Reich trailer study could improve hogs to market

JINGWEI SU, research engineer, and Yilie Xiong (right), masters student, place temperature sensors on the floor of the trailer. The sensors are in a protective rubber case to protect them from the pigs’ feet and moisture. The two planes of the lower level are visible with the team members on the lower plane and the ramp behind them going to the upper plane.

PHOTOS BY DAN LONG

By Dan Long
The goal is simple yet important — how do we get hogs to market so they can be sold.

How to do that is being studied by the University of Illinois Animal Welfare and Environmental Systems Laboratory, with cooperation from a local trucking company.

The lab, known as “Lab Awesome,” is conducting a Reich trailer with equipment to monitor the internal environment in the trailer.

The lab wants to measure conditions every year of the storage, from the hottest, which is this summer, to the coldest, which is about to get this winter. It’s taken a year to get readings for every season.

Temperature and humidity are being measured to assist with hogs’ comfort on the way to market.

“We want to reduce the problems for pigs in transport,” Dr. Angela Green, University of Illinois assistant professor of Agricultural and Biological Engineering, said. “If it’s too cold, what can we do to make a more comfortable ride? The same is true for heat or cold.”

The short-term goal is to identify areas within the trailer with the most extreme environment and to make recommendations to improve the environment for the pigs, according to Green.

The long-term goal is to create a model of transport for pigs, and use that data to create a better trailer to transport the pigs.

“We always find that the trailer’s issue also affects the welfare issue,” Green said. “It’s timely with what’s happening in the animal rights movement and public perception.”

“We know that when the pigs are held in the trailer and the temperature is too high, they can be stressed and become more susceptible to illness,” Green said. “We want to find out what factors contribute to this issue and how we can improve the conditions.”

REICH REICH, owner Reich Trucking, and Dr. Angela Green, University of Illinois assistant professor of Agricultural and Biological Engineering, show how wind boards can be removed and adjusted on a trailer.

“The university found Reich Trucking through one of its customers, with help from the National Pork Board,” Reich said. “We’re one of the largest livestock haulers in Illinois.”

“Reich Trucking has been valuable in figuring out how to do the work we’re doing,” Green said. “We appreciate the collaboration between the University of Illinois and Reich Trucking.”

Reich Trucking receives no compensation for its part in the research, according to Reich.

“Reich Trucking makes the work of the researchers much easier,” Green said. “We’re looking at the details of the environment to identify where the problem is occurring.”

The research is part of a two-year project, which is expected to lead into a five-year project.

“This is the preliminary data we used to apply for another grant,” Green said. “We applied for a 5-year, $500,000 USDA grant.”

The U of I team working on this research consists of Green, masters student Yilie Xiong, research engineer Jingwei Su, and several other student assistants from the AWES Lab.

Team members either ride in the cab of the semi or drive the trailer in another vehicle, monitoring the equipment and collecting data.

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