COW-CALF AND FORAGE SYSTEMS
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Research Framework 2018-2023

Introduction
Saskatchewan provides an excellent opportunity to feed, slaughter and process cattle. A strong beef value chain in Saskatchewan would contribute substantially to the provincial GDP while increasing agriculture revenues and creating a more profitable, sustainable agricultural sector.

This program will ensure that producers understand how the adoption of technologies can position them competitively to take advantage of opportunities for business growth.

- This will be accomplished through applied research in animal management practices; including breeding, weaning, calving, feeding and grazing practices.

- The work will be undertaken in collaboration with appropriate research expertise at the University of Saskatchewan, Agriculture and Agri-Food Canada, researchers at other national and international universities, and in conjunction with the Saskatchewan Ministry of Agriculture's Regional Specialists.

Goal

To conduct research that will enable the development and adoption of management strategies and technologies that optimize the productivity, and efficiency of the cow-calf pair thereby increasing the economic returns to the producer.

Research and Program Activities

1. Undertake integrated, systems based research that contributes to highly efficient, profitable and environmentally sustainable cow-calf production (including the backgrounding of weaned calves). This research will include:
   - Breeding management practices
   - Calving management practices
   - Weaning management practices
   - Feeding management practices, and associated water quality issues, with a focus on grazing systems and forage/grass management

2. Conduct research aimed at developing management packages that will reduce production costs for beef producers through winter and/or summer feeding programs.

3. Conduct research evaluating forage varieties and their suitability under different grazing systems.

4. Investigate the applicability of DNA marker assisted selection tools and expected progeny differences (EPD's) in beef cow selection programs.

5. Conduct research that will reduce the environmental impact of cow-calf production.

6. Teach and supervise graduate and undergraduate students. Teaching of graduate and undergraduate courses is not to exceed 10% of this time commitment.

Program Outputs

1. The creation and refinement of systems-based management strategies that enhance the profitability and competitiveness of the cow-calf production system in a sustainable manner.

2. The creation and refinement of integrated cow-calf management strategies that improve livestock selection and individual animal production efficiency.

3. The creation and refinement of optimized feeding and grazing systems.

4. Enhanced producer access to global technologies and practices that improve the efficiency and profitability of their operations.

5. The creation and enhancement of technology transfer strategies that incorporate U of S and Ministry of Agriculture staff in the extension of research results to producers.

Desired Outcomes

1. An efficient, environmentally sustainable and profitable cow-calf sector of the beef industry.
2. Adoption of technologies that optimize the cow-calf production
3. Enhanced research and development capacity in cow-calf and forage systems. Highly qualified people trained in cow-calf and forage systems.