

DEPARTMENT

of Animal and Dairy Sciences:



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Applying New Technology

Research goals in the Department of Animal and Dairy Sciences include work with beef and dairy cattle and swine to obtain new scientific knowledge that can be used by producers to provide wholesome, economical and gratifying products for consumers.

The department also has an equine research program that focuses on reproductive research.

Current projects in the Department of Animal and Dairy Sciences include work with biophotonics imaging technology to look at livestock from the single-cell level all the way up to the entire animal. The research is being conducted in the Facility for Organismal and Cellular Imaging, or FOCI.

Biophotonics is the science of generating and harnessing light to image, detect and manipulate biological materials. The technology is sophisticated, but it is being used to address such basic problems for the livestock industry as Salmonella in hogs.

MAFES researchers in the department also are studying various aspects of livestock production, including problems associated with heat stress in dairy cows. Their work with tunnel ventilation, which uses water-filled cooling cells and large fans to cool dairy barns, has shown the value of the systems. As a result, dairy producers in the state are using commercially available tunnel ventilation systems.

Animal and dairy science personnel also are working on projects aimed at providing consumers with high-quality meat products. Included in that research area is a recently completed project that developed 97 percent fat-free ground beef patties. Current genetic research in the department is examining the genes responsible for marbling, tenderness and other favorable traits in beef.

For more about research in the Department of Animal and Dairy Sciences, visit www.msstate.edu/dept/ads/.