

EVALUATION OF DIFFERENT PROBIOTIC PRODUCTS FOR NURSERY PIGS

by

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Abstract

A total of 315 nursery pigs (200 × 400; DNA, Columbus, NE; initially 13.6 lb BW) were used in a 44 d study to determine the effects of experimental probiotics on the growth performance of nursery pigs. Pigs were weaned at 21 d of age (d 0 of the experiment) and randomly assigned to 1 of 9 treatments with 5 pigs per pen and 7 pens per treatment based on gender and BW. Dietary treatments consisted of: 1) a control diet without antibiotic or probiotic; 2) the control diet with an antibiotic (Mecadox 10; 50 g/ton of diet); 3) the control diet with a commercial probiotic (Bioplus 2B; 1 lb/ton of diet); and 4-9) the control diet containing 1 of 6 experimental probiotics (DSM probiotic products 1-6; 4 lb/ton of diet). Dietary treatments were fed for 44 d with pen and feeder weights collected on d 0, 11, 18, 25, 32, 39 and 44. Pigs fed Mecadox had increased ($P < 0.05$) average daily gain (ADG), average daily feed intake (ADFI), and final body weight (BW) compared to all other treatments but no evidence for differences were found in feed efficiency (F/G; $P > 0.05$). Pigs fed DSM probiotic product 4 had greater ($P < 0.05$) ADG and ADFI than pigs fed the control diet and also had similar ($P > 0.05$) ADG and ADFI compared to those fed Bioplus 2B. No difference in d 44 BW was observed among any DSM probiotic product relative to the control, but pigs fed Mecadox or Bioplus 2B had increased ($P < 0.05$) d 44 BW compared to those fed the control diet. In conclusion, adding an antimicrobial (Mecadox) to the diet resulted in the best growth performance. Pigs fed a commercial probiotic and one of the experimental probiotics had intermediate performance compared with the control and Mecadox fed pigs.