

PRODUCING MORE WITH LESS

CONSUMERS BENEFIT FROM FEED EFFICIENCY RESEARCH

By Susan Thompson



John Patience is one of many animal scientists at Iowa State involved in major, USDA-funded research on feed efficiency.

There is a growing shortage of food for people and feed for animals around the world. Increased feed efficiency can benefit consumers, while contributing to food sustainability.

That's why researchers at Iowa State University are involved in three major projects designed to reduce the amount of feed required to produce a pound of meat or a gallon of milk.

John Patience, an Iowa State animal scientist, is directing an international

team of scientists in the swine project.

"Our goal is to improve the efficiency with which the pig converts feed into edible consumer products," Patience says. "Feed is increasingly expensive and food on this planet is becoming increasingly scarce. This research will lead to lower cost of production for the pork industry, and less expensive meat for the consumer."

Diane Spurlock, associate professor of animal science, is on a team of 16 researchers from across the United States and the Netherlands working to improve feed efficiency of dairy cattle. Mike VandeHaar ('84 MS animal science, '88 PhD), now at Michigan State University, leads the dairy project.

Spurlock's genetics research for the project focuses on the ability to select cows that use less feed to produce milk, an approach that has been identified as a U.S. Department of Agriculture's priority area.

Spurlock is measuring feed intake of about 1,000 Holstein cows at the Iowa State University Dairy Farm, which has a system where researchers can electronically track individual cow feed intake. The entire

project will collect data from 8,000 cows.

Iowa State animal science faculty members Stephanie Hansen and Dorian Garrick are on a team of researchers and extension specialists focusing on nutrition and genetics to improve beef cattle feeding efficiency.

Hansen is working on nutrient digestibility and how diet type contributes to cattle production efficiency and greenhouse gas emissions. Garrick is working to determine genetic influences on feed efficiency.

"The goal is to breed cattle that produce the highest quality beef with the least amount of grain," Garrick says. "Less feed reduces the environmental impact, plus frees up farmland for other crops."

Dan Loy, Iowa State animal science professor and interim director of the Iowa Beef Center, leads the extension component, which includes a national educational effort and a demonstration project where producers test the technology developed.

Iowa State is the only university to be involved in all three projects, each funded by a \$5 million grant from the U.S. Department of Agriculture's National Institute of Food and Agriculture. **S**

STORIES **Recipes**

Beef in Burgundy

From the kitchen of: **Dorian Garrick**

Cheese Log

From the kitchen of: **Diane Spurlock**

Pork Tenderloin w/ Mustard Marinade served w/ Cherry Compote

From the kitchen of: **John Patience**

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