

E-Zine



Missing Nursery Closeouts

Feeding and management of the weaned pig has a significant impact on not only nursery performance but also can affect subsequent performance in the grow-finish phase. Though costs incurred in the nursery phase represent approximately 15% of the total cost to produce a pig there is a lot variation between farms and in many cases opportunity to decrease this. Tremendous strides have been made in improving the performance of early weaned pigs in the last decade. These improvements are due to rapid development and implementation of advanced technologies in the areas of improved feeding programs, increased weaning age and weight, and the development of innovative management systems.

1. Age and weight of the pig at weaning

Weaning at any age is stressful for pigs but the younger and the lighter the pig at weaning the higher its temperature requirements and the lower its ability to digest cereal-vegetable protein based diets. Two large weaning age commercial studies conducted by Main et al. (2004) found that wean-to-finish ADG, mortality, off-test weight/d of age and weight sold per pig weaned improved as weaning age increased from 12 to 21 and 15.5 to 21.5 days of age. These studies predict that an increase of one day in age at weaning will increase weaning weight by 0.26 kg.

2. Barn cleaning and setup

It is imperative that all nursery rooms are properly cleaned and disinfected with an appropriate disinfectant and given adequate time to dry prior to arrival of new pigs to the barn. Involving removal of all organic matter, washing thoroughly to remove all manure and feed. Disinfecting is important but does not do any good unless the barn is clean. It is important that everything is washed including ceilings, water cups and lines, walls, floors, feeders, mats/trays (top and bottom) and bowls. The room should be allowed to dry before disinfecting. The act of drying itself will kill many organisms by desiccation and a dry room is easier to inspect to see if everything is clean. A disinfectant rotation program should be used in consultation with your vet.

3. Piglet care and management during the first 48 hours

The first challenge of the newly weaned pig is finding feed and water. Right after weaning weaned pigs exhibit feeding behavior similar to nursing the sow where all go to the feeder at the same time. Many producers use feeding mats or trays for the first few days post-weaning on which feed is placed multiple times per day in addition to feed being available in the feeder. It is important that



feed mats or trays have a lip or rim on them to prevent piglets from pushing the feed off into the pit and limited to use for 1-3 days as feed wastage tends to be higher compared with when pigs eat from a conventional dry feeder.

Water intake is critical to the newly weaned pig. Nipple drinkers or cups should be easily accessed during the first few days after weaning. Water pressure should be < 20 psi. Water should be allowed to drip during the first 12 hours so pigs can find water more easily.

4. Diets and feeding program

The objective when designing diets is to maximize feed intake and performance while minimizing feed cost from weaning to 25 kg. In formulating diets for weaned pigs a number of important principles to adhere to:

1. For a cost effective feeding program we must adjust pigs to the simplest and relatively lowest cost diets (grain and soybean meal) as quickly as possible after weaning.
2. A newly weaned pig is in a very energy dependent stage of growth and maximizing feed intake is very important.
3. Early diets need to contain ingredients that are highly digestible (fishmeal, whey powder, etc) due to the limited digestive enzyme capacity of newly weaned pig.

Regardless of the phase feeding strategy a producer decides to use, development of a proper feed budget will help keep nursery feed cost competitive.

5. Ingredient quality and diet manufacturing

In selecting specialty ingredient sources for early nursery diets it is important to remember that all sources are not equal and this is very much the case when we consider whey powder or permeate and fishmeal. There can be very significant differences in quality of different sources of the former products. We normally specify that only an edible grade whey powder or permeate be used in early-weaned pig diets. The main concern with some of these sources is the type of drying process (drum vs spray dried) used and in some cases blending of different grades of products occurs. The newly weaned pig is sensitive to differences in ingredient quality and will respond (feed intake and growth rate) accordingly if quality is sub-optimal.

Another important and integral part in the manufacture of high quality starter diets is avoiding cross-contamination of ingredients and feed in the feed mill. Weaned pigs are very sensitive to non-desirable ingredients such as canola meal, screenings, urea, etc and will reduce feed intake even with very small quantities of these ingredients getting into starter diets. Some potential areas of concern for cross-contamination in commercial feed mills are receiving pits, ingredient weigh scales, and out-loading bins.

6. Diet composition and cost transparency

Like all other phases of production it is important that producers have full transparency in terms of diet composition, all ingredient costs, and toll manufacturing rate for all nursery diets. In my experience it has not been uncommon for us to increase nursery margin over feed cost by \$1-3 per pig for some new clients by in part giving full transparency on diet composition, ingredient costs, and setting a toll rate and monitoring ingredient costs monthly with a feed mill for nursery diets.

7. Feeder type and management

Feeder management can and does have a very significant impact on feed efficiency and cost in the nursery. Feeder type and diet form will also dictate how frequently and how aggressively feeders need be adjusted. For a dry multi-space feeder we aim to see no more than 20% of the pan covered with feed. Feeders need to be checked daily and adjusted as required.

8. Standing Operating Procedures and Training

Having standing operating procedures (SOP) clearly detailed and in place for pig husbandry, barn management, pig health care, and feed management is important to achieve economic and biological performance targets. In addition ensuring all barn staff clearly understands the SOPs and what is required from them daily is an integral part of this. Training for new staff members, which includes reviewing and ensuring they understand SOPs is an equally key part in helping to ensure targets are achieved. A review process needs to be put in place whereby daily procedures are reviewed quarterly to ensure SOPs are being implemented as set out.



9. Performance analysis

Reviewing performance at the end of each batch for AIAO or month (for previous 3 or 6 months) for continuous flow barns is important to know if biological and economic targets are being achieved. Performance data should be adjusted for explainable sources of variation such as exit weight. Failure to maintain accurate performance data for the nursery will leave it impossible to determine if targets are being achieved and where efforts need to be focused to make up short falls.

Re-printed from the Prairie Swine Centre's PorkInsight database, the complete article can be found at:

<http://www.prairieswine.com/top-reasons-for-missing-nursery-closeouts/>



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