

**Apparent ileal digestibilities of corn distiller's dried grains with solubles produced by new ethanol plants in Minnesota and South Dakota.** M.H. Whitney<sup>1</sup>, M.J. Spiels<sup>1</sup>, G.C. Shurson<sup>1</sup>, and S.K. Baidoo<sup>2</sup>, <sup>1</sup>University of Minnesota, St. Paul, <sup>2</sup>University of Minnesota, Waseca.

Two studies were conducted to determine the apparent ileal amino acid (AA) digestibility of corn distiller's dried grains with solubles (DDGS) produced from newer (< 5 yrs old) ethanol plants in Minnesota and South Dakota (MNSD) and to compare these values to DDGS originating from an older Midwestern plant (OMP). In experiment 1, eight crossbred pigs averaging 38.8 kg initial body wt were surgically fitted with a simple T-cannula, inserted at the ileal-cecal junction. After a 14 d recovery period, pigs were allotted to experimental diets in a Latin square design. Pigs were limited fed (approximately 75% ad lib) each of four experimental diets: control containing 90% corn-soybean meal (CSBM), 30% MNSD-60% CSBM, 60% MNSD-30%CSBM, and 90% MNSD. The remaining 10% of each diet contained supplemental vitamins and minerals to meet or exceed NRC (1998) requirements. Pigs were allowed a 9-d adjustment period, followed by a 2-d digesta collection period (12 hr/d) in each of four consecutive 11-d feeding periods. Samples were immediately frozen for subsequent AA analysis. Apparent ileal Lys, Met, Thr, and Trp digestibility coefficients of MNSD were 53.6, 58.5, 55.2, and 63.6% resulting in apparent digestible AA levels of .44, .32, .62, and .15%, respectively. Immediately following experiment 1, pigs were allotted to one of two dietary DDGS treatments (90% MNSD or 90% OMP) for two collection periods. Pigs fed the MNSD DDGS diet had greater ileal Lys (47.4 vs -3.8%,  $P < .01$ ), Met (65.8 vs 48.5%,  $P < .01$ ), and Thr (59.9 vs 36.5%,  $P < .01$ ) digestibility coefficients compared to the OMP DDGS, but there were no differences between sources for Trp digestibility (67.4 vs 68.3%,  $P > .10$ ). Results from these studies suggest that apparent ileal AA digestibility of MNSD DDGS is superior to OMP DDGS, and higher than published NRC (1998) values. Knowledge of apparent AA digestibilities will allow more effective use of MNSD DDGS in swine diets.

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