



## Animal Agriculture

# Delivering Timely Animal Health and Wellbeing Programs

For more than 100 years, Michigan State University (MSU) Extension has been helping people address critical issues, needs and opportunities by delivering the vast knowledge and resources of MSU directly to individuals, communities and businesses. Seeking to improve lives and the state overall, MSU Extension focuses on four key areas of importance: leveraging natural and human assets, enhancing agriculture and agribusiness, improving health and nutrition for Michigan residents, and preparing Michigan's children and youth for the future.

Michigan's livestock and dairy industries account for 37 percent of the total economic impact of Michigan's agricultural products. According to the Michigan Department of Agriculture and Rural Development, agricultural commodities produced annually on Michigan farms contribute a total of \$13 billion to the economy. Livestock products, including dairy, contribute \$4.73 billion. Michigan's diverse livestock industry is a significant component of the state's agricultural industry.

MSU Extension animal agriculture programs focus on educating and helping farmers raise healthy, productive animals that also result in profitable farms and satisfied employees and consumers.

Resources in this priority area focus on the following programs.

### Breakfast on the Farm

Educational farm tours that strive to improve consumer knowledge and trust in animal care, food safety and modern food production methods.

### Young Animal Management

Programs provide intensive, hands-on opportunities to equip animal care providers with the skills necessary to effectively care for young animals and improve the productivity of these enterprises on Michigan farms.

- Calf Care Schools help animal care providers improve their knowledge and skills in building strong immune systems in calves, effective treatment for common calf diseases and sanitation of equipment.
- Lamb and kid education offers pre-birth management of the doe/ewe, including vaccinations and nutrition. It also includes post-birth management of the doe/ewe and kid/lamb, including problems at parturition and feeding mother and offspring.



### Biosecurity

Biosecurity programs provide producers and industry representatives with the knowledge and tools to improve animal health on farms.

- Areas of emphasis include biosecurity in transportation, with farm visitors and between animals on the same farm.

### Animal Health

Animal Health programs include risk assessment and management strategies to effectively reduce disease incidence while addressing the areas of current and emerging diseases such as:

- Bovine leukemia virus, bovine tuberculosis and parasite management.

### Animal Wellbeing

Programs in this area address the areas of animal housing and comfort, low stress animal handling and best practices for herd health management. Producers gain knowledge and skills that help them improve animal wellbeing on their farms and better communicate their animal care practices to the general public.

### Livestock Handling

Practical, on-farm learning opportunities are taught for animal control officers and law enforcement workers who may lack experience and knowledge related to livestock evaluation, handling and management.

### Quality Assurance

Programs in this area help ensure that food reaching consumers is of utmost quality. Producers and processors learn how their practices affect the final products, and learn tools and techniques to improve overall quality and safety of meat, poultry and dairy products.

### Hazard Analysis and Critical Control Points (HACCP)

HACCP training is offered by MSU Extension for food producers and processors. Food safety continues to challenge food processors as governmental regulations increase as a result of the Food Safety Modernization Act.

### Energy Conservation and Renewable Energy

Energy audits and assessments help producers reduce energy consumption and find efficient ways to incorporate renewable energy on their farms. MSU studies have shown that, on average, agricultural operations can realize a 40 percent reduction in energy expenses over a 3.8-year payback period when recommended energy conservation practices are implemented.

### Genetics and Reproduction Management

Programs in this area teach management practices that optimize reproductive performance. The importance of genetic selection to improve production, health and fitness traits is emphasized.

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### Production and Marketing

Programs in this area seek to improve profitability on farms by teaching improved nutritional management, feed management, grazing practices, enterprise analysis and budgeting, cost of production, and marketing alternatives. Additionally, MSU is a research leader in the grass finished beef industry, helping producers find answers to production and marketing questions.

### Labor Management and Employee Training

Programs in this area provide employers with training in employee management, leadership and labor law compliance. Regular, progressive training for farm employees is critical to the farm's success, and leads to employees who are more engaged on the farm.

### Livestock and the Environment

Programs in this area address environmental issues related to livestock production, including the areas of manure and nutrient management, odor management and mortality management. Producers gain knowledge and skills that help them minimize environmental risks to protect animal and human health, water resources and prevent soil erosion.