SAMRC REGIONAL RDE PRIORITIES (JULY 2018) - **FINAL**

CATEGORY	PROGRAM / SUB-PROGRAM				KEY PRIORITY IDENTIFIED / DELIVERABLE SOUGHT	RELATIVE FOCUS			RELATIVE REGIONAL FOCUS*						
						R	D	E	W/NSW - SW QLD	SA	S/NSW	N/NSW	C/VIC	W/VIC	GIPPS / TAS
CONSUMER & COMMUNITY SUPPORT	PERCEPTION / SUPPORT OF FARM PRACTICES	NRM		SOIL HEALTH	Quantify differences between long term regenerative grazing and adjoining traditional grazing management to determine soil carbon sequestration rates.	XXX	XX	X	red	orange	orange	orange	orange	orange	orange
					Evaluate the impacts of soil biology and perrenial legumes to enhance soil carbon sequestration rates under regenerative grazing management.	XXX	XX	X	red	orange	orange	orange	orange	orange	orange
				ENVIRONMENTAL INDICATORS	Qualify and quantify regional indicators of environmental improvement, and establish associated baseline data for regional performance	X	XXX	XX	orange	orange	orange	orange	orange	orange	red
		ANIMAL MANAGEMENT PRACTICES		LIVESTOCK HUSBANDRY	Develop methods and strategies to select animals for reduced tail length, **reduced reliance on mulesing** and enhanced flystrike resistance	XXX	XX	X	orange	orange	orange	orange	orange	red	orange
					Review animal welfare implications and animal performance of the different tail docking strategies used in the sheep industry.		XXX		orange	orange	orange	orange	orange	orange	orange
					Establish objective measures of animal welfare and assess feasibilty of regional animal welfare plans	XXX	XX		orange	red	orange	orange	orange	orange	red
				PEST & PREDATOR MANAGEMENT	Quantify regional impacts (on farm productivity and ecology) of competitive grazing pressure from herbivores and establish protocols and novel techniques for cost-effective and humane exclusion and control programs	XXX	XXX		red	red	red	red	orange	orange	orange
		MEAT QUALITY			Continual improvement in eating quality	X	X	X	green	green	green	green	green	green	green
		HUMAN NUTRITION			Systems for human health enhancing red meat products	XXX	X		green	green	green	green	green	green	green
FARM PRODUCTIVITY	GRAZING & FEEDBASE MANAGEMENT	OPTIMISING GROWTH & UTILISATION OF THE FEEDBASE		FEEDBASE PERRENIALITY AND PERSISTENCE	Breed, develop and evaluate temperate and tropical pasture species and pasture systems that are persistent (under dry and variable climates) and maximise consistency and quality in year-round DM production	XXX	XX	X	red	red	red	red	red	red	red
					Quantify potential livestock productivity and profitability under tropical pasture grazing systems, and develop tropical pasture management guidelines that support the establishment of highly productive mixed pasture swards		XX	X	green	green	orange	red	orange	green	green
					Assess current legume performance and breeding strategies and focus on improved production, nodulation, persistence and low-bloat traits	XXX	XX		orange	orange	red	red	orange	orange	orange
					Identify and address the (skill and/or technology) barriers to active and objective management of stocking rate and feed on offer. **Include evaluation of remote and automated assessment technologies, and regional validation and specificity of decsion support tools and models (AskBill, GrassGro, etc) under variable climate scenarios.**			XXX	red	orange	red	red	orange	orange	orange
				ADVANCED SUPPLEMENTATION TECHNOLOGIES	Continue work on rumen modifying products and rumen biota management to improve FCE, mitigate heat stress, methane and metabiological disease.	XXX	XX		orange	orange	orange	orange	orange	orange	orange
					Develop options for use of by-products (eg grape marc, biochar, etc) protein sources and alternative feed sources, with emphasis on cost, practicality of feeding and efficacy.	XXX	XX		red	green	green	green	green	green	green
					Establish or refine exisiting protocols for rapid, safe and cost-effective induction to drought/concentrate rations, including systems that help address seasonal feed gaps and are complimentary /consistent with quality assurance frameworks (PCAS, NFAS, etc)		XX	XXX	red	red	red	red	orange	orange	orange
				NOVEL GRAZING SYSTEMS	Continued development and implementation of novel grazing systems based on dryland and high-performance irrigated crops, with a focus on increasing year-round productivity under variable seasons		XXX	X	green	orange	orange	green	green	green	green
	LIVESTOCK PRODUCTIVITY	BREEDING & REPRODUCTIVE EFFICIENCY		SELECTION TOOLS & TECHNOLOGY	Multi-breed EBVs, including specific EBVs and indices for regional/environmental adaption and utilisation of different feedbases	XXX	XX		green	green	green	green	green	green	green
					Develop tools to allow producers to analyse data about the performance of different animal genetics in different environments, including live animal and carcass information.	XXX	XX		orange	orange	orange	orange	orange	orange	orange

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FARM PRODUCTIVITY (cont.)	LIVESTOCK PRODUCTIVITY (cont.)	BREEDING & REPRODUCTIVE EFFICIENCY (cont.)	EWE & LAMB MANAGEMENT	Revisit extension efforts aimed at promoting the uptake of pregnancy scanning and the capability of scanner operators.			XXX	orange	orange	orange	orange	orange	orange	orange
				Use - or where absent, establish - comprehensive regional benchmarks and baselines on current flock performance to direct RD&E investment. Focus on fertility, fecundity and survival, including predation (foxes, wild dogs, pigs, other)	XXX	XX	X	red	red	orange	orange	orange	green	green
				Improve scientific understanding of the physiological constraints of the ewe to lamb survival	XXX			orange	orange	orange	orange	orange	orange	orange
				Increase knowledge of the management responses to environmental extremes and season/climate change on conception and lambing	XXX	XX		red	orange	orange	orange	orange	orange	orange
				Develop and optimise novel joining approaches as a means of mitigating drought impact (eg joining in drought lots, confinement or small mob joining, etc)		XXX	X	red	orange	red	red	orange	orange	orange
				Review and refine LTEM, MMfS and Wean More Lambs curricula to ensure regional relevance, currency and cost-efficiency in key messages and benchmarks.		X	XXX	red	orange	orange	orange	green	green	green
				Application of precision management of reproduction processes (joining length, lambing groups, post-lambing management, scanning earlies and lates) (tightest joining possible, tightest lambing period) matching all management factors to decrease mortality/increase survivability of ewes and lambs	X	XX	XXX	green	green	green	green	green	green	orange
			COW & CALF MANAGEMENT	Improve the conception rate to artificial insemination in beef.	XXX			orange	orange	orange	orange	orange	red	orange
				Research heifer management strategies to ensure optimal growth and development to avoid calving difficulties and ensure heifer conception and re-breeding (from first to second joining)	X	XX	XXX	orange	orange	orange	orange	orange	red	orange
				Develop a research and development program to identify methods of selection and options to increase ovulation rate and multiple births in beef cattle	XXX	XX	X	green	green	green	green	green	green	green
				Develop management guidelines for multiple bearing cows during pregnancy and rearing and weaning strategies during lactation and post weaning.	XXX	XX	X	green	green	green	green	green	green	green
		PRECISION LIVESTOCK MANAGEMENT SYSTEMS		Engage with technology specialists to ensure that precision management systems deliver on productivity, sustainability and welfare metrics		XXX	X	green	green	green	green	green	green	orange
		ANIMAL HEALTH		Development of tools to allow more accurate forecasting and rapid or real-time monitoring, prevention and treatment of parasites (worms, fluke, etc) and metabolic disease (bloat, grass tetany, etc)	xxx	xxx	xxx	orange	orange	orange	orange	red	orange	orange
				Refine regional grazing management strategies that impede parasite life cycles and reduce infective capacity		XXX	XX	orange	orange	orange	orange	orange	orange	orange
				Continued investment in animal health products with varied modes of action to mitigate resistance and optimise the efficacy of existing and new products	XXX			orange	orange	orange	orange	orange	orange	orange
FARM PROFITABILITY	BUSINESS RESILIENCE & SUSTAINABILITY	CLIMATIC & SEASONAL RISK MITIGATION	BUSINESS & ENTERPRISE STRUCTURE	Physical and economic modelling to identify business and enterprise mixes, risks **and optimum strategies** - by region - under different climate change outlooks	XXX	XX		red	red	red	red	red	red	orange
				Review weather (7 days), seasonal (3 months) and climate (> 5years) modelling with a focus on greater granularity (accuracy) for regional applications	XXX	XX		red	red	red	red	red	red	orange
				Develop practical systems and support networks (advisors, etc) for using modelling to assist industry in addressing seasonal and climate variability		XXX	XX	orange	orange	orange	orange	orange	orange	orange

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PRODUCT INTEGRITY & SUPPLY CHAIN EFFICIENCY	SPECIFICATION COMPLIANCE	PRODUCT ASSURANCE		Develop an integrated application for on-farm data collection to improve the ease and use of recording LPA data (eNDVs)	X	XXX	X	🟧	🟧	🟧	🟧	🟧	🟥	🟧
				Integrate a system that enables one auditor visit for all assurance programs (LPA, EU) to reduce red tape and downtime.		XXX	XX	🟧	🟧	🟧	🟧	🟧	🟥	🟧
		OBJECTIVE ANIMAL & CARCASE MEASUREMENT		Develop technology to allow accurate and simple on-farm carcass measurement	XXX	XX	X	🟧	🟧	🟧	🟧	🟧	🟧	🟧
				Ensure balance in IMF-yield selection and measurement in OCM technology and related campaigns		XXX		🟧	🟧	🟧	🟧	🟧	🟧	🟧
	SUPPLY CHAIN CONNECTIVITY			Fast-track broader supply chain uptake of carcass tracking and feedback systems **that facilitate timely and relevant feedback to all supply chain sectors (processors, feedlots, backgrounders, breeders).**		XXX	XXX	🟩	🟩	🟩	🟩	🟩	🟩	🟧
RD&E CAPABILITY AND CAPACITY	SAMRC / RAC DEVELOPMENT			Continued development of a SAMRC with increased focus on regional activty and relavance, and the delivery of RD&E consultation to the broadacre livestock industries if south-eastern Australia		XXX		🟥	🟥	🟥	🟥	🟥	🟥	🟥
				Revisit *National Extension Blueprint* to assess potential roles for SAMRC (and RACs more broadly) in helping improve co-ordination, collaboration and consistency of the extension landscape		XXX		🟧	🟧	🟧	🟧	🟧	🟧	🟧
	COLLABORATION & CO-INVESTMENT			Update/undertake stocktake of RD&E capability and capacity in lieu of forthcoming planning for the next Meat Industry Strategic Plan (MISP)	XXX			🟧	🟧	🟧	🟧	🟧	🟧	🟧
				Develop the skills and capacity of private and public sector advisors to ensure they are up to date with research, tools and services for industry - including consideration for regional red meat and livestock RD&E updates			XX	🟥	🟥	🟥	🟥	🟥	🟥	🟥
	EXTENSION PLANNING & DELIVERY			Engage and foster farmer / grower group structure to improve regional-local connectivity, and to help build localised extension curricula and and capacity			XXX	🟧	🟧	🟧	🟧	🟧	🟧	🟧

NOTES:

🟥	MAJOR RISK / IMPEDIMENT / ISSUE	HIGHEST PRIORITY
🟧	MODERATE RISK / IMPEDIMENT / ISSUE	⬇
🟩	LOWER (RELATIVE) RISK / IMPEDIMENT / ISSUE	LOWER PRIORITY