

2026-28 Producer identified RD&A priorities

Table 1: Identify research, development or adoption gaps, activities, and strategies to achieve the desired outcome/s.

MLA Program area	Priority Rank	Committee origin	New or ongoing priority? Monitoring or emerging?	Outcome sought: Describe the issue and the outcome(s) producers/industry are seeking.	To adequately achieve the outcome, identify R&D and/or adoption gaps or strategies: - For R&D, clearly identify the research gap. - For adoption, detail a possible strategy that producers would engage with to achieve the intended outcome.
Feedbase	FB Priority #1	WALRC	New	Development of feedbase systems that optimise the use of vetch and/or alternative species to reduce re-sowing frequency while maintaining productivity and flexibility in WA systems.	R&D Gap: Increasing reliance on vetch, which is not adapted to all soils types and requires annual re-sowing, increases cost and labour. There is an opportunity for research into more persistent or cost-effective forage alternatives that can deliver similar feed value, reduced input requirements and have a better fit with the farming system.
Feedbase	FB Priority #2	WALRC	Ongoing	Optimised use of standing crops and conserved forages and grains for grazing, feedlotting, and finishing systems for WA sheep and cattle. Where feasible, work with crop and forage breeders to include measurement of key livestock traits when phenotyping near-commercial material to optimise dual-purpose outcomes.	R&D Gap: Limited data (nutritional value x biomass) and region-specific guidance exist to assist producers to assess quality and quantity of standing crops and forages, to inform decisions regarding traditional mechanical grain harvest, compared to use as standing or conserved feed for sheep and cattle. Goal to improve integration of livestock and cropping systems and quantify potential for utilising the biomass for sheep and cattle confinement feeding, backgrounding or finishing. Note that aspects of this were released in a tender in 2025 after WALRC prioritisation but no project was contracted.
Animal Wellbeing	AW Priority #1	WALRC	New	Improved animal management in confinement systems, including strategies to prevent disease, optimise individual welfare, and maintain productivity.	R&D Gap: Limited data and practical guidance exist on managing animal health in confinement systems under WA conditions, restricting producers' ability to implement effective, evidence-based health and welfare practices.
Animal Wellbeing	AW Priority #2	WALRC	New	Validation of virtual fencing as a safe and effective tool for managing cattle in rangeland systems, ensuring animal welfare is maintained while supporting productivity and land management.	R&D Gap: Limited evidence exists on the welfare impacts and effectiveness of virtual fencing in extensive rangeland environments, restricting producer confidence and adoption where animal welfare is a priority.
Grassfed Beef Productivity	GBP Priority #1	WALRC	NEW	Improved adoption and management of virtual fencing in WA cattle systems, including identification of lead cows, optimal developmental training, and integration into existing management practices to	R&D Gap: Research component to collect biological and economic data (as compared to anecdotal evidence or company claims) to understand the role for cattle VF in WA farming/feedbase systems. Capture data to describe multiple benefits from adoption, including ease of management, early

				enhance feed utilisation, grazing efficiency, welfare and environmental outcomes. Use of animal-based measures/ animal assessment tech, such as Optiweigh, to predict liveweight change and therefore estimate diet quality, increase capacity for feed management, reduce labour costs in WA cattle systems, enable better tracking and production of feedbase and animal performance to drive grazing/feeding decisions that drive productivity/efficiency	information regarding liveweight change and decisions regarding grazing and feedbase management. Limited knowledge exists on identifying lead cows, best training approaches, cost-effectiveness, system integration, and impacts on grazing behaviour and environmental constraints, restricting producer confidence and uptake of virtual fencing technology. Adoption Gap: Limited adoption and validation of animal-based monitoring tools and predictive AI models in WA, restricting producers' ability to accurately assess pasture quality and realise cost and management efficiencies. An adoption project linked to the R&D activity would expand producer engagement and outcomes from both activities.
Grassfed Beef Productivity	GBP Priority #2	WALRC	New	Improved understanding of the feedbase in WA pastoral systems, including traits associated with resilience intake, nutritional value, relative palatability, and relationships with ecological indicators of systems health. Novel information to enable integrated management strategies that support cattle performance, adaptation, and decisions regarding seasonal movement from northern to southern regions.	R&D Gap: Limited data exist on how feedbase resilience, quality, relative palatability influence cattle performance and adaptation across WA pastoral systems, as well indicators of ecological resilience. This information enables producers to integrate this information into timely and effective management strategies.
Sheep Productivity	SP Priority #1	WALRC	New	Clear understanding of the potential to increase red meat production and gain economic benefits from virtual fencing in sheep, including increased sheep numbers, labour savings, infrastructure costs (investment and reduced fencing) and potential improvements in pasture utilisation and management of sensitive areas. Adoption and implementation of virtual fencing in WA sheep systems, supported by research into technology, management practices, and economic feasibility, to improve productivity, pasture utilisation, and operational efficiency. Development of technology for sheep industry with inclusion of welfare studies to underpin registration.	R&D Gap: While Sheep VF has been a topic of research for a decade, it has not moved beyond preliminary research in controlled situations. WALRC advocates developing the technology, with a clear understanding for use cases in WA mixed farming systems and collection of appropriate behaviour and welfare data to enable state-based approvals. .

Sheep Productivity	SP Priority #2	WALRC	New	Use of sheep genetics to improve and consistently deliver high eating quality (tenderness, marbling, flavour) under WA production conditions. Development and implementation of genetic strategies tailored to WA sheep production systems, providing producers with effective tools to improve productivity, resilience, and market outcomes.	R&D Gap: Limited WA-specific data linking genetics to production systems and eating quality traits, restricting producers' ability to make informed breeding and management decisions. Limited genetic options and supporting tools currently exist for WA sheep systems, restricting producers' ability to make informed breeding and selection decisions suited to local conditions.
Environmental Sustainability (On-farm)	ES Priority #1	WALRC	New	Assessment and integration of desalination methodologies as a sustainable water source for red meat production systems, supporting reliable drinking water supply under changing climatic conditions.	R&D Gap: Limited data and practical guidance exist on the location, feasibility, size, cost, and downside environmental impacts that limit adoption of poor quality and abundant water for livestock production.
Environmental Sustainability (On-farm)	ES Priority #2	WALRC	New	Development and adoption of more salt-tolerant pasture and forage plants in WA sheep and cattle systems to maintain productivity on saline soils and expand usable grazing areas.	R&D Gap: Limited availability and widespread evaluation of salt-tolerant plant species restrict producers' ability to utilise saline areas effectively, reducing feedbase resilience and overall livestock performance. R&D options could include options for novel species, mixtures and establishment methods
Items of interest/significance beyond Top 10 Priorities:					
Environmental Sustainability (On-farm)	ES #3	WALRC	New	Evidence-based confirmation that confinement feeding systems can support sustainable production, maintaining productivity while minimising environmental impacts.	R&D Gap: Limited data exist validating the sustainability of confinement feeding under WA conditions, leaving uncertainty about best practices and long-term environmental outcomes.
Environmental Sustainability (On-farm)	ES #4	WALRC	New	Strategies to manage effluent runoff and salinity, turning potential environmental challenges into productive outcomes for livestock systems in WA.	R&D Gap: Limited research and guidance exist on effectively utilising saline effluent runoff for livestock production, restricting producers' ability to convert environmental constraints into productive resources.
Animal Wellbeing	AW Priority #3	WALRC	New	Improved survival of triplet-born lambs through early and accurate pregnancy diagnosis, enabling targeted management and interventions to support welfare and productivity.	Adoption Gap: Limited use of pregnancy scanning to reliably predict and manage triplet pregnancies, restricting producers' ability to implement management strategies that maximise lamb survival and ewe welfare.
Animal Wellbeing	AW Priority #4	WALRC	New	Improved understanding and management of respiratory disease in sheep and cattle to minimise productivity losses and welfare impacts	R&D Gap: The industry needs more data quantifying the effects of respiratory disease on productivity and welfare. The lack of research restricts producers' ability to implement evidence-based strategies that reduce disease incidence and associated losses.

Animal Wellbeing	AW Priority #5	WALRC	New	Effective pain relief strategies for routine husbandry procedures (dehorning, castration, spaying, and marking) to improve animal welfare and support sustainable production.	R&D Gap: Barriers to adoption including access to products with improved duration and efficacy, associated costs impact the adoption for effective pain management with husbandry procedures.
Feedbase	FB Priority #3	WALRC	New	Improved annual pasture legume genetics suited to medium rainfall zones in WA, delivering greater persistence, productivity, and contribution to livestock performance.	R&D Gap: Current pasture legume options lack the genetic improvement needed to consistently maintain productivity in medium rainfall systems, limiting feedbase performance and long-term sustainability.
Feedbase	FB Priority #4	WALRC	New	Development and extension of simplified feed test values to help producers assess and meet livestock feed demands throughout the season, improving feed planning, efficiency, and animal performance. Making sure we have a tool that is accurate, easy and assessable.	R&D Gap: Testing tool that is relevant, accurate, easy to access. Gaps and complexity in palatability/intake prediction - combination of taste and digestibility (NDF). The soil constraints and seasonality impacts on this. Adoption Gap: Current feed test information is often complex or inaccessible, limiting uptake by producers and reducing their ability to match feed availability with livestock requirements across seasonal variations.
Sheep Productivity	SP Priority #3	WALRC	New	Development and adoption of advanced scanning technologies, for accurate pregnancies diagnostics including alternative diagnostic methods, such as AI, to provide faster, more accurate, and earlier measurements of sheep performance, reducing reliance on operator skill and supporting better flock management decisions. Development of tech for cost effective muscle fat plus pregnancy diagnosis that supports measurement at scale without current labour/skill limits - Muscle - Fat - Foetus - IMF	R&D Gap: Existing scanning tools are limited in speed, accuracy, and timing, rely heavily on human skill, and have minimal integration of AI or automation, constraining producers' ability to efficiently monitor and manage flocks. More accurate advancing tech to make that more widely available, at scale, more accurately.
Sheep Productivity	SP Priority #4	WALRC	New	Worm vaccine and drenches	R&D Gap: There are limited drench options available as most products contain products with established anthelmintic resistance. Lack of

					alternative control measures mean that drenches and breeding remain mainstay of control. Mixed farming systems and confinement feeding place different pressure and burdens for parasite control. There is a lack of expert capacity and skills in WA for parasite management, and existing tools (Wormboss) and strategies are lagging modern mixed farming systems.
Sheep Productivity	SP Priority #5	WALRC	New	Enhanced understanding and application of reproductive genetics in sheep to improve fertility, lamb survival, and flock productivity across WA production systems. Improved precision reproduction in sheep, enabling tighter joining periods supported by robust data, practical demonstration, and confidence-building initiatives to encourage adoption of best-practice strategies.	R&D Gap: Limited WA-specific data exist on how reproductive traits are influenced by genetics, restricting producers' ability to make informed breeding decisions to optimise fertility and reproductive performance. Limited WA-specific research and quantified data on the effectiveness of precision reproduction strategies, including joining period optimisation, is a key barrier to adoption, with a need for producer demonstration sites (PDS) and systematic data collection to validate approaches.
Sheep Productivity	SP Priority #6	WALRC	New	Identification and adoption of optimal multi-species pasture mixes for different WA rainfall zones, particularly low rainfall areas, to improve feed availability, resilience, and livestock performance.	R&D Gap: Limited research and guidance exist on the best species combinations and management for multi-species pastures in low rainfall zones, restricting producers' ability to maximise feedbase productivity and sustainability. Also included is animal health (toxic pastures).
Grassfed Beef Productivity	GBP Priority #3	WALRC	New	Enhanced use of Buffel grass to increase pasture resilience, improve feed availability, and support sustainable cattle production in WA systems.	R&D Gap: Limited research and guidance exist on optimising Buffel grass management for resilience under WA conditions, restricting producers' ability to maximise its benefits for productivity and sustainability. Current tender for CSIRO, MLA is in the space. More detail in feedbase tab. MLA have just commissioned a review on Buffel grass and if we should be promoting it. Erosion and carbon of Buffel grass is another one that MLA are looking into.
Grassfed Beef Productivity	GBP Priority #4	WALRC	New	Understanding and management of cattle welfare, reproductive outcomes, and weight shrinkage during transport, supporting productivity and market value.	R&D Gap: Limited data exist on how transport conditions affect welfare, reproduction, and weight loss in WA cattle, restricting producers' ability to implement practices that minimise stress and economic losses. Data is there. Education and extension needed.

Grassfed Beef Productivity	GBP Priority #5	WALRC	New	Remote monitoring and characterisation of bull performance, including remote tracking, to support breeding decisions, herd productivity, and efficient management.	R&D Gap: Limited tools and data exist for remotely monitoring bull performance via the use of tech restricting producers' ability to identify bull breakdown and make informed selection and management decisions. It is unclear if accelerometer and proximity is effective measure of bull breakdown and/or early pregnancy. Extension Gap: Strategies to reduce breakdown. There has been some research on this that hasn't been extended
Grassfed Beef Productivity	GBP Priority #6	WALRC	New	Better understanding of the trade-offs between production traits, longevity, and structural integrity in cattle, enabling breeding and management strategies that optimise both performance and herd sustainability.	R&D Gap: Limited data exists quantifying how selection for production traits impacts longevity (research component around longevity) and structural soundness, restricting producers' ability to balance short-term productivity with long-term herd resilience. Net feed efficiency translation to EBV and pasture