Effect of lactation housing on growth performance of pigs

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A study was conducted to compare growth performance of pigs born in group-lactation housing with that of pigs born in farrowing crates. In group-lactation, pigs were farrowed in straw-bedded individual pens; mingled into groups of 8 litters at d 10; weaned at wk 5; and remained in the same group until wk 8 (72 pigs/group). Pigs born in crates were mixed and moved to pens of 9 pigs in a confinement nursery barn at weaning (wk 5). At wk 8, 108 pigs from each barn were selected based on sex, familiarity, and weight. Each 9 pigs (3 from each pen or room within each barn; 4 barrows and 5 gilts) were allocated to one of 24 pens in a confinement grow-finish barn, and remained there until wk 22. Pigs in both groups had ad libitum access to standard diets between wk 5 and wk 22. In each housing system, room temperatures were controlled to the thermal neutral zones. Body weights were recorded at birth, wk 5, wk 8, and every 2-wk thereafter until wk 22. Feed intake was monitored every 2 wk between wk 8 and wk 22. Data were analyzed using the MIXED procedure of SAS with repeated measures. Lactation housing was a fixed effect while pen served as a random effect. Compared with pigs from crates, pigs from group-lactation had greater ADG during the lactation (308 vs. 275 g, SE = 4.4; \( P < 0.01 \)) and nursery (555 vs. 432 g, SE = 5.3; \( P < 0.01 \)) periods, and were heavier at weaning (11.7 vs. 10.6 kg, SE = 0.16; \( P < 0.01 \)), wk 8 (25.0 vs. 21.0 kg, SE = 0.13; \( P < 0.01 \)), and wk 22 (106.9 vs. 103.0 kg, SE = 0.59; \( P < 0.01 \)). After wk 8, ADFI of pigs from group-lactation was lower (2,004 vs. 2,188 g, SE = 42.5; \( P < 0.05 \)) than pigs from crates. The low ADFI did not affect ADG (833 vs. 826 g, SE = 21.8), resulting in greater gain to feed ratio (0.431 vs. 0.393, SE = 0.0078; \( P < 0.01 \)) for pigs derived from group-lactation compared with pigs from crates. The results indicate that pigs born in a straw-bedded group-lactation system grew faster during the lactation and nursery periods, and displayed improved feed efficiency during the growing-finishing period compared with pigs born in farrowing crates.

Key Words: Group-lactation, growth performance, pigs.