



The expectations with precision feeding



A new Guelph research project was originally designed by noted swine nutritionist Dr. Kees de Lange

WORK IS UNDERWAY at the University of Guelph to help Ontario hog farmers transition to group sow housing. All gestation stalls must be phased out by 2024, which will bring new management issues for farmers to address, particularly with respect to feeding.

Lee-Anne Huber, assistant professor in swine nutrition, is evaluating electronic sow feeders for precision feeding dry sows in group housing scenarios, continuing work that was originally designed by noted swine nutritionist Dr. Kees de Lange before he passed away in 2016.

“Moving to group housing comes with a lot of management issues, like how we can keep welfare high and make sure all sows are meeting their feed requirements in a competitive feed environment,” Huber says. “There are a lot of different options on the market that farmers can use,

[The writer is with the Livestock Research Innovation Corporation]

but our focus is on electronic feeding technology.”

Each sow will be given an RFID tag and when she enters the feeder, the tag will be read and feed will be dispensed according to the treatment group the animal is in.

One group of sows will be given a constant blend of the same diet throughout the entire gestation period to mimic the current industry sow feeding standard.

In the second group, each sow will be fed an individualized diet specific to her parity, day of gestation and nutrient requirements, receiving an optimized blend of protein and energy.

“It is estimated that we can reduce feed costs per sow by \$10 per year and reduce nitrogen losses to the environment by about 10 per cent per sow just by feeding close to her nutrient requirements,” says Huber.

This approach will be repeated for three parities so Huber can measure the longer term impact of this specialized feeding approach on sow longevity, feed intake and body weight loss, as well as litter weight, size, and growth.

What’s particularly unique about this project is that in addition to looking at sow and piglet performance in gestation and nursery stages, the offspring of each sow will be followed through every stage of their life, including evaluation of meat quality after slaughter.

“The idea is that if we are meeting the sow’s nutrient and energy requirements during important phases of piglet development in-utero, this might also influence the robustness and quality of the piglet,” she explains.

With production moving towards

reduced antibiotic use, it is important to have robust piglets that are able to fight off pathogens on their own, but without impact on distribution or quality of muscle fibers that might affect carcass quality.


“When we are looking at the cost-benefit of an electronic sow feeding system, it may go beyond just improved sow longevity to include an improved product, whether that is weaned piglets, market hogs or pork,” she adds.

The project, which began in May 2018, involves 160 sows at the University of Guelph’s Arkel research facility that started as gilts and will proceed through three parities, with a total of 720 piglets taken to slaughter.

According to Huber, the hope is to be able to reduce feed costs and nutrient losses into the environment while improving sow health, welfare and longevity – but without impacting meat quality.

“In the big picture, this is about improving the profitability and sustainability of the pork industry while addressing our social responsibilities,” she says. “I’m excited about this project because it is so practical and so applied and farmers and nutritionists will be able to use the results right away.”

Huber’s project is being funded by Ontario Pork and the OMAFRA-University of Guelph Partnership, with in-kind support from CanArm and Wallenstein Feed & Supply Ltd.

This article is provided by Livestock Research Innovation Corporation as part of LRIC’s ongoing efforts to report on Canadian livestock research developments and outcomes. 

2018 Shakespeare Swine Seminar changes location

The annual Shakespeare Swine Seminar for producers and allied industry personnel will be held at the Stratford Festival Inn on Wednesday, September 19, 2018 in Stratford.

Please note the change of location.

The meeting is sponsored by the Ontario Ministry of Agriculture, Food, and Rural Affairs and Ontario Pork and the seminar focuses on topics of current and practical interest to swine producers.

Program highlights include: understanding the temporary foreign worker program, lowering antibiotic use in nursery and finisher pigs, decreasing the risk of tail biting, a discussion of new disease syndromes in Ontario, and more. Dr. Mark Fitzsimmons, a swine practitioner and producer from southern Minnesota, will speak on managing large litters and reducing lameness problems in finishing pigs.

Registration begins at 3:30 p.m. with presentations starting at 4:00 p.m. Supper is provided and the meeting concludes at 9:00 p.m. The cost is \$35 if pre-registered and \$20 for additional people from the same farm. Registration is \$45 at the door. To pre-register please call the Agricultural Information Contact Centre at 877- 424 -1300 or email ag.info.omafra@ontario.ca. 