Managing Feeding To Reduce Feed Wastage In Lactation

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Feed is the single largest cost associated with producing pork, ranging from 50-70% of the total cost of production. When looking to save money in their feeding programs, producers typically consider the finishing herd as it represents approximately two-thirds of the total feed cost. One area that can be easily overlooked is lactation feeding strategies and delivery.

Traditionally most producers feed lactating sows manually, feeding sows up to three times per day in order to maximize feed intake and optimize litter performance. However, providing large quantities of feed may result in increased feed wastage or spoilage. One technology pork producers have utilized to maximize lactation performance is electronic feeding systems for sows during lactation. These systems have multiple advantages over manual feed delivery including collection of feed intake data, controlled delivery of fresh feed, reduced feed wastage, and lower labour costs, however, these feed systems can be costly to install and maintain.

A project at Prairie Swine Centre set out to develop a modified feeding system which provides the advantage of the delivery of fresh feed to the sow without the expense of the electronic feeding system. A simple feeding system was developed which consisted of a feed drop tube which extends to approximately one inch above the base of the feeder, requiring the sow to manipulate the tube to release small quantities of feed.

A total of 45 sows and litters were randomly assigned to 1 of 3 feeding systems, consisting of manual feeding, a commercially available electronic sow feeder, and the modified system. Sow body weight, back fat, and body condition score were recorded when moved into the farrowing room and at weaning, 21 days post-farrowing. Sow feed intake was recorded daily with any spoiled feed being removed, weighed, and feed intake adjusted. Litter growth performance was measured weekly over the 3 week lactation.

What did we find?

The type of feeding system used had no effect on sow body weight, body condition score, or back fat. There was a slight decrease in litter average daily gain in the third week post-farrowing on the electronic feeding system when compared to manual feeding, however, this did not result in a difference in overall litter weight. Sow feed intake was significantly higher with manual feeding when compared to the other two feeding systems in the first two weeks of lactation, but this difference was no longer evident in the third week.

Bottom Line

This study demonstrated that manual feeding of sows during lactation can result in higher feed usage with no corresponding increase in sow or litter productivity. At today's feed prices the reduction in feed intake associated with the electronic or modified feeding system would save producers an estimated $8.50 per lactation when compared to manual feeding. Therefore, the electronic and modified feeding should be considered to minimize feed wastage and maximize returns. While both systems would reduce feed usage and labour costs associated with feeding, higher costs associated with the electronic feeding system needs to be weighed against additional benefits, such as automatic recording of feed intake when considering which system to implement in their facility.