Responses to feeding higher levels of dried distiller grains with solubles (DDGS) for gilts and barrows, when supplemented with plant extracts (Lean Fuel)

F.B. Sandberg, S.J. England and M.R. Bible
Furst-McNess Company, Freeport, IL

ABSTRACT: The objective of this study was to determine the effects of feeding a diet with 50% DDGS either unsupplemented (C) or supplemented with 1,251 mg Lean Fuel (LF) per kg of complete feed in gilts (G) and barrows (B) from a high lean genetic. The experiment lasted for 83 days and was conducted at a commercial research facility with 986 pigs (493 G and 493 B), weighing 37.6 kg at the beginning of the trial, and allocated to C-B (n=8 pens), C-G (n=8 pens), LF-B (n=9 pens) and LF-G (n=9 pens), where pens were blocked by weight, sex, and location in the barn. A FANCOM feed weighing system measured feed delivered to the individual pens, and weight of pigs and feed disappearance were measured on d 0, 14, 28, 42, 56, 70 and 83. Weights and feed were used to calculate ADG, ADFI, and FCR. Data were analyzed as a completely randomized design as a 2x2 factorial using GLM in Minitab with Tukey’s test to determine differences between dietary treatments. For d 83 BW, there was a treatment x sex interaction. The C-G (104.5 kg) weighed less (P < 0.001) than C-B (110.7 kg), LF-B (110.7 kg), and LF-G (107.9 kg). For d 0-83, the pigs fed LF (862 g) tended (P < 0.10) to have a higher ADG than the pigs fed C (842 g). Also, the B (879 g) gained more (P < 0.001) compared to the G (826 g). There was a treatment by sex interaction (P < 0.05) for d 0-83 ADG. The LF-B (880 g) and C-B (875 g) gained more weight than the LF-G (844 g), and the LF-G had a higher ADG compared to the C-G (807 g). The B (2,562 g) had a higher ADFI (P < 0.001) compared to the G (2,378 g). The pigs fed the C (2,432 g) consumed less feed (P < 0.05) compared to the pigs fed LF (2,509 g). There was no treatment x sex interaction (P > 0.10) for ADFI. There were no significant effects on FCR (C-B=2.90, LF-B=2.94, C-G=2.88, LF-G=2.88; P > 0.10) for d 0-83. In conclusion, in high DDGS diets LF significantly improved growth rate of G, and could be used as a tool to allow higher levels of DDGS to be fed to G, to reduce feed input costs, without loss of performance.

Key Words: Pigs, Plant Extracts, DDGS