



## SALRC Producer Demonstration Site (PDS) Priorities 2023/24

Over several months in late 2022 and early 2023 the seven SALRC regional livestock producer committees met and considered their priorities for Producer Demonstration Site projects in their regions. The SALRC chair met with the chairs of the regional producer committees on 13 February 2023 to review previously submitted PDS priorities and compile any new priorities.

It is important to note that although there were similar themes for PDS priorities across many of the seven SALRC regions, there are some significant differences in the way PDS projects should be planned and delivered in the vastly different agri/climatic zones that make up those seven SALRC regions. We have classified our regions into the following five agri/climatic zones and have indicated in the PDS priority table below, which of these zones should be targeted with the priority PDS projects:

- High rainfall, winter dominant rainfall zone (HRW)
- Low rainfall (<450mm p.a.), winter dominant rainfall zone (LRW)
- High rainfall, summer dominant rainfall zone (HRS)
- Low rainfall (<450mm p.a.), summer dominant rainfall zone (LRS)
- Semi-arid/arid rangelands zone R

**Table 1 Previously submitted SALRC PDS Priorities (with updates)**

Program Area/PDS Category	Existing priority	Priority Rating (Tick appropriate)	Relevant Region/s (if applicable)	Comments/Feedback
<b>Feedbase</b>	Demonstrate best management practices to address one or more of the following: <ul style="list-style-type: none"> <li>• Pasture/shrub selection to improve establishment, increase year-round productivity, persistence and maximise stocking rate, under increasing climate variability</li> <li>• Restore feedbase after extreme events (drought, fires, or floods)</li> <li>• Multi species fodder cropping</li> <li>• Region specific extension and demonstration of best practice to manage existing and emerging high priority weed species</li> <li>• Reduce bloat risk</li> <li>• Improve pasture establishment, productivity, and persistence in landscapes prone to sub soil compaction or “hard pan” soil structure, or other soil constraints</li> <li>• Encourage diversity of plants for landscape and animal health</li> <li>• Increase grazing enterprise profitability</li> </ul>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low	<input checked="" type="checkbox"/> HRW <input type="checkbox"/> LRW <input checked="" type="checkbox"/> HRS <input type="checkbox"/> LRS <input type="checkbox"/> R	Priority compiled with elements submitted by 5 SALRC Regional Producer Committees (Northern NSW, Southern NSW, SE Vic/Tas, W Vic, Central Vic)

	<ul style="list-style-type: none"> <li>Assess yield %, growth rates, productivity and profitability per hectare of different pasture and supplementary feeding options for weaner lambs and calves</li> <li>Management of invertebrate pasture pests</li> <li>Quantify return on investment from improved pastures</li> <li>Innovative methods of manipulating pasture species composition in new and established pastures (particularly increasing legume content) through fertilizer, sprays, grazing management or other methods</li> <li>Demonstrate the effectiveness of manipulation of soil fertility to improve rhizobia function</li> <li>Demonstrate the pasture productivity, profitability and biodiversity impacts of conventional and alternative fertilizer products</li> </ul>			
	<p>Demonstrate feedbase species and management systems, particularly perennial grasses, and shrubs, suited to low rainfall mixed farming zones and rangelands. Encourage diversity of plants for landscape and animal health.</p>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Low	<input type="checkbox"/> HRW <input checked="" type="checkbox"/> LRW <input type="checkbox"/> HRS <input checked="" type="checkbox"/> LRS <input checked="" type="checkbox"/> R	
	<p>Demonstrate the effectiveness and livestock productivity gains from management of invasive woody weeds/scrub in rangelands areas.</p>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Low	<input type="checkbox"/> HRW <input type="checkbox"/> LRW <input type="checkbox"/> HRS <input type="checkbox"/> LRS <input checked="" type="checkbox"/> R	
<b>Production Systems</b>	<p>Demonstrate the application of commercially available technologies (including remote monitoring) to address production and management efficiencies and address labour shortfalls in relation to one or more of the following:</p> <ul style="list-style-type: none"> <li>Animal health and welfare</li> <li>Stock location and movements</li> <li>Security</li> <li>Water and feed supply</li> <li>Predator control</li> <li>Virtual fencing/drones</li> </ul>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low	<input checked="" type="checkbox"/> HRW <input checked="" type="checkbox"/> LRW <input checked="" type="checkbox"/> HRS <input checked="" type="checkbox"/> LRS <input checked="" type="checkbox"/> R	

	<p>Demonstrate best practice confinement feeding of sheep and cattle, with attention to:</p> <ul style="list-style-type: none"> <li>• Site selection criteria</li> <li>• Optimum mob sizes</li> <li>• Strategic joining and management of pregnant ewes and cows</li> <li>• Monitoring and management of animal health and nutritional status</li> <li>• Matching feed rations to animal requirements</li> <li>• Decision making on when confinement feeding is justified (under drought conditions; extreme weather events; other)</li> <li>• Quantify return on investment</li> <li>• Mineral supplementation</li> <li>• Confinement feeding of cattle during winter to reduce impacts of grazing on water logged areas and to create a winter feed wedge</li> </ul>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low	<input checked="" type="checkbox"/> HRW <input checked="" type="checkbox"/> LRW <input checked="" type="checkbox"/> HRS <input checked="" type="checkbox"/> LRS <input checked="" type="checkbox"/> R	
<b>Beef/Sheep Productivity</b>	<p>Demonstrate improvements in <b>sheep reproductive performance</b> and mortality rates through the adoption of selected management techniques that are suited to specific agro-ecological zones and management capabilities of the site. Management techniques from the following should be considered;</p> <ul style="list-style-type: none"> <li>• Ewe condition scoring at key stages in the reproduction cycle, including prior to joining</li> <li>• Ram fertility assessment</li> <li>• Joining length/mob size</li> <li>• Mating ratios in different climates, environments and for different flock age structures</li> <li>• Pregnancy scanning for multiples and early versus late</li> <li>• Nutritional management of triplet, twin and single bearing ewes</li> <li>• Predator control</li> <li>• Lambing group size</li> <li>• Time of lambing</li> <li>• Shelter</li> <li>• EID to inform culling strategy</li> <li>• Feeding strategies</li> <li>• Genetics (i.e. the effective use of breeding values to meet breeding objectives), balanced with structural and reproductive soundness</li> <li>• Reproductive diseases</li> <li>• Effect of early weaning on ewe condition and lamb growth rates, etc.</li> </ul>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low	<input checked="" type="checkbox"/> HRW <input checked="" type="checkbox"/> LRW <input checked="" type="checkbox"/> HRS <input checked="" type="checkbox"/> LRS <input checked="" type="checkbox"/> R	<p>Priority compiled with elements submitted by 4 SALRC Regional producer committees (SE Vic/Tas, SA, W Vic, Northern NSW)</p>



	<ul style="list-style-type: none"> <li>Joining ewe lambs for profit-monitoring the impacts of different management strategies to join ewe lambs successfully using individual EID, weight monitoring, genomics, feeding systems and economic analysis</li> </ul>			
	<p>Demonstrate improvements in <b>cattle reproductive performance</b>, weaning rates and weaning weights through the adoption of selected management techniques that are suited to specific agro-ecological zones and management capabilities of the site. Management techniques to be considered for demonstration include;</p> <ul style="list-style-type: none"> <li>Replacement heifer selection and heifer management up to and through their 1st &amp; 2nd calf</li> <li>Cow condition assessment prior to joining</li> <li>Bull fertility assessment</li> <li>Joining length</li> <li>Time of calving / herd structure</li> <li>Feedbase/nutritional management (inc. heifer nutritional management following first calving)</li> <li>Replacement heifer selection</li> <li>Pregnancy testing and foetal aging</li> <li>Early weaning</li> <li>Reproductive disease management e.g. pestivirus</li> <li>Predator control</li> <li>Genetics (i.e. the effective use of breeding values to meet breeding objectives), balanced with structural and reproductive soundness</li> <li>Benefits of AI in commercial beef herds</li> <li>Supplementary feeding methods for growth vs. maintenance (effectiveness &amp; cost efficiency)</li> </ul>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low	<input checked="" type="checkbox"/> HRW <input checked="" type="checkbox"/> LRW <input checked="" type="checkbox"/> HRS <input checked="" type="checkbox"/> LRS <input checked="" type="checkbox"/> R	<p>Priority compiled with elements submitted by 4 SALRC Regional Producer committees (Southern NSW, Northern NSW, W Vic, SE Vic/Tas)</p>



**Table 2: New SALRC PDS Priorities**

Program Area/PDS Category	Issue to be addressed/Outcome sought	Possible Project Components	Priority Rating (Tick appropriate)	Relevant Region/s (if applicable)
<b>Animal Health and Welfare</b>	<b>Demonstrate and determine costs and benefits of best practice diagnostics and management responses for control of endemic and emerging parasites and diseases</b>	<ul style="list-style-type: none"> <li>• Demonstrate at farm level the correct use and benefits (economic, animal wellbeing, producer satisfaction, market access) of using registered pain relief products in conjunction with routine animal husbandry practices for sheep and cattle (including mulesing, tail docking, castration and dehorning)</li> <li>• Evaluation of management techniques in unmulesed flocks.</li> <li>• Dag management in unmulesed flocks-prevention, feed management, treatment/fly control, genetics</li> <li>• Partnership project between farmers and a meat processor to quantify impacts and benefits in the farm to plate meat supply chain of stopping mulesing, castration and tail docking</li> <li>• Demonstrate best practice fly management in circumstances of reduced efficacy of existing chemistry</li> <li>• Improved management of pink eye across a range of production systems in both sheep and cattle</li> <li>• Demonstrate best practice management of internal parasites in sheep and cattle for maximised animal performance and reduced drench resistance. Elements of best practice to include:               <ul style="list-style-type: none"> <li>○ Drench product decision making and rotation of products</li> <li>○ Drenching based on FWEC rather than at regular intervals</li> <li>○ Drench resistance testing</li> <li>○ Case studies of properties dealing with resistance issues</li> <li>○ Drenching best practice (oral, injectable, backline)</li> </ul> </li> <li>• Develop improved understanding of sudden death of lambs on legume pastures through a coordinated survey of causes</li> <li>• Demonstrate effective management of livestock foot health, including:               <ul style="list-style-type: none"> <li>○ Demonstrate effective diagnosis and treatment of benign footrot(scald), virulent footrot and foot abscess</li> <li>○ Demonstrate vaccination as a management strategy</li> </ul> </li> </ul>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low	<input checked="" type="checkbox"/> HRW <input checked="" type="checkbox"/> LRW <input checked="" type="checkbox"/> HRS <input checked="" type="checkbox"/> LRS <input checked="" type="checkbox"/> R



		<ul style="list-style-type: none"> <li>○ Case studies of farms that have successfully managed outbreaks</li> <li>• Demonstrate best practice management to minimise and, if necessary, treat for respiratory illness in sheep flocks</li> <li>• Demonstrate labour efficient systems for animal health management including surveillance processes and treatment options</li> </ul>		
<b>Business Management</b>	<b>Evaluate carbon balances and trends on farms under different management practices, soil types and climates</b>	<ul style="list-style-type: none"> <li>• Determine greenhouse gas net emissions and emissions intensity and carbon sequestration trends, costs and benefits for different management approaches and enterprises</li> <li>• Evaluate the impacts of the following on rates of carbon sequestration:               <ul style="list-style-type: none"> <li>○ Soil type</li> <li>○ Perennial versus annual pasture dominance</li> <li>○ Ground cover</li> <li>○ Tree cover</li> <li>○ Ponding/water infiltration works</li> </ul> </li> <li>• Whole farm planning, management and auditing to reduce carbon emissions intensity while improving animal productivity, profitability, natural capital and environmental sustainability</li> </ul>	<input checked="" type="checkbox"/> High <input type="checkbox"/> Moderate <input type="checkbox"/> Low	<input checked="" type="checkbox"/> HRW <input checked="" type="checkbox"/> LRW <input checked="" type="checkbox"/> HRS <input checked="" type="checkbox"/> LRS <input checked="" type="checkbox"/> R
<b>Business management</b>	<b>Increasing the productivity and profitability of managed goat flocks</b>	<ul style="list-style-type: none"> <li>• Demonstrate improvements in goat reproductive performance, mortality rates and growth rates through adoption of selected management techniques that are suited to specific agri-climatic zones</li> <li>• Demonstrate safe, effective handling and management techniques to enable value adding to harvested rangelands goats through the supply chain, rather than direct to slaughter.</li> </ul>	<input type="checkbox"/> High <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Low	<input type="checkbox"/> HRW <input checked="" type="checkbox"/> LRW <input type="checkbox"/> HRS <input checked="" type="checkbox"/> LRS <input checked="" type="checkbox"/> R