

Alberta Research Priorities 2022-2027



1. Improving production performance

- Key flock performance indicators
 - Improve animal performance through nutrition, ration and cost management
 - Increased brown fat (brown adipose tissue) in newborn lambs
 - Research into improved nutrition, by-product feeds, toxins, ergot
 - Research on sheep feed efficiency (including but not limited to residual feed intake)
 - Improve flock performance, selection for reproductive efficiency and culling practices with recording and analysis
 - Improve management systems for highly productive ewes
- Genetic selection
 - Terminal sire evaluation for carcass quality
 - Parasite / disease resistance
 - Reproductive performance
 - Developing selection indices for selecting breeding stock
 - Pooled genomic measurement
 - Increased brown fat (brown adipose tissue) in newborn lambs
- Carcass quality / performance and supply chain practices
 - On-farm practices (i.e. feeding) to improve lamb performance and carcass quality
 - Farm to market handling and transportation to minimize carcass damage
 - Processing improvements focused on carcass quality, quality assessment, technology
- Sustainable lamb production management systems:
 - profitable (productive, enhanced supply)
 - environmental resources (soil, water, forage)
 - social responsibility (safe food, animal welfare)
 - identification of data, research, and knowledge gaps

2. Improving business performance and profitability; benchmarking

- Cost of production
 - Improved management, financial skill solutions
 - Develop new knowledge/information transfer options
- Manage production costs
 - Feed, labour, energy, overhead
 - Capital investment, cash-flow
- Identify, assess alternative practices in key cost areas (forages, grazing, feeds, labour, technology, equipment)
- Adapt flock models, production systems, risk management to meet changing environmental and societal demand
- Collect a comprehensive and consistent dataset for benchmarking purposes and to inform policy development and research

3. Improving animal health and welfare

- Knowledge and tools to reduce death losses and early-culling (eg. neonatal, feeder lambs, ewes)
- Research on the impact and cost of disease (lameness, pneumonias, chronic conditions like OPP, etc.) and parasites (eg. *T. ovis*, *Haemonchus*)
- Access to drugs, medications for disease management (relevant to new medications or medications on the market but not available to Canadian producers)
- Uptake of new and existing tools and programs (food safety, traceability, biosecurity, and animal welfare)

- Identification, development, transfer to supply chain members, of clear 'best practices' for flock health and welfare
- Conduct research on predictive detection of important diseases in sheep and lamb

4. Future Farming and Progressive Research

- Comprehensive data collection on major production traits, financial performance and sustainability of sheep production
- Develop a comprehensive mobile application for better farm management and prediction
- Invest in supporting research on new areas of technology and IT that benefits sheep production
- Invest on research based on prognosis and prediction rather than detection and diagnosis

Developed by the Alberta Lamb Producers, Susan Markus (Researcher), Ali Goldansaz (Researcher) and aligned with the Canadian Research Priorities.