

that were autoclaved for 10, 20, or 30 min, respectively. The SID of Lys was quadratically reduced ( $P < 0.05$ ) from 66.8% in the unheated DDGS to 54.9, 55.3, and 51.9% in the DDGS that was autoclaved for 10, 20, or 30 min, respectively. The concentrations of SID Arg, His, Leu, Lys, Met, Phe, and Thr may be best predicted by equations that include the concentration of acid detergent insoluble N in the model ( $r^2 = 0.76, 0.68, 0.68, 0.84, 0.76, 0.73,$  and  $0.53,$  respectively). The concentrations of SID Ile and Val were predicted ( $r^2 = 0.58$  and  $0.54,$  respectively) by the Lys:CP ratio, whereas the concentration of SID Trp was predicted ( $r^2 = 0.70$ ) by the analyzed concentration of Trp. In conclusion, the SID of AA is decreased as a result of heat damage and the concentration of SID AA in heat damaged DDGS may be predicted by regression equations developed in this experiment.

**Key Words:** amino acids, distillers dried grains with solubles, heat damage

P065 (GS-PHD) **Amino acid digestibility in heat damaged distillers dried grains with solubles fed to pigs.** F. N. Almeida<sup>1,\*</sup>, J. K. Htoo<sup>2</sup>, J. Thomson<sup>3</sup>, H. H. Stein<sup>1</sup>, <sup>1</sup>*Animal Sciences, University of Illinois, Urbana,* <sup>2</sup>*Evonik Industries AG, Hanau, Germany,* <sup>3</sup>*Evonik Degussa Corporation, Kennesaw.*

The primary objective of this experiment was to determine the effects of heat treatment on the standardized ileal digestibility (SID) of AA in corn distillers dried grains with solubles (DDGS) fed to growing pigs. The second objective was to develop regression equations that may be used to predict the concentration of SID AA in corn DDGS. A source of corn DDGS was divided into 4 batches that were either not additionally heated or autoclaved at 130°C for 10, 20, or 30 min. Four diets containing DDGS from each of the 4 batches were formulated with DDGS being the only source of AA and CP in the diets. A N-free diet also was formulated and used to determine the basal endogenous losses of CP and AA in the pigs. Ten growing pigs (initial BW: 53.5 ± 3.9 kg) were surgically equipped with a T-cannula in the distal ileum and allotted to a replicated 5 × 4 Youden square design with 5 diets and 4 periods in each square. Regression equations to predict the concentration of SID AA were developed using the forward selection method. The SID of CP decreased linearly ( $P < 0.05$ ) from 77.9% in the unheated DDGS to 72.1, 66.1, and 68.5% in the DDGS samples