Dietary fat sources for weanling pigs

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The effect of including three different fat sources in diets for newly weaned pigs was evaluated in a five wk experiment. A total of 96 pigs were weaned at an average age of 20 days and allotted to four different treatment groups based on BW, ancestry, and sex. There were four pigs per pen and six replicate pens per treatment group. A phase 1 control diet (1.5\% lys, 3,281 kcal ME/kg) based on corn, soybean meal, whey powder, fish meal, and protein plasma, was formulated. The phase 2 control diet (3,296 kcal/kg, 1.15\% lys) contained corn, soybean meal, and fish meal. The control diets were fed to pigs on treatment group 1. Diets for pigs on treatment groups 2, 3, and 4 were identical to the control diets with the exception that 6\% fat was added to each of the diets at the expense of corn. The fat sources used were animal fat (treatment group 2), soybean oil (treatment group 3), and sunflower oil (treatment group 4). To maintain a constant lys concentration, the inclusion of soybean meal was slightly increased in the diets containing the supplemental fat sources. The phase 1 diets were provided during the initial 2 wks post-weaning while the phase 2 diets were fed during the remaining 3 wks of the experiment. Average daily gain (ADG), average daily feed intake (ADFI), and average gain to feed ratios (G:F) were calculated for each of the two phases and overall for the entire period. The ADG during phase 1, phase 2, and phase 1 and 2 combined were not affected ($P > 0.05$) by dietary treatments (184, 168, 190, 199; 338, 354, 382, 353; and 277, 280, 305, 291 g/day for pigs on treatment groups 1, 2, 3, and 4, respectively). Likewise, ADFI was not affected by dietary treatments, for phase 1, phase 2, or phase 1 and 2 combined ($P > 0.05$). The values calculated for G:F were 0.68, 0.66, 0.70, and 0.72 (phase 1), 0.55, 0.59, 0.62, and 0.56 (phase 2) and 0.58, 0.61, 0.64, and 0.59 (entire period) for pigs on treatment groups 1, 2, 3, and 4, respectively). Within each phase, none of these values were different ($P > 0.05$). The results of this experiment indicate that pig performance during the immediate post-weaning period is not improved significantly by the inclusion of dietary fat. Furthermore, no differences between the three fat sources evaluated in this experiment were detected.