

Happy Cows... Come From Healthy Homes



indoor calf pens. The research facility aids his research programs by providing a designated facility and infrastructure to conduct valuable nutrition and immunology research.

Currently, Ballou's research program is focused on understanding how a calf's environment influences its immune system.

Ballou said that dairy calves' immune systems are highly responsive to their environment and he hopes to understand how the program can improve disease resistance and performance of calves.

Ballou currently has three graduate students: Clayton Cobb, Devin Hanson and Matthew Sellers. Each graduate student specializes in a particular area of research, which fabricates a strong research team.

"They are going to learn from their interactions with me, and I'm going to learn from my interactions with them," Ballou said. "What being a professor and mentor means to me is that I am in the business of learning."

Cobb, masters student in animal nutrition, said

Ballou has helped him learn to think independently and critically.

"It's not one of those mentor relationships where you see them once a week and they are in the door, tell you what to do, then leave," Cobb said. "Ballou is in contact with us almost every day. Every Monday we meet at J&B Coffee, sit back and relax, talk about our weekend, then get down to work."

Cobb said the group is extremely functional and everyone has their own skills that contribute to the overall goal of improving animal health.

While research studies help pave the way for a healthier livestock production industry, Ballou said his ultimate ambition is to educate students who can then educate consumers, become industry leaders, or make advancements as agricultural scientists.

"People in the agriculture industry need to be more proactive in educating the public," Ballou said. "I encourage students to become educated in different management practices we are using in the livestock industries and why they make sense."

West Texas is home to many great agricultural facets. It is one of the largest cotton-producing regions in the world, exhibits leading beef cattle research, and now has a chance to excel in the dairy industry. One of the lead researchers, Michael Ballou, will help make it possible for Texas Tech to become a leading research institution for the dairy industry. **T**



Left: Cell culture laboratory work is just one research activity.

Below: To meet their research goals regular coordination is important for Michael Ballou (left), Clayton Cobb (right), and Devin Hanson (back).

Seemingly endless cotton fields, rows of sorghum, and pastures of beef cattle are typical sights surrounding Lubbock, Texas. However, the flourishing dairy industry is making its way to West Texas. In response, Texas Tech University is preparing students for the industry by the implementation of a nutrition and immunology expert.

The dairy industry is one of many agricultural industries that feels the pressure of increased demand for its product. Michael Ballou, assistant professor of animal nutrition and immunology, was hired by Texas Tech in August 2007 because of his expertise in ruminant nutrition and health. He also has a long history of involvement in the dairy industry.

Ballou's grandfather immigrated to the U.S. from Holland, starting his life in America as a milk truck driver in southern California. After saving enough to buy a dairy in central California, his grandfather started

a family tradition. Although Ballou has followed the path of research and education, the dairy industry remains in his roots. He is currently conducting research that will hopefully lead to better understanding of the immunological basis for disease that will improve animal health and well-being. These qualities have helped him build an exceptional research and graduate student program.

Ballou conducts research studies at the Texas Tech Hilmar Dairy Calf Research Center in New Deal. Ballou was instrumental in the development of this center because of his dairy connections in California. The center has 90 individual outdoor calf hutches and is in the process of expanding to include 27 outdoor group hutches and 90



Whitney Mathews | Canadian, Texas

