
Three separate trials were conducted to evaluate ethylamine A) additions to milk replacer diets of pigs weaned at two weeks of age. In each trial, 30 pigs of similar genetics and weight trial 1, 4.55 kg; Trial 2, 4.71 kg; Trial 3, 4.20 kg) were randomly assigned to 10 pens, balanced for weight and backfat and sex. A randomized complete block design with a factorial treatment structure was used to investigate the effects of milk replacer treatments, ethylamine treatment, and the interaction of the two factors. All treatments were applied as a 0.1% of the total diet on an ingredient basis to the milk replacer diet.

Key Words: Ethylamine, Pigs, Milk Replacer, Weaning.


A total of 596 weanling pigs was used in three experiments to evaluate the effects of spray-dried porcine plasma (SDPP) in the high nutrient density diet on starter pig performance. In Exp. 1, 334 weanling pigs (initially 6.4 kg and 21 d of age) were used to evaluate increasing levels of SDPP. Pigs were assigned to one of six experimental diets containing 0, 2, 4, 6, 8, or 10% SDPP replacing dried skim milk. Diets were formulated to contain 15% lysine and 41% methionine. Experimental diets were fed from 0 to 14 postweaning at which time they were switched to a common phase II diet (d 14 to 28). During phase I (d 0 to 14) and the overall trial (d 0 to 28) there was a linear (P < .01) and a tendency (P < .11) for a quadratic improvement in ADG and ADFI (results below). There were no significant differences in feed efficiency (G:F) for any of the phase of the trial. In Exp. 2, 68 weanling pigs (initially 5.7 kg and 21 d of age) were used to determine if added methionine is needed for diets containing high levels of SDPP. Pigs were fed identical diets containing 20% dried whey, 7.5% SDPP and 1.75% spray-dried blood meal (25% methionine) except that one diet contained 1% added DL-methionine (39%). Pigs receiving diets containing added methionine had improved ADG (P < .05) and ADFI (P < .05) for the first three weeks postweaning. Pigs receiving diets with added methionine had improved (P < .05) feed efficiency for the 21-d trial. The results of these experiments indicate that starter pig performance is improved with increasing levels of SDPP through 10% of the diet and DL-methionine must be added to diets containing high levels of SDPP to obtain optimal performance.

Key Words: Spray-dried porcine plasma, Starter Pig, Growth Performance.

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At farrowing, litters were assigned to either control (CON, n=5) or supplemented (SPL) treatment to examine the effect of MR on weaning weight and pre-weaning survival rate. The study was conducted in 9 farrowing groups over an 18 month period. Commercial MR powder (25% CP, 15% fat) was reconstituted at a rate of 150 g/l in water and prepared fresh daily. MR was offered ad libitum in the farrowing crate within 24 h of farrowing and was continued through weaning (d 17-21). MR disappearance was recorded daily. Litter performance data was co-varied for initial weight (1.3 kg) and number of pigs per litter (10.4). Average pig weight was increased in supplemented litters at d 7 (CON 2.63, MR 10.75 kg; *P < .05) and at weaning (CON 5.37, MR 6.31 kg; P < .0001). There was a trend for improved survival (CON 30.6, MR 33.2; P = .2). Total litter weight at weaning was increased from 49.6 kg in CON litters to 62.1 kg in MR supplemented litters (P < .0001). There was no effect of supplemental MR on sow feed intake, backfat thickness or body weight loss. Among farrowing groups, there was significant variation in the volume of MR consumed. A portion of this variation was related to average barn temperature (P = .49) or season (P = .54). Average MR intake expressed as liters/pig from birth to weaning was 2.5, 5.4 and 8.5 l/pig (SE = .6; P < .0001) in winter, spring/summer, and fall/winter, respectively. The weaning weight advantage conferred by MR was most evident during the summer months. Similarly, sow feed intake in the second week postpartum was favored by MR (P < .05)

Key Words: Pigs, Litter performance, milk replacer.