

**321 Digestibility of Amino Acids, Energy, Fat, and Fiber and Digestible and Metabolizable Energy in Low-Oil Distillers Dried Grains with Solubles Fed to Growing Pigs.** S. A. Lee\*, C. D. Espinosa, H. H. Stein, *University of Illinois at Urbana-Champaign, Urbana, IL*

**Table 1.** Nutrient digestibility and energy concentrations in DDGS

Item, %	DDGS								SEM	P-value
	A	B	C	D	E	G	H	I		
SID of Lys	69.7 <sup>abc</sup>	73.5 <sup>a</sup>	65.4 <sup>cd</sup>	61.4 <sup>d</sup>	70.9 <sup>ab</sup>	66.4 <sup>bc</sup>	66.4 <sup>bc</sup>	-	1.7	< 0.001
ATTD										
GE	68.4	70.3	73.0	74.3	67.9	71.6	69.7	70.1	1.8	0.102
NDF	65.0 <sup>ab</sup>	62.0 <sup>ab</sup>	65.6 <sup>ab</sup>	68.0 <sup>a</sup>	57.0 <sup>b</sup>	55.3 <sup>b</sup>	55.6 <sup>b</sup>	59.9 <sup>ab</sup>	3.1	0.010
AEE	58.6 <sup>b</sup>	69.0 <sup>ab</sup>	64.6 <sup>ab</sup>	68.7 <sup>ab</sup>	74.8 <sup>a</sup>	67.9 <sup>ab</sup>	69.1 <sup>ab</sup>	65.9 <sup>ab</sup>	2.3	0.001
ME, kcal/kg	2,894 <sup>ab</sup>	2,963 <sup>ab</sup>	3,038 <sup>ab</sup>	3,142 <sup>a</sup>	2,769 <sup>b</sup>	2,988 <sup>ab</sup>	2,976 <sup>ab</sup>	2,857 <sup>ab</sup>	76	0.027

<sup>a-d</sup>Within a row, means without a common superscript differ ( $P < 0.05$ ).

Two experiments were conducted to test the hypothesis that digestibility of AA, GE, acid hydrolyzed ether extract (AEE), and NDF and DE and ME in low-oil distillers dried grains with solubles (DDGS) vary among suppliers. Eight sources of low-oil DDGS were procured from suppliers in the U.S. and were labelled source A, B, C, D, E, G, H, and I. In Exp. 1, twenty-four barrows (initial BW =  $63.4 \pm 3.4$  kg) with a T-cannula in the distal ileum were allotted to a 2-period Youden square design with 8 diets. An N-free diet and 7 diets containing all DDGS sources except source I were formulated. Ileal digesta were collected for 2 d after 5 d of adaptation. Standardized ileal digestibility (SID) of AA did not differ between DDGS sources A and B, but the SID of most indispensable AA were greater ( $P < 0.05$ ) in DDGS source B than in DDGS sources C, D, E, G, and H. In Exp. 2, seventy-two barrows ( $18.1 \pm 1.3$  kg) were used. A corn-based basal diet and 8 DDGS-containing diets were formulated. Feces and urine samples were collected for 5 d after 7 d of adaptation. The ATTD of GE and the DE did not differ among the 8 sources of DDGS, and no difference in the ME among sources were observed except that DDGS source E contained less ( $P < 0.05$ ) ME than DDGS source D (Table 1). The ATTD of NDF in DDGS source D was greater ( $P < 0.05$ ) than in sources E, G, and H and ATTD of AEE in source E was greater ( $P < 0.05$ ) than in source A. In conclusion, variability in SID of AA, ATTD of NDF and AEE, and in ME were observed among the sources of DDGS used in this experiment.

**Key Words:** energy, digestibility, distillers dried grains and solubles