PIG WELFARE AND THE CODES OF PRACTICE: ENRICHMENT FOR SOWS AND PIGLETS

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INTRODUCTION

The revised Code of Practice for the Care and Handling of Pigs was released in March of 2014 (NFACC, 2014), and includes several changes that impact production practices and housing on Canadian farms. The most significant changes to the code are related to pain control at castration and tail docking, sow housing, space allowances and enrichment.

The code requirement for enrichment states that, ***"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 requirement for enrichment is looked on with skepticism by some, who they may see the requirement as an unnecessary exercise to please consumers, requiring more time and money and without benefit to pigs or production. This presentation will hopefully dispel these notions. There is an extensive amount of research on enrichment to show that, when given appropriate enrichments, pigs can benefit from reduced fear, aggression and vices, and improved growth. Also, there are many enrichments that can be produced on-farm at low cost which are durable and effective.

This article highlights the features of effective enrichment, the benefits of providing enrichment at different stages of production and describes some practical enrichments that can be used.

ENRICHMENT BENEFITS

The provision of enrichment to pigs is new a code requirement that will require some innovation on the part of producers. Types of enrichment can include social enrichment (ability to interact with other pigs), nutritional enrichment, such as providing supplemental fibre or novel feedstuff, sensory enrichment (for example in the form of new sights, sounds or tastes), occupational or physical (toys, or changes in environment). Goals of enrichment include increasing the range and number of normal behaviours, preventing or reducing the severity of abnormal behaviours, increasing the positive use of pen space, and increasing pigs' ability to cope with physiological challenges.

Effective enrichment at weaning has been shown to change pigs' behavior at later growth stages. Pigs given enrichment before weaning showed significantly less tail biting during the grower-finisher period, and also showed greater interest in objects in their environment (Telkänranta et al. 2014). There is also a genetic component to enrichment, with some breeds showing greater benefits. Gilts with higher genotypic production traits show higher levels of biting behavior, and enrichment using burlap sacks reduced this behavior by 50% (Ursinus et al. 2014).

Pigs are highly motivated to root and explore their environment. Without some outlet for this behavior, they are more likely to direct exploration towards pen mates. They are also more likely to show fear and excitation when introduced to a new environment. Studies by Temple Grandin (1989) showed that pigs given enrichment were more willing to walk down a chute, or to interact with an unfamiliar person. Enrichment has also used to reduce mixing stress, with pigs given enrichment showing greater exploration of the environment, and reduced aggression compared to unenriched control groups.

Enriched pigs have also shown better performance in tests of learning and intelligence (Grimberg-Henrici et al. 2015).

ENRICHMENT OPTIONS

A number of enrichment options are available, many of which can be produced on-farm at low cost. In general, enrichments should be safe for pigs, easily cleaned, and preferably soft/malleable as pigs prefer materials they can bite or chew. Enrichment objects should be suspended to avoid fouling, but should extend near the floor as many pigs like to manipulate them while lying. Novelty is an important factor, so ideally different objects should be used, which can be periodically cleaned and rotated around the room.

Piglets: Enrichments for nursery pigs can include a variety of rubber toys, cotton rope or PVC pipe, and can be left loose in the pen or suspended above the floor. At this stage objects such as dog chew toys can be used, and will last for years with periodic cleaning. Similar enrichments can be used in the farrowing crate and by encouraging pigs to explore their environment it can reduce fear and increase feed consumption at weaning.

Grow-finish: The economic benefits of enrichment are most evident in grow-finish pigs, as proper enrichment can reduce tail biting and other negative behaviours which can result in culling or death losses in market pigs. Thus, the majority of research on enrichment has been done in grower-finisher pigs. For finisher pigs, sections of chain, wood mounted in a holder or on a chain, and short sections of PVC pipe have been used successfully. Finisher pigs are more destructive, so enrichments must be robust enough to withstand prolonged chewing. Destructible enrichments such as wood are more attractive, but must be maintained and replaced as needed. While balls and rubber tires have been tried in the past, these are generally not suitable. Balls and other objects on the floor soon become soiled and have little interest to pigs, and tires can pose a health risk due to steel belting or pigs being trapped in them.

Sows: While sows can also benefit from enrichment, less research has been done on them. Finding enrichment for stall-housed sows can be a challenge, studies have looked at wood tethered on chain, rubber floor mats, or varied feedstuffs. For sows in groups, recommended enrichments are similar to those used for finisher pigs, or the addition of high fibre feeds.

Straw is known to be a preferred enrichment for pigs, but it can be difficult to provide in fully slatted systems. On partial slats, a small quantity of straw can be provided on solid areas, or in a rack or hopper, and will generally be consumed without affecting the pits. The use of straw or hay enrichment is especially beneficial for group housed sows. A small amount of high fibre feed can be provided, either on the floor or in a hopper, and can reduce aggression and increase satiety (feeling full) in restricted fed sows. Increased fibre can also improve heat generation, and so temperature settings can be reduced in winter months.

SUMMARY

In conclusion, enrichment is much more than just giving toys to pigs! Providing enrichment need not be costly or time-consuming, and there is overwhelming evidence that the welfare of pigs can be improved

by this practice, as well as production. As Canadian producers implement the code of practice we look forward to hearing about the new and innovative ways they find for providing enrichment.

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