

## 2019/20 Research, Development and Adoption Priorities for Investment of Sheepmeat and Grassfed Beef Levies through the 2019/20 MLA Annual Call

### *Whole Farm Productivity*

#### NATIONAL

#### ANIMAL PRODUCTIVITY

##### Northern

##### *Beef Productivity*

- (2) Improving reproductive productivity, particularly reducing calf loss and quantifying the impact of dystocia
- (3) Evidence based crush-side decision making at the animal-level
- (5) Technology development to remotely measure sustainable carrying capacity, feed budgeting, and individual cattle tracking and monitoring

##### Southern

##### *Advanced Supplementation Technologies*

- Establish or refine existing 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.)

##### *Ewe & lamb management*

- Improve scientific understanding of the physiological constraints of the ewe to lamb survival
- Develop and optimise novel joining approaches as a means of mitigating drought impact (e.g. joining in drought lots, confinement or small mob joining, etc.)
- 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
- 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)
- Develop and optimise novel joining approaches as a means of mitigating drought impact (e.g. joining in drought lots, confinement or small mob joining, etc.)

##### *Precision Livestock Management Systems*

- Engage with technology specialists to ensure that precision management systems deliver on productivity, sustainability and welfare metrics

##### Western

##### *Ewe & Lamb Management*

- (2) Maximising lambing/weaning rates in large mobs of ewes
- (2) Improving survivability in twinning mobs at autumn lambing
- (2) Managing feed gap (lamb survival, ewe survival, growth)
- (6) Improved weaner survival and managing the 'tail' of flock

### ***Livestock Management***

- (6) Stocking rate decisions, managing risk and predictive tools to take advantage of good seasons

## **NATIONAL**

### **FEEDBASE PRODUCTIVITY**

#### **Northern**

- (9) Biological controls for regionally important weeds

#### **Southern**

##### ***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

#### **Western**

##### ***Feedbase, Fodder and Pastures***

- (1) Pasture production for marginal lands (including forage shrub, perennials and legumes) and to address constraints to production. Constraints may include salinity, low rainfall and soils issues such as shallow duplex, forest gravels, water repellency and deep sands
- (1) Combining fodder shrubs and perennial grasses for increased production on sandplain
- (1) Impacts of herbicide and pesticide formulations on rhizobia

## **NATIONAL**

### **ON-FARM ENVIRONMENT**

#### **Northern**

- (1) Trees and grass balance to provide productive, profitable & environmental sustainability