

103 Effect of Floor Feeding Creep Feed on the Growth Performance and Morbidity and Mortality of Pigs After Weaning.

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Abstract: A total of 264 litters corresponding to 2,497 nursery pigs were used in a 40-d trial to determine the effect of floor feeding pelleted creep feed or lactation feed on the growth performance and morbidity and mortality of pigs after weaning. Treatments were applied in the farrowing house for 4-d prior to weaning and consisted of a control (no creep), standard (0.32 cm) creep pellet, large (1.27 cm) creep pellet, or sow lactation feed in meal form. For each treatment, approximately 227 g of creep feed per day equally divided into 2 feedings was provided on the mat in farrowing stalls. At weaning, pigs were transported to the nursery facility and randomized to pen within creep feeding treatment. A total of 96 pens (48 feeders) were used, with one barrow pen and one gilt pen per feeder. Thus, feeder (2 pens) was the experimental unit. There were 26 pigs per pen and 12 replications per treatment. During week 1 post-weaning, pigs fed standard or large pellet creep feed had increased ($P < 0.001$) ADG compared with pigs fed sow lactation feed or no creep feed. This was not driven by improved ADFI but rather G:F ($P < 0.001$). No differences in growth performance were observed throughout the remainder of the nursery period. Overall, on a per pig placed basis, pigs fed large pellet creep feed had increased ADG ($P < 0.05$) and improved G:F ($P < 0.05$) compared with pigs fed sow lactation feed, with the other 2 treatments intermediate. This response was a direct reflection of decreased ($P < 0.05$) total mortality and removals for pigs fed large pellet creep feed. In summary, floor feeding large pellet creep feed starting 4-d preweaning improved nursery pig growth performance and fallout rates compared with creep feeding sow lactation feed, with standard pellet creep feed or no creep feed having an intermediate effect.

Table 1. Effect of creep feeding on post-weaning growth performance on per pig placed basis, d 0 to 36

| Item | Treatment | | | | SEM | P = |
|-------------------------------|--------------------|--------------------|-------------------|-------------------|-------|-------|
| | No creep feed | Standard pellet | Large pellet | Lactation feed | | |
| Body weight, kg | | | | | | |
| d 0 | 5.1 | 5.1 | 5.1 | 5.0 | 0.05 | 0.457 |
| d 36 | 14.1 | 14.3 | 14.4 | 13.8 | 0.17 | 0.066 |
| ADG, g | 205 ^{ab} | 211 ^{ab} | 218 ^a | 185 ^b | 7.7 | 0.027 |
| ADFI, g | 321 | 324 | 328 | 302 | 7.4 | 0.083 |
| G:F | 0.64 ^{ab} | 0.65 ^{ab} | 0.66 ^a | 0.61 ^b | 0.012 | 0.026 |
| Mortality/removal analysis, % | | | | | | |
| Total mortality | 3.2 | 3.0 | 2.9 | 4.5 | 0.83 | 0.398 |
| Total mortality and removals | 12.0 ^{ab} | 11.1 ^{ab} | 9.8 ^b | 14.9 ^a | 1.43 | 0.050 |

Keywords: creep feeding, pig, weaning

104 Effect of Mat Feeding on the Growth Performance and Morbidity and Mortality of Pigs After Weaning.

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Abstract: Three experiments were conducted using 9,403 pigs to determine the effect of mat feeding on growth performance and morbidity and mortality of pigs after weaning. At weaning, pigs were randomized to 96 pens (48 feeders) with 30 to 35 pigs/pen. Feeder (2 pens) was the experimental unit. For each experiment, mat feed was provided 3 times daily for 10 d and was included in calculation of post-weaning ADFI and G:F. In Exp. 1, treatments consisted of mat versus no mat feeding. Overall, mat fed pigs tended to have decreased ($P = 0.056$) ADG compared with the control, which resulted in decreased ($P < 0.026$) final body weights. No differences were observed in ADFI or G:F. However, mat fed pigs had reduced total mortality and removals ($P = 0.019$). In Exp. 2, treatments were arranged in a 2×2 factorial with main effects of diet form (pellet or crumble) and mat feeding (without or with). Overall, no interactions between diet form and mat feeding were observed. No differences were observed in growth performance by mat feeding. However, pigs receiving pelleted feed had decreased overall ADFI ($P = 0.013$) and increased G:F ($P < 0.001$). Differences in total mortality and removals were not significant. In Exp. 3, treatments consisted of mat feeding small (0.32 cm) or large (1.27 cm) pellets, or no mat feeding. No differences were observed in overall ADG or G:F; however, mat fed pigs had increased ADFI ($P < 0.05$), regardless of pellet size. Differences in total mortality and removals were not significant. When combining removal and mortality data for the 3 experiments, mat fed pigs had fewer total removals ($P = 0.025$) compared with the control. In summary, mat feeding has limited effects on growth performance of pigs after weaning; however, mat feeding may encourage earlier feed intake reducing the fall out rate of pigs as indicated by the decreased removals.