Nursery Facilities
Auditing Best Management Practices - Part 6

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In 2017, on-farm best management practices were audited on a total of 24 farms throughout Canada as part of a national project titled From Innovation to Adoption: On-farm Demonstration of Swine Research. This article is part of an eight-part series reporting on these audits.

The requirements and management of weaned pigs seem quite simple on the surface. Providing a good environment that is dry and free of drafts, provides fresh air, has an appropriate quality and quantity of water and feed available are all important components to ensure optimal nursery performance. While it sounds easy, meeting these basic requirements may prove to be difficult in production facilities.

The results of the audits completed in 18 nursery facilities indicate that pork producers are overall doing a relatively good job ensuing that best management practices are adopted in their facilities. However, one potential area of improvement is in the adoption of enrichment.

Enrichment

Based on audit data, enrichment in the nursery is one area that requires additional attention of pork producers. As showed in Table 1, data suggests that only 11 % of farms audited currently incorporate enrichment into nursery facilities, with chains being the most common form of enrichment. According to the Code of Practice for the Care and Handling of Pigs (2014)[1], pigs must be provided with multiple forms of enrichment that aim to improve the welfare of the animals through the enhancement of their physical and social environments. The incorporation of enrichment into individual facilities is unique to each operation. Support tools regarding enrichment materials are available, which groups the types of enrichment into categories and outlines the advantages and disadvantages of each type.[2]

Length and Group Size in Nursery

It was found that the type, size, and age of nursery facilities varied across provinces. As seen in Figure 1, approximately 90 % of nursery facilities ranged between 5-7 weeks regardless of the size of operation. Figure 2 provides a cross section related to group size across facilities. While a high degree of similarity can be found in the number of weeks that pigs stay in the nursery, the same cannot be said about group size. Overall, there is a trend towards smaller group sizes (less than 50 pigs/pen), however the data indicates that some producers are comfortable with larger groups, as approximately one-third of producers use groups larger than 50 pigs/pen.

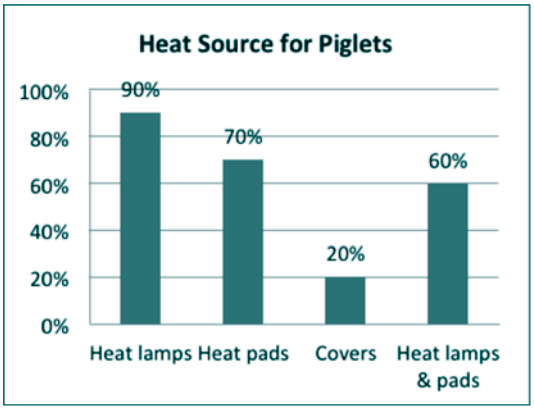

Figure 1. Average length (weeks) of nursery production

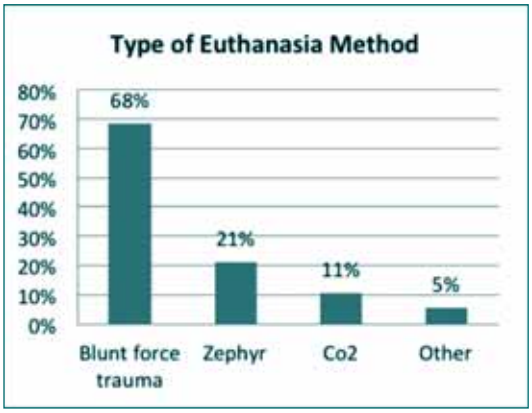

Figure 2. Average groups size of nursery pens

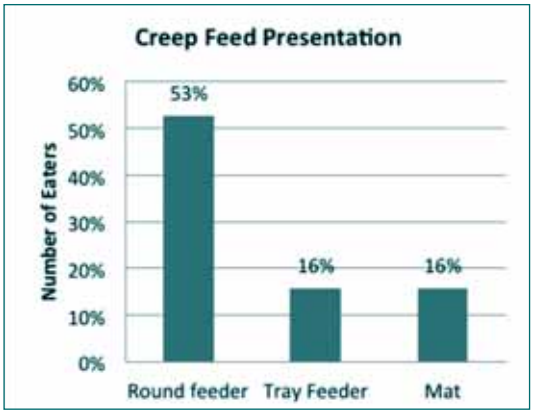

Figure 2. Average groups size of nursery pens

Table 1. Audit results for 18 Nursery facilities

Category	Average Percentage of Farms		
Enrichment used Pigs must be provided with multiple forms of enrichment	11 %	89 %	0 %
Euthanasia method used Pig must be rendered immediately insensible - must not return to sensibility prior to death.	72 %	28 %	0 %
How often are pens walked? It is recommended that pens be walked on a daily basis.	78 %	22 %	0 %
Feeder type It is recommended that dry feeders be used[3].	75 %	25 %	0 %

Legend

Meets recommendation

Partially meets recommendation

Does not meet recommendation

Euthanasia

As presented in Figure 3, the most common method of euthanasia within the nursery is a blitz/bolt gun, as a little more than half of participants reported using this method. Blunt force trauma and the Zephyr represent a little more than a third of euthanasia methods used, specifically for pigs less than 10 kg in weight. Approximately one-quarter of the audited farms received a 'partial compliance' score, strictly due to the fact that blunt force trauma and electricity are ranked as 'conditional methods' within the 2014 Code of Practice for the Care and Handling of Pigs (page 61, Appendix N – Methods of Euthanasia).[1] According to this Code of Practice, for any method of euthanasia to be considered acceptable, it' must render the animal immediately insensible and the animal must not return to sensibility prior to death.'

Conclusion

Overall, producers are doing an excellent job ensuring that best management practices are successfully incorporated in nursery facilities. However, one area that could use improvement would be an increased use of enrichment. The incorporation of enrichment can be done quickly with relatively little cost. The Code outlines the 6 "Ss" of successfully implementing enrichment to help producers choose which type is the best fit for their operation.

For Further Reading

1 Code of practice for care and handling of pigs
(English) http://www.nfacc.ca/pdfs/codes/pig_code_of_practice.pdf
(Français) http://www.nfacc.ca/pdfs/codes/porcs_code_de_pratiques.pdf

2 Enriching the living space of pigs to comply with the Code
(English) http://www.cdpq.ca/getmedia/cefa398c-ba4d-46c8-a1a0-ad5c04574e1c/Fiche-enrichissement-version-anglaise.pdf.aspx
(Français) http://www.cdpq.ca/publications-et-documents/publications-techniques-et-scientifiques/enrichir-l-espace-de-vie-des-porcs-pour-respecter.aspx?lang=en-CA

3 Dry and wet-dry feeders in the nursery, a comparison on the effects on piglets' performance
(Français) http://www.cdpq.ca/getattachment/0060bf59-5420-4 1f4-9a93-58a3d74d4ad7/TREMIES-ABREUVOIRS-ET-TREMIES-SECHES-EN-POUPONNIER.aspx

(Enrichments for sows ... cont'd from page 7)

In the third study, chopped hay was provided in small hoppers in the free-access pens, and was compared to wood enrichments. Again, the use of fibre attracted more sows, but because it was held in a small hopper only a few sows could access it at once. This study found that dominant sows had more access to the hay feeders than subordinates. Higher lesion scores were also observed when chopped hay was given, indicating that aggression can increase when sows are competing for a more desirable enrichment, so providing adequate levels of enrichment is important.

Overall these studies underscore why diffuse and consumable enrichments like straw are both attractive and effective for sows. Providing a number of enrichments and dispersing them throughout the pen will help to reduce any negative effects of social status. Researchers will continue to explore the potential benefits of various fibre sources, and to look for practical enrichments that promote sow interaction while posing minimal risk to biosecurity or liquid manure systems.

Following the trials, multiple farms with group sow housing participated in an extension study. Producers were used to seeing sows lying quietly for most of the day, and were surprised to see the sows' strong attraction to enrichments. Most of all they enjoyed watching the sows interacting with enrichments. So, while the production benefits of providing enrichment to sows may be hard to measure, the satisfaction of seeing sows busy and interacting in a positive way is ample reward for some.