

## **1B-103: *The effects of alternative housing on piglet welfare and performance around weaning***

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**Aims and Objectives:** The aim of this investigation was to determine if piglets from litters that have reduced sow contact as lactation progresses, experience a reduction in stress typically witnessed at weaning, and if this gradual weaning process has positive effects on the post-weaning performance and welfare of these piglets.

### **Key Findings**

Litters were assigned to two treatments:

- **Control:** Litters remained in constant contact with the sow within the traditional farrowing crate up until weaning at about 28 days.
- **Gradually Weaned:** The sow was transferred to a pen immediately behind the farrowing crate for 5 hrs/day between day 11 and day 16, 7 hrs/day between days 16 and 21 and 9 hrs/day from day 21 to weaning at 28 days. This reduced the period that the litters had contact with the sow, thereby replicating a gradual weaning process.

Piglets that were gradually weaned were lighter at weaning, but continued to grow in the days following the weaning event. Control piglets were 0.8 kg heavier at weaning, but suffered a 'growth check' at weaning. By day 7 after weaning there was no effect of treatment on average body weight of piglets.

Overall, more gradually weaned piglets had a tendency to consume solid/creep feed, potentially explaining some of the improvement in growth performance of these piglets after weaning. Control piglets exhibited agonistic behaviours (such as belly nosing and fighting) for significantly longer on the day following weaning than those piglets that were gradually weaned. Furthermore, injury scores were greater for control piglets than those gradually weaned on almost all of the days examined. Weaning produced an increase in circulating plasma cortisol concentrations in control piglets, whilst inducing little change in piglets that were gradually weaned.

### **Application to Industry**

The findings from this project provide convincing evidence that gradually reducing the amount of sow contact as lactation progresses provides welfare and production benefits to piglets in the days following weaning. The improved growth of piglets from the gradually weaned treatment in the immediate post-weaning period could be attributed to an increase in creep feed consumption, a reduction in agonistic behaviours, fewer injuries and a lower cortisol response to weaning.

The housing design implemented in the current investigation involved a significant amount of labour as the sow was removed daily from the farrowing crate and returned once more after the separation period. Further work on housing design and strategies that facilitate sow-controlled access to her litter, is recommended before gradual weaning is likely to be successfully implemented in the commercial environment.