivery Design	69
7.3 Next Steps	70
BIBLIOGRAPHY AND APPENDIXES	
Bibliography	72
Appendix A. Stakeholder Interviews: Themes and Insights	78
Appendix B. Mid West – Full Regional Analysis	87
Appendix C. Wheatbelt – Full Regional Analysis	93
Appendix D. Inland Great Southern – Full Regional Analysis	100
Appendix E. Coastal Great Southern – Full Regional Analysis	105



Executive Summary

This Industry Needs Analysis provides a practical, evidence-informed foundation for tailoring capability support to the needs of farm businesses in southern Western Australia. Commissioned to support the GGA FarmElevate Program funded through the WA Farm Business Resilience Program (FBRP), the analysis draws on benchmarking data, regional drought planning, and targeted interviews with a range of industry experts. It focuses on where capability support is most needed, how it should be delivered, and what system settings must be strengthened to sustain resilience under conditions of rising complexity.

In this analysis, resilience refers to the ability of a farm business to withstand stress, recover from disruption, and adapt to change — across financial, environmental, social, and personal dimensions. The report examines how resilience is shaped in practice across five interlinked themes that affect the capability and confidence of farm businesses. Each section of the report explores one of these themes in turn, building a cumulative picture of where capability systems are working — and where they need to change.

Each theme is examined in a dedicated section of the report.

SECTION 2

Considers the diversity of enterprise types, ownership models, and regional contexts that influence resilience across WA's farming sector.

SECTION 3

Analyses the internal and systemic pressures — such as labour constraints, margin compression, and infrastructure gaps — that constrain decision-making and confidence.

SECTION 4

Identifies the foundational capability gaps that limit planning and adaptation, including financial management, climate literacy, workforce development, and succession planning.

SECTION 5

Turns to delivery, highlighting producer preferences for trusted, modular, and locally facilitated support.

SECTION 6

Addresses the system-level enablers needed to scale and sustain relevant, timely capability development across the state. Together, these interlinked themes reveal where capability systems are falling short, and what will support the building of lasting resilience at the farm gate.

The analysis first considers how these themes play out on the ground — beginning with the pressures producers face in making complex decisions amid constrained capacity and uneven access to support. Many are navigating these challenges without clear pathways to trusted advice or practical tools for planning. Smaller, mixed, and emerging enterprises are especially exposed, often facing overlapping forms of climatic, financial, social, and ecological drought. These vulnerabilities are not the result of poor management. They reflect structural challenges, capability shortfalls, and delivery gaps that constrain resilience even in otherwise viable operations.

Against this backdrop, enterprise-level analysis reveals widespread pressure from margin compression, labour constraints, succession risk, and climate volatility. System-level constraints such as input volatility, infrastructure gaps, policy complexity, and thin advisory service markets compound these pressures, resulting in a layered pattern of vulnerability that narrows planning horizons and reduces confidence.

Together, these enterprise- and system-level constraints contribute to recurring capability needs — particularly in financial management, business productivity, risk management, managing family dynamics, workforce and safety management, on farm water resilience, and managing farm digitisation. Barriers include time constraints, fragmented delivery, and limited confidence or trust in available support. These gaps go beyond technical knowledge: they point to a need for capability systems that enable applied decision-making, contextualised learning, and peer-supported planning across the enterprise lifecycle.

In addition to identifying capability gaps, producers were clear about how support should be delivered. Effective programs must be trusted, practical, and embedded in local networks. Participation is shaped not only by content quality, but by who delivers it, how accessible it is, and whether it aligns with enterprise decision points. One-size-fits-all models are unlikely to succeed. Flexible, modular formats delivered through peer-led, regionally grounded platforms are far more likely to reach scale without losing relevance.

These delivery preferences sit within a broader capability system that also requires strengthening. At the program and system level, five priorities emerge for improving capability delivery.

First, producers need better access to decision-making tools that support planning, risk assessment, and optimal and profitable enterprise stacking. Second, capability development must support lifelong learning, not just one-off events. Third, facilitation, coordination, and intermediary capacity must be strengthened to ensure consistent, high-quality delivery. Fourth, delivery must be better aligned across programs and agencies to reduce duplication, confusion, and participation fatigue. Fifth, the system must remain adaptive — able to support enterprises seeking to maintain core operations, modify specific practices, or pursue more transformational change, while anticipating evolving capability needs in compliance, markets, and technology.

Taken together, these capability needs and system priorities reinforce a central insight: resilience is not built through training content alone. It depends on delivery systems that respond to the lived complexity of farm businesses. Unless support is timely, trusted, and practically useful, even well-designed programs will struggle to deliver lasting value. What producers need is not more information, but systems that build confidence, enable strategic planning, and grow capability over time.

The findings of this Industry Needs Analysis have clear implications for government, industry, and program partners — those delivering and shaping capability support across the farm sector — to ensure it meets the real-world needs of producers. It offers a roadmap — not only for addressing immediate capability gaps, but for strengthening the systems that underpin long-term resilience, adaptability, and business confidence across Western Australia’s farm sector.

Priorities to build resilience of the WA farm sector:

1

Better access to decision making tools that support strategic business planning, risk assessment and optimal and profitable enterprise stacking.

2

Capability development that is not one-off but supports life long learning.

3

Strengthening the facilitation, coordination and intermediary capacity.

4

Align delivery across programs to prevent participation fatigue, this includes sufficient time frames and run-ways for participation of intermediaries.

5

FarmElevate program must remain adaptive to meet evolving capability needs in compliance, markets, technology and support business productivity gains.



INDUSTRY NEEDS ANALYSIS

Section 1 REPORT DEVELOPMENT



1.1 Purpose

This Industry Needs Analysis (INA) provides a practical, evidence-informed foundation for shaping delivery under the GGA FarmElevate program funded under the WA Farm Business Resilience Program (FBRP). Its purpose is to identify the skills, capabilities, and delivery conditions most relevant to producers in southern Western Australia, enabling tailored support that reflects the real-world needs of farm businesses. The analysis is designed to inform the development of training and advisory content that is regionally grounded, scalable, and aligned with enterprise decision-making.

While the INA draws on diverse data sources and sectoral insights, it does not attempt a system-wide review of WA's agricultural policy or institutional settings. Its scope is deliberately focused on business-level capability and delivery strategy. The analysis reflects the conditions and data available at the time of writing and may not fully capture recent developments or emerging trends. Some variation in sectoral depth also reflects uneven data availability across regions and industries.

1.2 Report Structure

Section 1 introduces the purpose, scope, and conceptual framing of the Industry Needs Analysis (INA). It outlines the objectives of the WA Farm Business Resilience Program (FBRP) and positions this report as a foundational input into the GGA FarmElevate program's training and advisory design. The geographic focus is on Southern WA which is the delivery zone for GGA's FarmElevate. The report also draws on broader datasets,

including multi-year benchmarking and statewide industry insights, to support findings and extend relevance across southern Western Australia. The section also defines the boundaries of the analysis, focusing on business-level resilience rather than system-wide policy settings, and introduces the methodology and key concepts used throughout the report.

Section 2 provides a structural overview of primary production systems in southern Western Australia. It examines the characteristics and performance of key sectors—horticulture, beef, and broadacre livestock—through the lens of enterprise models, workforce trends, and market orientation. Drawing on drought planning documents, economic data, and benchmarking insights, it highlights regional variation and identifies persistent differences between top- and bottom-performing enterprises. This analysis forms the foundation for the capability and training priorities explored in later sections.

Section 3 explores the internal and external pressures influencing farm business resilience across southern Western Australia. It synthesises insights from drought planning documents, stakeholder interviews, and benchmarking data to assess how climate variability, market volatility, regulatory shifts, and operational constraints shape enterprise viability. The section distinguishes between on-farm pressures—such as liquidity, labour shortages, and infrastructure gaps—and broader systemic risks. It also highlights how these pressures interact and compound over time, establishing essential context for the capability gaps identified in Section 4.

Section 4 identifies the skills and capability gaps most limiting the resilience of WA farm businesses. Building on the structural, regional, and benchmarking insights presented earlier, it outlines sector-specific needs—and cross-cutting gaps in financial management, business productivity, risk management, managing family dynamics, workforce and safety management, on farm water resilience, and managing farm digitisation. Drawing on interviews and survey feedback, the section also examines producer preferences for training content and delivery formats. These findings directly inform the design guidance and delivery recommendations introduced in Section 5.

Section 5 presents the capability development and delivery models best suited to closing the gaps identified in Section 4. It synthesises priority skill areas with preferred delivery formats—such as peer-based learning and local facilitation—and offers recommendations for aligning program delivery with FBRP objectives. This section focuses on practical implementation strategies, building on regional delivery enablers and known participation barriers to support scalable, trusted, and effective training outcomes.

Section 6 turns to long-term sector drivers and future operating conditions that may shape resilience needs over time. It considers the influence of market trends, technology adoption, regulatory change, and shifting consumer expectations on business decision-making. By identifying new and emerging capability needs—such as emissions compliance, digital system use, or biodiversity stewardship—this section provides strategic foresight to help future-proof program design and guide investment in adaptive learning pathways.

1.3 Program Context

The Farm Business Resilience Program (FBRP) is a national initiative delivered under the Australian Government's Future Drought Fund. It aims to lift the capability of farm businesses to manage risk, adapt to change, and build long-term resilience in the face of increasing climatic, financial, and market pressures. In Western Australia, the FBRP is being implemented with a strong regional emphasis, recognising that drought exposure and

enterprise challenges vary significantly across the state. Delivery is structured around sector-led implementation, with regional and industry organisations engaged to provide targeted support aligned to local needs and conditions.

This Industry Needs Analysis (INA) supports WA's implementation of the FBRP by identifying the skills, capabilities, and delivery conditions most relevant to producers in different regions and sectors. Drawing on regional drought planning, benchmarking, and producer engagement, it provides an evidence base for shaping tailored training content and scalable delivery strategies.

To ground this work in region-specific challenges and opportunities, three priority regions—the Mid West, Wheatbelt, and Great Southern—were selected for focused investigation. These regions were chosen for their planning assets, delivery capacity, and contrasting drought exposure and enterprise profiles. Anchoring the analysis in these diverse settings enables capability development approaches to be tested and refined where both need and opportunity are high—while broader datasets provide complementary insights to inform delivery across southern WA.

1.4 Methodology and Data Sources

This report draws on a combination of desktop analysis, benchmarking programs, regional planning documents, and stakeholder interviews to identify the skills, delivery conditions, and resilience challenges facing farm businesses across southern WA. Each source contributes distinct insights that have been integrated to inform the analysis and recommendations that follow.

Sector and Commodity Data

The analysis draws on a wide range of sector and commodity-level data to provide context on the structure, scale, and dynamics of primary production in southern Western Australia. This includes production statistics, market analysis, workforce insights, and strategic documents from agencies such as the ABS, DPIRD, MLA, Horticulture Innovation Australia, industry bodies like WALRC, Wines WA and Vegetables WA.

These sources underpin the description of sectoral diversity, business models, labour conditions, and market orientation presented in Section 2.1 and 2.2. Together, these data sources offer a baseline understanding of the economic and operational landscape in which WA farm businesses operate.

Regional drought and resilience planning documents

The analysis draws heavily on Regional Drought Resilience Plans (RDRPs) and Drought Vulnerability Assessments (DVAs) prepared for the Mid West, Southern Wheatbelt, Inland Great Southern, and Coastal Great Southern. These documents provide structured, place-based insights into climate risk, enterprise pressures, and regional adaptation priorities. The review focused on extracting training-relevant findings—such as where producers face the greatest exposure, what kinds of skills are lacking, and how local conditions shape access to advisory support. A comparative lens was applied to identify both shared constraints and distinct regional pressures. Draft implementation plans and supporting datasets were also consulted where available. These insights underpin the regional profiles and cross-region synthesis in Section 2.3, helping to define place-based capability priorities and delivery opportunities.

Benchmarking analysis

The INA draws on multi-year benchmarking programs to assess the structural and financial performance of WA farm businesses, particularly in broadacre systems. Core insights were derived from Planfarm's annual benchmarks (2018–2023), which provide longitudinal data on profitability, return on capital, and operating surplus across cropping and mixed livestock enterprises. Additional benchmarks and cost-of-production reports from Vegetables WA, Red Sky Agricultural, and RMCg were consulted to complement the core dataset with insights from horticulture and beef, although coverage was more limited in scope and consistency. Benchmarking provides a quantitative lens to identify persistent performance gaps, structural pressures, and management patterns associated with business resilience—complementing the regional and qualitative analyses in Sections 2.2 and 2.4.

Stakeholder engagement and advisory insights

Structured interviews were conducted with 42 practitioners and organisations across Western Australia's agricultural sectors, including grower group leaders and sectoral organisations, farm consultants, research bodies, agri-finance providers, rural training sector, and rural financial counselling network. Delivery organisations from other jurisdictions were also called upon to share their learnings and wisdom from three years of program delivery in other states. These conversations explored enterprise-specific constraints, sectoral resilience issues, and capability needs—particularly for underserved cohorts such as small-scale horticulture producers, livestock enterprises facing price shocks, and newer farm entrants.

While the findings are integrated throughout Sections 2–5, the interviews provided critical context for interpreting financial stress, delivery constraints, and producer sentiment. They helped identify barriers to training uptake, nuanced sector differences in advisory access, and design considerations for scalable and trusted program delivery. Notably, they contributed practical insights on producer learning preferences, advisory gaps, and how resilience is perceived and practiced across sectors. A full thematic synthesis of interview findings is provided in Appendix A, with key insights selectively integrated into the report in alignment with a structured mapping to ensure clarity and avoid duplication.

Data limitations

While the analysis draws on a wide range of credible sources, some data gaps and limitations remain. Benchmarking coverage is strongest in broadacre systems, with less visibility into intensive sectors such as beef and horticulture. Certain regions and producer cohorts are also underrepresented in available planning documents and advisory datasets. Where possible, these limitations were addressed through triangulation across multiple sources, but they remain important context for interpreting the findings. Further engagement and data refinement will be critical as the program evolves.

1.5 Resilience Framework and Key Concepts

1.5.1 What is resilience in the context of farm businesses?

The concept of resilience has become central to agricultural policy and planning over the past two decades, particularly in response to increasing climate variability and prolonged drought events such as the Millennium Drought. Originally drawn from ecological systems theory—where it referred to the capacity of ecosystems to absorb disturbance and reorganise—the term has since evolved in agricultural contexts to focus on risk management, forward planning, and adaptability. Its growing use reflects a shift from reactive crisis management toward proactive strategies that build long-term viability and adaptability.

For the purposes of this report, resilience is defined as the capacity of a farm business to cope with stressors, overcome adversity, and adapt positively to change. This definition is adapted from language developed through the FarmElevate program and associated training materials in Western Australia, which have been tested with producers and delivery partners. It reflects a practical understanding grounded in the lived experience of volatility and disruption—emphasising achievable, adaptive responses that support long-term business viability.

This report applies a four-part framework consistent with contemporary approaches to resilience planning in Australian agriculture:

- **Economic resilience** – managing financial risk, sustaining profitability, and making informed decisions under variable conditions.
- **Environmental resilience** – managing land, water, and ecosystems to maintain productivity and ecological health.
- **Social resilience** – drawing on skills, networks, leadership, and community support to enable knowledge sharing and adaptability.
- **Personal resilience** – sustaining wellbeing, confidence, and long-term planning among individuals within the business.

Resilience is both a guiding principle and a desired outcome of capacity-building efforts. Building resilience means not only responding to today's challenges, but strengthening the ability to make informed, strategic decisions under uncertainty—enabled by continuous learning, forward planning, and trusted advice.

1.5.2 Maintain – Modify – Transform

The Maintain–Modify–Transform (MMT) framework is widely used in resilience and adaptation planning to describe how individuals, communities, or businesses respond to disruption. Originating in systems thinking and disaster risk literature, it has gained traction in agricultural contexts as a way to distinguish between incremental and transformational responses to change.

Rather than prescribing a single pathway, the MMT model enables flexible, fit-for-purpose strategies. It is particularly useful for aligning advisory support and training with the varied circumstances of producers—acknowledging that resilience-building may involve stabilisation, targeted improvement, or more fundamental shifts.

The framework groups responses into three broad modes:

1 Maintain

sustaining current operations while managing risk and avoiding regression;

2 Modify

making targeted adjustments to improve resilience or efficiency under new conditions;

3 Transform

undertaking more substantial changes in enterprise model, land use, or business strategy.

While transformation may be appropriate in some cases, most producers operate within practical and resource constraints that favour incremental change. The value of the MMT framework lies in its capacity to support producers where they are—helping tailor training and advisory efforts to current needs, risk profiles, and long-term aspirations.


This framing guides the report’s interpretation of resilience needs and delivery challenges—helping to differentiate between skills that enable business continuity, those that support enterprise improvement, and those that underpin more significant change. It also informs the positioning of capability-building strategies throughout the report and provides a reference point for training design and delivery considerations discussed in Section 5.


1.5.3 Types of Drought


Traditionally, drought has been defined as a prolonged period of low rainfall resulting in water shortages and reduced agricultural productivity. However, in resilience and agricultural policy contexts, the concept has broadened to reflect a wider set of pressures that affect farm business viability. This shift recognises that the impacts of drought are not limited to rainfall deficits alone, but can also emerge from financial stress, ecological degradation, or social and workforce disruption — often interacting in compounding ways.


This broader interpretation has been reflected in recent drought resilience frameworks, rural adaptation studies, and community-based planning efforts, which highlight the need to address not just climatic variability but the full spectrum of pressures that undermine resilience.

To help interpret how diverse pressures shape enterprise resilience, this report refers to four broad types of drought. These typologies offer a practical way to frame multidimensional risk and clarify how vulnerability accumulates across different business types and regional contexts:

- 

Climatic drought
reduced or unreliable rainfall and other climatic extremes (e.g. heatwaves, late breaks) that directly limit productivity and increase operational risk;
- 

Financial drought
prolonged financial stress caused by poor margins, high debt, volatile prices, or disrupted cashflow;
- 

Ecological drought
degradation of natural resources such as soil, water, and vegetation, leading to declining ecosystem services and reduced productive capacity;
- 

Social drought
the erosion of support networks, services, leadership, and workforce availability, which can compound isolation and reduce adaptive capacity.

This typology is used selectively in the report to support interpretation of sector-specific and systemic pressures. It reinforces the need for resilience strategies that respond not only to climate variability, but also to the broader structural and human factors that shape adaptation capacity.



INDUSTRY NEEDS ANALYSIS

Section 2 INDUSTRY OVERVIEW



2. Industry Overview

This section provides an integrated overview of primary production across southern Western Australia, focusing on the structural, operational, and regional factors that shape farm business resilience. Drawing on economic data, benchmarking insights, and drought resilience planning, it builds a picture of enterprise diversity, business models, and operating conditions. Subsections 2.1 to 2.4 provide evidence to inform targeted capability-building — covering sectoral activity, key enterprise pressures, workforce dynamics, and performance variation.

Climate Risk Analysis

This section outlines the potential climatic risks to food and fibre production in Western Australia based upon the current global emissions trajectory and localisation of global averages to the WA context. As of early 2025, the world is on track for a global temperature increase of 3.1°C by 2100 under current policy settings or 2.6°C based on the full implementation of current unconditional and conditional Nationally Determined Contributions under existing national policies (United Nations Environment Programme, 2024). Additional net zero pledges alongside unconditional and conditional NDCs could limit warming to 1.9°C, but there is currently low confidence in the implementation of these pledges. WA agriculture therefore needs to assess the risks of and prepare for a warmer world and a more volatile climate.

Amplified Warming Over Australia

Global averages are of limited use in assessing localised climate risk, with land surface temperatures increasing at approx 1.8x the rate of oceans, and Australia overall warming at a rate of 1.4x global average¹. This is due to lower evaporative cooling over land, greater solar radiation exposure and decreased cloud cover and rainfall. Australia has warmed by an average of 1.51°C degrees since national records began, leading to an increase in the frequency of extreme heat events over land and in the oceans (CSIRO, 2024). Australia is already experiencing climate extremes in line with higher end warming projections for future decades with WA experiencing hotter conditions earlier than expected, alongside compounding drought and fire risks (CSIRO & BoM, 2023).

WA Agriculture: Climate Impacts to 2025

Western Australian agriculture has demonstrated long standing resilience to a challenging and variable climate. However, variations in temperature, rainfall, extreme weather events, and soil moisture directly affect productivity and WA's cropping regions have been disproportionately affected due to declining winter rainfall and rising temperatures (Hughes, 2021). Despite these challenges, agricultural productivity in the sector has shown strong adaptive capacity with cropping productivity increasing by 68% between 1989 to 2019, largely due to technological advancements and adaptive practices (Hughes, 2021). These improvements, however, may not be sufficient to counter the escalating impacts of future warming scenarios.

¹ <https://www.climatechangeinaustralia.gov.au/en/changing-climate/future-climate-scenarios/global-warming-levels/temperature-change/>

Looking ahead.

WA's future climate is dependent on the emissions pathway the world follows, the response of the global climate system to those emissions and natural variability in climate systems. The Intergovernmental Panel on Climate Change (IPCC) identifies four Representative Concentration Pathways (RCPs) to help consider risks. The below sets out the direct physical risks facing WA agriculture under each RCP, before

a brief evaluation of supply chain, financial and strategic geopolitical risks.

- **Current policies** place the world on track for 2.6°C–2.9°C warming by 2100
- **Full implementation of pledges** (NDCs) may limit warming to ~2.4°C.
- **Net-zero pledges**, if achieved, may lower warming further to ~1.9°C, though credibility and timelines remain uncertain (United Nations Environment Programme, 2024).

RCP 2.6

(Low Emissions Scenario)

Sees a global average temperature increase of ~1.5°C by 2100 with a corresponding warming over the WA landmass of ~2.0°C. Even lower end warming results in increased heat extremes and a changed growing season, especially in the Wheatbelt. Rainfall variability continues, but adaptive farming remains viable. Water security concerns grow due to the earlier onset of drought conditions (Department of Primary Industries & Regional Development, 2024)

RCP 4.5

(Intermediate Scenario)

Sees a global average temperature increase of ~2.4°C with corresponding warming over WA of ~3.0°C. Risks increase as heat stress becomes a major limiting factor for crop yields and livestock welfare. Seasonal rainfall may decrease by up to 20% by late century (CSIRO, 2024). Pests and weeds expand their range, affecting productivity. Cropping systems become riskier without substantial adaptation.

RCP6.0

(Moderate-High Emissions)

Sees a global average temperature increase of ~3.0°C with potential warming for WA of ~4.0°C. Risks increase further with broadacre farming systems facing potential systemic failure in some areas as wheat yields risk decline of up to 20%. Pastoral systems become increasingly unsustainable with increased erosion and land degradation to potentially follow.

RCP8.5

(High Emissions Scenario)

Sees an average global temperature increase of ~4.3°C with WA reaching ~5.1°C (CSIRO, 2020). Implications at this end of the temperature range are severe as extreme heat and aridification dominate the landscape with the risk of regular days over 45°C potentially occurring in agricultural zones. Conventional dryland farming may collapse as a result of failing systems. Salinity and desertification may accelerate.

Geopolitical and strategic risks

Climate change is increasingly recognised as a **threat multiplier** in Southeast Asia, with serious implications for regional security, political stability, and Australia's strategic environment. Climate-induced stressors—such as food insecurity, forced migration, and infrastructure collapse—could intensify geopolitical tensions and disrupt trade and supply routes critical to agricultural exports.

Insurance and Financial Risk in Agriculture

As climate volatility intensifies, **agricultural insurance is becoming both more essential and less affordable**. The *National Farmers' Federation* has called for government intervention to ensure farmers retain access to essential risk management tools, warning that **a retreat by insurers** could destabilise rural economies and credit systems (National Farmers Federation, 2020). As costs increase and coverage options diminish, producers face tough decisions about whether to self-insure, reduce investment, or exit the sector altogether—highlighting the need for **climate-resilient financial infrastructure** and proactive adaptation.

Supply Chain Disruptions

Climate-related changes not only affect production but also disrupt agricultural supply chains. In WA, increased frequency of extreme weather events—such as bushfires, heatwaves, and cyclones—can damage transport infrastructure, delay harvest logistics, and impair cold-chain integrity. For export-dependent sectors, disruptions to shipping and port operations present significant commercial risks. Localised disruptions may also lead to cascading impacts across the supply chain, reducing profitability and amplifying input cost volatility for producers (Bartos, 2022).

Human Health

Climate change also poses a growing threat to human health in agricultural communities, particularly through the intensification of heat stress. The Australian Institute of Health and Welfare (AIHW) and the Climate and Health Alliance (2023) have highlighted that outdoor workers, such as farm labourers, are at increased risk of heat exhaustion, heatstroke, and long-term cardiovascular stress due to higher average temperatures and longer heatwave durations. The frequency of days exceeding 35°C has risen markedly across WA's agricultural regions, and projections indicate a doubling or tripling of such events under mid- and high-end warming scenarios. Inadequate access to cooling, protective infrastructure, and hydration further exacerbates these risks for rural populations, especially seasonal workers and vulnerable community members (AIHW, 2023).

Non-linearity: Global Climate System Tipping Points

The climate experienced in Australia is determined by the stable function of global climate systems. There is growing concern that these regulating systems are nearing tipping points which may trigger rapid and irreversible changes. These include accelerating loss of Antarctic and Greenland ice sheets, potential dieback in the Amazon and likely weakening of the Atlantic Meridional Ocean Circulation (AMOC). An abrupt decrease in Antarctic sea-ice since 2015 points to major concerns in the Earth's regulating systems, while recently released research points to the first ice-free day in the Arctic likely to occur in late summer 2027 (University of Colorado, 2024). All these tipping points are critical for a stable climate and once reached, are likely to be irreversible within human time frames. To date, Australian climate assessments have not included potential impacts of tipping points, despite risk of significant and irreversible changes (Grose, 2024).

Climate Risk Analysis – WA Agriculture

Over the past year, climate outlooks for the South West Land Division have consistently highlighted persistent seasonal uncertainty, elevated temperatures, and high variability in rainfall outcomes. From July 2024 to June 2025, most models forecast neutral rainfall probabilities, with weak or absent signals from major climate drivers such as ENSO, the Indian Ocean Dipole (IOD), and the Southern Annular Mode (SAM). While some months—particularly August and November 2024 and March 2025—suggested a chance of above-median rainfall, much of the grainbelt and southern coastal zones experienced dry, warmer-than-average conditions, especially during the 2024 growing season.

The period was marked by a delayed autumn break in 2025, a persistently positive SAM phase that suppressed winter rainfall, and increased frost events in inland areas during late winter and early spring. These compounded production risks by shortening growing windows and increasing crop sensitivity. Low soil moisture and high evapotranspiration rates further stressed the central and southern wheatbelt, while warmer night-time temperatures affected plant development and pest dynamics.

Despite growing access to climate monitoring tools, the lack of strong seasonal signals and short-term shifts in conditions made it difficult for producers to plan with confidence.

2.1 Sector Overview

The FarmElevate program focusses on primary production targets across southern Western Australia including intensive horticulture, beef production businesses and broadacre sheep-cropping enterprises. While these sectors differ markedly in scale, market orientation, and operating structure, they share common structural pressures — including climate variability, workforce shortages, and rising input costs.

Recent seasonal uncertainty has intensified the need for adaptive business strategies, particularly in regions experiencing reduced rainfall reliability, shorter growing windows, or delayed seasonal breaks. At the same time, market and policy settings are evolving, with growing expectations around sustainability, traceability, and emissions management — a trend reinforced by public investment priorities and heightened consumer scrutiny.

This overview draws on sector and commodity data from government and industry sources and outlines the structure, regional footprint, and operating dynamics of the horticulture, beef, and broadacre livestock sectors to establish a foundation for the enterprise risk analysis in Section 2.2.

2.1.1 Horticulture

Southern Western Australia supports a diverse and regionally distinct horticulture sector, concentrated around Moora, Gingin, Myalup, Perth Hills, Manjimup, Pemberton, and Albany. These areas produce high-value irrigated crops, including citrus, apples, avocados, berries, brassicas, leafy vegetables, and nursery plants, alongside smaller volumes of nuts, wine grapes, and floriculture.

As of 2022–23, horticulture contributed approximately \$1.3 billion to WA's primary industries, led by vegetable, fruit, and nursery crops.² Production systems typically rely on intensive land use, protected cropping technologies, and secure access to water, either from on-farm dams or regional groundwater schemes.

While many enterprises are family-owned, the sector includes vertically integrated operations and export-focused businesses, particularly in the apple and avocado industries.³ Citrus production is also emerging as a focus in parts of the Great Southern and South Coast, supported by investment in improved supply chain integration and export readiness.⁴

² Department of Primary Industries and Regional Development (DPIRD). (2024). *The Value of Horticulture Industries in WA 2022–23*

³ Department of Primary Industries and Regional Development (DPIRD). (2024). *Horticulture Industry Snapshot*. Government of Western Australia.

⁴ Citrus WA. (2023). *WA Citrus Strategic Plan 2023–2030*.

The sector is highly labour and water-dependent, with cost and compliance pressures increasingly influencing business viability⁵. Smaller or less integrated horticulture enterprises face particularly acute viability pressures due to limited access to capital, high debt servicing costs, and reliance on off-farm income. Stakeholder interviews noted that margin compression — the sustained narrowing of the gap between farm income and operating costs — has made even short-term disruptions difficult to absorb in labour-intensive systems, reinforcing financial fragility among undercapitalised producers.

The sector's proximity to cool climate zones, combined with relatively pest-free conditions and access to domestic and export supply chains, has underpinned growth in some areas. However, business viability remains closely tied to seasonal water availability, labour supply, and market access. Climate volatility — including declining winter rainfall, late breaks, and high evapotranspiration rates — is increasing pressure on water storage and crop scheduling.²

Labour remains a persistent constraint, particularly for producers reliant on seasonal hand-picking.⁶ Some producers are exploring automation and protective cropping to reduce labour intensity, but uptake remains limited by capital constraints and a lack of practical, tailored support. The region's high-value per hectare production makes horticulture enterprises especially vulnerable to short-term shocks, with even modest climatic or input disruptions posing significant financial risk.⁷ Recent benchmarking — particularly in the vegetable sector — highlights wide variability in cost structures, labour intensity, capital efficiency, and financial performance across enterprises.⁸

Advisors noted that some smaller producers struggle to access relevant planning tools or advisory services, as standardised models often fail to reflect the diversity and complexity of horticultural systems. Additionally, in more remote parts of the region, fragmented supply chains and limited access to value-adding infrastructure continue to constrain market access and scale-up potential, especially for smaller or geographically dispersed enterprises⁹.

2.1.2 Beef Cattle

The beef cattle industry in southern Western Australia is concentrated along the South West and South Coast, including the Shires of Augusta–Margaret River, Manjimup, Denmark, Plantagenet, and Esperance. These regions support both specialist beef and mixed livestock enterprises, typically characterised by smaller herd sizes than northern or eastern states. Most production is grass-fed and pasture-based, with finishing systems ranging from rotational grazing to opportunistic feed-lotting depending on seasonal conditions. The region's climate and land use profile support high-quality beef production, including EU-accredited and organic systems. Western Australia is home to approximately 2.3 million head of beef cattle, with southern WA regions accounting for roughly 40% of the state's herd.¹⁰

⁵ VegetablesWA, 2025. *FarmElevate INA Sector Response – Vegetable Industry*. Personal communication, 20 June

⁶ Grower Group Alliance (GGA). (2022). *The Ripple Effect – Project Summary*. Grower Group Alliance.

⁷ Commonwealth Scientific and Industrial Research Organisation (CSIRO). (2022). *Ag2050 Scenarios: Reimagining Australian Farming Systems*. CSIRO Futures.

⁸ Planfarm & vegetablesWA. (2022). *WA Vegetable Industry Business Benchmarking Project 2021–22: Findings and Analysis*. Perth: Planfarm and vegetablesWA.; Hort Innovation, 2021. *Vegetable Business Benchmarking Report 2021 (Project VG17000)*. Prepared by Planfarm for vegetablesWA. North Sydney: Horticulture Innovation Australia

⁹ Department of Primary Industries and Regional Development (DPIRD). (2022). *Situation Analysis of Horticulture in Western Australia: Area, Value and Challenges*. Perth: Government of Western Australia

¹⁰ Australian Bureau of Statistics (ABS). (2024). *Australian Agriculture: Livestock, 2023–24*. ABS. Meat & Livestock Australia (MLA). (2021). *Cattle Numbers – Natural Resource Management Region*. MLA Market Information.

Enterprises vary from small-scale breeders serving domestic saleyards to vertically integrated operations targeting branded programs and export markets. Land use intensity and enterprise scale are generally lower than in cropping regions but increasing land prices and off-farm investment are driving consolidation in some areas.¹¹ Market orientation is diverse: while WA producers face geographic disadvantages in reaching eastern markets, southern producers are better positioned to supply domestic processors and live export channels through Albany and Esperance. Export exposure has historically been lower than in northern WA, though global demand for lean beef and boxed chilled cuts remains a key price driver.¹² The evolution of backgrounding systems and finishing models, including feedlot expansion in select areas, is gradually reshaping production dynamics and risk exposure.¹³

Labour availability, pasture variability, and transport logistics are persistent enterprise-level challenges, particularly for smaller producers or those operating in more isolated areas. Seasonal feed gaps and climate variability require adaptive grazing strategies and supplementation, especially in lower rainfall zones.¹⁴

Smaller or lease-reliant beef enterprises typically operate with lower capital reserves, which can limit their ability to fund infrastructure upgrades, grazing improvements, or investment in finishing capacity.

As expectations around traceability, emissions management, and animal welfare increase, southern beef systems will face growing pressure to balance productivity with compliance. This is reinforced by national and regional R&D priorities that emphasise emissions baselining, sustainable grazing models, and improved livestock decision-support systems.¹⁵

2.1.3 Broadacre Livestock

Sheep production remains a defining feature of broadacre farming systems across the Southern Wheatbelt and Inland Great Southern. Enterprises are typically mixed cropping–grazing operations, integrating wool, lamb, and grain production across large landholdings. Key producing shires include Katanning, Kojonup, Wagin, Dumbleyung, and West Arthur, with the broader region contributing significantly to WA's sheep flock.¹⁶ Most producers operate within mixed systems. Sheep-only enterprises are relatively uncommon and tend to be concentrated in higher rainfall zones or specialist breeding regions.¹⁷

The sector continues to evolve in response to long-term shifts in profitability, land use, and labour availability. Declining wool prices, volatility in meat markets, and rising input costs have driven some producers to reduce flock size or shift toward cropping-dominant systems. Others are intensifying lamb production or transitioning to dual-purpose breeds to retain flexibility.¹⁸ The progressive phase-out of live sheep exports is a significant structural adjustment, particularly for producers in lower rainfall zones with limited market alternatives. Farm labour — especially for animal handling, shearing, and lamb marking — remains a major constraint, exacerbated by workforce ageing and the limited availability of locally based skilled workers.

Despite these pressures, broadacre livestock systems continue to underpin landscape management and business resilience across southern WA. Mixed systems offer rotational benefits for cropping, improved pasture use, and income diversification — especially in marginal years or on lower-performing paddocks.

¹¹ Australian Bureau of Statistics (ABS). (2023). *Agricultural Commodities, Australia – Beef Cattle and Grazing Land Use*. Australian Bureau of Statistics.

¹² Department of Primary Industries and Regional Development (DPIRD). (2024). *Export Market Insights: WA Red Meat*. Government of Western Australia.

¹³ Meat & Livestock Australia (MLA). (2023). *Backgrounding in the WA Beef Industry – Final Report*. Meat & Livestock Australia.

¹⁴ Grower Group Alliance (GGA). (2023). *Climate and Feedbase Resources*. GGA Drought and Innovation Hub.

¹⁵ Western Australian Livestock Research Council (WALRC). (2024). *WA Livestock RD&E Priorities 2024–26*. WALRC; Department of Primary Industries and Regional Development (DPIRD). (2023). *WA Premium Beef Project – Summary Report*. Government of Western Australia.

¹⁶ Australian Bureau of Statistics (ABS). (2023). *Agricultural Commodities, Australia – Sheep and Land Use Statistics*. Australian Bureau of Statistics.

¹⁷ Department of Primary Industries and Regional Development (DPIRD). (2024). *Western Australia's Sheep Industry Profile*. Government of Western Australia.

¹⁸ Meat & Livestock Australia (MLA). (2024). *WA Sheep Snapshot 2024*. MLA Market Insights.

Programs such as, grower group trials, and initiatives supported by the Western Australian Livestock Research Council (WALRC) are promoting innovation in genetics, pasture management, and on-farm decision-making.²¹ However, uneven adoption and delivery constraints in some areas highlight the need for continued investment in practical, regionally adapted support to help producers navigate shifting market expectations, climate variability, and emerging requirements around emissions, sustainability metrics, and animal welfare.

2.2 Business Structures, Trends and Workforce

Farm business structures across Western Australia continue to evolve in response to shifting climate, market, and demographic conditions. This section draws on benchmarking, sector and workforce reports, and regional economic analysis to examine common enterprise models, ownership patterns, labour dynamics, and market orientation. While many enterprises remain family-owned and operated, they are increasingly shaped by diversification strategies, scale pressures, workforce challenges, and new forms of investment. Understanding the structural and operational characteristics of farm businesses — and how these differ by region and sector — provides essential context for identifying capability needs and designing targeted resilience support. These patterns also underpin several enterprise-level pressures examined in Section 3.1, including where structural limits constrain adaptation or amplify risk.

2.2.1 Common Business Models

Farm businesses across Western Australia are predominantly structured as family-owned enterprises, often operating as partnerships, discretionary trusts, or private companies. These models provide flexibility in ownership, tax management, and intergenerational involvement, and remain the dominant form across broadacre cropping, mixed livestock–grain enterprises, and smaller-scale horticultural operations.

In higher-capital sectors — such as irrigated horticulture, viticulture, or backgrounded beef production — ownership structures can involve more complex arrangements, including, vertically integrated companies, and multi-owner trusts. These structures are more prevalent in regions with export-oriented or value-added production, such as wine grapes and premium beef. The wine sector is largely composed of family-owned businesses, though a small number of corporate producers contribute disproportionately to export volume and capital investment — particularly those operating in vertically integrated and premium segments.

The choice of structure often reflects the business's scale, investment profile, and transition pathway. While family farms dominate numerically, larger enterprises increasingly adopt company or corporate structures to facilitate capital investment, governance, and professional management.

2.2.1.1 Mixed Enterprise and Diversified Operations

Mixed enterprise remains a defining feature of farm business models in Western Australia, particularly across the southern Wheatbelt, Great Southern, and parts of the Mid West. Grain–sheep systems dominate in medium rainfall zones, while livestock–cropping mixes vary in intensity depending on land capability, rainfall reliability, and market access.

Many producers maintain multiple enterprises to balance income variability, manage climatic and market risk, and make full use of land and labour resources. In southern horticulture regions, diversification is often expressed through value-adding, direct marketing, or seasonal enterprise stacking. In the beef sector, mixed systems may include backgrounding, agistment, or opportunistic cropping.

²¹ Western Australian Livestock Research Council (WALRC). (2023). *Livestock RD&E Priorities*; Grower Group Alliance (GGA). (2022). *SheepLinks – Program Overview*; Grower Group Alliance (GGA). (2022). *SheepLinks – Program Overview*; Australian Agricultural Sustainability Framework (AASF). (2022). Version 2. National Farmers' Federation

The management of multiple enterprises increases operational complexity and requires stronger planning skills, particularly around seasonal labour, input scheduling, and feed-base integration. In areas facing more volatile rainfall or constrained logistics, mixed enterprise design is emerging as both a buffer and a burden — supporting resilience while increasing the need for enterprise-level decision support.

2.2.1.2 Scale and Capital Intensity

Farm businesses across southern Western Australia are becoming increasingly capital-intensive, with a growing divide between small-to-medium operations and larger, asset-rich enterprises. Scaling up has been a common response to rising fixed costs, volatile returns, and intergenerational succession pressures — particularly in broadacre cropping and mixed grain-livestock systems. Larger businesses often pursue scale to increase operational efficiency, improve bargaining power, and justify investment in automation or specialised equipment.

The degree of capital intensity varies by sector. Broadacre cropping typically involves high upfront investment in machinery and land, with tight seasonal cashflow cycles. Livestock and mixed systems tend to have lower machinery costs but higher labour inputs and infrastructure needs. In horticulture, capital demands are shaped by irrigation infrastructure, protected cropping systems, and post-harvest facilities — often requiring staged reinvestment as enterprises grow. Wine enterprises are also asset-heavy, reflecting investment in processing infrastructure, long inventory holding periods, and integrated cellar door or hospitality components. Vegetable enterprises may require significant capital outlay for protected cropping, grading and packing facilities, and cold chain logistics — particularly where vertically integrated or export-focused.

Benchmarking reinforces observed variation in asset intensity and reinvestment behaviour across sectors and enterprise sizes, reflecting different approaches to managing risk and scale. As businesses grow, structured capital planning — including the effective use of debt and staged asset investment — becomes increasingly important for long-term resilience. These businesses are also more likely to require formalised governance systems and forward planning to sustain growth and manage complexity.

2.2.1.3 Emerging and Specialised Models

While most farm businesses in southern Western Australia follow traditional grain-livestock or horticultural models, a range of emerging and specialised business types are reshaping parts of the sector. These include vertically integrated enterprises, contract-based production models, premium value chain participants, and operations structured specifically around climate or market exposure.

In the beef industry, backgrounding has become an increasingly common model, particularly in southern regions with access to finishing markets and transport infrastructure. This model allows pastoral or breeding enterprises to lease or acquire higher-rainfall land for rapid weight gain, creating a segmented supply chain across regions. Similarly, some horticultural enterprises — particularly in wine grapes, berries, and apples — are vertically integrated across production, packing, and marketing, or operate under long-term supply contracts with retailers or exporters.

Smaller-scale operators are also diversifying through agritourism, niche crop production, or farm-gate sales. These models are often shaped by land constraints, enterprise scale, lifestyle objectives, or strategies to differentiate in competitive markets. While they typically represent a small share of total output, they contribute to local economic diversity and can offer more flexible risk profiles in some regions.

These emerging models often come with distinct structural and management requirements — including governance arrangements, marketing strategies, and investor relationships — that differ from traditional family farm structures. These models highlight the need for advisory and support services that reflect a broader range of structural and strategic contexts.

2.2.2 Ownership, Succession, and Investment

Ownership structures across Western Australian agriculture remain largely family-based, though patterns of intergenerational succession and external investment are evolving. In many enterprises, equity is concentrated in land and fixed assets, with ownership typically shared among family members through trusts, partnerships, or private companies. This provides stability but can also limit liquidity and complicate transitions.

Succession remains a significant pressure point. Many farms face challenges in balancing family expectations, retirement needs, and business viability, especially where asset values have outpaced cashflow or where successors seek off-farm employment. Stakeholder interviews highlighted that interpersonal tension, unclear ownership arrangements, and generational control dynamics can create hidden risks that stall succession even when financial plans appear sound. In some cases, conflict arises where off-farm siblings seek equity or control, or where expectations of all family members are not addressed.

While some enterprises are successfully transitioning to the next generation through early involvement and staged ownership transfers, others face stalled transitions or are restructuring to prepare for eventual exit. In the vegetable sector, intergenerational succession remains a concern for smaller family-run operations, particularly where scale or liquidity constraints limit reinvestment or transition planning.

Alongside traditional succession, external investment is becoming more prominent — particularly in sectors like irrigated horticulture, viticulture, and high-value beef systems. These models may involve investor-backed ownership, family-led capital partnerships, long-term leasing, or hybrid arrangements where the operating entity is separate from the landholding structure. Investment decisions are increasingly influenced by climate risk, water access, market proximity, and processing infrastructure.

Overall, ownership and succession dynamics shape business adaptability and influence decisions around reinvestment, staffing, and scale. While most enterprises remain family-owned, evolving models of ownership and capital access are introducing new governance, planning, and capability considerations across the sector.

2.2.3 Sectoral Trends

Farm business dynamics across Western Australia are shaped by distinct sectoral trends that influence structure, investment, and risk exposure. While each commodity group faces unique pressures, some cross-cutting patterns are emerging across broadacre, horticulture, and livestock sectors.

In broadacre cropping, businesses are increasingly consolidating landholdings, adopting precision technologies, and expanding operational scale. These trends reflect a response to cost pressures, machinery intensity, and the need to spread fixed assets over larger areas. However, consolidation has also contributed to labour shortages, higher capital thresholds, and increasing variability in business performance.

Horticulture continues to experience growth in high-value, intensive production systems — particularly in irrigated fruit, vegetables, and viticulture. These enterprises are typically more labour- and capital-intensive, often requiring specialised infrastructure, compliance systems, and supply contracts. Sector expansion is concentrated in regions with reliable water access and proximity to transport or export hubs.

The livestock sector remains diverse, with sheep enterprises often integrated into mixed farming systems and beef production increasingly specialised. Trends include a shift toward backgrounding and feedlot integration, particularly in southern and coastal zones, and ongoing adaptation to live export constraints — especially in the sheep sector. Across the sector, market volatility, input costs, and infrastructure access continue to shape enterprise design.

While trends vary by region and commodity, they are converging on a common theme: farm businesses are becoming more specialised, capitalised, and exposed to both market and climate volatility. These patterns reinforce the need for structural adaptability, whole-of-business planning, and context-specific advisory support — all of which underpin longer-term resilience.

2.2.4 Workforce and Labour Dynamics

Labour remains one of the most significant cost drivers and operational constraints for farm businesses across Western Australia. Seasonal variability, geographic isolation, and limited regional housing options continue to challenge labour availability, particularly for intensive or time-sensitive operations such as horticulture, shearing, and hay production.

Enterprise type strongly influences workforce needs. Broadacre cropping systems often rely on a small number of highly skilled operators, with peak demand during seeding and harvest. Mixed livestock–cropping farms may require more flexible labour deployment throughout the year, including for animal husbandry and pasture management. Horticultural enterprises — particularly citrus, table grapes, and viticulture — are typically more labour-intensive and reliant on seasonal workers to meet harvest and packing requirements.

The vegetable sector, in particular, faces persistent workforce constraints — with many businesses identifying gaps in skilled middle management, industrial relations capability, and systems to support workforce efficiency and retention. Stakeholder interviews highlighted that high labour costs, combined with inconsistent access to experienced staff, have pushed some producers to explore automation although uptake is constrained by capital access. In smaller enterprises, labour decisions are frequently reactive, shaped by availability rather than fit-for-purpose roles or training pathways.

Many farm businesses are responding by adjusting workforce strategies — adopting more mechanised systems, increasing reliance on family labour, or shifting enterprise mix to reduce labour intensity. However, access to appropriately skilled workers remains a constraint, particularly in regions with ageing populations and youth outmigration. In some areas, training providers and labour hire services report persistent mismatches between on-farm workforce needs and available skills.

While workforce challenges are not new, they are becoming more acute in sectors and regions pursuing scale, intensification, or supply chain integration. Addressing these pressures will require a combination of training, local attraction strategies, and more adaptive labour planning models that reflect enterprise diversity and regional conditions.

2.2.5 Market Orientation

Western Australian farm businesses operate across a spectrum of market orientations, ranging from bulk commodity production for global markets to highly specialised supply into domestic or niche export channels. This orientation shapes business models, risk exposure, and investment decisions — particularly in relation to quality standards, supply chain relationships, and price volatility.

Broadacre enterprises, especially in grains and sheep, are predominantly geared toward export markets, often with limited price-setting power and high exposure to global commodity fluctuations. These businesses rely heavily on scale, cost management, and logistics efficiency to remain competitive. Market signals are typically price-based and indirect, with limited vertical integration or buyer-specific feedback.

In contrast, sectors such as beef, horticulture, and wine grapes increasingly operate in differentiated or contract-based market environments. These enterprises are more likely to engage in long-term supply relationships, certification schemes, or value-adding processes — all of which demand greater responsiveness to market requirements. Some producers have also developed integrated models that span production, processing, and marketing to reduce margin compression and improve profitability. Wine businesses tend to be more export-oriented than other horticulture enterprises, with a significant proportion engaged in premium value chains that require certification, traceability, and brand alignment.

Geography also plays a role. Proximity to domestic processors or export infrastructure influences product selection, aggregation models, and access to premium markets. In regions further from port or processing facilities, producers may face higher transaction costs and fewer options for direct market participation.

Overall, the diversity of market orientations across the sector contributes to varying levels of risk, complexity, and opportunity. These differences have implications for advisory support, business planning, and the design of resilience strategies — particularly where producers are seeking to reposition or diversify in response to shifting market conditions.

2.3 Regional Resilience Profiles and Planning Insights

This section provides a regionally grounded understanding of the capabilities, constraints, and support needs affecting farm business resilience across four priority areas of Western Australia: the Mid West, Southern Wheatbelt, Inland Great Southern, and Coastal Great Southern. The analysis draws on Regional Drought Resilience Plans (RDRPs), Drought Vulnerability Assessments (DVAs), regional implementation updates, benchmarking summaries, and targeted interviews with delivery partners. Together, these sources highlight both the diversity of local conditions and a set of shared pressures shaping resilience. Section 2.3.1 summarises key features of each region, including sector focus, climate exposure, and capability gaps. Section 2.3.2 synthesises cross-regional insights to identify recurring themes, capability priorities, and delivery considerations. These regional insights also inform the analysis of systemic external pressures in Section 3.2, where factors beyond the farm gate are examined in greater depth.

2.3.1 Regional Summary Snapshots

This subsection presents high-level summaries of regional conditions, enterprise constraints, and capability needs across the Mid West, Wheatbelt, Inland Great Southern, and Coastal Great Southern. While RDRPs and DVAs provide the core evidence base, the analysis also draws on implementation reports, benchmarking data, and interview insights where available. Although the depth and detail vary by region, the structured summaries enable consistent comparison of exposure, pressures, and training-related priorities. Detailed analyses for each priority region are provided in Appendices B–E, covering the Mid West, Wheatbelt, Inland Great Southern, and Coastal Great Southern respectively.

MID WEST

Coverage:

Northampton, Chapman Valley, Greater Geraldton, Morawa, Mingenew, Perenjori, Three Springs

Primary sectors:

Broadacre cropping (wheat, canola), mixed livestock

Climate exposure:

Low/variable rainfall, high temperature variability, frequent drought

Key constraints:

Water security, land condition decline, input cost pressures, succession challenges

Capability gaps:

Climate risk planning, structured business skills, small enterprise support

Delivery notes:

Strong grower group networks, but stretched capacity in low-rainfall zones

The Mid West includes some of WA's most innovative dryland cropping systems, operating under a challenging climate profile shaped by declining rainfall, episodic drought, and widespread land degradation. These conditions reflect intersecting climatic, ecological, and financial drought risks that disproportionately affect smaller and livestock-oriented enterprises. While larger businesses have adapted through scale, investment, and innovation, smaller operations face persistent pressures from rising input costs, water insecurity, and limited access to tailored advisory support. Demographic shifts and succession gaps also threaten long-term viability. Strong peer networks continue to support learning and recovery, but uneven delivery capacity and patchy digital infrastructure constrain reach. Building climate literacy, strategic planning capacity, and support for smaller enterprises will be critical to enabling adaptation across the region.



WHEATBELT

Coverage:

42 local governments across central and southern WA, including Katanning, Merredin, Narrogin, Northam, and Moora

Primary sectors:

Broadacre cropping (cereals, canola), sheep and mixed livestock

Climate exposure:

Declining winter rainfall, unreliable autumn breaks, high evaporation, and increasing hot droughts

Key constraints:

Land degradation, wind erosion, water insecurity, infrastructure gaps, and ageing demographics

Capability gaps:

Business continuity planning, water literacy, digital access, and intergenerational transition

Delivery notes:

Strong local networks, but widespread delivery fatigue, coordination challenges, and reliance on short-term funding. Inconsistent access to local delivery partners limits training reach particularly in the northern part of the region.

The Wheatbelt faces systemic exposure to climatic variability, land degradation, and demographic change—manifesting as overlapping climatic, ecological, and financial drought risks. While many producers are adapting through improvements in soil health, crop rotations, and water infrastructure, smaller and livestock-focused enterprises remain highly exposed to policy shocks and rising input costs. Across the region, service delivery is constrained by depopulation, limited housing, and digital blackspots. Informal networks and local delivery groups play a key role in supporting resilience, but often face coordination challenges, staff turnover, and delivery fatigue. Strengthening business planning, district-scale water literacy, and the capacity of local delivery mechanisms will be essential to maintaining both enterprise and landscape resilience.

INLAND GREAT SOUTHERN

Coverage:

Gnowangerup, Jerramungup, Cranbrook (inland), Tambellup, Broomehill, parts of Kent and Katanning

Primary sectors:

Mixed cropping (cereals, canola), sheep grazing, emerging cultural and conservation enterprises

Climate exposure:

Transitional zone with declining rainfall, episodic drought, and poor groundwater quality

Key constraints:

Water deficiency, soil fragility, ageing demographics, limited advisory and service access

Capability gaps:

Succession and renewal planning, water security planning, culturally grounded training pathways

Delivery notes:

Presence of motivated landholders and Aboriginal organisations, but fragmented service delivery and patchy digital access in some areas.

The Inland Great Southern includes some of WA's most variable production environments, where climatic, ecological, and financial drought pressures intersect. Mixed grain–livestock systems dominate, but declining rainfall, land degradation, and economic volatility have tightened margins and increased succession risk. Producers in more remote or lower-rainfall areas face high adaptation barriers due to limited service access, ageing advisory networks, and digital infrastructure gaps. Strengthening farm business planning, improving operational decision-making under uncertainty, and building intergenerational capacity will be essential to supporting resilience and long-term participation.

COASTAL GREAT SOUTHERN

Coverage:

Albany, Denmark, Plantagenet, Cranbrook (Frankland River), adjacent coastal zones

Primary sectors:

Mixed livestock (sheep, cattle), horticulture, viticulture, forestry, tourism

Climate exposure:

High rainfall zone with shifting seasonality, waterlogging risk, and warming trend

Key constraints:

Land use change, catchment governance gaps, workforce housing, market exposure

Capability gaps:

Enterprise planning, irrigation and water literacy, diversification skills

Delivery notes:

Strong Aboriginal-led and cross-sector networks, well-developed peer learning culture

The Coastal Great Southern supports a diverse mix of grazing, horticulture, and mixed enterprises, underpinned by relatively reliable rainfall and proximity to services. However, the region is increasingly exposed to ecological and financial drought conditions, particularly in subregions with degraded wetlands, marginal soils, or water storage constraints. Climatic variability, land use competition, and input cost pressures are intensifying adaptation demands. Infrastructure bottlenecks, workforce shortages, and fragmented delivery networks further constrain resilience. Strengthening business planning, value-chain integration, and water management will be essential to maintaining enterprise viability and landscape function.

Cross-regional summary

Together, these regional snapshots reveal a shared set of challenges—climate variability, resource pressures, and succession risks—while also highlighting important differences in exposure, sectoral composition, and delivery context. Each region presents a unique mix of climatic, ecological, financial, and social pressures that shape resilience needs. These patterns provide a strong foundation for coordinated investment, capability development, and program design. Table 2.1 summarises the key features of each region—providing a comparative reference point for the synthesis that follows, which identifies cross-cutting training needs, enterprise constraints, and delivery enablers.

2.3.2 Regional Synthesis: Insights and Implications

Building on the regional snapshots, this subsection synthesises shared challenges and capability gaps across the four regions. The analysis identifies three overarching focus areas—training needs, enterprise constraints, and delivery enablers—each capturing systemic themes and region-specific insights that should guide the design of training and support programs.

2.3.2.1 Training Needs

The Training Needs analysis is structured around seven priority areas that consistently emerged across the regions: financial management, business productivity, risk management, managing family dynamics, workforce and safety management, on farm water resilience, and managing farm digitisation.

Table 2.1 Key Features of the Four RDRP Regions

Region	Key Sectors	Climate Exposure	Top Resilience Priorities
MID WEST	Broadacre cropping, mixed livestock	Low & variable rainfall, high temps, episodic drought	Water security, land condition, small enterprise support
WHEATBELT	Broadacre cropping, sheep, mixed livestock	Declining winter rainfall, high evaporation, hot dry spells	Business continuity, water planning, delivery system stability
INLAND GREAT SOUTHERN	Mixed cropping, sheep, Aboriginal enterprise	Transition zone with declining rainfall, water quality issues	Water resilience, enterprise renewal, culturally grounded training pathways
COASTAL GREAT SOUTHERN	Livestock, horticulture, viticulture, forestry	High rainfall, shifting seasonality, waterlogging risk	Water planning, enterprise diversification, workforce & infrastructure coordination

2.3.2.2 Training Needs

The training needs analysis is structured around the key themes that consistently emerged across the research and interviews. These themes highlight where capability-building efforts are most needed.

Table 2.2 outlines how the GGA's FarmElevate program responds to these needs.

Table 2.2 Theme and Training Topic Link

Capability theme	Theme description	FarmElevate training topic that relates to this theme	FarmElevate Farm Plan/ Coaching response
FINANCIAL MANAGEMENT	<ul style="list-style-type: none"> The research and interviews demonstrated a gap in business skills to manage financial risk and respond to margin compression and impact of poor seasonal outcomes on financial health of the business. This is more acute when experiencing financial drought, where prolonged cost pressure and income volatility erode decision making capacity. 	<ul style="list-style-type: none"> Financial topics include: <ul style="list-style-type: none"> Profit and benchmarking YIYO Budgeting and cash flow budgeting Business structures to support financial goals KPI's and ratios, working with the Bank Investing a surplus well Enterprise gross margins Well being topic focusses on how to manage internal load to stay steady and make decisions under pressure. 	<ul style="list-style-type: none"> Coaches will ensure Farm business has a good understanding of their financial position and undertakes training that supports financial and personal resilience. Goals relating to financial strength and personal goals are included in the template the farm business will complete.
BUSINESS PRODUCTIVITY	<ul style="list-style-type: none"> The research demonstrated that all producers are planning and adapting their practices but that cost and time pressure is having a major impact on viability of farms. Increasing land values have masked significant financial resilience pressure in many businesses. Margin compression was most significant in horticulture businesses. Planning how to improve 	<ul style="list-style-type: none"> The Strategy and Productivity workshop equips farmers with the tools to set clear goals and put in place actions to address the areas of their business they wish to improve. The workshop enables participants to identify their high payoff activities, how to minimise waste in the workplace, and how to develop continuous improvement systems, tools and processes for their business. 	<ul style="list-style-type: none"> Coaches will ensure farm business has SMART goals in place to improve business productivity, and address cost pressures particularly in horticulture businesses.
RISK MANAGEMENT	<ul style="list-style-type: none"> Farmers have a gap in managing variability, assessing enterprise risk and planning with confidence to manage market and seasonal volatility. Strengthening capability in seasonal forecasting, scenario planning and drought thresholds is a need. Training in climate planning is a gap, and must be practical, region-specific and be reliable. 	<ul style="list-style-type: none"> Strategy and Risk Workshop equips farmers with practical tools to assess, anticipate and address risk that impact their livelihoods. By understanding risk management principles, farmers can strengthen their business, protect their assets and turn threats into manageable challenges. Climate Risk online Workshop outlines future climate risk and adaptive activity that can support farmers to be resilience to future climate risks. 	<ul style="list-style-type: none"> Coaches will ensure each farm business has actionable steps to safeguard their business, including effective strategies to mitigate risks from diversification, insurance, technology innovations to contingency planning.

Table 2.2 Theme and Training Topic Link (cont.)

Capability theme	Theme description	FarmElevate training topic that relates to this theme	FarmElevate Farm Plan/Coaching response
MANAGING FAMILY DYNAMICS	<ul style="list-style-type: none"> • Succession planning was raised across all industry interviews and identified as the key emerging risk in WA agriculture. • Appreciating land values and an aging generation of farmers preparing to hand the farm to the next generation is placing farming families under pressure. • Existing advisory support may not have the skill or capability to manage the difficult conversations around the kitchen table. 	<ul style="list-style-type: none"> • Flourishing Families workshop enables farming businesses to have the conversations that underpin success. • By considering the 5 capitals (of which finance is only one), and developing a family vision statement, the farming businesses will have the foundations in place to understand how the farm business serves the family. • This workshop will also address patterns of family dysfunction and how to listen and build trust. 	<ul style="list-style-type: none"> • Coaches will support each farm business to develop their vision and values for their business.
SAFE AND EFFECTIVE WORKFORCE	<ul style="list-style-type: none"> • Workforce access issues are chronic across all sectors, and expressed as a top issue across all industry interviews. • Whilst this is driving innovation in agtech adoption to improve productivity, effective workforce remains one of the key drivers of successful farm businesses. 	<ul style="list-style-type: none"> • The Team Dynamics and People Leadership topic guides participants through the priorities when employing people and what it takes to develop a positive and productive workplace culture. • The Farm Safety workshop will introduce farm Safety management systems and how to develop in the farm business. 	<ul style="list-style-type: none"> • Coaches will ensure that specific goals for people are developed in the farm plan.
ON-FARM WATER RESILIENCE	<ul style="list-style-type: none"> • Reliable access to water remains a critical factor shaping enterprise resilience. As rainfall patterns change, and pressure on ground and surface water systems increase, producers need greater capability to plan for supply, manage risk and invest in fit-for-purpose infrastructure. • Water planning remains uneven, particularly in areas with poor water quality, fragmented governance or limited scheme access. 	<ul style="list-style-type: none"> • On-Farm Water Resilience workshop will inform farmers with the regional information on their water systems. • It will support farm businesses to assess their water needs, and understand the infrastructure options that can support better water harvesting or storage on farm. • It will help farmers to determine if the water quality needs they have match their supply and if not, how can they solve their water challenges. 	<ul style="list-style-type: none"> • Coaches will ensure that water planning goals are included for the farming businesses that face this challenge. • In the future, training should be connected to broader efforts to improve catchment governance and regional water security.

2.3.2.3 Enterprise Constraints

This section identifies the structural and environmental constraints that limit the capacity of farm businesses to manage risks and adapt to changing conditions. Whilst producers are actively adjusting to climate and market pressures, many face systemic barriers that reduce the effectiveness of these efforts. These factors often interact, compounding exposure to shocks and limiting the range of viable adaptation pathways available to farm businesses.

Table 2.3 outlines the constraints, their impact on farm businesses and how FarmElevate program provides a response.

Table 2.3 Enterprise Constraints and FarmElevate response

Constraint	Impact on Farm Businesses	Constraint + Solutions	FarmElevate Program response
LAND CONDITION DECLINE	<ul style="list-style-type: none"> Degradation of soil, vegetation and biodiversity assets reduces the productivity and resilience of farm businesses, particularly in areas already exposed to seasonal variability. These landscape-scale pressures undermine carrying capacity, reduce adaptive practices and increase enterprise risk to drought, erosion and climate extremes. 	<ul style="list-style-type: none"> Producers need access to place based advice and incentives to adopt practices that sustain soil health, retain groundcover, and manage salinity risk. Land stewardship strategies must be aligned with broader planning systems to ensure investment reinforces ecological function. 	<ul style="list-style-type: none"> The Carbon Farming module, and link to the national CFOP program that GGA also manages will support farmers to consider any stewardship options they may have on their properties. The training module relating to considering renewable energy investments will also support farmers to consider diversification options that could improve enterprise financial risk.
WATER RESILIENCE	<ul style="list-style-type: none"> Secure and fit-for-purpose water supply remains a critical constraint for many farm businesses. Inadequate access to reliable water – for stock, spraying or other operations, limits enterprise decision-making, increases production risk, and undermines business continuity during dry periods. The overall picture is one of uneven access and fragmented investment in water infrastructure and planning systems. 	<ul style="list-style-type: none"> Improving water resilience at the enterprise level will require supporting producers to implement practical water planning, reuse and storage strategies, and addressing structural limitations through improved catchment governance, coordinated investment and local delivery capacity. 	<ul style="list-style-type: none"> This builds on earlier insights around the need for producer level water planning capability. This is addressed in a workshop, howe it requires additional investment in any future producer training programs.

Table 2.3 Enterprise Constraints and FarmElevate response (cont.)

Constraint	Impact on Farm Businesses	Constraint + Solutions	FarmElevate Program response
ENTERPRISE RISK EXPOSURE	<ul style="list-style-type: none"> Many farm businesses operate within narrow financial margins and face volatile market conditions that constrain their ability to adapt, diversity or buffer against seasonal or policy shocks. Rising input costs, exposure to global commodity cycles, and limited access to capital place particular strain on smaller livestock focused and low rainfall enterprises. These pressures reflect a form of financial drought, where revenue instability and capital constraints reduce resilience among well managed businesses. 	<ul style="list-style-type: none"> Reducing enterprise exposure will require targeted support to build financial resilience. Training should enable farmers to assess enterprise risk, and improve enterprise profitability mix where possible. Coordinated supply chain investment to reduce structural dependence on vulnerable markets can play a role in stabilising enterprise viability over the long term eg. WA sheep industry. 	<ul style="list-style-type: none"> The strategy, risk, finance and productivity modules are all designed to support farmers to identify how to manage market conditions and narrow margins. Across these workshops is an overriding principle of improving the financial decision making of the farm businesses to build their ability to adapt and build buffers against seasonal shocks. The program does not address structural infrastructure deficiencies however that underpins this risk exposure.
WORKFORCE TRANSITION	<ul style="list-style-type: none"> Workforce limitations are placing increasing pressure on farm businesses, particularly those with seasonal labour demands or those businesses trying to scale up. Farmers report difficulty attracting and retaining staff due to low supply, limited skill level and training availability, and the shortage of housing in rural and regional towns. 	<ul style="list-style-type: none"> Supporting workforce transition required coordinated investment in people, housing, and career pathways. Succession and workforce planning should be part of business training, while place based training and mentoring programs can help grow the next generation of managers. Improving regional housing is an imperative for resilient farm businesses. 	<ul style="list-style-type: none"> Two key workshops in FarmElevate address the capacity needs for farmers. Broader needs relating to place based training for employees, mentoring programs and addressing regional housing are outside the remit of the program. They are however key investments underpinning farm business resilience.
PLANNING ALIGNMENT	<ul style="list-style-type: none"> Misalignment between farm-scale decisions and broader planning systems is limiting the effectiveness of adaption. Research showed that farmers can be constrained by external factors such as fragmented land, water, infrastructure and emergency planning that hinder risk management. This disconnect contributes to regulatory uncertainty, duplicated efforts, and missed opportunities. Across all sectors, grower groups and local delivery partners report difficulties aligning project activities with regional investment cycles and government led planning processes with excessive time frames, creating large delivery risks for on the ground networks. 	<ul style="list-style-type: none"> Addressing these gaps will require stronger institutional coordination and a concerted shift toward collaboration that connects farm-level risk activity with broader planning efforts. This will require investing in collaborative governance models that support cross sector partnerships and long term investment in farm resilience. 	<ul style="list-style-type: none"> Whilst mostly outside the remit of the FarmElevate program, there is an opportunity to invest in FarmElevate for the long-term and ensure the effort of the on-ground industry partners in the program is valued.

2.3.2.4 Delivery Enablers

This section identifies the regional conditions and delivery mechanisms that support effective training and resilience building. There is an appetite and foundation for scaleable, high-impact training models using trusted local networks and

peer-based learning systems. Investing in these strengths is essential to ensuring the program is well-received, highly regarded and builds future demand.

Table 2.4 Delivery Enablers

Enabler	Description	Investment in Enabler	FarmElevate Program response
TRUSTED LOCAL NETWORKS	<ul style="list-style-type: none"> Local delivery networks are a critical enabler of effective training and resilience building. Growers groups and industry associations provide trusted entry points for farmers, and are often the first responders in times of seasonal or other stress. Their deep local or industry knowledge, long-standing relationships, and embedded presence make them well positioned to lead peer-based learning, host training events, and connect farmers with external expertise and resources. 	<ul style="list-style-type: none"> To maintain and scale these capabilities, the program should invest in the core capacity and continuity of local delivery organisations. This includes funding for staffing, administration and partnership development, not just project delivery. Strengthening these networks will support more training that is supported, embedded and relevant. 	<ul style="list-style-type: none"> FarmElevate has used industry associations and grower groups to drive engagement in the program. Whilst the program run-way has been severely impacted by contracting timeframes, the model has driven a high level of engagement in some sectors. Other sectors have not been fast enough to respond, which is understandable. It is also critical to have delivery timeframes available in Feb/Mar each year as Aug – Oct already is a very full calendar of locally driven events vying for the same farmer market.
PEER-BASED LEARNING	<ul style="list-style-type: none"> Peer-to-peer learning is a proven enabler of training uptake, practice change, and long-term adaption. Farmers are more likely to trial new approaches, adopt new tools, and participate in learning when it is embedded within local experience and occurs through and with trusted peers. This form of delivery supports confidence, contextual relevance, and the integration of knowledge into real-world decision making. 	<ul style="list-style-type: none"> Embedding peer-based learning into training programs can increase relevance and participation. This could be using producers as co-deliverers or coaches, building in group based delivery models, and designing activities that allow knowledge to be shared and adapted over time. Supporting producer to producer learning also strengthens community ties and helps normalise innovation within local production systems. 	<ul style="list-style-type: none"> FarmElevate program has chosen experienced industry trainers who have a long history of working with farmers. Many are ex-farmers or come from a farming background. All programs have been designed to be highly experiential and are based upon group sharing and learning. Confidentiality within the training room is a norm to allow authentic and life affirming/changing disclosure. The coaches have been training in a facilitated learning approach to ensure they enable the learning of the farmer participants which will build confidence in the ability to learn and adapt.

Table 2.4 Delivery Enablers (cont.)

Enabler	Description	Investment in Enabler	FarmElevate Program response
LOCALLY ADAPTED DELIVERY MODELS	<ul style="list-style-type: none"> • Training is most effective when it reflects the seasonal, logistical and operational realities of regional production systems. • Farmers consistently prefer training that is short and delivered locally to minimise disruption to farm operations. • Seasonal timing, small-group workshops, and blended person and on-line digital formats enable greater participation. 	<ul style="list-style-type: none"> • Delivery models should work in context. This includes avoiding seasonal pressure points, delivering in accessible time blocks, and supporting investment in digital capacity to train online. Face to face engagement should be use for high value and impact topics. 	<ul style="list-style-type: none"> • FarmElevate program has developed a hybrid training format to support farmers attendance. • As much as possible, it will be delivered outside seasonal peaks, and use a blended format across the 14 modules. • All content is accessible through on online learning management system, which the Coaches can also access to support farmer participation.
ENABLING INNOVATION	<ul style="list-style-type: none"> • Farmers are actively trialling new practices, technologies and enterprise types when supported by the right conditions. Programs that enable experimentation and de-risk innovation can play a key role in building both confidence and capability across production systems. 	<ul style="list-style-type: none"> • Enabling innovation at scale will required sustained support for the grower group network. This will help to build long term farm resilience and transformation in farm businesses. 	<ul style="list-style-type: none"> • The farm automation workshop topic focusses on trialling new practices and technologies that will support adoption of innovation

This section includes insights that have direct relevance for training design to support farm business resilience. The themes are systemic in nature, and point to the key enabling conditions that will support the FarmElevate program to deliver training that will strengthen the capacity of farm businesses to manage risk in an increasingly volatile environment.

This section demonstrates that a training program alone, cannot solve the pressing issues in building farm resilience. Whole of industry and government support is required, and structural issues can erode resilience in the same way a training program can build resilience.

2.4 Benchmarking Insights

Benchmarking provides structured, quantitative insight into the financial and operational characteristics of farm businesses. It helps identify patterns that distinguish more resilient and profitable enterprises from those under greater pressure. This section outlines the benchmarking approach, summarises data coverage and limitations, and presents key findings with implications for planning, training, and advisory support.

2.4.1 Purpose and Approach

Using benchmarking to understand performance patterns and capability gaps

Benchmarking provides a structured view of farm business performance over time, enabling comparison across sectors, enterprise types, and performance quartiles. For the purposes of this analysis, benchmarking data is used to identify patterns in profitability, financial resilience, and operational efficiency that help explain why some businesses are more resilient than others.

Rather than focusing on individual enterprises, the analysis highlights systemic trends and divergence between higher- and lower-performing groups. This approach provides insight into where capability gaps are most evident, and where targeted investment in training, support, or advisory services may yield the greatest benefit.

While benchmarking provides a valuable evidence base, it has limitations. It does not capture real-time volatility, individual decision drivers, or enterprise complexity beyond financial indicators. For this reason, benchmarking is used in conjunction with qualitative inputs — such as interviews and surveys — to provide a rounded understanding of capability gaps. The focus here is on multi-year trends and divergence between performance groups, rather than year-on-year fluctuations or outliers. These insights also inform the interpretation of enterprise-level pressures in Section 3.1, where benchmarking patterns help identify key areas of risk and capability need.

2.4.2 Benchmark Data Availability and Coverage

Scope, limitations, and relevance of available benchmarking data

This section draws primarily on multi-year benchmarking data from Planfarm, which provide consistent financial and operational indicators for broadacre mixed enterprises across southern WA. These datasets enable comparison across performance quartiles and years, offering insight into profitability, financial resilience, and cost structures. Additional benchmarks from horticulture and beef — including vegetable, citrus, and wine grape enterprises — are used to highlight variation in labour productivity, reinvestment strategies, and risk exposure across sectors. While coverage is strongest in broadacre systems, these complementary sources provide a valuable lens on performance divergence and capability gaps in different production contexts.

Recent wine sector analysis underscores similar pressures, with wine grape production volumes declining sharply in 2022–23 due to reduced yields, weak prices, and global oversupply. Despite high inventory levels and cost constraints, enterprise decisions remain heavily influenced by export volatility, structural oversupply, and shifting domestic consumption — highlighting the need for improved scenario planning and enterprise risk tools. Benchmarking from the APC Wine Committee (2023) reinforces these insights, emphasising cost variability, inventory turnover, and planning constraints. Recent citrus, pome fruit, and stonefruit strategies also highlight the role of benchmarking in guiding reinvestment, labour use, and quality improvement.

For the beef sector, the most comprehensive dataset available is from 2012/13, sourced from Red Sky and covering a mix of enterprise types across southern WA. While dated, the dataset provides insight into structural characteristics and relative performance levels. However, given significant changes in market conditions and input costs since 2013, these data are likely to overstate current profitability. They are used here to illustrate broad performance variation and underlying cost structures, not to provide contemporary reference points.

Coverage gaps also exist in enterprise diversity and geographic granularity. Most benchmarking data reflect larger, commercial-scale producers and may not capture smaller or more diversified enterprises, particularly in niche markets or coastal zones. Additionally, while the data allow quartile comparisons, they do not always provide insight into enterprise-level decision-making, external shocks, or qualitative drivers of performance.

This section focuses specifically on benchmarking findings. Other evidence sources — including interviews, regional plans, and stakeholder feedback — are used in later sections to develop a fuller picture of business resilience and capability needs.

2.4.3 Benchmarking Findings

This subsection synthesises key performance trends identified through benchmarking — including profitability, cost structures, financial resilience, and labour efficiency. By comparing outcomes over time and across performance quartiles, the analysis highlights where capability-building efforts could improve business performance and reduce vulnerability.

2.4.3.1 Profitability and Cost Structures

Strengthening margins by improving cost efficiency and return on capital

Profitability across WA farm businesses has fluctuated significantly over the past six years, reflecting exposure to seasonal volatility, shifting input costs, and commodity price cycles. Average return on capital (ROC) ranged from -1.9% in 2023 — a low-margin year — to 15.4% in 2021, highlighting the sensitivity of farm performance to external pressures. Operating costs as a percentage of gross income also varied widely, from 52.7% in 2021 to 86.6% in 2023, illustrating how margin compression can occur when cost structures tighten and prices or yields decline.

Benchmarking suggests that stronger performers maintain greater cost discipline and consistently higher surpluses. These outcomes reflect not just lower costs, but better alignment of enterprise mix, input strategy, and investment decisions with income potential. Improving profitability at the farm level will require more than cutting inputs — it involves lifting cost efficiency while maintaining or growing productive capacity.

This points to capability gaps in areas such as enterprise analysis, cost-benefit evaluation, and whole-farm financial planning. Embedding these skills in training and advisory programs could help producers build more resilient margins and make confident decisions under pressure.

2.4.3.2 Financial Resilience Indicators

Building buffers to manage volatility and enable proactive decision-making

Key financial indicators such as equity levels and debt-to-income ratios provide a window into a farm business's capacity to withstand shocks and adapt under pressure. Across the benchmark period, average equity remained relatively strong — between 80% and 93% — but masked considerable variation in underlying resilience. Debt-to-income ratios climbed in years of higher cost pressure or reduced income, such as 0.75 in 2019 and 0.52 in 2023, signalling increased vulnerability among some operators.

These indicators show that headline profitability alone does not capture the full picture of business strength. For example, two farms with similar operating surpluses may differ significantly in their ability to service debt, reinvest in infrastructure, or absorb seasonal setbacks — depending on how their finances are structured. Liquidity and cash flow management, though not always captured directly in benchmarking datasets, remain critical to navigating low-margin years without compounding financial stress. The persistent divergence in outcomes—particularly in years of low margins—suggests that many bottom-quartile businesses are more exposed to financial drought, where rising costs and unstable income progressively undermine operational viability.

Lifting financial resilience requires more than strong performance in good seasons — it depends on the ability to plan, manage risk, and maintain flexibility in the face of change. These findings reinforce the value of training in farm financial literacy, debt and cash flow management, and scenario-based business planning. Supporting producers to interpret key financial indicators and align them with long-term goals may help build more sustainable and responsive business models.

2.4.3.3 Performance Divergence – Top vs Bottom Quartile

Understanding why some farms consistently outperform others — and how to close the gap

Benchmark data across six years reveal a persistent and often widening gap between top and bottom quartile farm businesses. In 2021, top performers achieved a return on capital of 24.5%, compared to just 6.0% for the bottom quartile — and in 2023, the contrast was even starker, with top performers returning 3.6% and bottom quartile farms recording a loss of -8.5%. This divergence is not simply a matter of scale or geography, but of management capability, decision-making agility, and enterprise alignment.

Higher-performing businesses tend to excel across a range of areas, including labour productivity, reinvestment strategy, input timing, and financial management. They are more likely to match resources to opportunity, reinvest with discipline, and manage volatility through better-informed decisions. Conversely, lower-performing farms often face structural constraints — such as underutilised labour, misaligned debt, or enterprise complexity — that can compound over time.

The consistency of these patterns across seasons and sectors points to a significant opportunity: by identifying and scaling the practices of top performers, the broader farm sector can build resilience, lift productivity, and reduce exposure to risk. This reinforces the value of targeted capability-building — not just in technical skills, but in business systems, planning, and adaptation under pressure.

Note on Beef Sector Benchmarking:

Although dated, 2012/13 WA beef benchmarking data show similar patterns of performance divergence. Top quartile producers recorded an operating profit of \$154/ha, compared to \$26/ha for the sector average, along with stronger return on capital and lower cost-of-production per kilogram of meat. These results mirror trends seen in cropping and sheep enterprises, where higher-performing businesses operate more efficiently and consistently capture value. However, due to rising input costs and market shifts since 2013, these figures are unlikely to reflect current sector conditions and should be interpreted with caution. They are included here to highlight structural patterns rather than to quantify contemporary margins.

2.4.3.4 Implied Management and Capability Gaps

The performance gap between top and bottom quartile farms points to a series of underlying capability gaps — not directly measured, but evident in consistent performance outcomes over time. These patterns offer insight into where management support and targeted upskilling could help improve resilience and lift overall sector performance. Drawing from benchmarking trends and performance divergence, four capability domains emerge as particularly influential: input decision-making, reinvestment strategy, debt management, and labour efficiency.

Optimising Input Timing for Yield

Improving responsiveness to seasonal conditions through smarter input decisions

Importantly, the relationship between input levels and outcomes is not purely linear. Stronger performance may reflect not only higher input rates but also more effective timing, placement, and integration with broader management strategies. In particular, the ability to refine input decisions in response to seasonal variability — such as subsoil moisture levels or rainfall forecasts — appears to support both productivity and resilience.

Similar patterns are evident in horticulture. Citrus benchmarking highlights high variability in input costs and break-even yields, reinforcing the value of cost monitoring and seasonal planning. Across vegetables, berries, and wine grapes, top-performing growers consistently apply inputs more precisely — using tools such as sap or soil testing, phenology tracking, and seasonal forecasts to tailor decisions and improve margins.

Strengthening producers' ability to plan and adjust input strategies — including seasonal decision-making, risk-aware applications, and the use of decision-support tools — can help lift productivity and resilience without necessarily increasing input levels.

Strategic Reinvestment

Aligning capital decisions to enterprise goals, timing, and profitability

Top-performing farms appear to approach reinvestment with greater alignment to scale, enterprise focus, and seasonal opportunity — contributing to consistently stronger financial outcomes. Across all benchmark years, these farms achieved higher operating surpluses and returns on capital, even when their capital outlays were not the highest. For example, in 2022, top quartile farms invested \$747/ha in plant and equipment, compared to \$714/ha for the average and \$833/ha for the bottom quartile — yet recorded a surplus of \$695/ha versus just \$220/ha among the bottom group.

This inverse relationship between expenditure and return suggests that timing, planning, and fit-for-purpose investment may matter more than total spend. Top performers consistently capture value from reinvestment despite changing seasonal and market conditions. They also tend to maintain lower operating cost ratios — reinforcing the link between strategic investment and cost efficiency. In horticulture, high-performing vegetable, berry, citrus, and wine grape growers adopt a similar approach — targeting reinvestment toward irrigation upgrades, trellising, automation, or fertigation systems to align with enterprise goals such as labour efficiency, product quality, or water use.

While external factors such as land quality, climate, or access to logistics and advisory support may contribute to this divergence, the pattern remains consistent across multiple seasons. In some cases, lower-performing farms may be managing more complex or undercapitalised enterprises, where reinvestment does not yield proportional returns. While dated, 2012/13 beef benchmarking data also showed stronger financial returns among top quartile enterprises with comparable asset bases — suggesting that more strategic capital deployment contributed to performance gains in livestock systems as well.

Supporting more timely, strategic reinvestment — through scenario planning, capital budgeting, and investment appraisal — can help lift business resilience and reduce reactive or inefficient spending.

Managing Debt Exposure

Structuring debt to support flexibility and resilience, not constrain it

Benchmark data show that bottom quartile farms consistently carry higher debt relative to income than top performers. In 2022, the debt-to-income ratio for the bottom 25% was 0.57, compared to just 0.23 for the top 25%. This pattern has remained stable across six years, suggesting a structural constraint rather than a seasonal fluctuation.

While absolute debt levels per hectare do not differ dramatically, the combination of higher debt and lower operating surpluses among lower-performing farms reduces their capacity to reinvest, buffer volatility, or make proactive decisions. For example, in 2023 — a low-margin year — bottom quartile farms recorded a negative operating surplus of \$118/ha and remained in a fragile position if seasonal or price conditions deteriorated further.

Top-performing farms, by contrast, tend to maintain lower debt exposure relative to income while consistently generating stronger surpluses. This highlights the importance of not just the amount of debt, but how it is structured and timed to support long-term flexibility. In tougher years, the ability to service debt without undermining core operations becomes a key marker of resilience.

Improving financial resilience does not necessarily require reducing debt outright but ensuring that it aligns with the farm's income-generating capacity and investment profile. Horticulture benchmarking supports this view, with evidence that high-performing citrus and wine grape growers often use debt for targeted, high-return investments and maintain margins that support sustainable repayments. In contrast, lower-performing businesses may carry similar levels of debt but lack the returns needed to manage that exposure effectively.

Strengthening financial capability — including tailored repayment structures, proactive capital planning, and strategic use of finance — can help reduce compounding risk and support more timely, confident decision-making.

Labour Efficiency

Better matching of labour to enterprise mix, seasonality, and income potential

Differences in labour productivity are a consistent feature of performance divergence. Top-performing farms generate significantly higher operating surplus per labour unit — for example, \$954,629 per permanent labour unit in 2022, compared to \$289,066 among the bottom quartile. This pattern holds across all years and is not simply a result of labour headcount, which remains broadly similar across performance groups.

Higher-performing farms also make more efficient use of their workforce, operating more hectares per person — for instance, 1,584 ha per labour unit in 2021 compared to 1,300 ha in the bottom quartile. This likely reflects more streamlined operations, greater use of labour-saving machinery, and enterprise choices — such as cropping-dominant systems — that are less labour-intensive. A greater proportion of cropping among top performers (e.g. 92% of effective area in 2021 versus 58% in the bottom quartile) contributes directly to these gains.

Horticulture benchmarking reveals similar patterns. In citrus, labour is the largest single operating cost, with wide variation in efficiency driven by block layout, pruning regimes, and orchard scale. Across vegetables, berries, and wine grapes, top-performing growers similarly achieve higher returns per labour unit by tailoring staffing levels to crop requirements, adopting automation, and simplifying workflows during peak periods. These findings reinforce the value of workforce planning and aligning labour inputs to system design — a principle that applies across both broadacre and horticultural operations.

Lower-performing farms may be underutilising available labour or carrying excess staff relative to income generated. This can dilute returns and reduce flexibility, particularly in mixed enterprise systems where seasonal tasks compete for time and skilled labour is scarce. In horticulture, these patterns are often compounded by high reliance on family labour in lower-performing businesses, further increasing labour costs without delivering a corresponding increase in revenue. In some cases, increasing scale or enterprise diversity adds complexity without delivering commensurate gains in labour efficiency.

Supporting producers to improve labour productivity — through better alignment of staffing models with seasonal workload, investment in labour-saving technologies, and clearer links between labour use and income potential — can help ensure farm operations remain scalable and resilient as workforce pressures intensify

2.4.4 Implications for Capability Development and Program Design

Benchmarking not only highlights patterns of performance but also points to where capability-building efforts can have the greatest impact. This section draws out the implications of those findings to inform the design and delivery of practical support and training for farm businesses.

2.4.4.1 What Benchmarking Reveals About Capability Needs

Benchmarking results highlight a set of consistent capability gaps that distinguish higher-performing farm businesses from the rest. These gaps are not simply technical — they relate to how businesses plan, make decisions, allocate resources, and respond to changing conditions.

Across sectors, stronger performers demonstrate more effective capital deployment, greater labour efficiency, and better cost control, often supported by proactive financial planning and the use of performance data. Conversely, lower-performing enterprises tend to exhibit less strategic reinvestment, higher cost-to-income ratios, and weaker capacity to buffer volatility — all of which point to limitations in business systems and financial capability rather than farm scale or enterprise type alone. This pattern is echoed in horticulture benchmarking, where capital-intensive operations with weaker yield performance highlight the importance of strategic reinvestment planning. Recent WA citrus, pome fruit, and stonefruit strategies reinforce this view, emphasising structured skills development to improve business decision-making and resilience.

These findings suggest that targeted capability development should focus on strengthening decision-making, financial literacy, and business planning. Importantly, these are areas where practice can shift through training, mentoring, and structured support — not just through exposure to data, but through greater confidence in applying it. This aligns with interview feedback, where advisors noted that even capable producers often struggle to use financial indicators effectively in seasonal or reinvestment decisions — reinforcing the value of benchmark-based casework in future training models.

Interviewees also noted that producers in sectors such as beef and horticulture often operate outside standard advisory and benchmarking models, limiting their access to tailored performance insights or decision-making support. These producers may face planning complexity or capital constraints that require different advisory formats — including one-on-one business coaching, enterprise-specific casework, or regionally contextualised tools.

2.4.4.2 Opportunities for Integration into Delivery Models

The benchmarking findings offer clear direction for how farm business capability development can be targeted and delivered. The identified gaps — in strategic reinvestment, financial planning, labour efficiency, and cost management — are all areas where structured support and training can influence practice, particularly when grounded in real-world data and examples.

One-on-one advisory services provide a valuable opportunity to contextualise benchmarking insights within individual businesses. Used as part of a business health check or performance review, benchmarking data can prompt discussion, goal-setting, and forward planning tailored to enterprise context and decision timelines.

Peer learning environments — including facilitated benchmarking groups or business circles — can help normalise performance comparison, encourage transparency, and support shared learning. These formats are particularly well-suited to discussing capital investment decisions, input strategies, and adaptive responses to volatility.

Finally, benchmarking insights can be embedded into broader capability-building efforts, including financial literacy, scenario planning, and business mentoring. Integrating benchmark-based case examples and decision support exercises into these learning models can support clearer decision-making, more effective resource allocation, and stronger alignment between business strategy and seasonal or market conditions. Aligning benchmarking findings with training content also improves relevance, helping producers connect performance patterns with decisions they control — and ultimately boosting confidence and uptake.

2.4.4.3 Gaps in Translating Benchmarking Insights into Practice

While benchmarking provides clear evidence of the capabilities that underpin strong business performance, these insights are not always fully reflected in current planning and training frameworks. Much of the support available to producers focuses on technical skills or compliance, with less emphasis on decision-making, reinvestment planning, and enterprise-level financial strategy.

This creates a risk that the more strategic dimensions of farm business resilience — such as aligning capital decisions to income volatility or improving labour efficiency relative to enterprise type — may remain underdeveloped. The challenge is not simply to generate benchmarking data, but to ensure that the insights it offers are actively used to shape program content and delivery.

Embedding these insights into capability-building efforts will require intentional design: learning models that connect data to action, advisors who can interpret benchmarks in context, and training that targets the financial and planning systems most strongly linked to performance. Taken together, these benchmarking findings lay the foundation for the analysis of enterprise and system-level pressures in Section 3 — highlighting where structural vulnerabilities may amplify risk or constrain adaptation.



INDUSTRY NEEDS ANALYSIS

Section 3 KEY CHALLENGES AND PRESSURES



3. Key Challenges and Pressures

The patterns emerging from Section 2 point to deeper pressures that shape how resilience is built — or eroded — within farm businesses. While performance benchmarking reveals where capability gaps and financial stress accumulate, Section 3 looks beyond the numbers to examine what's driving these patterns.

Drawing on stakeholder interviews, planning documents, and performance data, it explores the internal, external, and contextual pressures that constrain decision-making, narrow options, and expose vulnerability. Subsections 3.1 to 3.3 examine enterprise-level challenges, systemic constraints, and where risk is most concentrated across the farming landscape.

3.1 Enterprise-Level Pressures

Many of the pressures that limit farm business resilience originate inside the farm gate. This subsection focuses on a core set of internal stressors — including margin compression, labour constraints, succession risk, climate-related pressures, and sector-specific vulnerabilities. These stressors were distilled from cross-regional evidence and defined based on recurring themes across enterprise types, emerging as the factors most consistently linked to reduced resilience and constrained adaptive capacity. The analysis interprets how these pressures interact with broader forms of drought — financial, social, climatic, and ecological — to constrain planning, erode buffers, and weaken resilience over time.

3.1.1 Margin Compression

Margin compression remains one of the most persistent financial pressures across farm enterprises in southern Western Australia, particularly in sectors where input costs are rising faster than returns. This pattern is evident in both benchmarking data and stakeholder interviews, which highlight sustained financial strain despite improvements in productivity or operational scale. Producers in labour-intensive or undercapitalised systems — including many livestock and horticulture enterprises — are especially vulnerable, as even short-term cost spikes can quickly erode working capital and reduce flexibility.

What makes margin compression especially damaging is its compounding effect. Thinner margins constrain reinvestment, delay maintenance, and reduce the financial buffers needed to manage climate or market shocks. Producers already under pressure — due to debt load, seasonal volatility, or reliance on off-farm income — become increasingly reactive, unable to capitalise on good seasons or strategic opportunities. This reinforces patterns of financial drought, where long-run viability is undermined not by single events but by sustained profitability pressure.

The impact of margin compression is not uniform. Larger enterprises with stronger equity positions generally have more room to adjust, while smaller or family-run operations — particularly in low-rainfall zones or perishable crop sectors — face limited room to manoeuvre. For these businesses, the gap between operational and strategic decision-making narrows, with day-to-day cost control crowding out forward planning. This dynamic can entrench structural vulnerability even in otherwise well-managed operations.

Responding to margin compression requires more than cost-cutting. It demands capability-building in scenario planning, enterprise analysis, and adaptive reinvestment — helping producers shift from short-term survival to long-term resilience. Without this, rising costs and income volatility will continue to narrow the path forward, especially for businesses already under strain.

3.1.2 Labour Constraints

Persistent labour constraints continue to limit the resilience of farm businesses across southern Western Australia. Interviews and benchmarking highlight a widespread pattern: producers stretched across operational, managerial, and compliance roles, with limited capacity to delegate, scale, or innovate. These constraints are most acute in labour-intensive systems — including horticulture, mixed livestock, and small-to-medium family farms — where tasks are seasonal, time-sensitive, and difficult to mechanise.

The impact is not only operational. Labour shortages increase workloads, reduce work-life balance, and limit space for strategic thinking. Owner-operators often juggle physical and administrative demands, leading to fatigue, reactive decision-making, and short planning horizons — especially in enterprises without family succession pathways or access to locally based skilled labour.

Workforce volatility further compounds risk. The availability and quality of seasonal workers remains uneven, particularly in remote areas or smaller-scale operations unable to offer year-round employment. Delays in accessing labour — due to visa policy, housing shortages, or transport barriers — can disrupt planting, harvesting, or animal management, with flow-on effects for cashflow, crop quality, and staff retention.

These dynamics are self-reinforcing: businesses under labour strain often defer reinvestment, limit training, or avoid growth opportunities due to unmanageable workloads. This in turn restricts capability development and undermines succession planning.

Addressing labour constraints requires more than recruitment. It calls for tailored workforce strategies that align with enterprise type, region, and production cycle.

3.1.3 Succession Risk

Succession remains one of the most under-acknowledged risks to farm business resilience. While many enterprises in southern Western Australia continue to operate effectively under long-standing ownership, a significant number face growing vulnerability due to delayed transitions, unclear succession plans, or generational disengagement. This risk is especially pronounced in family-owned businesses where ownership and leadership are concentrated in ageing principals.

Rising land values and capital concentration have made it increasingly difficult to transfer ownership or management without disrupting business viability. Stakeholder interviews frequently cited a mismatch between asset wealth and cashflow, which can prevent equitable succession or prevent younger family members from entering the business. For many families, the cost of transition — emotional, financial, or relational — remains a deterrent to proactive planning.

These dynamics contribute to latent social drought. When succession is stalled, enterprises often become risk-averse, reluctant to invest in innovation, infrastructure, or skills development. Fatigue among older operators may further limit adaptive capacity, with day-to-day operations prioritised over strategic renewal. In some cases, succession tensions also fragment family cohesion or create leadership ambiguity, weakening the decision-making structures needed to respond to external shocks.

This form of vulnerability is not always visible in performance data. Businesses may appear stable, but without a clear pathway for generational renewal, they face growing fragility. The result is a narrowing of planning horizons and an erosion of enterprise agility — even in otherwise viable operations.

Addressing succession risk will require more than legal or financial instruments. It demands support systems that enable difficult conversations, align intergenerational expectations, and integrate business planning with personal transition goals. Building resilience means ensuring not just the continuity of ownership, but the transfer of capability, leadership, and confidence to adapt.

3.1.4 Climate Pressure

Climate risk is an enduring challenge for WA farm businesses — but its effects on resilience are increasingly complex. Shorter growing seasons, unreliable autumn breaks, late-season frost, and prolonged heatwaves are compressing decision windows and increasing production risk. These climatic shifts are particularly destabilising for enterprises in lower rainfall zones or those reliant on seasonal timing for crop establishment, lambing, or harvesting.

Stakeholder interviews and regional assessments highlighted that climate pressure often interacts with financial and operational stressors.

Poor seasons can rapidly compound margin compression, trigger debt escalation, or exhaust reserves intended for reinvestment. Conversely, when good seasons occur, their benefits may be constrained by depleted capacity, delayed inputs, or previous underinvestment in infrastructure.

Adaptation strategies have been the front line defence for farms — including varietal shifts, investments in shade, shelter, and water storage, and changes to seeding, breeding and grazing practices. However, these responses are often costly, highly localised, and require time-sensitive decisions. Many businesses, particularly those with limited capital or access to tailored advice, struggle to implement changes at the scale or speed required. The knowledge in Advisor networks is not always readily accessible, despite best attempts to extend skills and innovation into on-ground networks.

Climate uncertainty also complicates longer-term planning. For enterprises already navigating succession, workforce constraints, or financial drought, the added volatility of climate extremes can reduce confidence, stall investment, and crowd out strategic thinking. Risk layering becomes a defining feature: each season's unpredictability further narrows the margin for error.

Building resilience to climate pressure requires more than weather forecasting or agronomic advice. It calls for enterprise-level tools that integrate climate data with financial planning and operational decision-making — enabling producers to adjust not just how they farm, but how they structure and sequence risk over time.

3.1.5 Sector Pressures

While margin compression, labour constraints, and climate variability affect most farm businesses, the intensity and form of these pressures differ by sector. Production systems, market exposure, and compliance obligations all shape how enterprises experience risk — with distinct patterns emerging in horticulture, beef cattle, and broadacre livestock.

Horticulture

Horticulture businesses face a convergence of pressures that interact in time-sensitive and unforgiving ways. Labour shortages remain a primary constraint — not only due to volume, but also due to the need for workers with specific skills during short, high-intensity harvest windows. Stakeholders noted that when labour availability or compliance requirements shift unexpectedly, businesses often have little room to adjust without risking production loss. These risks are especially acute in vegetable systems, where perishability amplifies both operational pressure and financial exposure. Longer-cycle crops such as wine grapes face different constraints, including limited responsiveness to climate shocks or market changes due to long lead times for replanting and return.

Input cost inflation and freight volatility compound the challenge. Transport delays or cost spikes (as occurred during and post COVID) can destabilise market access, especially for perishable crops like vegetables and berries, or for export-dependent varieties. This volatility narrows margins and reduces planning confidence, contributing to a reactive posture even in otherwise well-managed businesses. Smaller or less integrated operators are especially vulnerable — often lacking the scale, storage infrastructure, or downstream control needed to buffer shocks. These conditions reflect overlapping forms of financial and social drought, where thin margins and workforce strain reduce enterprise resilience from within.

Beef Cattle

Beef enterprises in the South Coast and South West face compounding structural and operational pressures that limit resilience. Many producers operate with modest herd sizes, ageing infrastructure, and limited working capital, making them more sensitive to cost shocks and planning disruptions. Undercapitalisation is a recurring constraint, especially for family-run or lease-based operations, where reinvestment in fencing, yards, or finishing systems is deferred due to thin margins and uncertain returns.

Pasture variability, particularly in lower rainfall zones, adds another layer of complexity, requiring adaptive grazing strategies that are not always feasible without reliable feed reserves, adequate scale or infrastructure flexibility.

Succession and planning capability further constrain strategic adaptation. As in other sectors, many beef businesses lack clear intergenerational pathways or access to tailored advisory support, particularly when navigating decisions around intensification, land consolidation, or transitioning out of the industry. Together, these pressures reflect overlapping financial, ecological, and social drought — manifesting less as acute shocks and more as slow-burn vulnerabilities that erode enterprise agility over time.

Broadacre Livestock

Sheep-focused enterprises in the Wheatbelt and Inland Great Southern are facing renewed strain from intersecting policy, market, and seasonal pressures. Ongoing uncertainty around the phase-out of live sheep exports has eroded business confidence, particularly in lower rainfall zones where alternative markets or finishing systems are limited. Stakeholder interviews highlighted how this policy exposure compounds existing pressures from weak prices, processor bottlenecks, and shifting public expectations around animal welfare — all of which require investment and adaptation that many producers are hesitant to make without greater clarity.

Labour availability remains a constraint, particularly for shearing, marking, and animal husbandry tasks that are difficult to mechanise or outsource. Workforce shortages are especially acute in smaller or family-run enterprises, where the same individuals often carry responsibility for both manual and strategic roles. This dynamic contributes to both social and operational drought — eroding planning time and reinforcing dependence on ageing operators with limited bandwidth for transformation. Interviews also noted a “collapse in confidence” in some sheep systems, with producers exploring exit options years earlier than planned in response to prolonged policy uncertainty.

Decision complexity is another source of vulnerability in mixed systems. Many enterprises juggle livestock and cropping operations across fragmented landscapes, with different input, labour, and risk profiles. In dry seasons, this complexity can magnify volatility and blur performance signals, making it difficult to allocate resources or prioritise change. Without segmented financial reporting or tailored decision support, producers risk missing opportunities to improve enterprise-level resilience. These pressures, while not new, have intensified in recent years and now represent a structural drag on adaptation capacity in much of the broadacre livestock sector.

While these pressures emerge within the farm gate, they rarely operate in isolation. Enterprise-level strain is often shaped or intensified by broader systemic conditions — including fragmented services, infrastructure gaps, or inconsistent policy settings — that limit the room to manoeuvre when stress accumulates. The next section builds on this foundation to examine how external forces interact with internal vulnerabilities to influence business resilience across southern Western Australia.

3.2 Systemic External Pressures

External pressures — such as market volatility, infrastructure constraints, policy ambiguity, and fragmented advisory systems — shape the broader environment in which farm businesses must operate. While not directly within the control of producers, these systemic factors often intensify internal vulnerabilities, especially where support systems are thin or poorly aligned. Understanding how these pressures intersect with different forms of drought helps clarify where resilience is most constrained — and where support must be better targeted.

3.2.1 Input Access

Access to affordable, reliable inputs remains a critical constraint on farm business resilience. While producers have always managed cost fluctuations, recent years have seen sustained volatility across fuel, fertiliser, freight, and chemical inputs. These pressures originate outside the farm gate but shape everyday production decisions — narrowing margins, increasing operational risk, and reducing enterprise flexibility.

Input costs have remained high since the pandemic, with global supply chain disruptions, geopolitical instability, and currency fluctuations driving ongoing price uncertainty. Freight availability and pricing, in particular, have emerged as persistent stressors, especially for producers in remote or poorly serviced areas.

Fuel and energy access also remain unpredictable. While some enterprises have adopted on-farm energy or storage solutions, many remain exposed to external volatility — with implications for tillage, irrigation, refrigeration, and post-harvest handling. This is especially critical in energy-intensive systems such as horticulture and intensive livestock, where reliability is just as important as price.

Stakeholders noted that input access constraints don't just increase costs — they also distort planning. When inputs are delayed, scarce, or unaffordable, producers are forced into reactive decisions that may reduce productivity or amplify environmental stress. This dynamic contributes to financial and ecological drought, particularly where input substitution is limited or where delayed applications impact plant or animal health.

While larger enterprises may mitigate some of these pressures through scale, contracts, or pre-purchasing strategies, smaller operators often have limited bargaining power or storage capacity. The result is a widening gap in risk exposure — where some businesses can buffer input shocks, while others are forced to absorb them directly.

3.2.2 Market Volatility

Market volatility is a persistent external pressure that undermines farm business resilience by disrupting income stability and long-term planning confidence. While price cycles are a known feature of agriculture, recent volatility has been amplified by external factors such as trade disruptions, shifting consumer demand, and policy uncertainty. These factors often lie beyond producers' control but have material impacts on cashflow, risk appetite, and reinvestment capacity.

Commodity price fluctuations — including swings in livestock, feed, and horticultural markets — make forward planning difficult, especially for smaller enterprises with limited ability to hedge risk. Stakeholders noted that uncertainty around processor availability, export demand, and seasonal pricing windows has discouraged proactive decision-making and reinforced a short-term outlook across sectors.

Export-oriented producers are particularly exposed. International trade dynamics — including tariff changes, biosecurity protocols, and shifting market access — can change quickly, leaving producers with limited time to adjust. For example, delays in apple and avocado shipments, or sudden demand drops in wool or sheep meat markets, have exposed producers to losses that cannot always be recouped domestically.

Volatility also affects input-output alignment. For enterprises with long production cycles — such as wine or wool — prices may fall below breakeven levels after investment decisions have already been made. This lag between cost commitment and income realisation increases financial drought exposure, especially where margins are already compressed.

Finally, smaller producers often lack access to reliable market information, contract options, or bargaining power. This asymmetry increases vulnerability to price shocks and limits participation in higher-value supply chains. Even where market access exists, volatility can undermine enterprise confidence and discourage diversification or investment — reinforcing a cycle of constrained growth.

3.2.3 Infrastructure Gaps

Gaps in regional infrastructure constrain resilience by limiting the physical and digital systems that underpin adaptation, efficiency, and market access. While many producers have adapted to local limitations over time, systemic underinvestment in transport, regional and rural housing, energy, digital connectivity, and water infrastructure continues to amplify vulnerability — especially in more remote or lower-margin regions.

Transport infrastructure remains a persistent constraint. Narrow freight windows, limited storage, and degraded local roads add cost and fragility to supply chains, particularly during harvest or when markets shift quickly. In horticulture and livestock systems, where perishability or welfare standards demand tight logistics, transport limitations can create bottlenecks that restrict enterprise flexibility and elevate risk. Several stakeholders also highlighted freight as a hidden cost driver — eroding margins for producers far from major depots or processing hubs.

Energy and water infrastructure are also under strain. Unreliable power supply, limited three-phase access, and rising energy costs are recurring themes in stakeholder interviews, particularly among businesses seeking to invest in cold storage, automation, or intensive irrigation.

Water infrastructure is an equally limiting factor — with ageing delivery systems, fragmented groundwater access, and the high cost of storage and reticulation cited as barriers to efficiency and expansion. These gaps reflect both climatic exposure and ecological drought, where infrastructure constraints limit the ability to manage increasingly variable conditions.

Digital connectivity — while improving — remains patchy. Stakeholders across southern rural WA report ongoing issues with upload speeds, sensor dropouts, and limited mobile coverage. These gaps slow the uptake of data-driven management, remote sensing, or digital recordkeeping — which in turn limits the effectiveness of digital applications.

Regional Housing availability remains a perennial problem and is a key underpinning barrier to enterprise decisions to build out skilled permanent workforces. Businesses resort to using unskilled seasonal labour because of the housing shortage. Businesses based in the regions face the additional cost of housing provision that is not borne by SME's in urban communities.

Ultimately, infrastructure gaps are not just technical deficiencies. They are systemic barriers that reduce a business's ability to plan, pivot, and compete. Addressing these deficits will require coordinated investment from the government and private sector, regionally tailored planning, and greater alignment between infrastructure policy and programs, and farm-level needs.

3.2.4 Policy Complexity

Policy settings have a direct bearing on farm business resilience — influencing investment confidence, operational decisions, and long-term enterprise strategy. However, producers across southern Western Australia report that policy complexity is increasing, with overlapping regulatory requirements, unclear compliance pathways, and shifting government priorities adding to operational uncertainty.

Key areas of concern include climate and emissions policy, biodiversity and land use regulation, and animal welfare standards. While these policies aim to lift performance and accountability, they can also generate risk for producers, especially where implementation is unclear or poorly sequenced. For example, uncertainty around carbon markets, stewardship payments, and environmental reporting has made it difficult for some businesses to assess the costs and benefits of participation. Others report that policies are not well-adapted to mixed or lower-margin enterprises, reinforcing perceptions of inequity. Policy implementation which is poorly designed and politically driven reduces the trust of the rural sectors in change processes, and the risk in poorly implemented programs are pushed back onto producers who face volatile markets that react to policy announcements.

Stakeholder interviews also pointed to a lack of coordination across jurisdictions and agencies, particularly in areas like water planning, land tenure, and biosecurity. This fragmentation reduces clarity and increases transaction costs for producers navigating compliance or accessing support. For smaller enterprises without dedicated management capacity, the burden of staying current — or even knowing which standards apply — can erode time, confidence, and headspace for adaptation.

These challenges are not just bureaucratic. They contribute to a form of social drought, where producers feel disconnected from policy processes, uncertain about the future, and reluctant to invest in systems that may soon be outdated. Without clearer signals and coordinated support, even well-intended reforms can undermine resilience by introducing new layers of ambiguity into already complex decision environments.

3.2.5 Advisory Fragmentation

Access to timely, trusted, and context-specific advice is central to farm business resilience — across southern Western Australia, the advisory landscape is well targeted for grains and mixed enterprise businesses, but less so for Beef and Horticulture businesses. Producers need to be able to access the right support at the right time, especially when facing complex transitions, emerging compliance requirements, or strategic planning decisions.

While many growers benefit from technical or commodity-specific advisors, there are persistent gaps in whole-of-enterprise planning — including succession and strategic transition support — particularly for businesses navigating mixed systems, scaling decisions, or risk diversification. The availability of independent, regionally grounded advisors varies significantly, with smaller and lower-margin enterprises often left without cost-effective options. Interviews highlighted frustration with “tick box” planning processes and the lack of strategic follow-through, especially in horticulture and beef sectors, where producers described advisory overload without targeted support.

Stakeholders also noted that many programs and advisory offerings operate in silos, with limited integration across agencies, industries, or regions. This leads to duplicated efforts, missed synergies, and confusion for producers who must piece together fragmented insights from multiple sources. For emerging issues such as emissions accounting or climate adaptation, producers frequently cited the absence of clear, coordinated advice tailored to farm-level realities. Local grower groups have contributed to significant change in this space, but ongoing investment is required. Governments have de-invested in extension networks, and ongoing provision of investment in extension through the grower groups is critical.

The fragmentation contributes to a form of social drought, where a lack of accessible support undermines confidence, reduces uptake of resilience strategies, and isolates producers from peer networks and shared learning. Grower groups and not-for-profits are stepping in to fill the gap — but delivery remains uneven, and capacity is often constrained by short-term funding or limited staffing.

Addressing advisory fragmentation will require investment in both content and coordination — ensuring that advice is not only technically sound, but also relevant, relational, and delivered through trusted channels. Without this, many producers will continue to rely on ad hoc guidance or default to short-term thinking — limiting the strategic adaptation needed to build long-term resilience.

While no enterprise is immune to external pressures, the effects of systemic constraints are unevenly distributed. Regions with limited infrastructure, sectors navigating complex regulation, and smaller or emerging businesses often face disproportionate risk — not due to management failings, but because the systems around them are fragmented, inconsistent, or misaligned with their needs. These conditions define the boundaries of what is possible for producers and shape the operating environment in which resilience must be built.

3.3 Exposure and Vulnerability

Risk exposure is unevenly distributed across the agricultural landscape. Structural characteristics, regional conditions, and adaptive capacity all shape how vulnerability accumulates in different farm businesses. This section synthesises how these factors interact — highlighting where resilience is most constrained and why some enterprises remain more exposed despite operating in similar environments. Rather than restate known pressures, the analysis focuses on how vulnerability is shaped by internal fragilities, geographic disadvantage, and the compounding effect of multiple, interacting risks.

Structural Vulnerability

Structural vulnerability arises when a business's internal characteristics limit its capacity to adapt, absorb shocks, or plan with confidence. Small-scale and undercapitalised enterprises are particularly exposed — often operating with minimal reserves, high input costs, or insecure tenure. These businesses may appear viable on paper but struggle to reinvest, manage succession, or respond proactively to disruption. Fragmented landholdings, lease-based models, or unresolved family transitions further constrain long-term planning.

In many cases, financial constraints are compounded by social dynamics: ageing ownership, interpersonal tension, or unclear roles can delay change and weaken enterprise continuity. Several stakeholders noted that businesses can appear stable in financial terms but remain fragile beneath the surface — lacking buffers, leadership continuity, or reinvestment momentum. These forms of fragility rarely appear in benchmarking metrics but materially affect resilience when conditions shift.

Addressing structural vulnerability requires more than generic training or improved financial literacy. It calls for advisory support that is tailored to the realities of small-scale operations, linked to enterprise structure, and sensitive to family dynamics. These internal constraints — particularly where they intersect with financial and social drought — remain one of the most persistent and under-acknowledged risks to farm business resilience in southern Western Australia.

Regional Exposure

Regional structural disadvantage amplifies risk, particularly in areas with low rainfall, degraded natural assets, or limited service access. Producers in the southern WA face heightened exposure to climatic and ecological drought, including declining groundcover, salinity, and water insecurity. These challenges are compounded by poor freight and housing infrastructure, digital blackspots, and mixed levels of advisory support and knowledge extension — increasing the cost and complexity of adaptation.

Policy transitions, such as the phase-out of live sheep exports or changes to water licensing, also create disproportionate impacts in more exposed zones where diversification options are limited. These regional patterns are not just environmental — they reflect systemic underinvestment that narrows viable enterprise choices and increases vulnerability.

These dynamics highlight how regional context can amplify vulnerability, particularly when environmental pressures coincide with service gaps and limited market alternatives. Even well-managed businesses can face constrained choices in more exposed regions — where adaptation is harder, buffers are thinner, and systemic underinvestment has reduced resilience over time.

Sector-Specific Fragilities

Certain enterprise types face recurring pressure points due to production cycles, labour intensity, or market orientation. Labour-intensive systems — particularly vegetable, fruit, viticulture, and small-scale livestock operations — are vulnerable to workforce volatility, compliance requirements, and seasonal cost spikes. In some areas, labour shortages have eroded business confidence and reduced the viability of manual production models.

Mixed enterprises face planning complexity and risk spread across cropping and livestock systems. Where financial or performance data are not disaggregated, this complexity can obscure vulnerabilities and delay response. In sectors with long production cycles — such as wine or wool — slower returns and rigid timelines reduce flexibility and heighten exposure to market or climate shocks.

These fragilities underscore the need for differentiated support. Enterprise model — including production cycles, labour intensity, and market orientation — shapes how risk accumulates and how resilience can be built. Treating agriculture as a single system obscures this variability and limits the relevance of advisory, policy, and training responses.

Capability Gaps

Many of the vulnerabilities described above — whether structural, regional, or sector-specific — are reinforced by capability gaps that limit enterprise confidence, planning capacity, and decision-making. These include gaps in financial analysis, succession preparation, water literacy, and digital tool use — often reflecting a mismatch between producer needs and the support available. While these needs are examined in detail in the next section, it is important to recognise that capability shortfalls are both a cause and consequence of accumulated vulnerability.

Cascading Risk Factors

While most businesses can manage single stressors, resilience often breaks down when multiple pressures converge. For example, a small, ageing enterprise operating in a low-rainfall zone may already face climate, market, and policy risk — but a labour disruption or infrastructure failure can tip it into crisis. These cascading risks are not hypothetical. Interviews revealed that many producers are operating with diminished buffers — financially, operationally, and emotionally. In this context, even moderate shocks can produce outsized impacts, particularly where support networks are thin or planning systems underdeveloped. Recognising this layered risk is critical: resilience is not just about individual stressors, but how they interact and accumulate over time.

The next section explores how these risk dynamics translate into capability needs — and what kinds of support systems are most likely to build sustained enterprise resilience.





INDUSTRY NEEDS ANALYSIS

Section 4 SKILLS AND CAPABILITY GAPS



4. Skills and Capability Gaps

The enterprise and systemic pressures outlined in Section 3 reveal how vulnerability accumulates across WA farm businesses — but they also point to what’s missing. In many cases, resilience is constrained not only by external conditions, but by gaps in the skills, tools, and systems that enable producers to plan, adapt, and invest with confidence.

The capability needs identified in this section can be understood as practical responses to different forms of drought: financial stress, ecological and climatic variability, and the erosion of social and advisory networks. Recognising these capability shortfalls helps clarify where support is most urgently needed and where targeted investment could have the greatest impact.

This section builds on the evidence base developed in previous sections and establishes the foundation for the delivery strategies explored in Section 5.

4.1 Enterprise-Specific Capability Gaps

While every farm business faces unique pressures, capability gaps tend to cluster in recognisable patterns across different enterprise types. These differences reflect not just production systems, but also the way risk is experienced, resources are mobilised, and decisions are made. Drawing on regional insights, benchmarking data, and interviews, this section distils the most persistent and consequential capability shortfalls in horticulture, beef, and mixed/broadacre livestock enterprises. These enterprise-level insights provide the base from which cross-cutting capability themes are then examined in Section 4.2.

4.1.1 Horticulture Enterprises

While production sophistication and export orientation are strengths in some subsectors, many smaller or regionally dispersed producers lack the specific planning, workforce, and business capabilities required to navigate the pressures outlined in Sections 2 and 3. Horticulture enterprises in Western Australia face a convergence of capability gaps that limit their resilience in an increasingly volatile operating environment.

Capital planning remains a critical capability gap, particularly for businesses navigating thin margins, labour volatility, and high compliance costs. Interviews highlighted that producers often make reactive capital decisions — investing in cold storage, transport, or irrigation upgrades only after a breakdown or disruption occurs. Few enterprises, especially in the vegetable sector, use structured capital planning models that integrate depreciation schedules, operational risk, or debt servicing thresholds. This limits both resilience and growth potential, particularly in smaller operations without access to in-house financial expertise or industry-aligned advisors.

Workforce management and automation readiness are equally pressing needs. Labour-intensive systems rely heavily on timely access to skilled, seasonal workers, but some producers lack the workforce modelling skills or HR systems needed to manage fluctuating demand, rising costs, or compliance risk. Interviews flagged limited uptake of automation planning — even where automation options exist — due to capability gaps in cost-benefit assessment, workflow redesign, and investment support.

For many producers, workforce stress is not only operational, but strategic: time spent managing reactive labour issues erodes headspace for planning, innovation, or enterprise diversification.

Irrigation efficiency and water systems knowledge also present challenges. While technical solutions are available, adoption remains uneven — constrained by fragmented support and a lack of accessible tools tailored to diverse production systems. Producers report difficulty integrating water use planning with long-term enterprise goals, particularly when facing unpredictable rainfall, variable allocation rules, or the high capital cost of on-farm storage. This gap is especially acute for newer or smaller horticulture operators working outside major irrigation schemes.

Underlying these issues is a structural capability gap: limited access to tailored, strategic advice. Many horticulture businesses — especially those outside peak industry bodies or high-margin export channels — operate with little external input beyond commodity-specific or compliance-driven guidance. As a result, producers face growing complexity without the planning tools or support networks needed to translate operational decisions into long-term resilience strategies.

Addressing these capability gaps requires more than skills training. It demands a strategic, system-oriented approach to business planning, workforce modelling, and capital investment support — particularly for small-to-medium producers who remain structurally under-served by existing advisory and knowledge extension systems.

4.1.2 Beef Enterprises

Beef enterprises in southern Western Australia face distinct capability gaps that limit their ability to adapt strategically and build resilience over time. While many operations remain viable, the combination of ageing infrastructure, smaller scale and herd sizes, and thin margins requires targeted capability development to support reinvestment, biosecurity management, and long-term planning.

Feed budgeting and pasture planning are critical gaps across both high- and low-rainfall zones. While producers typically manage feed supply informally, few use structured budgeting tools that account for seasonal variability, pasture condition, and stocking pressure. Interviews with advisors highlighted that many beef producers rely on experience rather than formalised planning frameworks — limiting their ability to respond proactively to climate variability or shifting market conditions. This capability gap is particularly acute in enterprises with limited grazing flexibility or variable access to supplementary feed.

Cost-of-production modelling and enterprise analysis also remain underutilised. Many family-run beef operations do not identify profit centres or assess the financial impact of herd structure, weaning rates, or finishing systems. This constrains reinvestment decisions and reinforces a reactive management posture, especially in businesses without tailored financial advice. Advisors noted that some producers equate asset growth with business success — limiting focus on cashflow and profitability benchmarks which are the key drivers of business performance.

Underlying these enterprise-specific needs are broader structural challenges. Many beef businesses operate in thin advisory environments, without access to whole-of-business support. Interviewees highlighted that some producers remain disengaged from formal training or benchmarking — and available programs can be poorly tailored to their system scale or decision windows. Capability development is highly uneven, with producers either under-represented in regional programs or left to self-navigate complex transitions such as intensification, succession, or exit planning.

These patterns reflect the need for targeted capability building in financial management, feed planning, and enterprise analysis — delivered through mechanisms that recognise the diversity and scale of beef systems across the region.

4.1.3 Mixed Broadacre and Sheep Enterprises

Mixed broadacre and sheep enterprises across the southern and inland regions of Western Australia face a complex set of capability gaps linked to enterprise restructuring, succession uncertainty, and increasing climate volatility. These businesses often operate across fragmented landscapes with different labour, input, and market profiles — increasing the cognitive and operational load on decision-makers. Capability development in this sector must address not only technical needs, but also the decision complexity that impedes strategic planning.

Enterprise profitability planning and restructuring modelling are core capability gaps. While many producers run multiple enterprises — combining sheep, cropping, and sometimes cattle or contracting work — not all use financial tools that separate enterprise performance or support scenario testing. This limits clarity on what is driving or draining profitability and can entrench reliance on underperforming units. Interviews highlighted that producers often “default to the familiar” under pressure, even when diversification strategies may exist. The lack of accessible, comparative modelling tools makes it difficult to assess trade-offs or reallocate resources.

Succession-related capability gaps are also prominent in this cohort. Many mixed enterprises are family-run, with ageing principals and limited planning around ownership transition, business continuity, or labour redistribution. Even where next-generation family members are involved, roles are often poorly defined, and intergenerational expectations misaligned. Interviews suggest this leads to tension, fatigue, and planning inertia — especially where the

enterprise is spread across non-contiguous properties or includes off-farm investments. Succession is not only a financial planning challenge; it is a capability gap in communication, transition modelling, and governance.

Capability development among early-career producers is often constrained by limited access to structured pathways for decision-making, enterprise analysis, or business planning support. In some regions, younger or newer landholders are taking on diversified operations with limited formal support or embedded peer networks. Without coordinated, context-specific guidance, learning remains fragmented and uneven. This group faces a different form of vulnerability — not from lack of skill, but from limited access to coordinated, context-specific support systems.

Workload saturation and planning fatigue further erode capability development. In highly diversified operations, seasonal calendars are stacked and decision windows tight, leaving little space for structured review, risk analysis, or enterprise transition. Interviews repeatedly flagged the issue of “no time to plan, only to react” — a dynamic that limits the uptake of available tools or advisory services, particularly in lower-margin years. This decision overload contributes to social drought as well, with wellbeing and energy levels drained by the constant juggling of competing demands.

Capability support in this sector must be designed with decision context in mind. This includes tools for comparative enterprise analysis, succession facilitation, and structured seasonal review — all tailored to the overlapping systems and constraints that define the mixed enterprise landscape. Table 4.1 summarises the most prominent capability gaps across horticulture, beef, and mixed broadacre enterprises.

Table 4.1 Comparison of Key Capability Gaps by Enterprise Type

Horticulture	Beef	Mixed Broadacre / Sheep
Capital planning & investment modelling	Feed budgeting, pasture planning and feed strategies	Enterprise profitability & restructuring analysis
Workforce management & automation planning	Cost-of-production modelling & enterprise analysis	Succession & intergenerational transition planning
Irrigation efficiency & water planning	Scenario planning and whole of business model planning	Access for early-career producers to structured support
Cost efficiency planning particularly for workforce Negotiating value in volatile market places	Access to tailored, whole-of-business support	Investment decision making Debt management

While the expression of capability gaps varies by enterprise type, several underlying needs cut across sectors — particularly in the areas of business planning, climate risk management, workforce management, and data management.

4.2 Barriers and Conditions for Participation

Identifying capability needs is only part of the resilience equation. Whether producers are able — and willing — to engage in training depends on a complex mix of structural, cultural, and logistical conditions. Interviews and regional planning documents consistently highlight that time, trust, relevance, and accessibility shape how training is perceived and whether it leads to meaningful change. This section explores the barriers that limit participation in capability-building initiatives, as well as the preferences and enabling factors that influence uptake across different regions, enterprise types, and learning styles.

4.2.1 Barriers to Participation

Even when capability needs are clearly defined, producers face a range of barriers that limit their ability or willingness to participate in training and support programs. These barriers are not uniform — they vary by region, enterprise type, and life stage — but several patterns are consistently reported across sectors.

Time and workload pressures are the most commonly cited constraint. Seasonal intensity, unpredictable weather windows, and limited on-farm labour mean that producers often deprioritise training opportunities, even when interest is high. For smaller and family-run enterprises, the challenge is compounded by the absence of backup labour or relief systems, making it difficult to leave the farm for even short periods. Several interviewees described a recurring pattern of “intended but abandoned” participation — where producers register for events but withdraw due to shifting operational demands.

Structural delivery barriers also play a role. In remote or sparsely populated areas, long travel distances, and variable digital connectivity reduce the feasibility of both in-person and online delivery.

Perceived relevance and trust remain significant barriers. Many producers, particularly in mixed or non-aligned enterprises, report that available training feels generic, outdated, or disconnected from real-world decisions. Some also express scepticism about the motivations or practical knowledge of external trainers — especially those unfamiliar with local production systems or regional constraints. This low trust is often rooted in previous negative experiences, short-term program cycles, or a history of inconsistent support.

Digital access and confidence further limit participation. Even where online resources are available, connectivity issues and digital literacy gaps prevent effective use. Producers express frustration with registration platforms, session logins, or online toolkits that were not intuitive or mobile-friendly. This friction can deter future engagement and reinforce perceptions that training is not designed with producers in mind.

Finally, logistical factors such as childcare, transport, or scheduling were repeatedly flagged as hidden but consequential barriers — particularly for women, younger families, and multi-generational households balancing school holidays, sporting commitments, and seasonal peak workloads. These everyday realities often go unacknowledged in program design but have a material impact on participation.

Understanding these barriers is critical not only for designing more accessible programs, but for building trust, continuity, and relevance into how capability support is delivered. Without this, even well-targeted training risks failing to reach the producers who could benefit most.

4.2.2 Preferred Learning Models

While barriers to participation remain significant, producers also consistently describe the conditions under which learning is most effective. These preferences reflect not just content or format, but a broader orientation toward practicality, peer trust, and local relevance. Interviews and regional engagement confirm that training is most valued — and most likely to lead to change — when it aligns with enterprise decision points, fits around production cycles, and reflects producers’ lived realities.

Peer-led and locally facilitated delivery consistently emerges as the preferred model. Producers across sectors emphasise that they learn best from trusted peers, neighbours, or regionally grounded facilitators who understand their operating environment. External experts can be valuable, but only when their content is clearly adapted to local conditions and validated by trusted intermediaries. Several interviewees noted that credibility is established less through credentials than through contextual fluency and relational trust.

Hands-on and problem-solving formats are strongly preferred. Workshops, toolkits, or sessions framed around specific enterprise challenges — such as feed budgeting, succession scenarios, or climate planning — are more likely to generate engagement than abstract content. Producers are more willing to invest time in learning when they see a direct application to current business questions, or when content is modular and can be applied incrementally.

Seasonal alignment and flexibility are critical enablers. Producers consistently request that training be offered during low-pressure periods — avoiding peak workload windows, harvest, or lambing — and that delivery be modular or staged to accommodate shifting time availability. Short, focused sessions that respect seasonal decision windows are often more effective than longer-format training with rigid schedules.

Families operating across generations report that training is more effective when it accommodates different learning styles, includes both on-farm and off-farm decision-makers, and supports conversations about transition and leadership roles.

Finally, mentoring and peer networks are widely viewed as valuable complements to formal training. Several stakeholders noted that lasting capability shifts often stem from informal support, repeated exposure to tools over time, and opportunities to test new approaches in a low-risk, peer-supported environment. These relational pathways — while harder to scale — are often more trusted and enduring than one-off interventions.

Understanding these preferences is essential for designing delivery systems that build trust, support uptake, and enable producers to build capability over time. While no single model fits all, effective training responds not just to what producers need to know, but to how, when, and with whom they prefer to learn. Table 4.2 summarises the most commonly cited barriers to training participation, alongside the enabling conditions identified by producers and advisors.

Taken together, the capability gaps, participation constraints, and learning preferences outlined in this section point to a clear imperative: building resilience is not only about delivering the right content, but doing so in ways that reflect producers' operating realities. Effective capability development depends on trust, timing, and relevance — not just curriculum. The next section builds on this foundation to explore delivery models and system enablers that can translate identified needs into meaningful, scalable support for farm businesses across southern Western Australia.

Table 4.2 Common Barriers & Enabling Conditions for Producer Training Participation

Barrier Theme	Description	Enabling Condition
Time & Workload Pressure	Seasonal intensity & lack of backup labour constrain participation.	Modular delivery during low-pressure periods; short, targeted sessions.
Structural Access Barriers	Distance, poor connectivity, & limited venues reduce training feasibility.	Locally delivered sessions; flexible online/offline formats.
Trust & Relevance	Scepticism toward generic or disconnected content limits engagement.	Peer-led & locally facilitated delivery with contextualised content.
Digital Confidence & Access	Low literacy & infrastructure gaps limit uptake of online resources.	Intuitive tools, supported onboarding, & blended delivery options.
Hidden Logistical Factors	Childcare, transport, & family commitments often go unacknowledged.	Family-inclusive models; flexible scheduling; wraparound support.



INDUSTRY NEEDS ANALYSIS

Section 5 DELIVERY MODELS



5. Capability Development and Delivery Models

Building farm business resilience is not only about identifying capability gaps — it's about translating those needs into effective, accessible, and context-sensitive support. Section 4 outlined where capability is most needed; this section turns to how that capability can be built and delivered at scale.

Training and support models must also recognise that producers are not all positioned to make the same degree of change. Some are focused on maintaining core operations, while others are ready to modify practices or pursue more transformative shifts. The Maintain–Modify–Transform (MMT) framework offers a way to guide how support is sequenced and delivered — enabling producers to engage from where they are and build capability in line with their goals, risk profile, and resource base. This flexibility is especially important for producers in marginal systems, family enterprises undergoing transition, or early-career entrants managing tight constraints.

Drawing on producer preferences, known system enablers, and conditions for participation, this section explores how training can be aligned with enterprise realities, embedded in existing networks, and adapted to diverse regional contexts. The focus now shifts from diagnosis to design — offering guidance on how to deliver capability development that is trusted, practical, and responsive to the operating environment of WA's farm businesses.

5.1 Target Capability Areas

This section identifies the highest-priority capability areas that training programs should address — drawing directly from the enterprise-level gaps, cross-sector themes, and participation constraints explored in Section 4.

Delivery approaches must also accommodate different starting points. Some producers are focused on stabilising current operations, while others are pursuing more significant change. Capability-building must support this progression — allowing producers to move at their own pace, in line with their aspirations, context, and capacity.

5.1.1 Aligning Delivery with Capability Gaps

Effective capability development begins with alignment — not only between training content and enterprise need, but between delivery models and the realities of farm decision-making. Delivery must respond to producers' real-world constraints, decision cycles, and levels of trust in available support. The following subsections outline how training can be tailored to address each of the priority capability gaps identified in Section 4.

Business and Financial Planning

Training should emphasise applied tools that support five key areas financial resilience as gleaned from interviews and financial benchmarks:

1. Operating Efficiency

This is one of the key disciplines of a top performing business. This is expressed as a ratio (business cost to income ratio) and is critical to achieve to have a well performing business across years. This includes labour efficiency.

2. Enterprise Alignment

Having the right enterprise mix, applying inputs precisely, maximising input decisions and getting timing right is critical for business resilience.

3. Investment Decision Making

The rate of return on capital is better for resilient businesses. Making decisions based upon return on investment or cost benefit analysis to the business is a key skill. Investing surpluses well and reducing costs in poor year delivers long term resilience.

4. Debt Management

In businesses that have a higher debt and lower operating surplus, there is reduced capacity to re-invest. How debt is structured, timed and tailored repayments build financial resilience. Capital budgeting and investment appraisals (as per point 3) define resilient businesses.

5. Cash flow management

Being able to cashflow budget is a pivotal tool, guiding a farm business over a certain period, making sure the business has sufficient funds to meet their obligations and grab opportunities. This informed decision making helps the business to optimise their operations, investments and financing activities, and increases the business competitive advantage.

These approaches are especially important for producers who do not routinely use segmented financial analysis or scenario testing. Programs are most effective when financial literacy is built incrementally and grounded in enterprise-specific examples, rather than abstract models. Delivery formats that combine clear tools with trusted local facilitation improve uptake, especially when supported over time.

Water Planning

Training in water management should move beyond infrastructure upgrades and include structured assessments of water supply reliability, seasonal demand, and long-term planning. This is particularly important in livestock and mixed systems facing climatic and ecological drought. Producers benefit from regionally relevant case studies and tools that support cost-benefit analysis of options. Delivery models that incorporate both technical and business perspectives — and that are tailored to local regulatory and ecological conditions — are more likely to be adopted.

Workforce and Succession Planning

This domain requires training that addresses operational, relational, and strategic elements. Entry points such as labour calendars, task mapping, or business continuity plans help producers manage immediate challenges while preparing for longer-term transitions. Better teams with higher productivity outcomes should be the key areas of focus.

Succession planning benefits from approaches that are family-inclusive and facilitation-based, allowing time for conversations around governance, equity, and roles. Training should reflect the diversity of business structures and stages — and be delivered in ways that build trust and reduce the emotional load often associated with transition.

Digital Tools and Data Confidence

Producers need support not just in accessing digital tools, but in understanding what is worth adopting and how to apply it. Training is most effective when it helps producers test tools in real-world contexts and compare their value with peers. Sessions that enable guided exploration — focused on specific enterprise problems — build digital confidence and reduce tool fatigue. Without this targeted and supported delivery, digital tools risk adding to complexity rather than enabling better decisions.

5.1.2 Factors Influencing Uptake and Participation

Training programs must do more than address the right capability gaps — they must also align with how, when, and why producers engage. As outlined in Section 4.3, participation is shaped by a combination of structural, relational, and contextual barriers. Delivery strategies must reflect these constraints while also enabling producers to engage from their current position — whether they are maintaining, modifying, or transforming aspects of their business. Drawing on these insights, this subsection distils the most commonly cited delivery factors into six practical categories that influence uptake and enable lasting capability development.

Seasonal Timing

Producers consistently emphasise that training must align with seasonal calendars and enterprise decision points. When delivery occurs during busy periods — such as harvest, lambing, or major compliance cycles — even well-targeted training goes unused. Flexibility is critical: modular, short-form formats, and sessions that can be paused or resumed are strongly preferred. Late summer and early autumn are generally preferred for planning-oriented sessions, while winter offers opportunities for business analysis and review. Programs that respect seasonal intensity and offer repeat or asynchronous access are more likely to reach time-poor producers.

Facilitator Trust

Credibility is built through relationships, not credentials. Producers consistently prefer facilitators with local knowledge, practical experience, and a proven ability to listen. While external experts can offer valuable technical insight, they are most effective when endorsed by local intermediaries or co-delivered with regionally known advisors. Facilitators who understand local realities or share similar lived experience are more likely to build trust — especially when delivering training on sensitive topics like succession or financial planning.

Delivery Format

Face-to-face delivery remains the most effective format in many regions, especially where connectivity or digital literacy is low. Producers favour training that is interactive, practical, and anchored in real enterprise decisions — not abstract instruction. Toolkits, enterprise simulations, and applied exercises support this learning style. Training framed around solving real business challenges is more engaging than material presented through formal categories or abstract topics.

Local Relevance and Peer Validation

Producers are more likely to engage in training that reflects local production systems, decision windows, and enterprise scale. Generic content is often perceived as out of touch — particularly by smaller or mixed enterprise operators. Validation by trusted peers, local advisors, or producer groups significantly increases uptake. When content is seen as grounded in local realities — not generic prescriptions — producers are more likely to attend, apply, and share what they learn.

Family-Inclusive Delivery

Training must be inclusive of the diverse contexts in which WA producers operate.

For intergenerational family enterprises, effective delivery involves timing around childcare or schooling, and should support shared learning with the family around the kitchen table. It should encourage participation from both on-farm and off-farm family members and facilitating conversations about roles, succession, and enterprise continuity. In both cases, delivery models must reflect how knowledge is shared within the enterprise and community, not just what content is delivered.

Digital Access

Digital delivery is often limited by patchy connectivity, low confidence, or lack of practical support. Many producers report frustration with registration portals, clunky interfaces, or complex tools that fail to deliver clear value. Digital formats should be offered as an option rather than the default, and producers should be supported to trial and compare tools before committing to their use. In-person sessions and one-on-one support remain more effective in regions where digital access or trust is limited.

5.2 Delivery Platforms and System Integration

Translating capability needs into effective support requires more than good content — it depends on how training is embedded, accessed, and coordinated. This section examines the delivery platforms and systems best suited to implement training at scale, drawing on existing networks, trusted intermediaries, and opportunities for integration. The goal is to ensure that delivery not only reaches producers but does so in ways that align with their realities, preferences, and enterprise contexts. Building on the target areas and participation conditions outlined in 5.1, the following subsections explore how training can be embedded in familiar settings and adapted to diverse regions, enterprise types, and cultural contexts.

5.2.1 Embedding Training in Existing Networks

Producers are more likely to engage with training when it is delivered through channels they already trust. Embedding capability development in existing networks — rather than creating standalone offerings — improves reach, relevance, and continuity. It also enables training to align with existing rhythms of information exchange, enterprise planning, and seasonal decision-making. This subsection outlines how trusted intermediaries, advisory relationships, and grower group networks can serve as effective delivery anchors.

Trusted Intermediaries

Local organisations — including grower groups, Industry associations and long-standing community networks — are often the first point of contact for farmers seeking support. These intermediaries already coordinate field days, discussion groups, and planning forums, and are well-placed to host or facilitate training. Embedding capability development within these settings helps reduce delivery fatigue and reinforces local relevance. It also enables training to be built into existing events, offering low-barrier access points for producers with limited time or capacity.

Advisory Relationships

Many producers maintain long-term relationships with agronomists, consultants, or financial advisors. These relationships offer a valuable pathway for delivering training in a way that is personalised, contextual, and embedded in real business decisions. Capability support — such as planning tools, financial modelling, or climate risk interpretation — can be more effective when delivered in conjunction with existing advisors. This approach reinforces continuity, avoids duplication, and leverages trusted rapport built over time.

Peer Networks

Informal producer groups — including benchmarking cohorts, discussion forums, and mentoring circles — are essential to the spread of ideas and validation of new practices. When training is embedded within these networks, it supports peer learning and normalises experimentation. These settings are especially valuable for producers who are hesitant about formal training but willing to learn from peers. Facilitating these groups with structured content, light-touch guidance, or modular resources can extend their impact while preserving their informal strengths.

Alignment with Decision Points

Embedding training in existing networks also supports better alignment with critical decision windows — such as budgeting, succession planning, capital investment, or infrastructure upgrades. When capability support is tied to decisions producers are already making, uptake improves and learning becomes more actionable. Local intermediaries and advisors are often best placed to time training delivery to coincide with these decision cycles, ensuring that content is timely, useful, and likely to be applied.

System Integration

Networks also serve as bridges between enterprise-level training and broader system supports — such as grants, accreditation schemes, or compliance tools. When facilitators can connect training participants to follow-on services, the benefits of capability development are multiplied. This requires coordination across programs and clarity about how training fits into the broader support landscape. Co-investment in local coordination, shared delivery resources, and facilitator development is essential to sustaining this kind of integrated model.

5.2.2 Tailored Delivery Pathways

While embedding training in existing networks provides a strong foundation, delivery models must also be tailored to reflect the diversity of WA farming systems, enterprise contexts, and cultural settings. One-size-fits-all formats are unlikely to meet the needs of producers operating in remote regions, managing labour-intensive systems, or navigating family transition. Tailored models are also essential for supporting producers at different stages of change — including those maintaining core operations, modifying practices, or exploring more transformative shifts.

Regional Delivery Models

Delivery models must reflect the logistical realities and infrastructure limitations of different parts of WA. In remote or low-density regions, long travel distances, limited trainer accommodation, and poor digital connectivity constrain participation. Mobile facilitation, on-farm sessions, or small-group cluster models are often more viable than centralised workshops. In higher-density areas, where delivery fatigue may set in, short-format and high-value sessions are more effective.

Producers operating smaller or undercapitalised enterprises also require delivery options that minimise cost, travel, and time away from core business — including one-on-one 'kitchen table' support or delivery embedded in trusted advisory channels. Adapting format, location, and scheduling to regional conditions is essential for reducing barriers and increasing uptake. This includes offering layered entry points that allow small or time-poor enterprises to engage gradually, without needing to commit to intensive or long-form training.

5.3.2 Delivery Priorities and Recommendations

The following recommendations translate the design principles outlined above into clear priorities for action. They are intended to inform FBRP implementation and guide co-investment

by partner agencies, delivery organisations, and regional intermediaries. Each recommendation addresses a critical enabler for effective delivery, drawing on recurring barriers and opportunities identified through producer insights, benchmarking, and delivery system review. They are not presented in priority order.

Invest in Local Facilitation Capacity

Build and maintain a network of regionally based facilitators (grower groups) who understand local production systems, enterprise contexts, and seasonal rhythms. Training is most effective when delivered by people with local knowledge and trusted relationships and subject matter experts (in coordination). Support this cohort through training, mentoring, and access to shared resources — ensuring that facilitation remains high quality, relational, and grounded as programs scale.

Embed Training in Existing Networks

Wherever possible, deliver capability support through trusted intermediaries — such as grower groups, industry organisations — rather than establishing stand-alone offerings. Embedded delivery improves uptake, reduces duplication, and aligns with how producers already access support and make decisions. This approach also enables training to be timed with seasonal forums or planning windows, reinforcing relevance and continuity.

Support Modular and Layered Delivery Models

Design programs to accommodate producers at different stages of capability, time availability, and enterprise scale. Offer modular training that can be delivered in short formats and re-engaged over time. Programs should offer entry points that allow producers to engage at different levels of depth, at their own pace — without requiring upfront commitment to intensive or long-form training.

Integrate Practical Tools and Enterprise Planning

Ensure that training content includes applied tools — such as planning templates, decision calendars, or enterprise simulations — that directly support real-world business decisions. Producers are more likely to engage when tools are contextualised and relevant to current enterprise needs. Facilitators should be supported to adapt and translate tools to fit the realities of different production systems and business structures.

Co-Design Programs with End Users

Engage producers early in the design process to ensure delivery models reflect real constraints, preferences, and decision points. Co-design is especially important when addressing sensitive or complex topics — such as succession, financial planning, or climate adaptation — where trust, flexibility, and pacing are critical. Training concepts should be tested with local groups and iterated based on feedback. Co-design should not be treated as a consultation exercise but as an embedded part of program development and evolution.

Strengthen System Coordination and Alignment

Coordinate training delivery with other system supports — including grants, digital tools, and accreditation schemes — to reduce fragmentation and improve continuity. Regional coordination roles and shared delivery infrastructure can bridge across programs, enabling integrated delivery that builds on tested approaches and remains adaptable through local feedback and facilitator experience.

Together, these principles and delivery priorities provide a practical foundation for effective capability development. They reflect how producers learn, what they need to plan with confidence, and where delivery systems must adapt. Section 6 turns the focus to the future — identifying the enterprise strategies, innovation pathways, and external forces that will shape capability needs in the years ahead.



INDUSTRY NEEDS ANALYSIS

Section 6 FUTURE DIRECTIONS



6. Future Directions and Sector Drivers

Building long-term resilience in WA agriculture will require not only closing today's capability gaps, but preparing for the enterprise and system-level transitions already underway. This section synthesises the emerging shifts most likely to shape future capability needs — drawing together enterprise decisions, innovation pathways, and external drivers identified throughout this report.

It reflects insights from interviews, benchmarking data, strategic foresight studies, and sector-specific research. Three interrelated domains of change are already influencing how producers operate and plan: **adaptive enterprise strategies**, which reflect how businesses are repositioning in response to volatility, cost pressures, and climate risk; **innovation and adoption dynamics**, encompassing the uptake of new technologies, practices, and enabling systems; and **market and policy signals**, including traceability, ESG expectations, and regulatory shifts that are reshaping the demands placed on farm businesses.

The section concludes by distilling the implications for the capability system itself — identifying the kinds of support and learning models required to enable viable transitions, future-facing planning, and sustained enterprise health.

6.1 Adaptive Enterprise Strategies

Resilience planning must support producers not only to absorb disruption, but to reposition, reconfigure, or transition where needed. Across WA agriculture, shifting margins, demographic transitions, and evolving family dynamics are prompting more deliberate decisions about scale, continuity, restructuring and diversification. These changes are not only internal — they reflect broader system pressures including input cost volatility, climate risk, and the emergence of environmental income streams. Together, these drivers influence what producers need from capability systems and when they need it — placing new demands on the timing, sequencing, and type of support provided.

Enterprise Diversification and Transition

For undercapitalised or regionally exposed businesses, diversification serves as a key risk management strategy — particularly in mixed or marginal zones. In some cases, planned enterprise scale-down or exit is being considered as a strategic pathway.

Benchmark data and interview insights suggest that enterprise transition is becoming more deliberate, with options such as staged scale-back, asset restructuring, or intergenerational equity shifts increasingly explored. These models require support in sequencing decisions, financial planning, and long-term goal setting.

Emerging income opportunities — such as biodiversity credit schemes under the Nature Repair Market or landholder partnerships linked to WA's clean energy transition — are beginning to shape diversification strategies in parts of the state. Capability systems must evolve to help producers assess these options alongside core business planning.

Intergenerational Change and Business Continuity

Succession planning is no longer a linear transfer of ownership. Instead, many WA farm businesses are adopting more complex transition arrangements — including shared management, staggered handover, or involvement of non-family operational roles. These transitions often unfold over years and carry both emotional and financial complexity.

Capability systems must reflect these realities. Succession support should extend beyond legal and retirement frameworks to include facilitation, relationship governance, and workforce transition planning. Training that enables shared understanding across generations and supports long-term planning is increasingly essential.

Capability Implications

To meet the evolving needs of producers, capability systems will need to:

Equip enterprises with tools to assess viability, model alternative pathways, and plan orderly transitions, including scale changes and staged succession.

Provide early-career entrants with support for structured goal setting, business planning, and confidence-building in enterprise decision-making.

Deliver family-inclusive training models that support intergenerational transition, with a focus on facilitation, relationship dynamics, and role clarity.

Offer tailored advisory support for diversification — including guidance on environmental income streams and mixed enterprise strategies.

6.2 Innovation and Adoption Dynamics

The long-term resilience of WA agriculture will depend not just on delivering existing knowledge, but on enabling producers to trial, evaluate, and embed new ideas. As technologies, practices, and production models evolve, capability systems must be ready to support innovation that is fit for purpose — grounded in enterprise realities and scaled through trusted networks.

This section shifts the focus from current delivery needs (Section 5) to the broader innovation environment. It highlights how adoption is influenced by enterprise context, facilitation quality, and system design — and what this means for future capability development.

Enabling Contextualised Innovation

Innovation is not a one-size-fits-all proposition. Some are motivated by efficiency or compliance, while others seek to reduce exposure to climate or input volatility.

Trial-based learning is especially important: producers tend to adopt when they can test innovations in a low-risk environment and observe results among trusted peers. Capability systems must be designed to support this experimentation — enabling producers to compare options, assess outcomes, and decide what to integrate.

Supporting System-Level Adoption

The broader innovation system — including policy settings, grants, research networks, and on-ground intermediaries — plays a critical role in shaping what is possible to adopt. Producers are more likely to act when support is available to translate innovation into local systems and when delivery includes both technical guidance and practical framing.

Facilitators and advisors are central here: they act as connectors between emerging knowledge and enterprise realities. When facilitators are trusted and supported to adapt innovation to local contexts, adoption improves. System design must ensure these intermediaries are equipped, resourced, and embedded in long-term networks, not short-term projects.

Capability Implications

To support innovation readiness across WA's agricultural sector, capability systems will need to:

Enable trial-based learning, including peer-led demonstrations and enterprise-specific experimentation.

Support advisory and facilitation roles that help translate new tools and research into practical, locally adapted action.

Foster critical appraisal skills, enabling producers to assess innovation claims, weigh trade-offs, and adopt with confidence.

Strengthen system coordination, ensuring that innovations are backed by technical support, training, and accessible transition pathways.

6.3 Market Compliance Pressures

New layers of market and policy pressure are reshaping what resilience and capability look like in practice — demanding not only new skills, but new forms of support and system coordination. From traceability and animal welfare to emissions disclosure and biodiversity accounting, producers are navigating a rapidly evolving landscape of expectations. These signals influence not only enterprise strategy, but also how producers assess risk, access markets, and prioritise planning. While some shifts are industry-led or consumer-driven, others are emerging through legislation, investor scrutiny, and supply chain compliance — all of which are redefining the demands placed on farm businesses and the capability systems that support them.

Environmental Performance and Disclosure

Capability demands are rising in response to tightening requirements for emissions reporting, natural capital accounting, and biodiversity stewardship — through both formal compliance systems and emerging industry frameworks. While the design of new federal and industry-led schemes for environmental disclosure and stewardship is still evolving, producers are increasingly expected to demonstrate land management practices, input use, and environmental outcomes. These pressures are particularly relevant in mixed or extensive systems where natural capital intersects with commercial activity. Regional NRM strategies and WA's clean energy transition are also expected to introduce further verification requirements — particularly where land use, infrastructure access, or incentive eligibility are linked to environmental performance.

Market Verification Requirements

Beyond policy compliance, many domestic and export-facing producers are encountering market-based expectations — including traceability, animal welfare, provenance labelling, and adherence to environmental, social and governance (ESG) criteria. Retailers, processors, and trading partners are increasingly embedding these requirements into contracts, finance

instruments, and price signals. Verification systems are not new, but the intensity and breadth of reporting expectations is expanding. Producers need not only technical capability to comply, but also strategic understanding of how these expectations align with their market position and enterprise goals.

Exposure to Trade and Input Volatility

International conditions — including global input costs, logistics volatility, and geopolitical trade risks — are amplifying the need for scenario planning, input substitution, and financial resilience. Exposure to these pressures varies by enterprise, but confidence in supply chain mapping, contracting risk, and buffer strategies is becoming a core component of business capability. As climate-linked trade barriers and sustainability-linked finance gain traction, producers will require support to navigate these systems in ways that protect both market access and operational stability.

Capability Implications

To enable producers to navigate this increasingly complex compliance landscape, capability systems will need to:

Build enterprise-level confidence in meeting ESG, stewardship, and emissions requirements, including through planning tools, peer examples, and localised advisory support.

Develop skills in verification and documentation, supporting producers to work within traceability systems and understand what is required for different market pathways.

Support risk navigation and scenario planning, especially for producers exposed to input volatility, trade restrictions, or evolving sustainability-linked finance instruments.

Align compliance training with market realities, ensuring that support is timely, practical, and clearly connected to enterprise goals and sector-specific requirements.

Table 6.1 synthesises the key capability needs arising across the three domains explored above, offering a bridge between emerging enterprise trends and the system priorities addressed in Section 6.4.

Table 6.1: Future-Facing Capability Priorities by Domain

Domain of Change	Key Capability Needs
Adaptive Enterprise Strategies	<ul style="list-style-type: none"> • Viability tools for scale/exit decisions • Diversification planning • Succession and intergenerational facilitation
Innovation & Adoption Dynamics	<ul style="list-style-type: none"> • Trial-based learning models • Trusted advisory support • Critical appraisal and decision tools
Market and Policy Signals	<ul style="list-style-type: none"> • ESG, traceability, and stewardship literacy • Verification and documentation skills • Scenario planning for trade/ input risk

6.4 System-Level Priorities for Capability Development

Sections 6.1 to 6.3 highlighted how enterprise repositioning, innovation dynamics, and compliance pressures are reshaping the capability needs of WA farm businesses. While specific needs vary across regions and enterprise types, several system-level priorities have emerged consistently — particularly in relation to delivery design, coordination, and learning pathways.

These priorities distil cross-cutting needs identified across Sections 4–6 — especially recurring delivery challenges, participation constraints, and emerging enterprise shifts. The priorities below reflect both enterprise-level needs and broader system design challenges. They offer a forward-looking agenda for how WA’s capability system can evolve to support viable transitions, strengthen planning capacity, and sustain resilience in a changing operating environment.

1. Strengthen Decision-Making Tools and Sequencing

Capability systems must prioritise tools that help producers assess trade-offs, test enterprise scenarios, and plan staged transitions. These include templates and guides for succession, compliance, diversification, and climate or input risk modelling. Tools should be enterprise-specific, accessible, and embedded in delivery models that reflect decision timing and complexity.

2. Enable Lifelong, Layered Learning Pathways

One-off training is insufficient in the face of ongoing change. Systems must allow producers to engage at multiple points in their enterprise lifecycle — from entry and growth through to succession or exit. Programs should support modular, repeatable access, and recognise informal or peer-based learning as legitimate and impactful.

3. Invest in Facilitation, Coordination, and Local Capacity

System enablers — including facilitators, grower groups, coordinators, and embedded advisors — play a critical role in supporting uptake. Investment is needed in their development, retention, and integration into local networks. Intermediary organisations that host, broker, or align delivery also require sustained support.

4. Improve Delivery Alignment and Reduce Duplication

Producers consistently cite delivery fatigue and program fragmentation as barriers to participation. Capability systems must be better coordinated across agencies and aligned with broader supports such as grants, compliance tools, and incentive schemes. Improved regional coordination and clearer signposting of available support will reduce confusion and increase engagement.

5. Embed Adaptive Capacity in Delivery Models

Capability systems must remain responsive as external pressures and enterprise needs evolve. This requires flexible program design, embedded feedback loops, and a commitment to ongoing co-design with producers. Delivery models must also be equipped to accommodate emerging capability areas — such as biodiversity accounting, emissions planning, or energy transition participation — as these rise in salience.



INDUSTRY NEEDS ANALYSIS

Section 7 CONCLUSION



7. Conclusion

This Industry Needs Analysis was developed to inform the place-based delivery of farm business resilience training across southern Western Australia. It identifies the capabilities, constraints, and enabling conditions shaping resilience — and translates these insights into actionable guidance for program and system design.

The analysis draws on sectoral data, benchmarking, drought resilience planning, and producer interviews. It remains focused on farm business challenges and delivery system constraints, rather than attempting a system wide review of agricultural policy. This framing has enabled the analysis to remain grounded in what producers need most: practical, context-sensitive support that aligns with real decision points, operating conditions, and regional diversity.

What follows is not a restatement of previous chapters, but a synthesis that draws together key patterns and implications across regions, sectors, and delivery systems. The intent is to support future implementation efforts while remaining responsive to the diversity and complexity of WA's farm businesses.

7.1 Synthesising Key Insights

This analysis examined farm business resilience through multiple lenses: enterprise structure, regional pressures, capability gaps, delivery conditions, and system-level enablers. While each section addressed a distinct dimension of the challenge, they are tightly interlinked. It synthesises how these elements connect, where capability support is most needed, and how it must be delivered.

Understanding these interconnections begins with Section 2, which explored the diversity of enterprise types, ownership models, and regional operating conditions that shape resilience across WA's farm sector. This diversity helps explain the uneven distribution of risk examined in Section 3 — from enterprise-level pressures such as margin compression, labour shortages, and succession risk, to systemic constraints including infrastructure gaps, input cost and access pressures, and fragmented advisory support. These pressures interact to create regionally specific patterns of vulnerability and limit the ability of producers — particularly smaller, undercapitalised, or regionally disadvantaged enterprises — to plan or adapt with confidence.

This complex mix of enterprise-level and systemic pressures underpins the capability needs outlined in Section 4. The report identified a set of foundational skills that support business planning, risk management, and adaptive decision-making. These gaps remain unresolved at scale and are often compounded by time constraints, delivery fragmentation, and limited access to trusted support.

Section 5 examined how producers want this support delivered — emphasising trusted, peer-led, and locally facilitated formats. These approaches are seen as most effective when modular, seasonally aligned, and anchored to enterprise-specific decisions. Participation is shaped less by content quality than by timing, trust, and perceived relevance. Without these enabling conditions, even well-designed programs may fail to generate sustained impact.

Section 6 extended this focus to the broader system conditions needed for scalable, coordinated delivery. Priorities include more integrated delivery networks, clearer entry points for producers at different stages, and stronger alignment between training content, regional needs, and enterprise pressures. As the sector navigates increasingly complex compliance demands, digital transformation, and shifting market expectations, delivery systems must remain flexible, trusted, and responsive. Resilience will depend not just on new knowledge, but on a support ecosystem capable of enabling both incremental improvement and transformational change.

Taken together, these sections reinforce a central insight: building resilience is not just about better content — it requires delivery systems that respond to the complex realities of farm businesses. Unless delivery models are trusted, accessible, and aligned with enterprise decision contexts, even the most relevant training content will struggle to gain traction.

7.2 Strategic Implications for Delivery Design

The findings presented here point to several strategic considerations for strengthening the design and delivery of capability support across WA's farm sector. While capability gaps are broadly consistent across regions and sectors, the operating conditions, learning preferences, and access points for producers are not. This variation reinforces the need for a flexible, layered program model that balances consistency of intent with adaptability in implementation.

Section 5.3 identified six principles to guide effective delivery. Programs should be **relational** — built on trusted relationships between producers and facilitators, rather than transactional, one-off interactions. They need to be **flexible**, accommodating seasonal workloads, delivery preferences, and enterprise-specific pressures. Content should be **applied**, grounded in real decisions and supported by tools that reflect local challenges. Delivery should also be inclusive — responsive to the cultural, generational, and operational diversity of WA producers. To reach scale without losing relevance, delivery must be **scalable**, leveraging local networks, facilitators, and platforms. Finally, it should be **sequenced**, enabling producers to engage from their current starting point and build confidence over time.

At a broader system level, Section 6.4 identified five priorities to guide scalable, coordinated capability development. First, producers need better access to decision-making tools that support planning and risk management. Second, capability systems should enable lifelong, layered learning across the full enterprise lifecycle. Third, sustained investment is needed in facilitation, coordination, and local capacity — especially through embedded advisors and intermediary organisations. Fourth, delivery must be better aligned across programs, agencies, and incentives to reduce duplication and participation fatigue. And fifth, models must remain adaptive, capable of responding to evolving enterprise needs, compliance demands, and market expectations.

Resilience is not built through content alone, but through delivery systems that anticipate future needs and support learning across diverse enterprise contexts. These systems must accommodate producers at different stages of readiness — whether they are maintaining core operations, modifying specific practices, or pursuing more transformational change. This aligns with the Maintain Modify Transform framework, which informs the report’s approach to capability development and supports sequenced learning and fit for purpose delivery. Delivery models must therefore remain agile — capable of guiding producers along context-sensitive learning trajectories and evolving as capability needs shift, including in areas such as digital literacy, compliance preparedness, and market readiness.

Ultimately, building lasting resilience will not depend on a single delivery innovation, but on the coherence and credibility of the system as a whole. Unless capability support aligns with producer experience, decision points, and learning preferences, even well-designed programs will struggle to generate lasting impact.

7.3 Next Steps

These findings offer a practical foundation for shaping future capability support across WA’s farm sector. They clarify where capability support is most needed, how it should be delivered, and what system-level changes will be required to sustain resilience.

As delivery begins, several priorities warrant attention. First, ongoing benchmarking and data collection will be essential to monitor emerging capability needs, track participation, and evaluate impact across enterprise types and regions. Second, program design must remain responsive to underrepresented groups — including smaller, mixed, and emerging enterprises — where capability gaps often intersect with limited access to trusted support. Third, content development and facilitator training should be co-designed with producers and intermediaries to ensure contextual fit, delivery quality, and practical relevance.

Delivering on these priorities will also require sustained coordination across delivery partners and alignment with complementary resilience initiatives. Implementation should be adaptive — informed by producer insights, regional intelligence, and a commitment to continuous learning. As producers navigate shifting compliance demands, market expectations, and climate risks, the capability system must evolve alongside them — not only in what it delivers, but in how it builds trust, relevance, and confidence at the farm gate. Continued investment in capability-building systems will be essential to sustain this momentum and ensure that support remains responsive to producer needs and sector transitions. Ultimately, this is what will build lasting resilience at the farm gate.



INDUSTRY NEEDS ANALYSIS

BIBLIOGRAPHY AND APPENDIXES



Bibliography

Section 2

- Australian Institute of Health and Welfare (AIHW). (2023). *Climate change and health*. <https://www.aihw.gov.au/reports/environment-and-health/climate-change-and-health>
- Bartos, S. (2022). *Fork in the Road*. Farmers for Climate Action .
- CSIRO & BoM. (2023). *State of the Climate*. Canberra.
- CSIRO. (2020). Chapter Seven: Projections: Atmosphere and Land. In *Climate Change in Australia*.
- CSIRO. (2024). *State of the Climate Report*. Canberra: CSIRO.
- CSIRO. (2024). *Regional Climate Change Explorer*. Retrieved from Climate Change in Australia: <https://climatechangeinaustralia.gov.au/en/projections-tools/regional-climate-change-explorer/super-clusters/?current=SSC&tooltip=true&popup=true>
- Department of Primary Industries & Regional Development. (2024). *Climate Change an the Agricultural Industry*. Retrieved from <https://www.dpird.wa.gov.au/environment-and-sustainability/climate-weather/climate-change/?accordion=accordion94e353c021446f09a75eaf7d4c24aa8>
- Grose, M. P. (2024). *Dangerous climate tipping points will affect Australia. The risks are real and cannot be ignored*. CSIRO.
- Hughes, N. G. (2021). *Climate change impacts and adaptation on Australian farms*. Canberra: ABARES.
- National Farmers Federation. (2020). *Future-proofing farming*. Retrieved from <https://nff.org.au/wp-content/uploads/2021/06/Synthesis-report-Future-Proofing-Farming.pdf>
- United Nations Environment Programme. (2024). *Emissions Gap Report 2024: No more hot air... please!*. Nairobi: UNEP.
- University of Colorado. (2024). *Countdown to an ice-free Arctic: Research warns of accelerated timelines*. Retrieved from <https://phys.org/news/2024-12-countdown-ice-free-arctic-timelines.html>

Section 2.1

- Australian Agricultural Sustainability Framework (AASF), 2022. *Australian Agricultural Sustainability Framework: Version 2*. Canberra: National Farmers' Federation.
- Australian Bureau of Statistics (ABS), 2023. *Agricultural Commodities, Australia – Beef Cattle and Grazing Land Use*. Canberra: ABS.
- Australian Bureau of Statistics (ABS), 2023. *Agricultural Commodities, Australia – Sheep and Land Use Statistics*. Canberra: ABS.
- Australian Bureau of Statistics (ABS), 2024. *Australian Agriculture: Livestock, 2023–24*. Canberra: ABS.
- Citrus WA, 2023. *WA Citrus Strategic Plan 2023–2030*. Perth: Citrus WA.
- Commonwealth Scientific and Industrial Research Organisation (CSIRO), 2022. *Ag2050 Scenarios: Reimagining Australian Farming Systems*. CSIRO Futures.
- Department of Primary Industries and Regional Development (DPIRD), 2023. *WA Premium Beef Project – Summary Report*. Perth: Government of Western Australia.
- Department of Primary Industries and Regional Development (DPIRD), 2024. *Export Market Insights: WA Red Meat*. Perth: Government of Western Australia.
- Department of Primary Industries and Regional Development (DPIRD), 2024. *Horticulture Industry Snapshot*. Perth: Government of Western Australia.
- Department of Primary Industries and Regional Development (DPIRD), 2024. *The Value of Horticulture Industries in WA 2022–23*. Perth: Government of Western Australia.
- Department of Primary Industries and Regional Development (DPIRD), 2024. *Western Australia's Sheep Industry Profile*. Perth: Government of Western Australia.
- Grower Group Alliance (GGA), 2022. *SheepLinks – Program Overview*. Perth: GGA.

- Grower Group Alliance (GGA), 2022. *The Ripple Effect – Project Summary*. Perth: GGA.
- Grower Group Alliance (GGA), 2023. *Climate and Feedbase Resources*. GGA Drought and Innovation Hub.
- Grower Group Alliance (GGA), 2023. *Drought Hub Strategy 2023–2028*. Perth: GGA.
- Horticulture Innovation Australia, 2021. *Vegetable Business Benchmarking: Final Report (VG17000)*. North Sydney: Horticulture Innovation Australia.
- Meat & Livestock Australia (MLA), 2021. *Cattle Numbers – Natural Resource Management Region*. Sydney: MLA Market Information.
- Meat & Livestock Australia (MLA), 2023. *Backgrounding in the WA Beef Industry – Final Report*. Sydney: MLA.
- Meat & Livestock Australia (MLA), 2024. *WA Sheep Snapshot 2024*. Sydney: MLA Market Insights.
- Planfarm & vegetablesWA, 2022. *WA Vegetable Industry Business Benchmarking Project 2021–22: Findings and Analysis*. Perth: Planfarm and vegetablesWA.
- Regional Development Australia South West, 2023. *FarmElevate Program Overview*. Bunbury: RDA South West.
- South Regional TAFE, 2024. *Horticulture Training Offerings – WA South Coast*. Albany: South Regional TAFE.
- VegetablesWA, 2025. *FarmElevate INA Sector Response – Vegetable Industry*. Personal communication, 20 June
- Western Australian Livestock Research Council (WALRC), 2023. *Livestock RD&E Priorities*. Perth: WALRC.
- Western Australian Livestock Research Council (WALRC), 2024. *WA Livestock RD&E Priorities 2024–26*. Perth: WALRC.
- Section 2.2**
- Agdots, 2025. *Coaches Framework and Content Development Presentations*. Internal document.
- Agdots, 2025. *Industry Interviews – WA Farm Business Resilience Program (FBRP)*. Unpublished internal document, June 2025.
- Coriolis, 2023. *Wine Grape Sector Report*. Commissioned by the Department of Primary Industries and Regional Development.
- Department of Primary Industries and Regional Development (DPIRD), 2021. *Western Australia's Primary Industries: 2021–22 Economic Overview*. Government of Western Australia.
- Department of Primary Industries and Regional Development (DPIRD), 2023. *Situation Analysis of Horticulture in Western Australia*. Government of Western Australia.
- Department of Primary Industries and Regional Development (DPIRD). (2022). *Situation Analysis of Horticulture in Western Australia: Area, Value and Challenges*. Government of Western Australia.
- Department of Primary Industries and Regional Development (DPIRD), 2023. *Value of Horticultural Industries in Western Australia 2022–23*. Government of Western Australia.
- DPIRD & Grower Group Alliance (GGA), 2025. *DPIRD–GGA Collaboration Review Final Report*. Department of Primary Industries and Regional Development and Grower Group Alliance.
- Great Southern Development Commission, 2024. *Coastal Great Southern Regional Drought Resilience Plan (Draft)*. Government of Western Australia, Albany.
- Great Southern Development Commission, 2024. *Inland Great Southern Regional Drought Resilience Plan*. Government of Western Australia, Albany.
- Grower Group Alliance (GGA), 2025. *FarmElevate Program: Factsheet and Media Release*. Grower Group Alliance.
- Horticulture Innovation Australia, 2021. *Vegetable Business Benchmarking: Final Report (VG17000)*. North Sydney: Horticulture Innovation Australia.
- Meat & Livestock Australia (MLA), 2024. *Beef Fast Facts 2024*. Meat & Livestock Australia.
- Meat & Livestock Australia (MLA), 2024. *WA Sheep Overview 2024*. Meat & Livestock Australia.
- Mid West Development Commission & Northern Agricultural Catchments Council, 2023. *Mid West Regional Drought Resilience Plan*. Government of Western Australia, Geraldton.
- Planfarm, 2020. *Western Australian Benchmarking Report 2020*. Planfarm.
- Planfarm, 2023. *Western Australian Benchmarking Report 2023*. Planfarm.
- Rural Business Development Corporation (RBDC), 2024. *Industry Outlook and Emerging Priorities*. Rural Business Development Corporation.
- VegetablesWA & RMCG, 2023. *Building Horticulture Business Capacity 2022–23*. VegetablesWA.
- WA Citrus & DPIRD, 2023. *Cost of Production Report – Citrus*. WA Citrus and Department of Primary Industries and Regional Development.
- Wheatbelt Development Commission, 2023. *Southern Wheatbelt Regional Drought Resilience Plan*. Government of Western Australia, Perth.
- Wines of Western Australia, 2024. *Annual Report 2023–24*. Perth: Wines of WA.

Section 2.3

Great Southern Development Commission, 2023. *Coastal Great Southern Drought Vulnerability Assessment*. Government of Western Australia, Perth.

Great Southern Development Commission, 2023. *Coastal Great Southern Regional Drought Resilience Plan (Draft)*. Government of Western Australia, Perth.

Great Southern Development Commission, 2023. *Inland Great Southern Drought Vulnerability Assessment*. Government of Western Australia, Perth.

Great Southern Development Commission, 2023. *Inland Great Southern Regional Drought Resilience Plan*. Government of Western Australia, Perth.

Planfarm, 2023. *Wheatbelt Drought Resilience Report*. Department of Primary Industries and Regional Development, Government of Western Australia, Perth.

Mid West Development Commission, 2023. *Mid West Regional Drought Resilience Plan*. Government of Western Australia, Perth.

Wheatbelt Development Commission, 2023. *Southern Wheatbelt Regional Drought Resilience Plan*. Government of Western Australia, Perth.

Wheatbelt Development Commission, 2023. *Southern Wheatbelt Drought Vulnerability Assessment*. Government of Western Australia, Perth.

Wheatbelt Development Commission, 2024. *Wheatbelt Regional Drought Resilience Plan – Drought Vulnerability and Resilience Assessment*. Government of Western Australia, Perth.

Wheatbelt Development Commission, 2024. *Wheatbelt Regional Drought Resilience Plan – Implementation Plan (Draft)*. Government of Western Australia, Perth.

Section 2.4

Agdotts, 2025. *Industry Interviews – WA Farm Business Resilience Program (FBRP)*. Unpublished internal document, June 2025.

Agribusiness Research & Management, 2022. *Western Australian Vegetable Industry Benchmarking Report 2020–2022*. Perth: vegetablesWA.

Agricultural Produce Commission (APC) Wine Committee, 2023. *Wine Committee Annual Report 2022–23*. Agricultural Produce Commission, Perth.

Coriolis, 2023. *Western Australian Wine Industry: Situation and Outlook*. Prepared for the Department of Primary Industries and Regional Development. Government of Western Australia, Perth.

Department of Primary Industries and Regional Development (DPIRD), 2022. *Situation Analysis of Horticulture in Western Australia: Area, Value and Challenges*. Perth: Government of Western Australia.

Horticulture Innovation Australia, 2023. *WA Citrus Industry Strategic Plan 2023–2030*. Sydney: Horticulture Innovation Australia.

Planfarm, 2018. *Planfarm Benchmarks 2018 Season*. Osborne Park: Planfarm.

Planfarm, 2019. *Planfarm Benchmarks 2019 Season*. Osborne Park: Planfarm.

Planfarm, 2020. *Planfarm Benchmarks 2020 Season*. Osborne Park: Planfarm.

Planfarm, 2021. *Planfarm Benchmarks 2021 Season*. Osborne Park: Planfarm.

Planfarm, 2022. *Planfarm Benchmarks 2022 Season*. Osborne Park: Planfarm.

Planfarm, 2023. *Planfarm Benchmarks 2023 Season*. Osborne Park: Planfarm.

Red Sky Agricultural Pty Ltd, 2014. *WA Beef Benchmarking Summary 2012–13*. Hamilton: Red Sky Agricultural Pty Ltd.

RMCG, 2019. *Citrus Cost of Production Report for Western Australia*. Victoria: RMCG.

South West Development Commission, 2023. *WA Pomewest Industry Strategic Plan 2023–2028*. Bunbury: SWDC.

VegetablesWA & RMCG, 2023. *Building Horticulture Business Capacity 2022–23*. Perth: VegetablesWA.

Section 3.1 – Enterprise-Level Pressures

Agdots, 2025. *Industry Interviews – WA Farm Business Resilience Program (FBRP)*. Unpublished internal document, June 2025.

Building Horticulture Business Capacity Project, 2023. *Industry Benchmarking Report 2022–23*. Perth: VegetablesWA and Planfarm.

Coriolis, 2023. *Western Australian Wine Industry: Situation and Outlook*. Perth: Department of Primary Industries and Regional Development.

Department of Primary Industries and Regional Development (DPIRD), 2023. *Cost of Production Report – Citrus*. Perth: DPIRD and WA Citrus.

Planfarm, 2023. *Planfarm Benchmarks 2023 Season*. Osborne Park: Planfarm.

(Note: include earlier years only if they are explicitly referenced in 3.1.)

VegetablesWA & RMCG, 2023. *Building Horticulture Business Capacity 2022–23*. Perth: VegetablesWA.

Wines of Western Australia, 2024. *Annual Report 2023–24*. Perth: Wines of WA.

WA Farm Business Resilience Program (FBRP), 2025. *Industry Needs Analysis: Section 1 – Drought Typology Framework*. Internal report.

Section 3.2 (updated):

Agdots, 2025. *Industry Interviews – WA Farm Business Resilience Program (FBRP)*. Unpublished internal document, June 2025.

Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), 2025. *Australian Agriculture Outlook*. Canberra: Australian Government.

Commonwealth of Australia, 2024. *Climate Report 2024*. Canberra: Australian Government.

Department of Primary Industries and Regional Development (DPIRD), 2024. *SERS: Sectoral Emissions Reduction Strategy*. Perth: Government of Western Australia.

Department of Water and Environmental Regulation (DWER), 2024. *Western Australian Climate Policy*. Perth: Government of Western Australia.

Mid West Development Commission, 2023. *Mid West Regional Drought Resilience Plan*. Government of Western Australia, Perth.

Great Southern Development Commission, 2023. *Inland Great Southern Regional Drought Resilience Plan*. Government of Western Australia, Perth.

Great Southern Development Commission, 2023. *Coastal Great Southern Regional Drought Resilience Plan (Draft)*. Government of Western Australia, Perth.

Wheatbelt Development Commission, 2024. *Wheatbelt Regional Drought Resilience Plan – Drought Vulnerability and Resilience Assessment*. Government of Western Australia, Perth.

WA Freight and Supply Chain Taskforce, 2022. *Supply Chain Resilience for Regional Agriculture*. Perth: DPIRD.

VegetablesWA & RMCG, 2023. *Building Horticulture Business Capacity 2022–23*. Perth: VegetablesWA.

Planfarm, 2023. *Western Australian Benchmarking Report 2023*. Osborne Park: Planfarm.

Section 3.3 – Exposure and Vulnerability: Bibliography

Agdots, 2025. *Industry Interviews – WA Farm Business Resilience Program (FBRP)*. Unpublished internal document, June 2025.

Building Horticulture Business Capacity Project, 2023. *Industry Benchmarking Report 2022–23*. Perth: VegetablesWA and Planfarm.

Coriolis, 2023. *Western Australian Wine Industry: Situation and Outlook*. Perth: Department of Primary Industries and Regional Development.

Department of Primary Industries and Regional Development (DPIRD), 2023. *Wheatbelt Drought Resilience Report*. Perth: Government of Western Australia.

Great Southern Development Commission, 2023. *Inland Great Southern Regional Drought Resilience Plan*. Government of Western Australia, Perth.

Great Southern Development Commission, 2023. *Coastal Great Southern Regional Drought Resilience Plan (Draft)*. Government of Western Australia, Perth.

Mid West Development Commission, 2023. *Mid West Regional Drought Resilience Plan*. Government of Western Australia, Perth.

Planfarm, 2018–2023. *Planfarm Benchmarks (annual series)*. Osborne Park: Planfarm.

VegetablesWA & RMCG, 2023. *Building Horticulture Business Capacity 2022–23*. Perth: VegetablesWA.

Wheatbelt Development Commission, 2024. *Wheatbelt Regional Drought Resilience Plan – Drought Vulnerability and Resilience Assessment*. Government of Western Australia, Perth.

Wines of Western Australia, 2024. *Annual Report 2023–24*. Perth: Wines of WA

Section 4.1 – Enterprise-Specific Capability Needs

Agdots, 2025. *Industry Interviews – WA Farm Business Resilience Program (FBRP)*. Unpublished internal document, June 2025.

Department of Primary Industries and Regional Development (DPIRD), 2021. *Research Highlights: Farming Systems*. Perth: Government of Western Australia.

Planfarm, 2019. *Planfarm Benchmarks – 2018/19 Season*. Planfarm.

Planfarm, 2020. *Planfarm Benchmarks – 2019/20 Season*. Planfarm.

Planfarm, 2021. *Planfarm Benchmarks – 2020/21 Season*. Planfarm.

Planfarm, 2022. *Planfarm Benchmarks – 2021/22 Season*. Planfarm.

Planfarm, 2023. *Planfarm Benchmarks – 2022/23 Season*. Planfarm.

WA Farm Business Resilience Program (FBRP), 2024. *FarmElevate Coaching Framework and Factsheet*. Internal documents provided by Agdots.

Section 4.2 – Core Capability Themes

Agdots, 2025. *Industry Interviews – WA Farm Business Resilience Program (FBRP)*. Unpublished internal document, June 2025.

AgriFutures Australia, 2024. *Annual Report 2023–24*. Wagga Wagga: AgriFutures Australia.

Planfarm, 2023. *Planfarm Benchmarks – 2022/23 Season*. Planfarm.

WA Farm Business Resilience Program (FBRP), 2024. *FarmElevate Coaching Framework and Factsheet*. Internal documents provided by Agdots.

Section 4.3 – Participation Conditions and Learning Preferences

Agdots, 2025. *Agdots Content Coaches Day – Slide 10*. Internal presentation, June 2025.

Agdots, 2025. *Industry Interviews – WA Farm Business Resilience Program (FBRP)*. Unpublished internal document, June 2025.

Department of Primary Industries and Regional Development (DPIRD) & Grower Group Alliance (GGA), 2024. *DPIRD–GGA Collaboration Review Final Report*. Perth: Government of Western Australia.

WA Farm Business Resilience Program (FBRP), 2024. *FarmElevate Coaching Framework and Factsheet*. Internal documents provided by Agdots.

Section 5.1 – Target Capability Areas

Agdots, 2025. *Industry Interviews – WA Farm Business Resilience Program (FBRP)*. Unpublished internal document, June 2025.

AgriFutures Australia, 2024. *Annual Report 2023–24*. Wagga Wagga: AgriFutures Australia.

Department of Primary Industries and Regional Development (DPIRD), 2021. *Research Highlights: Farming Systems*. Perth: Government of Western Australia.

Planfarm, 2019. *Planfarm Benchmarks – 2018/19 Season*. Planfarm.

Planfarm, 2020. *Planfarm Benchmarks – 2019/20 Season*. Planfarm.

Planfarm, 2021. *Planfarm Benchmarks – 2020/21 Season*. Planfarm.

Planfarm, 2022. *Planfarm Benchmarks – 2021/22 Season*. Planfarm.

Planfarm, 2023. *Planfarm Benchmarks – 2022/23 Season*. Planfarm.

Section 5.2 – Delivery Platforms and System Integration

Agdots, 2025. *Agdots Content Coaches Day – Slide 10*. Internal presentation, June 2025.

Agdots, 2025. *Industry Interviews – WA Farm Business Resilience Program (FBRP)*. Unpublished internal document, June 2025.

Department of Primary Industries and Regional Development (DPIRD), 2021. *Research Highlights: Farming Systems*. Perth: Government of Western Australia.

Department of Primary Industries and Regional Development (DPIRD) & Grower Group Alliance (GGA), 2024. *DPIRD–GGA Collaboration Review Final Report*. Perth: Government of Western Australia.

WA Farm Business Resilience Program (FBRP), 2024. *FarmElevate Coaching Framework and Factsheet*, internal documents provided by Agdots.

Section 5.3 – Design Principles and Recommendations

Agdotts, 2025. *Industry Interviews – WA Farm Business Resilience Program (FBRP)*. Unpublished internal document, June 2025.

Australian Government Department of Agriculture, Fisheries and Forestry (DAFF), 2023. *Maintaining Australia's Reputation for Traceability in Agricultural Exports*. ABARES Research Report.

Department of Primary Industries and Regional Development (DPIRD) & Grower Group Alliance (GGA), 2024. *DPIRD-GGA Collaboration Review Final Report*.

CSIRO, 2024. *Ag2050 Scenarios Report: Exploring Australian Agriculture's Possible Futures*. CSIRO Futures.

Section 6.1 – Adaptive Enterprise Strategies

Australian Government, 2023. *Nature Repair Market Bill 2023 – Explanatory Memorandum*. Canberra: Commonwealth of Australia.

Department of Primary Industries and Regional Development (DPIRD), 2021. *Research Highlights: Farming Systems*. Perth: Government of Western Australia.

Department of Climate Change, Energy, the Environment and Water (DCCEEW), 2024. *Nature Repair Market Factsheet*. Canberra: Australian Government.

National Farmers' Federation (NFF), 2022. *Australian Agricultural Sustainability Framework: Version 2*. Canberra: NFF.

Planfarm, 2023. *Western Australian Benchmarking Report 2023*. Osborne Park: Planfarm.

Section 6.2 – Innovation and Adoption Dynamics

AgriFutures Australia, 2024. *Annual Report 2023–24*. Wagga Wagga: AgriFutures Australia.

Commonwealth Scientific and Industrial Research Organisation (CSIRO), 2022. *Ag2050 Scenarios: Reimagining Australian Farming Systems*. Canberra: CSIRO Futures.

Department of Agriculture, Fisheries and Forestry (DAFF), 2024. *Innovation Pilots Initiative – Program Overview*. Canberra: Australian Government.

Grower Group Alliance (GGA), 2023. *Drought Hub Strategy 2023–2028*. Perth: GGA.

Planfarm, 2023. *Western Australian Benchmarking Report 2023*. Osborne Park: Planfarm.

Section 6.3 – Market Compliance Pressures

Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES), 2023. *Maintaining Australia's Reputation for Traceability in Agricultural Exports*. Canberra: ABARES.

National Farmers' Federation (NFF), 2022. *Australian Agricultural Sustainability Framework: Version 2*. Canberra: NFF.

CSIRO, 2022. *Ag2050 Scenarios: Reimagining Australian Farming Systems*. Canberra: CSIRO Futures.

Department of Primary Industries and Regional Development (DPIRD), 2024. *Research Highlights: Farming Systems*. Perth: Government of Western Australia.

Section 6.4 – System-Level Priorities for Capability Development

AgriFutures Australia, 2024. *Annual Report 2023–24*. Wagga Wagga: AgriFutures Australia.

Grower Group Alliance (GGA), 2025. *FarmElevate Program: Factsheet and Media Release*. Perth: GGA.

DPIRD & Grower Group Alliance (GGA), 2025. *DPIRD-GGA Collaboration Review Final Report*. Perth: Government of Western Australia.

CSIRO, 2022. *Ag2050 Scenarios: Reimagining Australian Farming Systems*. Canberra: CSIRO Futures.

Planfarm, 2023. *Western Australian Benchmarking Report 2023*. Osborne Park: Planfarm.



Appendix A. Stakeholder Interviews: Themes and Insights

This appendix summarises key insights from 42 stakeholder interviews conducted across Western Australia's primary industries to inform the development of the Farm Business Resilience Program. Interviewees included grower groups, GGA leaders, farm consultants, agri-finance providers, research bodies, training professionals, and regional development organisations. Conversations explored enterprise pressures, learning needs, delivery barriers, and sectoral shifts—particularly from the perspective of advisors and intermediaries supporting under-served or at-risk producers.

The findings are organised thematically and reflect the original structure used by the lead interviewer. While key insights are selectively integrated throughout Sections 2 to 5 of the report, this appendix retains the broader qualitative context to ensure transparency and preserve the practitioner voice that shaped the analysis.

Interviews were conducted with 42 stakeholders representing a cross-section of WA's agricultural sectors and advisory landscape. A de-identified summary of interviewee types is provided below. The full list of interviewees is retained on file for internal reporting and verification purposes.

Interviewee Summary:

- Grower Group Alliance Executive Team (3)
- Research and Development Organisations (2)
- Regional Banking Sector (2)
- Farm Consultants (5)
- Rural Financial Counselling Network (2)
- DPIRD Industry Development Staff (3)

- Industry Training and General Stakeholders (3)
- Other States and Industries (3)
- Grower Groups and Sector Organisations (14 engaged*, 15 contacted)
**Includes 12 interviews and 2 detailed written submissions*
- Delivery Staff FBRP other jurisdictions (5)

A.1. Financial and Production Resilience

Resilience—particularly the interplay between financial strength and production performance—was a consistent theme across all interviews. Stakeholders described resilience not as a fixed trait, but as a product of enterprise structure, financial literacy, and the ability to make confident decisions under pressure.

While expressions of resilience varied by sector, interviewees highlighted several recurring factors that influence a business's capacity to adapt, including cost structure, access to capital, mindset, and management discipline. The insights below summarise these cross-sector observations, followed by specific perspectives from beef, horticulture, and mixed livestock enterprises.

Cross-Sector Insights

Key Pressures:

Interviewees consistently emphasised the financial fragility of small-to-medium enterprises across sectors, particularly in horticulture and livestock systems. Cost structures were often described as inflexible, with overheads and drawings consuming a large share of revenue. Access to capital was another common constraint—tight lending standards and shifting equity positions made it difficult for businesses to respond to

shocks or invest in adaptation. As one interviewee put it, “You can’t be resilient if you can’t access capital when you need it.”

Financial management was varied. Many producers were not conducting regular cashflow reviews or using structured planning tools. Some advisors noted that farmers “see what’s in the bank and what’s due,” but rarely sit down to assess profitability trends or forward risk. This limited visibility into true performance and masked underlying fragility.

The diversity of enterprise models—particularly in horticulture and mixed systems—was seen as a barrier to accessing tailored advice and relevant planning tools. Grain enterprises benefit from relatively uniform production systems and benchmarking resources, while businesses in horticulture and livestock often fall outside standard advisory models, making relevant support harder to access and apply.

Strategic Observations:

Interviewees emphasised that resilience is not just about capital or infrastructure—it’s also about behaviour and mindset. Well-performing businesses were characterised as deliberate, disciplined, and forward-looking in their planning and reinvestment decisions. They knew their breakeven costs, reinvested wisely, and adjusted early. As one advisor noted, “The real skill is in execution—timing and the quality of the job.”

To build resilience across sectors, stakeholders suggested a greater focus on cashflow capability, advisory access, and confidence in using financial tools. Benchmarking was viewed as useful where it was applied, but limited by sectoral gaps and producer buy-in. The need for cultural change—in how resilience is understood and enacted—was raised repeatedly, particularly in contexts where reactive decision-making remains common.

Southern Beef

Southern Beef enterprises are operating under sustained pressure from high costs, limited scale, and weak market returns. Interviewees identified small-to-medium producers as particularly exposed to volatility in input prices and sale values, with many describing business models that were constrained from future growth.

Key Pressures:

Feed costs were consistently highlighted as a critical constraint, particularly in back-to-back dry years. “Fodder costs have killed everyone for the last two years,” one advisor noted, citing a growing dependence on purchased feed and limited buffer capacity. In many cases, beef prices remained below cost of production, with producers facing rising operational expenses and few opportunities for risk-sharing with processors or other markets.

The sector also suffers from structural advisory and benchmarking gaps. While cropping enterprises benefit from established benchmarking and advisory models, beef producers were described as having limited access to tools and support services tailored to their cost structures and production cycles. “The last benchmarks were done in 2013,” one interviewee noted, reflecting frustration with the lack of independent performance insight.

Strategic Observations:

Confidence and capability varied across enterprises, with some advisors noting a focus on per-head returns rather than whole-enterprise profitability. Others pointed to encouraging developments, such as cost-of-production modelling and feedlot strategy trials emerging from the Smart Beef project. These initiatives may help improve decision-making and support adaptation, but broader capability-building will require greater access to enterprise benchmarking, cashflow tools, and sector-specific advisory support.

Southern Horticulture

Southern Horticulture enterprises are marked by fragmentation, capital constraints, and high exposure to labour and market volatility. Interviewees described a wide performance gap between large integrated businesses and smaller producers, with many at the lower end facing persistent viability issues.

Key Pressures:

Smaller or less integrated businesses were often described as facing persistent financial pressure. Cost pressures—particularly labour—were raised across the board, with smaller operators also struggling to access working capital. “Debt is killing hort businesses because of margin erosion,” one respondent noted, while others flagged poor understanding of capital requirements among newer or undercapitalised entrants. Reliance on off-farm income or external investors was common but sometimes came at the cost of business control.

Many businesses prioritised production volume without fully aligning with market quality standards or specifications. Market positioning was another challenge. Many producers were described as “good at growing product but not at selling it,” with success hinging on the ability to deliver consistent Grade 1 pack-outs. While protective cropping and mechanisation were seen as potential solutions, these approaches required both capital and new skills—often out of reach for producers already under financial pressure.

Strategic Observations:

The diversity of enterprise types and product lines within horticulture was seen as a barrier to standardised advisory or benchmarking models. Supporting resilience in this sector will require differentiated approaches to training and extension—focusing on yield and quality optimisation, capital planning, and market alignment. Mechanisation and digital tools could improve labour efficiency, but their uptake will depend on targeted support and access to practical, real-world learning opportunities.

Sheep-Dominant Mixed Livestock and Broadacre Enterprises

Sheep-dominant mixed enterprises face a unique convergence of market, feed, and sentiment pressures. Interviewees described widespread confidence erosion, particularly in the wake of low wool prices, high input costs, and uncertainty around the live export transition.

Key Pressures:

Many producers are reassessing the role of sheep in their systems, with some shifting to short-term trading or exiting altogether. “There’s a real review going on,” one stakeholder said, describing a shift away from full-time flocks to more opportunistic models. Others are splitting lambing windows, trading on stubble, or using confinement feeding to maintain flexibility.

Labour shortages and shearing capacity were also flagged as major barriers. Interviewees noted that strategic planning and pasture budgeting tools exist but are not widely adopted—often due to low confidence, limited capital, or cultural inertia. “Farmers run the number their land can manage,” said one advisor, “but they don’t always ask if they’re making a profit from that.”

Strategic Observations:

The sector’s long-term resilience may hinge on improving decision-making confidence, embedding profitability planning into livestock management, and supporting new enterprise models suited to volatile seasons. Extension gaps, shearing workforce challenges, and misaligned advisory models suggest a need for more tailored tools and on-ground support, especially for smaller or livestock-focused businesses operating without consistent external advice.

Table A.1 Summary of Resilience Themes Across Sectors

Resilience Theme	Shared Across Sectors	Sector-Specific Nuance
Cost and cashflow constraints	Common in small-to-medium enterprises; high overheads and drawings reduce flexibility	More acute in horticulture (margin erosion), sheep systems (fodder and input costs) and southern beef (low pricing and poor recent seasons)
Financial management and planning	Regular review and structured planning often lacking	Stronger in grain systems; gaps more pronounced in beef and mixed enterprises, and smaller horticulture businesses
Access to capital	Lending criteria and capital constraints seen as barriers to resilience	Horticulture reliant on off-farm equity; succession-driven tension in livestock sectors
Access to tailored advice and tools	Producers outside grains face inconsistent support & limited access to practical decision tools	Horticulture described as “hard to service”; beef lacks tailored extension and benchmarking, sheep benefits from broadacre approach
Mindset and business culture	High-performing operators share traits of discipline, reinvestment, and planning	Reactive decision-making more common in underperforming hort and sheep enterprises

A.2 Enterprise Risk and Decision-Making

Risk—particularly how it is perceived, managed, and communicated—was a recurring theme across all interviews. Stakeholders described a layered risk environment encompassing climatic uncertainty, financial volatility, social expectations, and succession dynamics²². While producers were increasingly aware of these pressures, many struggled to assess them systematically or respond with confidence.

Interviewees noted that producers often internalised risk rather than addressing it through structured planning or communication. As one advisor put it, “Risk is internalised – they carry it emotionally rather than planning through it.” This emotional burden could limit visibility into emerging challenges and undermine confidence in long-term decision-making.

Climate Risk and Planning Uncertainty

This theme reflects what many interviewees described as “climate risk”—highlighting the difficulty of planning in the face of seasonal variability, forecast ambiguity, and longer-term environmental shifts.

Key Pressures:

Interviewees noted that climate risk remained difficult to act on due to a lack of clear signals and persistent variability. While dry seasons were widely acknowledged, some producers were described as “switching off” from forecasts when outlooks remained neutral or contradictory. This led to hesitation around planning and investment, even when climatic risks were recognised.

Strategic Observations:

There was a call for planning frameworks that help producers engage with uncertainty more constructively. This included using scenario tools and risk buffers—not just forecasts—to inform enterprise decisions. Interviewees stressed that emotional desensitisation to seasonal variability was itself a risk, limiting the uptake of adaptation strategies.

Some stakeholders noted that digital and data-driven planning tools were becoming increasingly available, but that uptake remained uneven—reflecting a broader uncertainty about what technologies to trust and how to use them effectively in planning. Rapid change in ag-tech and uncertainty about what tools to trust were cited as barriers to building systematic planning confidence.

²² Some interview insights that cut across multiple risk categories—such as digital capability and decision-support tool uptake—are summarised in the table at the end of this section rather than as discrete subsections.

Succession Risk and Family Dynamics

This theme captured what interviewees commonly described as “family relationship risk”—highlighting the interpersonal and planning dynamics that shape succession and workforce continuity in multigenerational businesses. These insights complement broader structural workforce challenges described elsewhere in the report.

Key Pressures:

Interpersonal and generational dynamics were frequently identified as hidden sources of enterprise risk. Older family members often retained decision-making control while younger successors were excluded or constrained. Rising land values and unclear ownership structures added to succession tension—particularly where off-farm siblings sought equity or control.

Additional pressure was noted in wealthier enterprises, where asset values and expectations—often shaped by off-farm education or lifestyle divergence—made succession decisions more fraught. For some families, logistical issues such as children attending boarding school also introduced stress points that disrupted planning continuity and contributed to social drought factors in communities.

Strategic Observations:

Several interviewees noted that facilitated decision-making and structured communication could mitigate family-based risk. The absence of open conversations around business continuity, asset control, and investment planning often delayed transitions or locked enterprises into suboptimal models. “It’s the decision-making layer that’s missing,” one advisor observed.

Social Licence and Regulatory Uncertainty

This theme reflects the notion of “social licence risk” raised in several interviews—describing how regulatory uncertainty, shifting expectations, and limited trust in planning systems shape producer confidence and constrain alignment between farm-scale decisions and broader policy frameworks.

Key Pressures:

Producers were described as facing growing scrutiny from regulators and communities—particularly around water use, livestock systems, and environmental stewardship. This tension was not always articulated as a formal risk, but it shaped how producers made decisions about expansion, investment, and disclosure. Interviewees also highlighted regulatory shifts—such as the live export ban and transition and tighter restrictions on chemicals like paraquat—as additional stressors that influenced producer sentiment. These were seen not just as compliance issues, but as signs of a broader erosion of trust between industry, government, and the community.

Strategic Observations:

Interviewees flagged the need for trusted, intermediary-led engagement to help producers navigate evolving expectations and regulatory environments. Several noted that a lack of confidence in planning systems, advisory structures, or policy consistency could itself act as a constraint on proactive decision-making. As one stakeholder observed, “You need trust before you get planning.”

Table A.2 Interview-Derived Risk Themes and Alignment with INA Priorities

Interview Theme	How It Was Described	INA Alignment	Enterprise/System Implications
Climate Risk & Planning Uncertainty	Difficulty interpreting forecasts; planning paralysis due to neutral or variable signals	Landscape Resilience / Climate Planning	Limits adaptation and scenario planning; reinforces reactive behaviour
Succession Risk & Family Dynamics	Generational tension, poor communication, control disputes, emotional avoidance	Workforce Transition	Undermines business continuity; impedes structured succession
Social Licence & Regulatory Uncertainty	External scrutiny (e.g. water use, LiveX ban); distrust in planning frameworks	Planning Alignment	Reduces confidence in long-term investment and engagement
Technology & Data Confusion	Overload of tools and platforms; uncertainty about what to trust	Climate Planning / Capability Development	Hinders systematic planning and uptake of decision-support tools

A.3 Training and Delivery Preferences

Learning preferences and delivery conditions were prominent themes across the interviews. Stakeholders described a range of producer attitudes toward training—shaped by past experiences, trust in providers, timing pressures, and perceived relevance. Interviewees emphasised that effective programs must build confidence, respect the realities of farm business operations, and meet producers where they are. While training needs vary across sectors and cohorts, several recurring principles emerged regarding delivery models, cultural fit, and long-term engagement.

Key Pressures:

Interviewees consistently emphasised that training uptake is shaped less by the availability of content than by how it is delivered. Time constraints and workload pressure were described as major barriers, particularly during seasonal peaks. Many producers—especially those in smaller enterprises or more isolated regions—lacked the bandwidth or flexibility to attend scheduled sessions, regardless of topic relevance.

Trust and cultural fit also emerged as critical factors. Some producers were described as reluctant to engage with programs delivered by unfamiliar providers, or those perceived as “too academic” or disconnected from farm realities. Others expressed frustration with training models that failed to acknowledge intergenerational decision-making or undervalued on-the-job learning.

Finally, there was concern about program fatigue and over-targeting of the same producers by multiple initiatives. This led to diminished enthusiasm for participation and a sense that training offerings lacked coordination or strategic focus.

Strategic Observations:

Interviewees stressed that training must be designed with producer realities in mind—not just in terms of timing, but in delivery format, relational approach, and follow-up. Effective models were described as practical, locally facilitated, and grounded in peer learning. “Kitchen table” delivery, one-on-one coaching, and group-based workshops hosted by trusted intermediaries were cited as preferred formats.

Several stakeholders highlighted the importance of family-inclusive approaches, noting that decision-making often spans generations or involves off-farm partners. Programs that engage both older and younger members—either concurrently or in parallel streams—were seen as more likely to result in lasting change.

There was strong support for relationship-based delivery models, particularly those involving long-term facilitation and mentoring. Producers were more willing to try new tools or practices when they felt supported, understood, and not overwhelmed by one-off information “dumps.” Confidence-building—rather than purely content delivery—was seen as essential to both uptake and retention.

A.4 Delivery Implications by Sector

Interviewees emphasised that capability gaps and resilience pressures vary significantly across sectors—shaped by enterprise structure, market conditions, and advisory access. These differences influence how producers engage with training and what delivery approaches are likely to succeed. This section distils what sector-specific challenges imply for the design and delivery of Farm Business Resilience Program initiatives.

Southern Beef

Beef producers in southern WA face persistent pressure from rising input costs, market volatility, and limited scale—challenges that demand more than technical support. Interviewees highlighted the need for business-focused training, particularly around cost-of-production modelling, enterprise planning, and decision-making confidence.

Training models will need to address gaps in financial literacy and build confidence in using decision tools. While some encouraging initiatives (e.g. Smart Beef) are emerging, broader uptake will depend on trusted delivery and practical relevance. One-on-one coaching, locally facilitated peer learning, and region-specific benchmarking support were all seen as high-potential formats. Interviewees also highlighted the lack of independent advisors in some areas, reinforcing the need for locally grounded, relationship-based delivery approaches that support continuity over time.

Southern Horticulture

Horticulture enterprises in southern WA are highly diverse and often undercapitalised, with smaller producers facing persistent viability issues and exposure to labour and market risk. Interviewees stressed that this diversity limits the applicability of standardised training or benchmarking models, and called for delivery formats that are highly tailored, case-based, and context-specific.

Capability-building needs in this sector extend beyond technical production into areas such as capital planning, marketing, digitisation strategy, and workforce resilience. Several stakeholders noted that many producers are strong growers but lack business confidence or market alignment—creating demand for delivery that integrates financial skills, supply chain insight, and post-harvest planning.

Trust and cultural fit were described as critical. Smaller operators may be hesitant to engage unless training is delivered by familiar facilitators or through trusted local grower groups. Long-term mentoring, business coaching, and staged learning formats were seen as more promising than one-off workshops. For newer entrants or undercapitalised growers, delivery that incorporates scenario tools and incremental planning support may be more impactful than generic business training.

Sheep-Dominant Mixed Livestock and Broadacre Enterprises

Sheep-dominant mixed enterprises are navigating a convergence of market, feed, and sentiment pressures—including declining wool prices, high input costs, and uncertainty around the live export transition. Interviewees noted that many producers in this sector are re-evaluating enterprise models, but lack access to advisory support or decision-making frameworks to guide that process.

Capability gaps were commonly described in profitability planning, pasture budgeting, and enterprise diversification. Some stakeholders noted that producers operate reactively—adjusting based on seasonal feed availability rather than structured financial analysis. Tools exist but are not widely adopted, often due to limited confidence, lack of facilitation, or entrenched management habits.

To be effective in this sector, training will need to focus on confidence-building as much as content. Models that support producers through decision cycles—rather than delivering one-off technical sessions—were viewed as essential. There is also a strong case for delivery formats that support applied learning in the field, use trusted local facilitators, and engage producers in forward planning across different seasonal and market scenarios.

A.5 Delivery Enablers and System Constraints

Interviewees identified a range of system-level factors that influence the success of farm business capability programs—extending beyond individual preferences or sector-specific needs. These enablers and constraints shape who engages, how consistently training is delivered, and whether new knowledge is acted on. While some challenges reflect persistent issues such as under-resourced networks and fragmented delivery models, others highlight clear opportunities to build a more coordinated, trusted, and resilient extension system. This section distils the most commonly raised structural themes, based on practitioner insight from across the state.

Trusted Facilitators and Intermediaries

Across all interviews, the importance of trust in delivery was consistently emphasised. Producers were described as far more likely to engage when training is facilitated by someone they already know—or someone embedded in a trusted local organisation. Grower groups, local coordinators, and regionally based facilitators were seen as critical intermediaries who not only deliver content but also build the relationships and continuity required for long-term capability development.

However, many of these delivery partners operate with thin capacity and limited support. Interviewees noted that even well-positioned networks struggle to maintain staffing or expand their reach due to short-term contracts and competing program demands. Where trusted intermediaries are absent or overextended, engagement falters—even when content is relevant.

Stakeholders described trust not as a static attribute, but as something cultivated through repeated, locally grounded interactions. This has implications for program design: initiatives that rotate staff, rely on fly-in delivery, or offer one-off workshops were seen as less likely to earn sustained participation. Several interviewees argued that rebuilding trust in training systems requires investing not just in “what” is delivered, but in “who” delivers it—and how they are supported.

Thin Advisory Markets and Development Pathway Gaps

Interviewees consistently pointed to a shortage of skilled facilitators and advisors—especially those with the ability to build trust, support decision-making, and adapt content to diverse farming contexts. While technical expertise is important, stakeholders emphasised that the true delivery gap lies in facilitation: helping producers translate information into action over time.

In many regions, the advisory workforce is thin, ageing, or stretched across multiple programs. There are few clear pathways for emerging facilitators to develop the mix of technical, interpersonal, and contextual skills needed for this work. Some stakeholders noted that graduate agronomists or early-career staff often rotate quickly through regions, limiting the continuity needed to build trusted relationships.

The competition for skilled people—particularly those with rural experience, cultural intelligence, and confidence in two-way learning models—was described as a key constraint across the state. Interviewees called for long-term investment in the next generation of facilitators, including mentoring, peer shadowing, and regionally embedded capability development roles.

Funding Structures and Program Fragmentation

Short-term, piecemeal funding was frequently cited as a major constraint on effective delivery. Interviewees described how short, uncoordinated funding cycles undermined continuity, reduced trust among producers, and restricted the ability of local delivery partners to plan, staff, and scale programs with confidence.

Several stakeholders noted that program fatigue—especially among engaged producers and key facilitators—was driven not by content overload, but by the lack of coordination between initiatives. When multiple agencies target the same communities with overlapping but disconnected offerings, it becomes harder to build cumulative impact or maintain engagement.

This fragmentation also discourages innovation. Without certainty of future funding, local organisations are often forced to chase narrowly defined deliverables rather than co-designing solutions that address long-term resilience. As one interviewee observed, “You can’t invest in relationships when you’re thinking in 12-month contracts.”

Stakeholders called for a shift toward coordinated, regionally aligned funding frameworks that give trusted delivery partners more certainty—and more say—in how programs are shaped and sequenced over time.

Opportunities for Innovation and Alignment

Despite persistent constraints, interviewees saw clear opportunities to strengthen the delivery system underpinning farm business resilience. Many pointed to existing networks—such as grower groups, regional facilitators, and trusted intermediaries—as the natural foundation for long-term program delivery. Rather than reinventing structures, stakeholders encouraged government and industry to invest in what’s already working.

Several interviewees suggested building on proven models from other sectors, such as Dairy Australia’s facilitation approach, which emphasises relationship continuity, staged learning, and local customisation. These principles could be adapted to suit mixed and horticultural systems, where trust and delivery fit are often more variable.

There was strong support for aligning program delivery with other regional initiatives—such as workforce development, infrastructure planning, and natural resource management. Interviewees saw value in embedding training within broader resilience agendas, allowing producers to engage through multiple touchpoints rather than isolated sessions.

Finally, several stakeholders called for innovation in delivery formats—not just in content. Suggestions included hybrid facilitation models, long-term mentoring arrangements, embedded coordinator roles, and co-designed learning pathways that grow with producers over time.

Table A.5: Delivery System Enablers and Constraints

Theme	Constraint	Enabler / Opportunity
Trusted facilitators	Thin capacity in grower groups; short-term contracts limit continuity	Invest in embedded, relationship-based roles and long-term delivery partners
Advisory workforce	Ageing advisory base; few structured pathways for new facilitators	Fund regional mentoring & professional development; build regionally embedded development pathways
Program coordination	Overlapping programs create duplication, confusion, & fatigue	Align funding cycles, streamline regional engagement, and co-design initiatives
Innovation potential	One-off formats dominate; minimal space for experimentation or adaptation	Support long-term mentoring, hybrid facilitation, & adaptive delivery models

Conclusion

The insights presented in this appendix reflect the experiences and perspectives of 42 industry stakeholders who generously contributed to the interview process. Their input not only deepened the understanding of sector-specific constraints, training gaps, and delivery challenges, but also grounded the report’s broader interpretation of resilience and capability development across southern WA.

Rather than being confined to a single section, these interview findings are integrated throughout the main body of the Industry Needs Analysis. They inform the framing of business models in Section 2, shape the analysis of enterprise and systemic pressures in Section 3, provide direct input into skills and training needs in Section 4, and underpin the delivery considerations in Section 5.



Appendix B. Mid West – Full Regional Analysis

Methods

This analysis draws primarily on the Regional Drought Resilience Plans (RDRPs) for the Great Southern, Wheatbelt, and Mid West to identify regional context, sector vulnerabilities, and resilience priorities. Drought Vulnerability Assessments (DVAs), interview data, and local survey feedback were also used to build a grounded view of training needs, capability gaps, and delivery considerations.

Insights were synthesised using a consistent analytical structure to support comparison across regions. Where source material was unclear, findings were interpreted through a resilience lens to ensure practical relevance for program design and investment planning

1. Regional Snapshot

The Mid West region includes the City of Greater Geraldton and the Shires of Chapman Valley and Northampton, spanning approximately 26,500 km². It lies on Yamatji Country, with Traditional Owner groups including the Amangu, Badimia, Naaguja, Nhanda, Mullewa Wadjari, Wattandee, Widi, and Wilunyu peoples. The Yamatji Southern Regional Corporation is the designated body under the region's Indigenous Land Use Agreement. The area forms the northern limit of Western Australia's grainbelt and transitions into the southern rangelands, with coastline along the Indian Ocean.

The region has a population of about 42,600, with most residents located in Geraldton. Socioeconomic indicators vary across local government areas: the Shire of Chapman Valley shows relatively high advantage, while Greater Geraldton and Northampton score lower on the SEIFA index and the Dropping Off the Edge index, with vulnerability linked to factors such as low household income, heat exposure, and digital exclusion.

Economic activity is shaped by a mix of agriculture, construction, and service industries. Agriculture contributes 7.6% of regional output and dominates the economies of Chapman Valley (46%) and Northampton (32%). Geraldton hosts the highest number of primary producers but with more economic diversity. Broadacre cropping—primarily wheat—accounts for 80–85% of agricultural value across the region. Other activities include livestock production and horticulture, though water quality issues limit growth in some areas.

Climate exposure is high. The region has experienced sustained reductions in growing season rainfall, increased temperatures, and rising drought frequency. "Hot drought" conditions—marked by low rainfall and high heat—are projected to become more common. Annual rainfall already averages just 254 mm, with only 9 out of the past 41 years exceeding the 300 mm needed for aquifer recharge. The region's vulnerability index score is 3.3 out of 5, reflecting strong soil and production capability but high exposure and constrained adaptive capacity.

Landscapes include sandplains, duplex soils, and fragile yellow sands with low water-holding capacity. Natural systems are under pressure from land degradation, declining groundwater quality, salinity, and erosion—especially during droughts. The Mid West forms part of a global biodiversity hotspot, with remaining native vegetation concentrated on the fringe of the agricultural zone. Key rivers include the Irwin, Greenough, Chapman, and Murchison. Kalbarri National Park and Wandana Nature Reserve are significant ecological areas.

Water availability is a critical constraint. The region is heavily reliant on groundwater, yet aquifer recharge is increasingly infrequent, and water quality is declining. Scheme water is often unsuitable for horticulture, requiring blending with fresher sources. Stormwater harvesting and small-scale desalination are being explored, but many towns lack sufficient water infrastructure to meet growing demand during dry conditions.

Digital connectivity and infrastructure access remain uneven, with implications for farm decision-making and the use of drought forecasting tools. Areas outside Geraldton face additional barriers in accessing services, infrastructure, and data, reinforcing the region's sensitivity to climate and market shocks.

2. Regional Insights

The Mid West has long been a sentinel for climate variability in Western Australia. It has experienced some of the State's most severe drought conditions, with the 2006–2007 drought resulting in record-low rainfall and widespread economic and environmental impacts. These conditions are no longer isolated events. The region faces sustained declines in growing season rainfall, more frequent heatwaves, and increasing “hot droughts,” characterised by concurrent low rainfall and high temperature extremes.

Producers in the region have demonstrated high levels of adaptation, including shifts toward controlled traffic farming, stubble retention, perennial pastures, and precision agriculture. However, exposure remains acute. The most vulnerable areas lie in the north and east, where climate exposure, low water availability, and socio-economic disadvantage coincide. Groundwater-dependent systems are under pressure, with aquifer recharge events declining and water quality deteriorating.

Economic vulnerability is pronounced in areas heavily reliant on agriculture with limited business diversification. Smaller or newer enterprises operating in the low rainfall zone are particularly exposed, especially if livestock-heavy or constrained by limited equity. While larger operations have increased their resilience through scale and efficiency, the cost of doing business has risen sharply, leaving some businesses more sensitive to extended dry periods or market fluctuations.

Environmental risks compound these challenges. Drought conditions have contributed to soil erosion, declining vegetation cover, and biodiversity loss, consistent with patterns of ecological drought—where land degradation and vegetation decline reduce recovery capacity even after seasonal relief. Environmental condition scores were lowest in 2007, 2013, and 2019, with recovery lagging well beyond seasonal change. Reduced aquifer recharge and increasing salinity place long-term pressure on water availability for both agriculture and town supplies. Nature-based solutions such as revegetation and landscape rehydration are being trialled but require further investment to reach scale.

Social resilience varies across the region. Community networks have been instrumental in drought recovery, particularly following Cyclone Seroja. However, uneven access to services and persistent social disadvantage in some towns continue to undermine wellbeing. Aboriginal communities are particularly affected due to reduced access to Country, environmental degradation, and pre-existing health and economic challenges.

Trusted local networks provide a foundation for resilience-building. However, gaps in digital connectivity, infrastructure, and service access limit the ability of some producers and communities to respond effectively. Further effort is needed to strengthen water security, support diversified economic activity, and increase access to relevant data, infrastructure, and support systems—particularly in high-exposure zones.

3. Training Needs and Delivery Implications

Building regional capability in the Mid West will require targeted investment in climate literacy, business skills, and technical capacity to manage water, soils, and production risk under increasingly variable conditions. While producers in the region have a strong track record of innovation and adaptation, capability gaps remain—particularly among smaller, livestock-focused, or newer enterprises operating in lower rainfall zones.

Many growers already apply advanced land management techniques such as liming, stubble retention, and perennial pasture systems. However, access to timely, localised technical support remains uneven. Dryland horticulture producers, in particular, face challenges related to water quality and efficiency, highlighting the value of tailored training in blending, irrigation, and alternative water use strategies. Grazing enterprises are using practices such as mob-based segregation and feed prioritisation but require structured training in seasonal planning and drought decision frameworks.

Financial literacy and business planning remain key priorities. Producers—particularly those under pressure from rising input costs and climate uncertainty—are experiencing conditions consistent with financial drought, where revenue instability, escalating costs, and limited financial buffers erode enterprise resilience. These businesses often lack the tools and support needed to plan confidently, diversify operations, or manage disruption. Targeted capability-building efforts should include scenario planning, enterprise risk assessment, and development of farm-scale drought resilience plans that integrate financial, operational, and environmental considerations.

Water literacy is a significant training gap. While many growers are familiar with on-farm infrastructure, further support is needed to strengthen understanding of recharge dynamics, small-scale harvesting, and reuse options. Targeted training can improve understanding of water efficiency strategies and support local decision-making, particularly in areas with poor groundwater quality or limited access to scheme supply.

Local delivery mechanisms remain trusted and essential, but under-resourced. Producer groups such as the Yuna Farm Improvement Group, Mullewa Dryland Farmers, and Northern Agri Group play a central role in disseminating practical knowledge and fostering peer-to-peer learning. However, they face challenges in maintaining staff and securing consistent funding. These organisations are well-placed to lead demonstration projects, mentoring initiatives, and knowledge-sharing activities if delivery capacity is strengthened.

Priority training audiences include younger producers, emerging farm managers, and Aboriginal landholders seeking to engage in land stewardship and enterprise development. Place-based approaches—such as demonstration-based learning, peer mentoring, and culturally appropriate On-Country delivery—can support engagement, confidence-building, and long-term uptake.

Structural barriers to participation persist across the region. Inconsistent digital connectivity limits access to online advisory tools and remote training opportunities. Time pressure and volunteer fatigue further constrain engagement in learning activities, particularly in smaller or more remote communities. To be effective, training must be practically focused, locally tailored, and delivered through formats suited to regional infrastructure and communication contexts.

4. Strategic Takeaways

Key Risks

- Declining aquifer recharge, rising salinity, and infrastructure limitations are constraining water supply for both farms and towns.
- Concurrent high temperatures and low rainfall are increasing the frequency and severity of drought impacts, particularly in northern and eastern areas.
- Smaller, livestock-based, and newer farm businesses often face heightened exposure to seasonal variability and structural challenges that affect resilience.
- Rising input costs, debt servicing burdens, and limited off-farm income options are increasing financial stress, especially during dry periods.
- Erosion, declining groundcover, and biodiversity loss are undermining the ecological foundations of agricultural productivity.
- Poor internet access in many areas limits uptake of decision-support tools, early warnings, and participation in online training.

Regional Strengths

- Farmers have adopted a wide range of adaptive practices including perennial pastures, liming, and controlled traffic systems.
- Groups such as Yuna Farm Improvement Group, Mullewa Dryland Farmers, and Northern Agri Group are trusted and embedded in the region.
- Many producers are open to trialling new technologies, systems, and business models, including biochar, regenerative practices, and drought planning tools.
- The region has demonstrated strong collective responses to crises such as Cyclone Seroja, reinforcing local coordination capacity.

- Noongar landholders contribute cultural knowledge, lead revegetation projects, and participate in catchment-scale resilience efforts.
- Systemic Constraints
- Structured drought thresholds and integrated business planning approaches are not yet widespread across the region.
- Local delivery networks are trusted but under-resourced, with volunteer burnout and short-term project funding limiting continuity.
- Patchy connectivity restricts access to real-time data, forecasting tools, and digital learning platforms.
- Towns and horticultural zones reliant on declining groundwater supplies face significant barriers to water resilience.
- Disconnects between agricultural, water, and environmental policy reduce the efficiency of regional resilience investments.

Opportunities for Impact

- Build producer understanding of aquifer function, rainfall-runoff patterns, and water reuse strategies to support on-farm water planning.
- Expand access to risk assessment tools, financial literacy programs, and practical drought planning resources for vulnerable enterprises.
- Stabilise funding and expand the capacity of grower groups to lead peer-based training and on-ground demonstrations.
- Provide culturally relevant, place-based learning pathways for young producers and Aboriginal landholders.
- Improve digital connectivity and farm-scale water systems to support climate-smart practice adoption.

5. Strategic Framing: Watch, Back and Build

What to Watch – Key risks and vulnerabilities

- **Water system strain:** Declining aquifer recharge, rising salinity, and infrastructure gaps are constraining reliable water access for agriculture and towns.
- **Hot drought intensification:** Combined heat and rainfall extremes are becoming more frequent, amplifying production volatility across low and medium rainfall zones.
- **Small enterprise exposure:** Newer, smaller, and livestock-focused farm businesses remain vulnerable to climate and financial shocks, especially in poor seasons.
- **Financial pressure points:** Rising input costs, servicing debt, and limited income diversification are reducing business resilience, particularly in marginal zones.
- **Ecological degradation:** Soil erosion, biodiversity loss, and vegetation decline are reducing the long-term productivity and stability of agricultural landscapes.
- **Infrastructure exclusion:** Limited digital connectivity and uneven service access weaken the region's ability to scale innovation and support at-risk producers.

What to Back – Existing strengths and momentum

- **Established on-farm adaptation:** Widespread use of liming, stubble retention, controlled traffic, and perennial systems has built a strong adaptation baseline.
- **Embedded grower networks:** Groups like the Yuna Farm Improvement Group, Mullewa Dryland Farmers, and Northern Agri Group serve as trusted platforms for learning and support.

- **Openness to innovation:** Many producers are already trialling precision ag, biochar, regenerative systems, and drought planning tools.
- **Community response capacity:** Collective action during Cyclone Seroja and previous droughts shows high local coordination and social capital.
- **Cultural land stewardship:** Aboriginal landholders contribute knowledge and lead initiatives in revegetation, biodiversity, and catchment-scale resilience.

What to Build – Capabilities and systems for future resilience

- **Water literacy and planning:** Build understanding of aquifer function, rainfall-runoff dynamics, and water reuse strategies to support on-farm and local water planning.
- **Farm resilience planning:** Provide support for risk assessment, financial planning, and scenario-based decision-making at the enterprise level.
- **Invest in local delivery systems:** Support staffing and secure ongoing funding for grower networks to lead peer-to-peer learning and on-ground extension.
- **Inclusive learning models:** Expand culturally relevant and place-based training for Aboriginal landholders, young producers, and emerging managers.
- **Digital infrastructure:** Improve internet access to help producers access climate tools, online learning platforms, and farm planning resources.

6. Pathways for Resilience

This section applies the Maintain–Modify–Transform (MMT) framework²³ to identify strategic pathways for building resilience in farm businesses and regional systems. The framework recognises that producers and communities are responding to change in diverse ways—some by sustaining what works, others by adapting, and some by fundamentally rethinking how they operate. Understanding and supporting this range of responses is critical to effective capability building, program design, and long-term planning.

Maintain

Support continuity of core systems and functions under increasing stress without major structural change.

- **Peer learning networks:** Continue to support trusted grower groups and local extension networks that foster producer-to-producer knowledge sharing.
- **Proven on-farm practices:** Maintain use of stubble retention, perennial pastures, liming, and other adaptive methods that have built enterprise resilience.
- **Wellbeing and social connection:** Build on the region’s strong collective response to past droughts and cyclones by sustaining community-based support systems.
- **Interest in climate-smart techniques:** Retain producer momentum in soil health, water efficiency, and regenerative approaches through consistent advisory support.

Modify

Adjust practices, management, or service delivery to respond to changing conditions and reduce vulnerability.

- **Business and risk planning:** Strengthen planning and decision-making capability, especially for small and livestock-focused enterprises in vulnerable zones.
- **Use of climate tools:** Improve uptake of DR-SAT, CliMate, and similar tools through practical, peer-led delivery that fits farm decision cycles.

- **Seasonal decision frameworks:** Embed drought thresholds and scenario-based planning into regular farm management practices.
- **Inclusive delivery models:** Adapt extension systems to better reach time-constrained producers, remote areas, and Aboriginal landholders.
- **Locally led extension systems:** Redirect extension investment toward locally governed models with stable funding and alignment to regional priorities.

Transform

Enable fundamental shifts in enterprise models, institutional systems, or land use where existing approaches are no longer viable.

- **Culturally grounded training:** Develop scalable On-Country learning pathways that enable Aboriginal landholders to re-engage with land stewardship and enterprise development.
- **Next-generation leadership:** Create pathways for early-career farmers and new land managers to build leadership, succession, and innovation skills.
- **Cross-sector delivery partnerships:** Foster enduring partnerships between grower groups, Aboriginal organisations, and NRM bodies to drive landscape-scale outcomes.
- **Integrated advisory models:** Design new models that connect business capability, climate adaptation, and natural resource stewardship in a single learning system.
- **Regional coordination mechanisms:** Support collaborative structures that align training, planning, and infrastructure decisions to reduce duplication and improve long-term resilience.

²³ Some interview insights that cut across multiple risk categories—such as digital capability and decision-support tool uptake—are summarised in the table at the end of this section rather than as discrete subsections.



Appendix C. Wheatbelt – Full Regional Analysis

Note: The methodology used in this regional analysis is the same as outlined in Appendix A, ensuring consistency and comparability across all four regional profiles.

1. Regional Snapshot

The Wheatbelt region spans 42 local governments across approximately 154,000 km² of Noongar Country. It includes the Southern Wheatbelt zone — including Dumbleyung, Katanning, Kent, Kojonup, Wagin, West Arthur, and Woodanilling — as well as eastern, central, and northern zones with distinct climatic, demographic, and economic characteristics. The area forms part of several native title regions, including Wagyl Kaip, Ballardong, and Southern Noongar, and encompasses a wide range of Noongar language groups such as Kaneang, Koreng, Wiilman, Ballardong, and Njaki-Njaki. Areas in the northern Wheatbelt — including parts of the Central Coast and northern Avon, often referred to as the Midlands — tend to be more grain-dominant, with relatively lower sheep stocking rates, fewer mixed systems, and greater exposure to summer rainfall variability and wind erosion pressures.

The Wheatbelt comprises a dispersed network of rural towns, with key service hubs including Katanning, Merredin, Narrogin, Northam, and Moora. Most inland towns have static or declining populations, high median ages, and limited housing and rental stock—especially for seasonal and professional workers. These demographic trends constrain workforce mobility, succession planning, and service delivery in both agriculture and allied sectors.

Agriculture remains the foundation of the regional economy, contributing over 50% of total economic output and up to 80% in some local government areas. Broadacre dryland farming dominates land use, with cereal cropping and sheep enterprises most common. Eastern and northern sub-regions are more grain-focused, while southern and western areas maintain a higher concentration of mixed livestock systems and wool production. Businesses increasingly operate across multiple shires and have scaled up in size and capital intensity, but many smaller and livestock-oriented enterprises remain vulnerable to shocks.

Climatic pressures are intensifying. Since 1975, the region has experienced a marked decline in growing season rainfall—particularly in the west and south—alongside a rise in hot days and extreme temperature events. Autumn breaks are becoming less reliable, and compound drought-heat episodes are more frequent. These trends are straining both enterprise and community water systems, particularly in upland catchments with limited natural storage. Some areas, such as Kent and Dumbleyung, have faced repeated water deficiency declarations, prompting reliance on emergency carting, shallow bores, and farm-scale supply innovation.

Environmental risks interact with these climatic shifts to further challenge resilience. Soil acidity, salinity, and wind erosion continue to degrade land condition, especially in the east and southern fringe. Fuel loads in unmanaged vegetation and roadside reserves are increasing bushfire risk, and landscape fragmentation is accelerating biodiversity loss. In culturally and ecologically significant areas—such as Jilakin Lake and Wave Rock—this erosion of landscape function also threatens tourism and heritage values.

Infrastructure and service deficits compound exposure. Telecommunications blackspots remain common, particularly in low-density or topographically isolated zones. These connectivity gaps limit access to digital decision tools, online training, and precision agriculture platforms. Water and energy infrastructure is often insufficient to support population growth or new industrial activity, especially in smaller towns. Many LGAs also face constraints in planning capability, coordination, and long-term capital works funding—limiting their ability to lead or support resilience-building initiatives.

Despite these challenges, the region has a network of grower groups, Aboriginal organisations, and place-based entities with deep local knowledge and relationships. However, many remain reliant on short-term grants, volunteer labour, or under-resourced administrative teams, creating gaps in consistent local delivery capacity.

2. Regional Insights

The Wheatbelt faces layered resilience challenges shaped by high climate exposure, constrained water systems, land condition decline, and structural workforce pressures. Declining winter rainfall, unreliable autumn breaks, and rising temperatures are amplifying stress on farm businesses, water infrastructure, and town supply systems across all sub-regions. While the impacts vary geographically, the underlying drivers of vulnerability are increasingly systemic—affecting enterprises, services, and communities. These patterns reflect a broader shift from short-term seasonal variability to a form of climatic drought, where persistent rainfall decline and shifting seasonal norms place long-term pressure on both agricultural and civic water systems.

Water security remains a critical constraint. Many towns and farms operate outside of scheme water coverage, relying on shallow bores, on-farm storage, or carted water — each of which is affected by poor water quality or rising costs. Groundwater salinity is high in many areas, limiting supply flexibility. In the Northern Wheatbelt, high iron content and salinity in groundwater are particularly prevalent, reducing water usability for both farm operations and community supply, and contributing to broader liveability constraints (Planfarm, 2023). Shires such as Kent and Dumbleyung continue to experience repeated water deficiency declarations, but similar pressures are emerging in other sub-regions with upland catchments or degraded storage capacity. The cost of upgrades often falls to under-resourced local governments. While pilot efforts such as WaterSmart Farms and small-scale desalination show promise, these remain localised rather than system-wide solutions.

Environmental risks and climate variability are tightly linked. Soil degradation—especially acidity, erosion, and salinity—remains widespread, particularly in the eastern and southern Wheatbelt. Bushfire risk is increasing due to unmanaged fuel loads in reserves and along roadsides, while biodiversity loss continues to reduce ecological function and cultural landscape integrity. In areas such as Wave Rock, Jilakin Lake, and inland reserves, this landscape decline undermines tourism potential and connection to Country.

The region's economic vulnerability is reinforced by a heavy reliance on broadacre agriculture and a limited off-farm economic base. Larger businesses have generally improved resilience through scale, diversification, and capital investment, but smaller and livestock-focused enterprises face persistent exposure to climate variability, input cost shocks, and labour constraints. Capability gaps in financial planning, climate risk literacy, and scenario-based decision making are common. While many producers are adopting improved rotations, soil management practices, or low-input systems, structured business continuity and drought plans are still not widespread. Use of seasonal climate tools is inconsistent, often hindered by time pressure, limited interpretation support, or lack of trust in localised relevance.

Social and structural constraints compound vulnerability. The region's ageing population, youth outmigration, and tight housing markets affect the ability to attract and retain skilled workers. Smaller enterprises, Aboriginal landholders, and new managers often face the greatest barriers to accessing training or advisory support due to time, cost, or connectivity constraints. These gaps are most pronounced outside of service centres and in communities without well-resourced grower groups or intermediaries. Digital blackspots further limit access to forecasting tools, remote learning, and extension services.

Although there is strong local knowledge and goodwill across the Wheatbelt, institutional settings and funding structures remain fragmented. Many grower groups, Aboriginal organisations, and catchment bodies operate with limited core resourcing and are dependent on short-term project grants. Coordination between state agencies, local governments, and community organisations varies, and resilience efforts are often siloed. Building long-term regional resilience will require stable investment in local delivery capacity, better alignment between sectors, and systems that embed risk planning into everyday practice.

3. Training Needs and Delivery Implications

Building resilience across the Wheatbelt will require targeted investment in climate literacy, business planning, and practical adaptation skills tailored to local conditions. While many producers are adopting innovations in cropping systems, soil health, and water management, further support is needed to build capability in seasonal risk management, financial planning, and succession—particularly for early-career farmers, smaller enterprises, and Aboriginal landholders.

Use of decision-support tools — such as seasonal forecasts, rainfall-runoff models, and drought thresholds — varies across the region. Uptake is often limited by time constraints, digital access, and the availability of locally relevant interpretation. Many producers continue to rely on historical knowledge and experience, but the complexity of emerging climate and planning tools can reduce their practical value without tailored support. These limitations are more acute in areas with poor connectivity or limited advisory presence — particularly in northern zones, where fewer active grower groups or formal training networks constrain access to training in seasonal forecasting, risk planning, and regionally adapted grazing or cropping strategies. Water literacy remains a regional priority — especially around aquifer recharge, water blending, and reuse strategies — given widespread water stress across both farm businesses and town supply systems.

Capability gaps in financial literacy and strategic business planning remain prominent. While some producers are diversifying income sources or adapting enterprise models, many—especially smaller or livestock-focused operations—face conditions consistent with financial drought, where rising costs, market instability, and limited buffers erode business resilience even when production systems are sound. Structured drought and continuity planning remains uncommon, and greater access to scenario tools and advisory support is needed to help producers assess risk exposure and make confident long-term decisions.

Trusted local networks—including grower groups, Landcare organisations, Aboriginal ranger programs, and catchment councils—provide a foundation for place-based training. However, these groups often face administrative fatigue, staff turnover, and unstable funding. In sub-regions without strong local intermediaries, many producers—particularly smallholders and new managers—lack a clear entry point into resilience initiatives. Local training providers also face delivery fatigue due to short-term grants, limited staffing, and increased travel costs.

Digital connectivity continues to be a constraint. Many parts of the Wheatbelt remain outside reliable mobile or internet coverage, limiting access to online learning, real-time decision tools, and remote advisory support. These infrastructure gaps intersect with labour shortages, housing stress, and geographic isolation to limit participation in structured training programs.

To be effective, training delivery must be localised, flexible, and grounded in real-world practice. Peer-led models, demonstration-based learning, and culturally grounded On-Country approaches remain important for reaching emerging managers, Aboriginal landholders, and producers in high-exposure zones. Programs that embed resilience into routine business decision-making—rather than treating it as a standalone activity—will be critical to driving sustained uptake and behaviour change.

4. Strategic Takeaways

Key Risks

- Declining winter rainfall, unreliable autumn breaks, and hotter dry spells are increasing the severity and unpredictability of drought events across the region.
- High groundwater salinity and limited access to scheme water constrain both farm and town water security, particularly in upland areas with poor storage or repeated deficiency declarations.
- Widespread land degradation—including acidity, erosion, and salinity—continues to reduce productivity, particularly in eastern and southern sub-regions.
- Smaller, livestock-focused, and lower-equity enterprises face disproportionate exposure to climate volatility, input cost spikes, and infrastructure constraints.
- Fuel accumulation in roadside and reserve vegetation is heightening bushfire risk, especially where active management is lacking.
- Poor telecommunications, limited internet access, and inadequate housing reduce access to decision-support tools, remote training, and rural workforce attraction.
- Ageing populations, volunteer fatigue, and limited coordination capacity reduce the ability of communities to sustain resilience efforts over time.

Regional Strengths

- Producers across the region are trialling low-input cropping systems, perennial pastures, and on-farm water innovations to manage more variable seasonal conditions.
- Local governments and grower groups are collaborating on catchment repair, emergency water carting networks, and alternative supply trials such as community-scale desalination.
- Strong grower groups, Aboriginal organisations, and Landcare networks operate across much of the region, supporting local knowledge sharing, peer learning, and landscape stewardship.
- Noongar landholders and ranger teams are actively engaged in seed collection, revegetation, fire knowledge exchange, and cultural site protection.
- Many communities have demonstrated strong mutual aid, volunteer mobilisation, and informal support networks during extended dry periods and service shortfalls.

Systemic Constraints

- Farm-level drought and risk planning remains uneven, particularly among smaller enterprises and those without access to tailored advisory support.
- Water resilience efforts are fragmented across government, industry, and community sectors, limiting coordinated planning and investment.
- Many local training and delivery organisations operate with limited core funding, relying on short-term grants and volunteer or part-time staffing.
- Connectivity blackspots and inadequate digital infrastructure continue to reduce engagement with forecasting tools, remote learning, and extension services.
- Housing shortages, ageing infrastructure, and workforce shortfalls limit the region's capacity to attract and retain skilled labour for drought, land, and service management.
- Institutional silos and misaligned planning frameworks often hinder collaboration between local governments, agencies, and community-led initiatives.

Opportunities for Impact

- Strengthen local water literacy and district-scale planning through regionally relevant training on aquifer recharge, blending, and reuse strategies.
- Expand access to scenario tools and financial planning support tailored to livestock and mixed farming systems.
- Build the capacity of trusted local organisations to lead resilience training and coordination through stable, long-term funding.
- Embed cultural knowledge and Noongar enterprise development in revegetation, fire management, and biodiversity monitoring initiatives.
- Invest in digital connectivity, workforce housing, and planning capability to support regional service delivery and drought preparedness.
- Align natural resource, infrastructure, and land use planning frameworks to support coordinated resilience investment at multiple scales.

5. Strategic Framing: Watch, Back and Build

What to Watch – Key risks and vulnerabilities

- **Strained water systems:** Ongoing reliance on scheme water, high groundwater salinity, and degraded storage in upland areas expose towns and farms to increasing water insecurity.
- **Intensifying hot droughts:** Rising temperatures, declining winter rainfall, and more frequent compound drought-heat events are driving greater production volatility.
- **Enterprise vulnerability:** Smaller, livestock-based, and lower-equity businesses remain disproportionately exposed to climate, input cost, and infrastructure shocks.
- **Financial pressure points:** Rising operational costs, constrained margins, and limited off-farm income pathways continue to challenge long-term enterprise viability.

- **Landscape decline:** Ongoing erosion, salinity, and biodiversity loss are undermining landscape function, cultural values, and tourism potential in key ecological zones.
- **Infrastructure exclusion:** Poor digital connectivity, housing shortages, and planning misalignment reduce access to training, climate tools, and rural workforce support.
- **Coordination gaps:** Fragmented governance and short-term funding cycles limit integrated responses across government, community, and industry actors.

What to Back – Existing strengths and momentum

- **On-farm adaptation efforts:** Producers are investing in low-input systems, perennial pastures, and water infrastructure upgrades to manage climate variability.
- **Local water leadership:** Shires and grower groups are collaborating on catchment-scale repair, emergency water carting, and community desalination trials.
- **Active regional networks:** Grower groups, Aboriginal organisations, and Landcare bodies continue to support peer learning and landscape stewardship despite resourcing constraints.
- **Noongar-led land care:** Aboriginal landholders and ranger teams are contributing cultural knowledge to seed collection, revegetation, and fire management.
- **Community cooperation:** Informal networks, mutual aid, and local volunteer mobilisation have strengthened responses to dry periods and service disruptions.
- **Innovation readiness:** There is strong interest across the region in new tools, enterprise models, and governance partnerships to support resilience goals.

What to Build – Capabilities and systems for future resilience

- **Water literacy and planning:** Strengthen knowledge of recharge, blending, reuse, and decentralised supply strategies to support farm- and district-level water security.
- **Enterprise resilience planning:** Expand uptake of financial tools, scenario planning, and risk assessments—especially for small, mixed, and livestock-heavy operations.
- **Stable local delivery platforms:** Invest in core capability and long-term resourcing for grower groups, Aboriginal organisations and regional bodies to coordinate training and extension, tailored to sub-regional enterprise mix and delivery capacity.
- **Inclusive learning models:** Support culturally grounded and peer-based training pathways for Aboriginal landholders, emerging managers, and new entrants.
- **Digital and workforce infrastructure:** Improve mobile and internet access, workforce housing, and transport systems to support training access and labour mobility.
- **Integrated planning systems:** Align land use, water, and infrastructure planning across government and industry to enable coordinated resilience investment.
- **Collaborative governance:** Build structures for shared leadership, cross-sector coordination, and sustained funding partnerships at local and regional scales.

6. Pathways for Resilience

This section applies the Maintain–Modify–Transform (MMT) framework²⁴ to identify strategic pathways for building resilience in farm businesses and regional systems. The framework recognises that producers and communities are responding to change in diverse ways—some by sustaining what works, others by adapting, and some by fundamentally rethinking how they operate. Understanding and supporting this range of responses is critical to effective capability building, program design, and long-term planning.

Maintain

Support continuity of core systems and functions under increasing stress without major structural change.

- **Trusted local networks:** Continue to support grower groups, Aboriginal organisations, Landcare bodies, and local partnerships that serve as entry points for resilience initiatives, including leadership renewal and knowledge continuity.
- **Farm-scale land and water systems:** Maintain investment in soil health, perennial systems, and farm water infrastructure that underpin long-term enterprise viability.
- **Community wellbeing and cohesion:** Sustain local events, volunteer platforms, and informal support networks that strengthen community connection during extended dry periods.
- **Cultural and environmental stewardship:** Preserve Noongar-led land management, revegetation, and seed programs that deliver cultural, ecological, and social benefits.
- **Place-based service continuity:** Retain local advisory, coordination, and extension roles that provide consistent, relationship-based support across the region.

²⁴ Adapted from Walker et al. (2004), Rickards & Howden (2012), and related frameworks in climate adaptation and systems change literature.

Modify

Adjust practices, management, or service delivery to respond to changing conditions and reduce vulnerability.

- **Integrated decision-making capability:** Improve adoption of risk assessments, drought thresholds, and financial planning through integrated training and practical decision tools.
- **Water system resilience:** Build understanding of recharge, blending, and reuse to support more confident and resilient local water strategies.
- **Advisory coordination:** Improve alignment between agencies, grower groups, and hubs to reduce duplication and strengthen consistent delivery.
- **Inclusive learning approaches:** Tailor training to support Aboriginal landholders, smaller enterprises, and new managers through peer-based, place-based models.
- **Scalable service models:** Design flexible training and advisory platforms that operate across sub-regions with varying support capacity.

Transform

Enable fundamental shifts in enterprise models, institutional systems, or land use where existing approaches are no longer viable.

- **Shared resilience governance:** Establish collaborative structures across government, industry, and community to lead long-term drought and climate resilience planning.
- **Regional service models:** Redesign how advisory, extension, and training services are delivered to ensure continuity, coordination, and equitable reach across sub-regions.
- **First Nations leadership in land management:** Embed Noongar-led approaches in regional conservation, fire, revegetation, and cultural site management.
- **Integrated land-water-infrastructure planning:** Shift from siloed planning to whole-of-landscape strategies that align natural resource management with economic and social resilience.
- **Resilience investment pipelines:** Develop regionally owned investment cases to attract public and private capital into water, climate adaptation, and landscape-scale projects.





Appendix D. Inland Great Southern – Full Regional Analysis

Note: The methodology used in this regional analysis is the same as outlined in Appendix A, ensuring consistency and comparability across all four regional profiles.

Inland Great Southern

1. Regional Snapshot

The Inland Great Southern region spans eight local governments—Broomehill–Tambellup, Cranbrook, Gnowangerup, Jerramungup, Katanning, Kent, Kojonup, and Woodanilling—covering 27,996 km² of Noongar Country. It encompasses the Ganeang, Goreng, and Menang language groups within the broader Wagyl Kaip and Southern Noongar native title area. The population is dispersed across small towns and farming communities, many of which are experiencing population decline. Workforce availability is increasingly shaped by demographic ageing and youth out-migration, with implications for labour mobility, succession, and the delivery of rural services.

Agriculture is the dominant economic driver across the region, accounting for more than 65% of employment and output in shires like Kent and Gnowangerup. Most farms are dryland sheep–wheat systems, with grain-dominant enterprises more common in the eastern parts of the region. While productivity has improved in some areas, cost–price pressures and exposure to climate shocks continue to test enterprise viability.

Climate exposure is high. Growing season rainfall has declined by more than 20% over the past 50 years, autumn breaks are increasingly unreliable, and the number of hot days is rising. Vulnerability mapping shows moderate to high risk across all shires, with Kent and Jerramungup among the most exposed. These areas have experienced repeated water deficiency declarations due to limited scheme coverage and poor groundwater quality. Some producers remain reliant on emergency or carted water during extended dry periods.

Environmental pressures compound these risks. Drying vegetation and fuel accumulation have increased bushfire risk, while wind erosion and salinity continue to degrade land condition—particularly in lower-productivity zones. These issues reduce the capacity of farm businesses to adapt, especially where land degradation intersects with marginal rainfall or soil types.

Structural challenges reinforce system-wide vulnerability. Digital access remains uneven across the region, limiting the reach of training and advisory services and restricting use of online decision-support tools. Housing shortages, service gaps, and infrastructure limitations further constrain the region’s capacity to attract and retain a skilled rural workforce and deliver effective resilience-building programs.

2. Regional Insights

The Inland Great Southern faces a complex mix of structural, environmental, and social pressures that shape its capacity to manage drought and build long-term resilience. High climate exposure intersects with constrained water access, ageing infrastructure, and demographic decline to increase vulnerability at both the enterprise and regional scale.

Climate and risk planning remain inconsistent. While some producers are using tools like CliMate and DR-SAT to support seasonal decision-making, many continue to rely on historical patterns and personal experience, which can constrain planning under increasingly variable conditions—particularly in the absence of tailored support. These conditions reflect not just seasonal variability but a pattern of climatic drought, where declining autumn breaks, reduced rainfall, and heat extremes are reshaping production windows and increasing planning complexity.

Water security continues to be a critical constraint. Poor groundwater quality, limited scheme access, and the high cost of infrastructure leave many communities — particularly in Kent, Jerramungup, and Gnowangerup — exposed to supply shortfalls. Although local coordination and on-farm storage are improving, fragmented investment and short-term funding cycles continue to impede progress.

These physical risks are compounded by social and emotional pressures. Extended dry periods increase financial strain and wellbeing risks for farm families, while access to mental health services and community support remains uneven. Noongar-led cultural initiatives are playing an important role in strengthening social resilience, cultural continuity, and place-based healing.

Adaptation is occurring at the farm level, with many producers trialling drought-tolerant crops, improving soil health, and adopting regenerative methods. Peer learning via grower groups is a key enabler, but limited extension capacity and variable advisory access continue to slow uptake across the region.

System-wide coordination remains weak. Short-term programs, fragmented advisory delivery, and limited integration across infrastructure, water, and land planning reduce the region's ability to deliver sustained resilience outcomes. Stronger institutional coordination will be critical to scale successful practices and align regional efforts with long-term climate and market trends.

3. Training Needs and Regional Delivery Implications

Strengthening farm business capability in the Inland Great Southern will require targeted support for climate literacy, enterprise planning, and practical adaptation skills. These capabilities are especially important for early-career farmers, transitioning enterprises, and Aboriginal landholders seeking to diversify or strengthen their operations. Stronger preparedness at the enterprise level will depend on improving access to decision-making tools, tailored advice, and training that reflects regional realities.

Improving climate preparedness will require greater confidence and capability in using seasonal forecasts, scenario planning, and decision-support tools such as CliMate and DR-SAT. Producers facing time and resourcing constraints may lack the support needed to apply these tools effectively without contextualised training.

Access to extension and training remains uneven. While trusted grower groups and NRM networks provide a strong platform for outreach, many organisations face capacity limitations and insecure funding. Digital access is also inconsistent, especially in more remote areas, restricting the reach of advisory services and online learning programs.

Delivering training in place-based, culturally grounded ways supports deeper engagement and practical relevance—especially for Aboriginal landholders and emerging managers. On-Country training models that integrate cultural knowledge, native species propagation, and land stewardship provide meaningful pathways for Aboriginal engagement and enterprise development. These models also support cultural continuity and wellbeing, particularly when co-designed with local Elders and rangers.

Business management and succession planning remain priority areas for development across the region. Many producers lack structured drought or risk plans, and few regularly engage in scenario modelling or longer-term enterprise planning. Strengthening these capabilities will be critical for future investment, transition planning, and workforce renewal.

Training delivery must respond to structural constraints. Time, cost, housing shortages, and variable internet access continue to reduce participation in programs. Flexible, locally led, and practically oriented training approaches will be best suited to achieving widespread uptake and lasting impact

4. Strategic Takeaways

Key Risks

2. High climate exposure: declining growing season rainfall, unreliable autumn breaks, and increasing extreme heat days.
3. Water insecurity in Kent, Jerramungup, and Gnowangerup due to limited scheme coverage, poor groundwater, and rising demand.
4. Land degradation through salinity, wind erosion, and vegetation decline continues to reduce productivity in vulnerable areas.
5. Demographic decline, ageing workforce, and limited housing availability constrain the region's labour supply and adaptive capacity.

Regional Strengths

6. Trusted grower groups and NRM networks offer platforms for peer learning and extension delivery.
7. Producers are trialling drought-tolerant crops, soil health practices, and regenerative approaches.
8. Wellbeing programs and cultural initiatives led by Noongar organisations strengthen social resilience and community connection
9. Landholders are motivated to adopt new practices when supported by practical, trusted advice.

Systemic Constraints

10. Limited capability and confidence in applying climate tools such as DR-SAT and CliMate
11. Underdeveloped risk and enterprise planning across many farm businesses
12. Limited delivery capacity due to funding insecurity, patchy digital access, and under-resourced advisory networks
13. Labour shortages and housing constraints limit the region's ability to attract, retain, and train a skilled rural workforce
14. Misalignment between farm-level adaptation and regional infrastructure or water planning reduces long-term impact

Opportunities for Impact

15. Support practical learning in seasonal forecasting and risk-based decision-making through peer-led training.
16. Support succession planning and strengthen long-term business capability across farming enterprises.
17. Expand On-Country and culturally grounded training models for Aboriginal landholders
18. Support early-career farmers and Aboriginal landholders to build skills in leadership, enterprise development, and innovation.
19. Invest in local delivery networks and align advisory services with infrastructure and planning systems.

5. Strategic Framing: Watch, Back and Build

What to Watch – Key risks and vulnerabilities

- **Climate volatility and exposure:** Declining rainfall, unreliable autumn breaks, and rising temperatures increase exposure to climate shocks.
- **Water security pressures:** Limited scheme coverage, poor groundwater quality, and rising demand constrain supply in Kent, Jerramungup, and Gnowangerup.
- **Landscape degradation risks:** Salinity, wind erosion, and vegetation decline reduce productivity in vulnerable zones.
- **Workforce and housing constraints:** Labour shortages, ageing demographics, and limited housing restrict the region's capacity to attract and retain a skilled workforce.
- **System misalignment:** Disconnection between farm-level adaptation and broader infrastructure or water planning reduces long-term impact.

What to Back – Regional strengths and enabling conditions

- **Peer learning networks:** Trusted grower groups and NRM organisations provide strong platforms for training and extension.
- **On-farm innovation:** Producers are trialling drought-tolerant crops, regenerative methods, and soil health practices.
- **Cultural and wellbeing leadership:** Wellbeing programs and cultural initiatives led by Noongar organisations strengthen social resilience and community connection.
- **Motivated landholders:** Many producers are ready to adopt new practices when supported by trusted, practical advice.

What to Build – Capabilities and systems for future resilience

20. **Climate-informed decision-making:** Build confidence in seasonal forecasting, scenario planning, and practical use of tools like DR-SAT and CliMate.
21. **Business and risk planning:** Strengthen long-term planning capability across farm enterprises, with a focus on risk management and financial resilience.
22. **On-Country learning models:** Expand culturally relevant, place-based training pathways for Aboriginal landholders.
23. **Leadership and innovation skills:** Support early-career farmers and Aboriginal landholders to grow capability in succession, enterprise development, and diversification.

Local delivery systems: Invest in regional grower and NRM networks that align advisory support with infrastructure and planning priorities.

6. Pathways for Resilience

This section applies the Maintain–Modify–Transform (MMT) framework²⁵ to identify strategic pathways for building resilience in farm businesses and regional systems. The framework recognises that producers and communities are responding to change in diverse ways—some by sustaining what works, others by adapting, and some by fundamentally rethinking how they operate. Understanding and supporting this range of responses is critical to effective capability building, program design, and long-term planning.

²⁵ Adapted from Walker et al. (2004), Rickards & Howden (2012), and related frameworks in climate adaptation and systems change literature.

Maintain

Support continuity of core systems and functions under increasing stress without major structural change.

24. **Reinforce trusted delivery networks:** Local grower groups and NRM bodies are essential to maintaining peer-based learning and service continuity.
25. **Sustain producer engagement:** Landholders remain motivated to innovate but risk disengagement when support is inconsistent or fragmented.
26. **Protect wellbeing and cultural connection:** Wellbeing programs and cultural initiatives led by Noongar organisations help maintain social cohesion and resilience during periods of climatic and economic stress.

Modify

Adjust practices, management, or service delivery to respond to changing conditions and reduce vulnerability.

27. **Improve climate and planning literacy:** Build applied skills in seasonal forecasting, scenario planning, and decision-support tools such as DR-SAT and CliMate.
28. **Strengthen risk and enterprise planning:** Many producers would benefit from support to strengthen structured drought planning, succession planning, and financial preparedness.
29. **Align training delivery with regional constraints:** Delivery models should be adjusted to reflect time pressures, digital gaps, housing shortages, and other participation barriers.
30. **Coordinate adaptation at system scale:** Modify planning interfaces to better align farm-level changes with regional infrastructure, land use, and water planning.

Transform

Enable fundamental shifts in enterprise models, institutional systems, or land use where existing approaches are no longer viable.

31. **Build leadership and enterprise innovation:** Equip early-career farmers and Aboriginal landholders to explore new roles, markets, and enterprise models.
32. **Expand culturally grounded training systems:** On-Country programs can transform both training delivery and engagement outcomes—supporting cultural continuity and stewardship.
33. **Redesign advisory and delivery systems:** New cross-sectoral models are needed to move beyond reactive extension and support long-term regional transformation.
34. **Support enterprise diversification and exit planning:** Where viability is declining, enable producers to explore new pathways—whether through diversification, structural change, or voluntary exit with dignity.



Appendix E. Coastal Great Southern – Full Regional Analysis

Note: The methodology used in this regional analysis is the same as outlined in Appendix A, ensuring consistency and comparability across all four regional profiles.

Coastal Great Southern

1. Regional Snapshot

The Coastal Great Southern region includes the City of Albany, the Shires of Denmark and Plantagenet, and the Frankland River area of Cranbrook. It lies within the high rainfall zone of the Great Southern on Noongar Country, encompassing the Ganeang, Goreng, and Menang language groups within the broader Wagyl Kaip and Southern Noongar native title area. The region supports a population of approximately 53,200 residents, with growth averaging 2.4% annually between 2021 and 2023. Despite this growth, the region has a relatively high proportion of residents aged over 65. Labour supply is shaped by demographic ageing and youth outmigration, with implications for workforce availability despite relatively low unemployment.

Agriculture, forestry, and fishing contribute \$1.3 billion to the region's \$8.96 billion economic output. While agriculture remains a significant land use, sectoral dependence is lower than in inland areas, with the Albany economy more diversified across services, tourism, and public administration. Key production systems include beef and sheep grazing, viticulture, horticulture, plantation forestry, and mixed farming. Pork and poultry operations are concentrated around Mount Barker, and interest is growing in

aquaculture and bushfoods. These production systems operate within a landscape of high ecological value, as the region forms part of an internationally recognised biodiversity hotspot along the south coast. Conservation areas coexist with historically cleared farmland, creating ongoing pressure on both natural and agricultural systems.

Climate variability is already affecting seasonal patterns. Winter and spring rainfall are declining, and evaporation and salinity risks are rising. Projections for 2050 suggest annual rainfall may fall by up to 131 mm in Denmark and 14 mm in Frankland River, posing risks to both agricultural productivity and long-term water availability. Increased evaporation may exacerbate salinity in lower-lying areas, impacting land condition and enterprise viability. Groundwater systems in some areas are showing signs of shallow aquifer drawdown, while shallow soils across the region are more susceptible to salinisation and moisture stress.

Water and energy infrastructure are under pressure. While the region benefits from major road, rail, and port facilities, containerisation limitations at the Port of Albany and unstable energy supply remain barriers to growth. Surface water is heavily relied upon—accounting for 80% of total water use—but most take remains unlicensed, and storage capacity is not sufficient to meet growing demand under drying conditions. Several catchments remain unproclaimed, limiting the capacity for formal regulation and coordinated water planning.

Digital access and telecommunications also vary across the region, constraining access to real-time data and limiting the effectiveness of online advisory tools. These constraints can exacerbate existing capability gaps, especially for smaller or more remote producers.

2. Regional Insights

The Coastal Great Southern faces a distinctive set of resilience challenges shaped by its mixed farming systems, climate variability, and fragmented support networks. Water security is a critical constraint. While surface and groundwater sources are reasonably mapped, many remain unproclaimed and lack formal regulation. In several catchments — including the Kent and Denmark Rivers — water use is already near sustainable limits, particularly in horticultural districts that rely on unlicensed private dams. As demand grows, these conditions reflect emerging patterns of climatic and ecological drought, where reduced rainfall, higher evaporation, and degraded natural systems intersect to heighten resource stress and enterprise risk.

Climate variability—particularly unreliable winter rainfall—adds further complexity, placing pressure on both intensive and pasture-based enterprises. Changing fire regimes and increasing unmanaged fuel loads in parts of the region add a further layer of risk to landscape resilience and enterprise planning.

Economic and social pressures compound these environmental risks. The viability of small-to-medium agricultural businesses is being tested by narrowing margins, reduced access to supplementary feed during dry periods, and market disruptions such as the loss of the live sheep trade. Farm families carry growing financial and emotional strain, especially during extended dry spells, and access to mental health and community services remains uneven across the region.

Risk planning and adaptive capacity vary across the region. Structured drought thresholds and seasonal decision frameworks are not yet widespread, limiting opportunities for strategic investment and real-time climate risk management. Insecure funding and capacity constraints within local grower groups and NRM organisations further weaken the region's ability to scale innovation and provide consistent peer-based support.

Despite these challenges, there is strong demand for climate-smart practices, decision-support tools, and locally relevant extension. Programs that build capability in soil management, groundcover retention, and water-efficient production are seen as critical enablers of long-term resilience. However, adoption remains uneven, particularly where return on investment is unclear or advisory access is limited.

Broader infrastructure and market constraints also limit the ability of farm businesses and the regional economy to adapt effectively. Albany's port provides strategic export access but lacks container facilities to support higher-value or diversified products. Transport bottlenecks and inconsistent road conditions reduce the efficiency of farm-to-port supply chains. At the same time, the region's economy remains highly dependent on agriculture, manufacturing, and construction, offering limited buffer against climate and market shocks. These structural limitations constrain enterprise-level resilience by limiting diversification pathways, investment confidence, and logistical agility. Left unaddressed, they may contribute to conditions of financial drought, where persistent cost pressures and limited market access erode confidence and reduce the capacity for long-term planning and reinvestment.

3. Training Needs and Regional Delivery Implications

Building regional capability in the Coastal Great Southern will require a stronger focus on climate and risk literacy, business planning, and practical skills to support whole-farm adaptation. Many producers face challenges in integrating seasonal forecasts and decision-support tools into their farm planning. Strengthening the applied use of tools like CliMate and DR-SAT will be important, particularly for smaller or time-constrained enterprises that may lack the confidence or support to use them effectively.

The region's training and extension ecosystem is uneven. While some producers benefit from well-established grower groups and peer networks, others—particularly smaller or more isolated enterprises—have limited access to tailored advice. Local delivery channels are trusted but under-resourced. Strengthening these mechanisms will be essential for reaching producers with relevant, high-quality training that builds confidence and supports long-term practice change.

Target groups include younger producers, emerging farm managers, and Aboriginal landholders seeking to re-engage with land stewardship or build enterprises. Training models that incorporate place-based approaches—such as On-Country delivery, peer mentoring, and demonstration-based learning—are particularly important to support cultural relevance, confidence-building, and uptake over time.

Planning skills are also a key gap. Across the region, business and drought-risk planning is inconsistent, and enterprise-level decisions often do not fully reflect the scale or timing of climate and market risks. Some producers also manage critical private infrastructure, such as on-farm water storage and irrigation systems, without adequate support for maintenance or contingency planning. Scenario planning, risk management, and strategic decision-making should form core elements of future capability-building efforts.

Structural constraints such as housing shortages, limited internet connectivity, and time pressure continue to reduce participation in training and advisory programs. Limited preparedness planning and uneven access to early warning systems in some areas also weaken the foundation for risk-responsive learning. To improve uptake, training must be designed with flexibility, practical value, and delivery modes suited to regional contexts. These considerations will be critical for ensuring that capability investments translate into meaningful resilience outcomes at farm and system levels.

4. Strategic Takeaways

Key Risks

- Water security under pressure due to unregulated catchments, storage limitations, and rising demand.
 - Increasing climate variability, including declining winter rainfall and rising evaporation, threatens productivity.
 - Narrowing farm margins and loss of live export markets increase financial vulnerability for small-to-medium producers.
 - Uneven mental health and community support exacerbates strain during dry periods.
- Increased fuel loads and changing fire regimes elevate landscape-scale risk, especially under drying trends.

Regional Strengths

- Strong interest in climate-smart practices, soil management, and water-efficient production.
- Established peer networks and grower groups provide trusted platforms for extension and learning.
- Active interest in diversification opportunities, including aquaculture and bushfoods.
- Noongar-led land stewardship models support cultural and ecological resilience.

Systemic Constraints

- Inconsistent use of climate tools and limited structured drought or business planning.
- Advisory services and training delivery constrained by housing, internet access, and workforce shortages.
- Innovation limited by insecure funding and uneven capacity of local organisations.
- Port, transport, and energy infrastructure gaps restrict economic adaptation and product diversification.
- Fragmented governance across water, land use, and infrastructure planning reduces regional coordination and resilience.

Opportunities for Impact

- Support practical use of climate tools like DR-SAT and CliMate through peer-led, contextual training.
- Expand On-Country delivery and culturally relevant training for Aboriginal landholders and emerging managers.
- Support farm business planning and risk-based decision-making using practical tools and seasonal scenarios.
- Invest in staffing and support for trusted local organisations to lead peer-based training and extension.
- Strengthen coordination between land, water, and infrastructure planning to improve alignment and impact.

5. Strategic Framing: Watch, Back and Build

What to Watch – Key risks and vulnerabilities

- **Water security pressures:** Unregulated catchments, limited storage, and rising demand threaten supply in key areas.
- **Climate variability:** Declining winter rainfall, increased evaporation, and salinity risks reduce system predictability and enterprise viability.
- **Economic exposure:** Narrow margins, live export disruptions, and high sectoral dependence increase vulnerability to market and climate shocks.
- **Social and mental health strain:** Extended dry periods are compounding emotional and financial pressure on farm families, with uneven access to support services.
- **Infrastructure and digital gaps:** Port limitations, energy instability, and patchy internet access constrain adaptation and training delivery.
- **Landscape fire risk:** Increased unmanaged fuel loads and shifting fire regimes elevate hazard exposure across agricultural and peri-urban areas.

What to Back – Existing strengths and momentum

- **Peer learning networks:** Grower groups and local networks provide trusted platforms for extension and knowledge-sharing.
- **Climate-smart practice interest:** Producers are seeking training in soil, water, and groundcover management to support resilience.
- **Diversification pathways:** Interest is growing in bushfoods, aquaculture, and value-adding, especially in emerging or Aboriginal-led enterprises.
- **Cultural stewardship:** Noongar-led land management models support climate resilience, wellbeing, and place-based learning.

What to Build – Capabilities and systems for future resilience

- **Risk and planning literacy:** Strengthen skills in drought thresholds, seasonal decisions, and practical planning across farm enterprises.
- **Effective use of climate tools:** Support practical uptake of tools like DR-SAT and CliMate through peer-led, context-specific training.
- **Regional training networks:** Fund and support local organisations to lead consistent, peer-driven training programs.
- **On-Country learning for Aboriginal producers:** Expand culturally grounded training pathways that support land management, enterprise development, and cultural knowledge transmission.
- **Contextual training for emerging farmers:** Develop place-based, practical training opportunities for younger landholders and new managers to build long-term capability.
- **Integrated planning systems:** Improve coordination across land use, infrastructure, and water planning to enable whole-of-system adaptation.
- **Regional governance alignment:** Strengthen cross-sector planning and reduce fragmentation across land, water, and emergency management systems.

6. Pathways for Resilience

This section applies the Maintain–Modify–Transform (MMT) framework to identify strategic pathways for building resilience in farm businesses and regional systems. The framework recognises that producers and communities are responding to change in diverse ways—some by sustaining what works, others by adapting, and some by fundamentally rethinking how they operate. Understanding and supporting this range of responses is critical to effective capability building, program design, and long-term planning.

Maintain

Support continuity of core systems and functions under increasing stress without major structural change.

- **Support continuity in trusted delivery networks:** Local grower groups, producer networks, and community-based organisations remain key enablers of knowledge-sharing and practice support. Investing in their stability will help maintain access to information and advice across the region.
- **Sustain soil and water stewardship practices:** There is strong interest in soil health, groundcover retention, and water-efficient production. Maintaining and reinforcing these practices will be essential for buffering against seasonal shocks.
- **Ensure access to emotional and community support:** Mental health and wellbeing are under pressure during extended dry periods. Maintaining access to support services—and embedding wellbeing into resilience-building—remains a critical foundation for producer decision-making and adaptation.

Modify

Adjust practices, management, or service delivery to respond to changing conditions and reduce vulnerability.

- **Improve enterprise-level planning and decision-making:** Many producers do not yet have structured drought plans, risk scenarios, or investment thresholds in place. Modifying how decisions are made—through better access to tools, training, and applied learning—can improve resilience at the business level.
- **Adapt delivery models to reach underserved producers:** Access to training and advisory services varies across the region, with smaller or more isolated enterprises often less well served. Modifying delivery to be more flexible, contextual, and peer-driven will improve participation and impact.
- **Enhance water governance and land planning coordination:** Catchment water use is approaching sustainable limits, yet many areas remain unproclaimed. Coordinating local and regional water, land, and infrastructure planning is necessary to manage long-term resource pressures.
- **Respond to market disruption with enterprise diversification:** Loss of the live export trade and volatile input costs are exposing enterprise vulnerabilities. Supporting producers to explore new markets, products, or supply chain adjustments will help mitigate financial risk.
- **Integrate fire risk into land management strategies:** Rising unmanaged fuel loads and changing fire regimes require updated risk frameworks and collaborative approaches to hazard reduction.

Transform

Enable fundamental shifts in enterprise models, institutional systems, or land use where existing approaches are no longer viable.

- **Expand culturally grounded and place-based training systems:** On-Country programs and peer mentoring models can transform engagement—particularly for Aboriginal landholders and younger producers—by embedding cultural relevance and long-term confidence-building into training systems.
- **Redesign extension and advisory systems:** Advisory structures face challenges such as short-term funding and fragmented planning. Transforming delivery through integrated, regionally coordinated approaches can unlock more consistent and scalable impact.
- **Invest in enterprise innovation and leadership:** Emerging producers and Aboriginal landholders need opportunities to develop leadership and innovation capacity to design and lead new enterprises—whether in bushfoods, aquaculture, or other value-added industries.
- **Reposition regional infrastructure for a changing economy:** Albany's port, road systems, and energy infrastructure are limiting higher-value product development and export. Strategic investment is needed to reconfigure regional systems in support of long-term economic and climate resilience.
- **Establish collaborative governance mechanisms:** Transforming how drought, water, and land use planning are coordinated across jurisdictions can reduce fragmentation and better align public and private adaptation efforts.



Australian Government
Department of Agriculture,
Fisheries and Forestry



Future
Drought
Fund



Department of
Primary Industries and
Regional Development



GROWER
GROUP
ALLIANCE
Together we grow

FarmElevate

PLAN WITH PURPOSE

