NMSU project examines impact of good nutrition early in calves' lives

CORONA, N.M. – Does proper nutrition at the very beginnings of a calf's life have a significant impact as the animal grows up? The answer to that question could mean tens of millions of dollars to cattle producers across the country who suffer losses of $600 million annually due to poor calf health at feedlots.

A team of researchers and Cooperative Extension Service experts at New Mexico State University is embarking on a four-year, $397,505 project to pin down the impact of improved calf nutrition even before the animal is born and when it is very young, and to relay the findings to stakeholders across the Southwest.

Clint Löest, an associate professor in NMSU's Department of Animal and Range Sciences, said the findings of an earlier research project gave scientists the idea that proactive steps in the early stages of a calf's life can lead to improved performance at the feedlot.

"We're already done some previous research to validate our theories," Löest said. That research showed similarities with the concept that proper prenatal care for humans can result in far fewer health challenges later in life. "We think the same could be the case in beef cattle."

The project is funded by the U.S. Department of Agriculture Cooperative State Research, Education and Extension Service's National Research Initiative. In addition to the involvement of both research and Extension faculty from NMSU, the project will involve collaborators from the University of Arizona and Texas A&M University. Also participating will be an advisory committee made up of members of the New Mexico Cattle Growers Feeder Committee.

Leading the project from NMSU will be Löest; Extension Livestock Specialist Clay P. Mathis; and Animal and Range Sciences Professor Mark Petersen. Jason Sawyer, an associate professor in the Department of Animal Science at Texas A&M University, also is leading the project.

"Partnering with other universities increases our visibility to producers," Löest said. "It broadens the scope to where we are actually contributing to stakeholders. With that collaboration with us, we have a much stronger impact."

The project includes 13 participants – five Extension specialists and eight researchers – who bring expertise in ruminant nutrition, rumen microbiology, veterinary science, agriculture economics, program development, agriculture communications and experimental statistics.

The involvement of an advisory committee also will strengthen the project.

"We want feedback from the producers," Löest said, "so the committee can give us that feedback on our progress and whether we accomplish our goals."

As the project begins next month, researchers will look at three areas of a calf's life: prenatal and pre-weaning nutrition; pre-conditioning management; and the calf's arrival at the feedlot. The prenatal, pre-weaning and pre-conditioning research will be conducted at the NMSU Corona Range and Livestock Research Center in Corona, N.M. It will include two years of research involving about 120 animals each year.

Other pre-conditioning work will be done at NMSU's main campus in Las Cruces, with about 100 calves, as well as at Texas A&M, where 200 calves will be studied. That research also will span two years. About 150 calves then will be studied for the first four weeks after they enter the feedlot at the University of Arizona. Also involved in the project will be the NMSU-Texas A&M University Ranch to Rail program.

When the research is complete, the results will be integrated with existing Extension programs to reach all sectors of the beef industry.

"The primary Extension objective is to develop and implement a comprehensive outreach program focusing on improving calf well-being and profitability," said the proposal the researchers and faculty members submitted to CSREES. The goal is to create methods and tools to enhance decision-making abilities of people in the cattle industry, from cow-calf operations through the feedlot. Methods of reaching people in the cattle industry include development of Extension publications; oral presentations; Web page development; use of the eXtension online community of practice clearinghouse; mass media; and measuring change over time.

Photo is available at
http://ucommphoto.nmsu.edu/newsphoto/corona_range.jpg
CUTLINE:
Clint Löest, an associate professor in New Mexico State University's Department of Animal and Range Sciences, monitors cattle at NMSU's Corona Range and Livestock Research Center. NMSU is partnering with several other organizations in a four-year project to research the effects of proper nutrition in the earliest stages of a calf's life.
(Photo by Darrell J. Pehr)

Darrell J. Pehr
Aug. 29, 2007

Go back to NMSU News Releases

Go back to University Communications Homepage.