

RDA Priorities 2026/27

*Producer-identified priorities for future
Research, Development and Adoption*



ABOUT WALRC

The WA Livestock Research Council is an initiative of MLA, funded through levies that enable the functioning of a not for profit association designed to give independence and credibility to the identification of research priorities for investment. Although funded primarily by MLA, WALRC is financially supported through membership funds from AWI, CSIRO, Department of Primary Industries and Regional Development, Murdoch University and the University of WA.

Representatives from these research member organisations work closely with the eight producer members of the Council to build a relationship and understanding between research investment and the resulting implementation on ground.

To optimise the effectiveness of identifying and reviewing research priorities, the 8 producer members of WALRC are obligated to ensure they are connected and actively involved so that they have a strong base understanding of the research and extension into livestock production that is delivered into the southern region of Western Australia.

Further augmenting the Council is three independent members, representing the NRM, Veterinary and agricultural consulting sectors. Their skill set is such that it compliments those of the researcher and producer members and together they combine to offer a rigorous process of identification and review of requirements for investment.

WALRC takes its consultation responsibilities seriously and works hard to ensure a process that delivers investment recommendations that once funded, will address gaps and opportunities that progress sustainable livestock production in the region.

WALRC COUNCIL

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WALRC Producer Identified Priorities

PROGRAM	RANK	OUTCOME SOUGHT
Wellbeing	1	Improved sheep management in confinement systems, including strategies to prevent disease, optimise individual welfare, and maintain productivity.
Wellbeing	2	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.
Feedbase	1	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.
Feedbase	2	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.
Environmental Sustainability	1	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.
Environmental Sustainability	2	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.
Sheep Productivity	1	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.
Sheep Productivity	2	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.
Grassfed Beef Productivity	1	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 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
Grassfed Beef Productivity	2	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.

Animal Wellbeing Priorities

Priority 1:

OUTCOME SOUGHT

Improved sheep 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.

Priority 2:

OUTCOME SOUGHT

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.

Feedbase Priorities

Priority 1:

OUTCOME SOUGHT

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.

Priority 2:

OUTCOME SOUGHT

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.

Environmental Sustainability Priorities

Priority 1:

OUTCOME SOUGHT

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.

Priority 2:

OUTCOME SOUGHT

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.

Sheep Priorities

Priority 1:



OUTCOME SOUGHT

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. .

Priority 2:

OUTCOME SOUGHT

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.

Grassfed Cattle Priorities

Priority 1:



OUTCOME SOUGHT

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 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

R&D GAP

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 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.

Priority 2:

OUTCOME SOUGHT

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.

Other Identified Priorities

PROGRAM	RANK	OUTCOME SOUGHT
Wellbeing	3	Improved survival of triplet-born lambs through early and accurate pregnancy diagnosis, enabling targeted management and interventions to support welfare and productivity.
Wellbeing	4	Improved understanding and management of respiratory disease in sheep and cattle to minimise productivity losses and welfare impacts.
Wellbeing	5	Effective pain relief strategies for routine husbandry procedures (dehorning, castration, spaying, and marking) to improve animal welfare and support sustainable production.
Feedbase	3	Improved annual pasture legume genetics suited to medium rainfall zones in WA, delivering greater persistence, productivity, and contribution to livestock performance.
Feedbase	4	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.
Environmental Sustainability	3	Evidence-based confirmation that confinement feeding systems can support sustainable production, maintaining productivity while minimising environmental impacts.
Environmental Sustainability	4	Strategies to manage effluent runoff and salinity, turning potential environmental challenges into productive outcomes for livestock systems in WA.
Sheep Productivity	3	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
Sheep Productivity	4	Worm vaccine and drenches
Sheep Productivity	5	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.
Sheep Productivity	6	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.

Other Identified Priorities

PROGRAM	RANK	OUTCOME SOUGHT
Grassfed Beef Productivity	3	Enhanced use of Buffel grass to increase pasture resilience, improve feed availability, and support sustainable cattle production in WA systems.
Grassfed Beef Productivity	4	Understanding and management of cattle welfare, reproductive outcomes, and weight shrinkage during transport, supporting productivity and market value.
Grassfed Beef Productivity	5	Remote monitoring and characterisation of bull performance, including remote tracking, to support breeding decisions, herd productivity, and efficient management.
Grassfed Beef Productivity	6	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.



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