

Effects of dietary level of distiller's dried grains with solubles and fat on the growth performance of growing pigs. J. M. DeDecker^{*1}, M. Ellis¹, B. F. Wolter², J. Spencer³, D. M. Webel³, C. R. Bertelsen¹, and B. A. Peterson¹, ¹*University of Illinois*, ²*The Maschhoffs*, ³*United Feeds, Inc.*

The effect of dietary level of distillers dried grains with solubles (DDGS) and fat was evaluated in growing pigs (n = 2,560) using a randomized block design with a 4 × 2 × 2 factorial arrangement of treatments. The study was carried out in two periods. In Period 1 (21.8 to 40.9 kg), a 4 X 2 factorial of DDGS level (0 vs. 10 vs. 20 vs. 30%) and fat level (0 vs. 3%) were evaluated. In Period 2 (40.9 to 59.8 kg), an additional factor of two levels of fat were compared (0 vs. 6%). Diets were corn-soybean meal based, formulated on analyzed nutrient values for ingredients to similar digestible lysine:ME ratios and to meet or exceed NRC (1998) recommendations. There were no DDGS × fat level interactions. During Period 1, there was no effect of DDGS inclusion level on ADG or ADFI, however, including DDGS at 20 or 30% resulted in a small improvement (P < 0.05) in G:F compared to the 0% treatment. Adding 3% fat reduced (P < 0.001) ADFI and improved (P < 0.001) G:F, but had no impact on ADG. In Period 2, previous level of DDGS did not affect growth performance. However, feeding 3% compared to 0% added fat in Period 1 reduced (P < 0.05) ADFI and tended (P = 0.08) to improve G:F in Period 2. In addition, feeding 6% compared to 0% added fat in Period 2 improved (P < 0.01) ADG and G:F and reduced (P < 0.001) ADFI. In conclusion, adding fat to the diet improved growth rate in the second period only and there was a suggestion of a carryover effect of dietary fat level between periods that merits further study. Also, DDGS can be included at up to 30% of the diet of growing pigs without detrimentally affecting growth performance.

Key Words: DDGS, Fat, Pigs

Source: J. Anim. Sci. Vol. 83 (Suppl. 2) p. 79