The interaction of lactation feed intake (ad lib vs. restricted) and creep feeding (none vs. creep) was evaluated using a total of 84 sows and litters blocked according to parity during late gestation and lactation. This study also suggests that dietary omega-3-fatty acid supplementation controls insulin release during late gestation and early lactation.

Key Words: Insulin, Omega-3-fatty acid, Sows


A total of 54 sows (PIC Line 1050) and their litters were used in this study to determine the effects of varying creep feeding duration on the number of pigs consuming creep feed (eaters) and pre-weaning performance. Two groups of sows were blocked according to parity and date of farrowing and allotted to three experimental treatments using a randomized complete block design. Creep feeding was initiated at d 7, 14, and 18 from birth for durations of 13, 6, and 2 d of creep feeding. A creep diet (3,495 kcal ME/kg, 1.56% TID Lys) with 1.0% chronic oxide was offered ad libitum until weaning (d 20) using a rotary creep feeder with hopper. Sows were allowed free access to a single lactation diet (3,503 kcal ME/kg, 0.97% TID Lys) during lactation. Fecal samples from all piglets were taken twice per day using sterile swabs on d 14, 18, and 20 for Treatment 1, d 18 and 20 for Treatment 2, and d 20 for Treatment 3. Piglets were categorized as eaters when fecal sample was color green at least once on any of the sampling days. Overall, there were no differences in weaning weights (5.7, 5.6, and 5.6 kg; P > 0.61), total gain (3.3, 3.1, and 3.1 kg; P > 0.38), and daily gain (0.25, 0.24, and 0.24 kg; P > 0.38) among pigs fed creep for 13, 6, or 2 d, respectively. Total creep feed intake of litters fed creep for 13 (0.68 kg) and 6 d (0.74 kg) were greater (P < 0.01) than those litters provided creep feed for 2 d (0.35 kg). Litters provided with creep feed for 13 d produced 10% more (80 vs. 70%; P < 0.03) eaters than litters fed creep for either 6 or 2 d. There were no differences (P > 0.98) in the percentage of eaters between litters fed creep for 6 and 2 d. In conclusion, longer durations of creep feeding did not affect pre-weaning gain and weaning weights but increased the proportion of eaters in whole litters; however, a relatively high percentage of pigs (70%) were classified as eaters by providing creep feed for only 2 d prior to weaning.

Key Words: Feed management, Creep feed, Pig


The ability to add weight and therefore value to cull sows, depending on input costs, may increase farm net income. Two experiments were conducted to define gain and efficiency response in cull sows. Exp.1 was a 2×4 factorial arrangement of production stage (Wet vs. Dry) by starting BW block (< 180 kg, 181-220 kg, 221-245 kg, and > 246 kg). Pelleted gestation diets (0.63% lysine and 3358 kcal/kg ME) were provided ad libitum for 4 wk. Exp. 2 evaluated the effect of Paylean® on dry sow performance over six BW blocks. Pelleted gestation diets consisted of control (0.63% lysine, 3358 kcal/kg ME) and Paylean® 4.5g/ton (0.94% lysine, 3351 kcal/kg ME) fed ad libitum for 4 wk. All sows (n = 190 exp. 1 and n = 192 exp. 2) came from two commercial swine farms and were housed two per pen at the NC Swine Evaluation Station, Clayton. Dry sows had superior (P < 0.01) G:F when compared to wet sows throughout the trial (0.26 vs. 0.22). Dry sows had higher (P < 0.05) ADG in comparison to wet sow treatments throughout the trial (1.25 vs. 0.98 kg/d). Dry sows had greater (P < 0.01) increase in fat depth (9.4 vs. 6.2 mm) and loin muscle area (8.6 vs. 6.4 cm2) but did not differ in change in body condition score. For Wk 1 to 4, lighter sows had higher (P < 0.01) ADG in comparison to heavier groups (0.29 vs. 0.24, 0.22, and 0.21, respectively). For Wk 1 to 4, the lightest weight group had lower (P < 0.05) ADFI as compared to the heaviest two weight groups (4.28 vs. 4.79 and 5.04 kg, respectively). Sows did not differ by weight for changes in fat depth and loin muscle area but sows > 246 kg did have a smaller increase (P < 0.01) in body condition score than lighter sows (0.27 vs. 0.76). Cull sows fed Paylean® diet were more efficient (0.29 vs. 0.25; P < 0.01), showed a smaller increase in fat depth (7.9 vs. 10.5 mm; P < 0.01), greater increase in loin muscle area (10.0 vs. 6.7 cm2; P < 0.01), greater Wk 1 to 2 ADG (1.54 vs. 1.24 kg; P < 0.04), greater Wk 1 to 3 ADG (1.43 vs. 1.20 kg; P < 0.03) and tended to grow faster throughout the trial (1.35 vs. 1.21 kg; P = 0.11). However, sows fed Paylean® and control diets did not differ in ADFI or change in body condition score.

Key Words: Sow, Growth, Efficiency