



Prairie Swine Centre E-Zine

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The Future of Feed Efficiency: Precision Feeding Systems

What happens if we look at feed efficiency through a new set of glasses? What happens if we look for an Engineering solution for a Nutrition based question? One of the solutions for improving feed efficiency might lie in the development of precision feeding systems that allow producers to feed pigs individually, formulating diets on a daily basis based on real-time patterns of feed intake and growth (for individual pigs).

Pigs within a group differ in terms of age, weight, and growth potential, subsequently nutrient requirements vary greatly between pigs within an individual pen. We have to make the decision on which pig do we feed. Do we feed for the average, and limit the growth potential of the fastest growing pigs? Or do we feed to the best performing pigs resulting in overfeeding others within the same pen?

Precision feeding systems provide the ability to determine the optimal nutrient composition of diets for individual pigs daily, based on real-time feed intake and body weight information. Therefore optimizing animal production on an individual animal basis, eliminating costs associated with over or under feeding to the average pig in a group.

Feed costs are significantly reduced by achieving improved nutrient efficiency. Preliminary work conducted at Agriculture and Agri-Food Canada (Sherbrooke, Quebec) indicates a precision feeding system, when compared to a three-phase feeding system, can reduce protein intake by 7% and nitrogen excretion by 12% in growing and finishing pigs. What does this mean to the bottom line for pork producers? Feed savings are estimated at \$4.00/pig.

However a reduction in feed cost is only one of the potential benefits. Improved nutrient utilization reduces nitrogen and phosphorus intake by 25% and 29% respectively, corresponding excretion was reduced by 38%. Real time data may also be used to identify and treat sick or poor doing pigs, and develop optimal marketing strategies subsequently reducing labour costs through automatic monitoring.

This is a bit of a glimpse into the future of feeding management in pork production. As part of Prairie Swine Centre's "Focus on Feed Efficiency" webinar series this topic was recently addressed by Dr. Candido Pomar's presentation "The Future of Livestock Farming". More information on this topic, or others related to feed efficiency can be found on our website www.prairieswine.com.

<http://www.prairieswine.com/focus-on-feed-efficiency-in-pork-production-webinar-series/>

