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## Pork CRC Research Summary

**Project Number & Title:** 2B-103 - Strategies to enhance the performance of pigs immediately after weaning: Weaning age interaction with creep feeding

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### Background:

Weaning of the piglet from the sow commonly results in a growth check immediately post weaning, while the piglet adapts to the new conditions and feed source. Offering solid creep feed during lactation aims to reduce this post weaning growth check by facilitating the transition from sow's milk to solid feed prior to weaning. Piglets weaned at an older age are likely to consume more creep feed than those weaned younger, therefore offering creep feed during lactation may have limited benefits for early weaned animals. The aim of this study was to determine the impact of offering different creep diets during lactation on lifetime growth performance and carcass composition of pigs weaned at 22 or 29 days of age.

### Methodology:

Ninety-six litters were selected at farrowing over a six week period (4 gilt litters and 12 sow litters per week). The litters were randomly allocated within parity to a 2 x 2 factorial design with the respective factors being weaning age (WA, 22 or 29 days) and creep feed (CF, simple (S) or complex (C)). Creep diets contained 15.0 MJ digestible energy (DE)/ kg and an available lysine: DE ratio of 0.85 g/MJ DE. The complex creep diet utilized fishmeal, milk proteins, meatmeal, bloodmeal and soycomil as protein sources, while the simple creep diet utilized peas, soybean meal, meatmeal and bloodmeal, creating a less expensive diet. Creep feed was offered from 9 days of age until weaning. Post weaning, pigs were housed in groups with pigs of the same sex and CFxWA treatment.

### Key Findings/Conclusions:

- Estimated creep feed intake was generally small and variable regardless of creep feed composition. Estimated total creep feed intake from 9 days of age to weaning was greater in the litters offered the simple creep diet compared to the complex creep diet (776.3 and 461.4 g in total respectively,  $P=0.004$ ).
- Creep feed composition had no influence on pre-weaning growth performance, with the average daily gain from 9 days of age to weaning similar between the animals offered the simple or complex creep diets (234.6 and 231.3 g/d respectively,  $P=0.641$ ).
- Creep feed composition did not influence lifetime growth performance (619.0 and 607.4 g/d respectively for the simple and complex diets,  $P=0.24$ ), carcass weight, P2 or dressing percentage.
- There was a tendency for pigs weaned at 29 days of age to grow more slowly from birth to slaughter than those weaned at 22 days of age (616.1 and 610.4 g/d for pigs weaned at 22 and 29 days of age,  $P=0.079$ ).
- Lifetime performance was reduced in pigs born  $\leq 1.2$  kg, resulting in a 6.5 kg difference in carcass weight when sold at 152 days of age compared to 'normal' birth weight pigs ( $>1.2$  kg). P2 back fat depth was greater in light birth weight pigs (9.5 and 8.5 mm respectively,  $P<0.001$ ).

The results of this investigation suggest that the inclusion of expensive, highly digestible ingredients in creep diets pre-weaning does not improve the lifetime performance of pigs weaned at either 22 or 29 days of age. Furthermore, lifetime performance may be reduced when pigs are weaned at 29 days of age compared to weaning at 22 days of age

### Potential Users of Information (including value assessment):

Nutritionists, consultants and producers

