

## **COW-CALF AND FORAGE SYSTEMS**

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### **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 (breeding, weaning, calving), feeding and grazing practices and labour management. The work will be undertaken in collaboration with appropriate research expertise at the University of Saskatchewan, Agriculture and Agri-Food Canada and in conjunction with the Saskatchewan Ministry of Agriculture's Livestock and Forage/Range Agrologists.

### **Goal**

To conduct research that will enable the development and adoption of research technologies developed in Saskatchewan and world wide that optimize the productivity, intensification and efficiency of the cow-calf pair ultimately increasing the economic returns to the producer.

### **Research and Program Activities**

- Undertake integrated, systems based research that contributes to highly efficient, profitable and environmentally sustainable cow- calf production. This research will include:
  - ◆ Breeding management practices
  - ◆ Calving management practices
  - ◆ Weaning management practices
  - ◆ Feeding and water management regimes for the cow, calf and back-grounded animal with a focus on intensive grazing and forage/grass management
- Conduct research aimed at developing management packages that will reduce production costs for beef producers through winter/summer feeding programs
- Conduct research evaluating forage varieties and their suitability under different grazing systems.
- Collaborative research on water quality management through evaluation of surface and ground water constituents as they relate to animal performance and environmental contamination.
- Study the soil-plant-animal interface

- Conduct research that will develop programs in forage finished beef
- Investigate the applicability of DNA marker assisted selection tools and expected progeny differences (EPD's) in beef cow selection programs.
- Conduct research that will reduce the environmental impact of cow-calf production.
- Teach and supervise graduate and undergraduate students

### **Program Outputs**

- Creation of a systems-based research strategy which is aligned with Ministry of Agriculture and industry priorities that enhances the profitability and competitiveness of the cow-calf production system in a sustainable manner.
- Integrated cow-calf management research that improves livestock selection, production efficiency and product quality that enhances the profitability and competitiveness of cow-calf producers through value-based production systems.
- Optimized feeding systems that improve livestock production efficiency, product quality while increasing producer profitability.
- Producer access to global technologies and practices that improve the efficiency and profitability of their operations. The vehicles by which producers generally gather information is via web pages, technical bulletins, news releases, conferences, trade shows and workshops.
- Build teams with U of S and Ministry of Agriculture staff utilizing research results to implement technology transfer strategies that contribute to business and sector growth and development.

### **Desired Outcomes**

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