
Two hundred forty weaning pigs (initially 3.7 ± 0.8 kg BW and 9±2 d) were used in a 21 d growth trial to evaluate the influence of four dietary sequences on growth performance. The trial was designed as a randomized complete block with five replicates of four dietary sequences (12 pigs per replicate). The pigs were allotted to the four dietary sequences. Diet A was formulated to contain 1.1% lysine, 7.5% spray-dried porcine plasma (SDPP), 1.75% spray-dried blood meal (SDBM), 3% spray-dried egg protein, 20% dry diet, and 10% dried skim milk. Diet B was formulated to contain 1.4% lysine, 2.5% SDPP, 1.75% SDBM, and 0% ARB. Diet C was formulated to contain 1.25% lysine, 2.5% SDBM, and 10% dry diet. The four dietary sequences were as follows: AAB, AAC, ABB, and ABC with each letter indicating diet fed d 0 to 7, 7 to 14, and 14 to 21 postweaning, respectively. Data were analyzed using a repeated measures analysis of variance. From d 0 to 7 postweaning, ADFI, ADFE, and feed efficiency (G/F) were 112, 134, and 86, respectively. Pigs fed diet B from d 7 to 14 had numerically lower ADG than pigs that remained on diet A. Pigs fed diet B from d 14 to 21 had higher ADG (P<0.05) compared to pigs fed diet C. Pigs fed dietary sequences AAB or ABB were 11% heavier on d 21 (P<0.05) than pigs fed dietary sequences AAC or ABC. In conclusion, dietary sequences AAB and ABB provided identical performance d 0 to 21 postweaning; however, utilization of a transition diet (B) from d 7 to 14 postweaning substantially reduced feed cost/kg of gain for pigs weaned at 9 d of age.

Key Words: Mico, Porcine plasma, Liver weight


A total of 367 weaning pigs (initially 5.3 kg and 21 d of age) was used in a 28 d growth trial to determine the effect of lactose on ileal digestibility of porcine plasma (SPP). Pigs were blocked by weight and randomly assigned to one of six experimental diets: a positive control, or five diets containing 7, 11, 15, 19, or 23% lactose. The diets contained the dietary lactose density (HNDD) containing 7.5% SDPP, 1.75% spray-dried blood meal (SDBM), and 20% drier dried whey. The five experimental diets were achieved by adding lactose to a basal diet containing 10% drier dried whey, 7.5% SDPP, 2.4% SDBM, and 20% drier dried whey. ACC was calculated to contain 1.1% lysine, 1.1% calcium, and 1.1% phosphorus. Pigs were fed these diets in a pelleted form from d 0 to 21 postweaning. On d 14, all pigs were switched to a common phase D diet formulated to 1.12% lysine and containing 10% drier dried whey and 2.4% SDBM. Pigs were fed this diet in a mash form for the remainder of the trial (d 14 to 28 postweaning). During phase I, a linear increase (P=0.01) in ADG, ADFI, and G/F was observed. Pigs consuming the diet containing 23% lactose had higher ADG (P<0.01) and ADFI (P<0.10) than pigs receiving the HNDD. However, there were no differences in G/F between pigs fed these two treatments. During phase II, there were no differences in ADG or ADFI (P>0.05) was observed for daily feed intake with increasing lactose fed in phase I. During the entire trial, a linear improvement (P<0.05) was observed in ADG, ADFI, and G/F with increasing lactose content. When compared to pigs fed the HNDD, in conclusion, starter pig performance was improved linearly as lactose increased from 7 to 23% in a nursery diet containing spray-dried porcine plasma.

Key Words: Lactose, Pig, Growth performance.