



2022 SALRC PRIORITIES

The following priorities were compiled from issues identified by each of the seven SALRC regional livestock producer committees throughout the first half of 2022. A prioritisation process was conducted by the SALRC Chair in consultation with the chairs of each of the regional livestock producer committees during June 2022.

Overall SALRC Priority	Committees of origin	New or ongoing priority	Outcome sought	R&D and/or Adoption detail
1	SNSW; WV; SA; NNSW; CV; CWNSW	New	Best practice management of unmulesed flocks	R,D&A: <ul style="list-style-type: none"> • Testing/demonstration of best management practices and animal welfare benefits of non mulesed flocks • Incorporate credible declaration processes for sheep not subjected to mulesing • Develop pathways and target date for ceasing mulesing of all Merino sheep
2	SE VIC/Tas; SNSW; NNSW; CV; SA; WV	Ongoing	Improved, integrated techniques for prevention and treatment of internal parasites in sheep and cattle and flystrike in sheep, to improve production and reduce resistance	R,D&A: <ul style="list-style-type: none"> • Improved techniques for the prevention and treatment of internal parasites in sheep and cattle to increase efficacy of treatments and reduce drench resistance • Include management of Barbers Pole worm emerging in new areas in response to climate change • Best practice case studies of Barber-vax • Improve on-farm worm egg count tools for both sheep and cattle • Management of flystrike prevention in areas with resistance to current chemical options
3	NNSW; CV; SA; SEVIC/TAS; WV	Ongoing	Develop and promote to the broader community, best practice codes of conduct for animal welfare and objective measures of livestock wellbeing	R,D&A: <ul style="list-style-type: none"> • Develop guidelines for best practice pain relief across livestock industries • Best practice guidelines for producers must take into account different production systems in different agri-climatic zones • Identify residue risk for meat products from the use of pain relief • Find alternatives to use of antimicrobials while maintaining animal health and welfare

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4	SEVIC/TAS; SNSW; NNSW; CV; CWNSW; SA; WV	Ongoing	Develop improved grass and legume cultivars, mixes and management guidelines to improve pasture performance- production, persistence, feed quality, nodulation, N fixation, low bloat, low endophyte, seed production, weed control	R,D&A: <ul style="list-style-type: none"> • Alternative, new pasture species for high and low rainfall regions and increasing climate variation • Develop new legume cultivars and management guidelines to improve performance in terms of production, nodulation and low bloat through (potentially, but not limited to) the use of tannins to reduce methane emissions but not limiting productivity and persistence • Include assessment of productivity of multi-species perennial pastures and cover cropping (incl forage brassicas) • Filling feed gaps • Increase feedbase diversity to build resilience-including native pasture species • Monitoring and controlling weed encroachment • Develop and improve adoption of best practice pasture sowing and management to improve establishment, production and persistence • Monitor and understand the development of insecticide resistance by insect pests of pastures such as red legged earth mites and blue green aphids
5	SEVIC/TAS; CV; CWNSW; NNSW; SA; WV; SNSW	Ongoing	Develop extension programs and standardised, affordable measuring and monitoring tools to enable cost effective monitoring and reporting of the environmental sustainability and carbon footprint on farms	R,D&A: <ul style="list-style-type: none"> • Raise awareness of achievable carbon balance targets for producers and where they sit in relation to CN30 • Identify key, measurable elements of environmental sustainability on farm and how this can be linked to regenerative agriculture and other concepts/models for sustainable farming • Improved, cost effective tools and processes to allow producers to evaluate and compare options for building carbon stores on farm and the long term returns associated with it. • Evaluate and demonstrate whole farm benefits of management interventions for net carbon reduction, water security, livestock shelter belts, agroforestry, production efficiency • Establish a single point for livestock industry accreditation, carbon balance assessment and audit capability

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6	SEVIC/TAS; CWNSW; WV; SA; SNSW	Ongoing	Build human capacity and professional pathways on farms and in Ag service providers	Adoption: <ul style="list-style-type: none"> • Develop programs aimed towards recruitment and upskilling staff to increase their value to the business • Create professional learning and career development pathways • Re-brand working in agriculture as a highly skilled profession with opportunities for career progression • Case studies on what successful employers are doing • Implement best practice governance policies on farms • Increased awareness and training in the use of agri-tech • Include financial planning and business management elements • Develop a one stop shop for beef education so producers can easily access and follow educational pathways • Specifically promote career opportunities on farm and in research and advisory ag services providers in rangelands areas • Identify barriers to adoption in rangelands areas
7	SNSW; CV; NNSW	Ongoing	Develop tools to assist producers avoid stock losses from bloat	R,D&A: <ul style="list-style-type: none"> • Develop new, alternative methods for bloat treatment, including non-antibiotic options • Evaluate/demonstrate prevention treatments, early warning systems to identify high risk, grazing management, non-bloating legume varieties
8	SEVIC/TAS; SNSW; NNSW; CV; WV	Ongoing	Development, commercial evaluation and adoption of new treatments and management procedures to minimise pink eye in cattle and sheep	R,D&A: <ul style="list-style-type: none"> • Include preventative management practices • Evaluate impact of mineral deficiencies • Investigate genetic resistance • Evaluate different tools for management of pink eye including nutrition, genetics, environmental conditions and use of vaccines • Quantify production losses

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9	SEVIC/TAS; NNSW; SA; WV	Ongoing	Develop and evaluate genetics and management tools (including joining length, lambing group size, post-lambing management, scanning) to reduce reproductive wastage and reduce turn-off times in sheep flocks	R,D&A: <ul style="list-style-type: none"> • Measure lamb survival rates and identify opportunities for improvement including scientific understanding of physiological constraints • Develop breeding values for lamb survival and maternal traits that will improve lamb survival • Increased extension of current best practice including taking into account feed costs in variable environments and predator control • New strategies to improve ewe fertility and lamb survival to weaning • Long term evaluation and demonstration of precision management of reproductive processes (joining length, lambing group size, post-lambing management, scanning) to decrease mortalities of ewes and lambs • Precision weaner management with the goal to halve turnoff times
10	SEVIC/TAS; SNSW; NNSW	New	Improved soil fertility management to underpin productive pastures. Strategic use of fertilizers (traditional and new)-measurement of responses across a range of soil types and regions	R,D&A: <ul style="list-style-type: none"> • Improve fertilizer use efficiency • Include gibberellic acid and sulphur responses • Decision support matrix based on fertilizer cost and predicted response to application • Better management of soil acidification and soil pH amelioration options to reduce constraints to pasture production • Alternative fertilizers-the science behind them and performance relative to conventional options • Evaluation and adoption of P-efficient legumes
11	CWNSW; NNSW; SA	New	Develop best practice management guidelines for rangelands goats	R,D&A: <ul style="list-style-type: none"> • Develop BMP for manual handling(tagging, preg scanning etc) for rangelands goats • Investigate and develop BMP for rangelands goats through the supply chain post rangeland harvesting-NLIS tagging, weaning, weight gain targets, turn-off weights, desexing • Develop BMP guidelines for rangelands goats being managed behind wire-nutrition management, fertility management, genetic improvement

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12	SEVIC/TAS; NNSW; CV; CWNSW; SA	Ongoing	Develop useable tools for decision making during times of “extreme events” (drought, bushfires, flood), climate variability and market variability	Adoption: <ul style="list-style-type: none"> • Include assessment of risk for destock or feed options before and during “extreme events” • Develop new and improved decision support tools to actively match stocking rate to land capability and feed resources • Develop trigger points/decision matrix to assist producers respond to emerging climate and market (input prices ; livestock prices) conditions • Identify and promote case studies of successful management strategies that enabled producers to manage and recover from drought
13	SNSW; CV; SA	Ongoing	Determine the effects of heat stress and recommend management strategies to avoid production losses	R,D&A: <ul style="list-style-type: none"> • Understand microclimate variability and management options in feedlots, confinement feeding and paddocks • Minimise heat stress impacts on sheep reproduction • Clarify physiological relationships between productivity traits and resilience to parasites and disease and environmental challenges, including heat stress
14	NNSW; CV; SA; WV; SEVIC/TAS	Ongoing	Develop improved feedback systems for product quality	Adoption: <ul style="list-style-type: none"> • Provide access for producers to data feedback systems through the supply chain from processors on disease/parasite/welfare related factors
15	NNSW; CV; CWNSW; SA; SEVIC/TAS	ongoing	Quantify farm productivity, animal welfare and wildlife ecology impacts of controlling abundant grazing competitor species and predators	R,D&A: <ul style="list-style-type: none"> • Refine tools and develop novel techniques for cost effective and humane control and/or exclusion of grazing competitors and predator species • Innovative technologies to cost effectively reduce macropod grazing pressure while meeting animal welfare and native species obligations • Objective quantification of the contribution of kangaroos to total grazing pressure • Improved community awareness of wild dog impacts and options to address wild dog control at a regional scale • Quantify production and wildlife ecology benefits of controlling predators

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16	WV; NNSW; CWNSW; SA	New	Develop remote farm management and monitoring systems	R,D&A: <ul style="list-style-type: none"> • Develop technologies and data management systems to address production efficiency, labour shortages and alerts • Develop innovative, controlled animal supplement delivery methods • Develop communication and advisory services on the benefits to productivity and animal welfare of virtual fencing
17	SNSW; NNSW	New	Control and where possible, elimination of invasive weeds which have long term detrimental effects on production and environment on farms	R,D&A: <ul style="list-style-type: none"> • Monitor and understand best practice control methods of invasive weeds across different regions • Monitor and understand the issue of chemical resistance in invasive weeds and evaluate effectiveness of alternative herbicides • Demonstrate the effectiveness of biological control methods and their advantages and disadvantages • Measure long term impacts of weed infestations on production and profit; on the farm environment/sustainability; on labour and capital requirements • Provide information about which organisations are responsible for weed control/elimination at local, state and national levels so that producers can understand where to find advice about best practice weed management
18	WV; NNSW; SA; CV	New	Improve the conception rate from AI in cattle	R,D&A: <ul style="list-style-type: none"> • Target-90%
19	SEVIC/TAS; CV; SA	Ongoing	Improved diagnostic testing of livestock diseases and mortalities in southern Australian grazing systems, including on-farm, rapid diagnostic tests	R,D&A: <ul style="list-style-type: none"> • Investigation of the prevalence of Toxoplasmosis and evaluation of the current NZ vaccine • Other diseases to focus on include chlamydia, pneumonia, Yersinia, salmonella, leptospirosis, vibrio, sudden deaths on irrigated clover crops • Development and roll out of on-farm test kit to improve paddock diagnostics, possibly through the development of a range of test strips to be used on aqueous humour • Evaluation of the efficacy and economic impact of vaccinating ewe lambs against Campylobacter in low-medium rainfall zones

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20	CV; WV; SA; CWNSW; SEVIC/TAS	New	Develop guidelines and evaluate economic benefits for using de-fleecing products on composite and meat breeds of sheep	Adoption: <ul style="list-style-type: none"> Develop best practice guidelines for use of de-fleecing products as alternatives to shearing, to ensure positive economic, animal welfare and environmental outcomes
21	SEVIC/TAS; CV; CWNSW; SA	Ongoing	Increase production efficiency of sheep and cattle in pasture based systems	Adoption: <ul style="list-style-type: none"> Frame size/mature weight v output parameters such as kg of progeny weaned, weight gain/kg DM intake, maintenance Kg DM requirements Data on mature cow weights across different regions and modelling of financial impact
22	SEVIC/TAS; CV; WV	Ongoing	Develop new, non-chemical control of cockchafers and other insect pests of pastures	
23	CV	New	Identify management practices and strategies to optimise pregnancy when using ram lambs	R,D&A: <ul style="list-style-type: none"> Identify practices and strategies for preparing and managing ram lambs that result in better reproductive outcomes
24	SEVIC/TAS	Ongoing	Investigate animal health and biosecurity issues, feed requirements and economics of dairy breeds in beef production systems	R,D&A: <ul style="list-style-type: none"> Include investigation of issues with some meat processors

SALRC's seven regions:

- **NNSW:** Northern NSW
- **CWNSW:** Central /Western NSW
- **SNSW:** Southern NSW
- **SEVIC/TAS:** South eastern Victoria/Tasmania
- **CV:** Central Victoria
- **WV:** Western Victoria
- **SA:** South Australia