How do cold, drafty conditions affect the behaviour of weaned piglets?

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Background

Adverse barn environments are often blamed for the development of vices in pigs. In the weaner barn, behaviour problems can include ear biting, sucking on navels and tails and belly nosing. We know that cold, drafty conditions make piglets uncomfortable and can lead to reduced performance and health problems. But how do they affect piglet behaviour?

Objectives

To determine the effects of exposure to short, daily periods of cold draft on the behaviour of newly weaned piglets.

Methods

A total of 80 piglets, weaned between 18 and 21 days of age, were housed on one of two sides of an environmental chamber where temperature and air movement could be controlled. Control piglets were kept at 28^{o}C with minimal air movement. Treatment piglets were kept under the same conditions except that they were exposed to two one-hour periods of cold draft per day. The drafts were created using overhead fans while at the same time reducing the set-point on their side of the chamber 3^{o}C which resulted in a flow of cool air at a velocity of 150 ft/min (0.8m/s) over the piglets. Behaviour was recorded from overhead video recordings during the first two weeks post-weaning.

Results

• During the periods of cold draft, treatment piglets became more active ($P<0.05$), and spent more time nosing and chewing their pen-mates' ears and tails ($P<0.05$) than control piglets.
• Overall, piglets exposed to cold draft spent significantly less time belly nosing ($P<0.05$) and more time at the feeder ($P<0.05$) than controls.
•Overall, feed intake and growth rates for the two groups did not differ ($P>0.05$).

Take Home Message

Cold draft does not affect all piglet-directed behaviour patterns the same way. Belly nosing was not stimulated by cool air movement, however nosing and chewing on pen-mates' ears and tails was. The causes for different piglet 'vices' vary, and environmental factors may contribute to some but not others.

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