



MANAGEMENT OF NEWLY- WEANED PIGS



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Management Strategies

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Introduction

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In my consulting practice, I sometimes encounter an old but persistent myth, that high post-weaning feed intake will cause pigs to scour. As a result, I sometimes see producers purposely limit feed intake during the first week after weaning in an effort to reduce post-weaning diarrhea. In fact, research has conclusively confirmed that not only is the myth false, the opposite is actually true. It is well documented that low feed intake after weaning is a risk factor for scouring. Furthermore, several studies (Pluske et al., 1997; Nabuurrs, 1991; Dong & Pluske, 2007; Cera et al., 1988) have confirmed that low feed intake after weaning can lead to negative morphological changes in the gut that can have a lasting detrimental effect on growth rate. It has been suggested that for every 100 grams of extra feed intake per day during the first week post weaning, body weight increases by at least 2 kilograms at the end of the fourth week post-weaning (Mavromichalis, 2017).

“FOR EVERY 100 GRAMS EXTRA FEED INTAKE PER DAY DURING THE FIRST WEEK POST-WEANING, BODY WEIGHT INCREASES BY AT LEAST 2 KILOGRAMS AT THE END OF THE FOURTH WEEK POST-WEANING.” -MAVROMICHALIS, 2017

As you can see, the research is quite clear that as managers, we need to be doing everything we can to maximize feed intake during the first week after weaning. In fact, this is one of the most important aspects of managing the weaned pig and should be a priority for any nursery or wean to finish manager.

Management Strategies to Increase Feed Intake

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Farm Hygiene and Biosecurity: Perhaps the most impactful thing we can do as managers to improve post-weaning feed intake is to implement management practices that improve overall herd health. This includes a comprehensive biosecurity program to limit the risk of introducing pathogens from outside the farm and an aggressive and thorough management plan to control the growth and movement of pathogens already on the farm. The management plan should include SOPs clearly outlining hygiene standards and processes for washing, disinfecting and drying facilities and implementing strict all in/all out policies for nursery and wean to finish barns.

Animal Environment: Properly managing pig environment post weaning is critical. Managing the thermal environment is one important aspect of the overall pig environment. Proper thermal environment ensures that pigs are comfortable and able to perform at a high level. Recommendations for ambient temperature can be found in figure 1, but it's important to remember that observing pig behavior is the best indicator of success in achieving a proper thermal environment. If the pigs are indicating that they are cold by piling on top of one another, you need to increase the temperature and/or remove drafts without regard to what the chart says. As an animal caretaker, it is your job to ensure the animals are comfortable not to blindly follow pre-established guidelines.

Pig Weight	Temperature
<7 kg	27°C
11.5 kg	25°C
16 kg	24°C
20 kg	22°C
25 kg	21°C

FIGURE 1 RECOMMENDED TEMPERATURE SETTINGS FOR NURSERY-AGE PIGS

Another important factor to consider is air quality. While we certainly want to be sensitive to the creation of drafts by moving too much air, it's important to ensure that we're maintaining good air quality. With that in mind, I've included some recommendations for air movement in nursery barns, but again, it's important to measure air quality objectively and make necessary adjustments as opposed to simply following guidelines.

Pig Weight	Cold CMM	Mild CMM	Hot CMM
<6.8 kg	.06	.23	.57
6.8-11.4 kg	.06	.34	.71
11.4-25 kg	.08	.42	.99

FIGURE 2 VENTILATION RECOMMENDATIONS FOR NURSERY-AGE PIGS

Floor Space, Feeder Space and Water Availability:

It is important to ensure for both performance and animal welfare reasons that animals have sufficient floor space and feeder space.

Standard recommendations for nurseries are .28 m² for floor space

and 4 pigs per feeder space. Water availability is essential during this time period as well. Newly-weaned pigs are accustomed to milk as their primary source of nutrition so they tend to drink large amounts of water in the days following weaning. High water intakes are correlated with high feed intakes so as managers, we want to ensure that newly weaned pigs have access to sufficient water. For nipple waterers, it is recommended that one properly-adjusted nipple be provided per 10 pigs and one per 20 pigs for cup-type waterers. A minimum of two water sources per pen is recommended regardless of pen size. The recommended minimum flow rate for nursery waterers is .5 liters/minute. Be aware that if flow rates are too high, that can discourage water intake as well and a pressure regulator may need to be installed.

Compliance to Budget:

When nutritionists design a feeding strategy, they are balancing the nutritional needs of the pigs with a manageable number of diets. The goal is to avoid over-feeding or under-feeding pigs to the extent that is possible. This is a delicate balancing act so it's extremely important that managers comply as closely as possible with the feed budget provided by their nutritionist. Over feeding one diet over another will result in either waste or insufficient nutrient supply to the pigs. Systems should be in place to monitor compliance to feed budgets and actions should be taken to ensure that feed budgets are followed as closely as possible.

Mat Feeding and Gruel Feeding:

One of the biggest challenges in nursery management is to get pigs eating feed as quickly as possible. Mat feeding and gruel feeding are two proven management strategies that are known to help improve early feed intake and contribute to better growth rates in the nursery. Mat feeding is the process of spreading a small amount of feed onto a mat or solid part of the floor (preferably an area close to or adjacent to the feeder). All pigs should be fed a small amount of feed this way four times a day for the first week. Be careful not to put too much feed on the mat as the goal is to stimulate the feeding process and appetite so the pigs will be more likely to go to the feeder for more. Mat feeding has been shown to significantly increase daily gain (Mavromichalis and Baker, 200). Gruel feeding is the process of mixing feed with water to encourage feed intake in at-risk pigs. While it can be deployed to all pigs, it is generally recommended that gruel feeding be reserved for the lightest 20% of pigs and all sick pigs. Gruel feeding should be done for the first week and should be offered 3-4 times per day. Only an amount of feed that can be completely consumed in about 30 minutes should be offered and the percentage of water should be decreased over time (recipe can be found in figure 4) to encourage a transition to dry feed. Gruel feeders are supplemental feeders and should be cleaned out after every feeding. Ad lib dry feed should be provided at all times in the regular feeders.



FIGURE 3 MAT FEEDING NEWLY WEANED PIGS

Day	Feed Amount	Water Amount
1-2	25%	75%
3-5	50%	50%
6-7	75%	25%



FIGURE 4 RECIPE FOR GRUEL FEED

Summary

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Effective management of newly weaned pigs involves attention to detail, good general husbandry skills, patience, a solid understanding of the challenges pigs are facing during this stage of production and collaboration between the farm staff, the nutritionist and the farm's veterinarian. The consistent application of the fundamental management and nutritional strategies described here will ensure that your pigs have the

best chance at achieving the high levels of performance that are required to remain competitive in today's face paced market.

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