



## Situation

Global food demand is expected to double by the year 2050; the Food and Agriculture Organization (FAO) projects a need of 60% more animal sourced foods to meet the demand. The most rapid change is expected between now and 2020, and Kansas production will play a key role in meeting global food system needs. The production of cattle and calves generates more than \$10.1 billion annually and is the top agricultural commodity in Kansas. This plays a key role in the vitality of our rural communities throughout the state. Among all states, Kansas ranks second in commercial cattle processed and fed cattle marketed. Kansas ranks third in the number of cattle on feed, all cattle and calves on farms, red meat production, value of beef and veal exports, and value of hides exported. Continued improvements in efficiency of production and water use will be needed to meet global food demand on a fixed or declining resource base. Variable weather conditions, changing input prices, and economic uncertainties have affected Kansas beef production. Significant changes in policy and legislation related to alternative energy, the environment, animal well-being, and marketing requirements are other issues facing beef cattle producers. Understanding economic impacts of various management choices in this complex business environment will be critical for long-term viability of beef operations. Thus, the overall goal of the Beef Extension program is to develop, evaluate, implement, and disseminate the latest information and technology to improve input efficiency and producer business skills to enhance the profitability and sustainability of Kansas beef producers in a socially acceptable manner.

## Public Value

Kansas beef producers will have economically sustainable beef production systems that provide wholesome beef products to improve lives in Kansas and across the globe.

## Outcomes

### Short-Term (Knowledge)

- Producers will improve their knowledge of efficient use of inputs to improve efficiency of feed use, reproductive efficiency and animal health.
- Producers will improve their knowledge of business skills that relate to cost of production, employee management, legal and regulatory issues and marketing.

### Indicators

- Do producers have a better understanding of how to improve system input use to control feed costs, optimize reproduction and maintain animal health?
- Do producers demonstrate increased understanding of business skills?

### Medium-Term (Behavior)

- Producers will demonstrate improved efficiency of feed use, reproductive efficiency and animal health.
- Producers will use alternative ingredients, improve forage use efficiency, adjust stocking rates, improve feeding accuracy, implement growth technologies, and strategically supplement.
- Producers will apply reproductive technologies, test and improve semen quality, maintain or improve percent calf crop, use genetic selection to improve reproduction, and alter heifer development strategies to lower costs and improve longevity.
- Producers will implement biosecurity plans, reduce pregnancy wastage and disease transmission, use value added health programs, follow BQA guidelines and improve animal welfare.
- Producers will improve costs of production, employee management, management of legal and regulatory issues, and marketing skills
- Producers will improve record keeping skills, use partial budget tools, improve risk management and utilize

benchmarks.

- Producers will improve training and communication regarding expectations of employees and utilize labor saving practices.
- Producers will develop plans for leadership transitions and tax purposes, use stronger leases and improve environmental management.
- Producers will increase use of value added programs and non-traditional markets and increase communication and advocacy for agriculture and the beef industry.

#### **Indicators**

- What changes have participants made in use of feed ingredients, forages, supplementation strategies, growth technologies or feeding systems?
- What changes have participants made to improve reproductive efficiency?
- What changes have participants made to improve animal health and capture value from minimal health risk animals?
- What changes have participants made to improve marketing practices?
- Do participants have appropriate cost of production information to make management decisions?
- Have participants improved employee performance, retention or job satisfaction?

#### **Long-Term (Change in Condition)**

Kansas beef industry will be economically and environmentally sustainable to help feed people in Kansas, the US and throughout the world.

#### **Indicators**

Do Kansas producers operate efficient and sustainable beef cattle production systems?

#### **Outputs**

The team aims to reach beef producers of all types with emphasis on those who want to make improvements in their operations. Other important clientele will be other educators/influencers in the beef industry to include veterinarians, media, allied industry, industry organizations, packers and purchasers, government agencies and bankers.

We will reach clientele via workshops, demonstrations, individual consultation, mass media and industry events.