279 Amino Acid Digestibility of a Modified Corn Byproduct (Gold Pro) with and with a Multi-Enzyme Supplement (CORE) When Fed to Weanling Pigs. K. T. Soltwedel*[,1], F. B. Sandberg[1], W. B. Kwon[2], H. H. Stein[2], S. J. England[1], M. R. Bible[1], T. M. Fakler[1], J. Y. Jacela[1], [1]*Furst McNess Company, Freeport, IL,* [2]*University of Illinois Urbana-Champaign, Urbana, IL*

Gold Pro is a corn and protein yeast ingredient that has shown in previous studies to be an alternative to traditional protein ingredients in nursery swine diets, with further benefits on health. To further improve the use of this ingredient an experiment was conducted to determine the apparent ileal digestibility (AID) and standardized ileal digestibility (SID) of CP and AA in Gold Pro with or without a multi-enzyme blend (CORE – containing α-amylase, β-glucanase, phytase, cellulose, xylanase, and protease). Nine weanling barrows (initial BW: 13.7 ± 1.1 kg) were surgically fitted with T-cannulas at the terminal ileum. Each was randomly allotted to 3 dietary treatments in a triplicated 3 × 3 Latin Square design with 3 periods. Each period lasted 7 d with the initial 5 d being an adaptation period to the diet, and d 6 and 7 being the ileal digesta collection phase. Treatments were diets with 30% Gold Pro as the only protein source without (GP) or with (GP+CORE) the CORE enzyme blend; an N-free diet was used to determine the basal endogenous loss of CP and AA. All diets contained 0.4% chromic oxide as an inert marker. Ileal digesta samples were collected for AA analysis to calculate AID and SID. In the GP+CORE, AID of Cys was significantly greater ($P<0.05$) and marginally greater ($P<0.10$) for Lys and Met compared to GP. For AID of CP and all other AA, no significant differences between diets were observed. However, there was a consistent numeric increase in both AID and SID of CP and AA in Gold Pro when CORE was added. For SID of CP and AA, no significant differences were observed between diets without or with CORE, but there was a tendency ($P=0.066$ and $P=0.102$) for a greater SID of Lys and Cys, respectively, in the GP+CORE diet compared with the GP diet (Table 1). In conclusion, this information can be used to formulate more accurately with Gold Pro in starter pig rations, and CORE tended to increase the digestibility of AA in Gold Pro specifically Lys, Met, and Cys.

Table 1. CP and AA composition and digestibility (as-fed)

	SID, %			
Item	GP	GP+CORE	SEM	*P*-value
CP	77.0	77.5	3.6	0.909
Leu	86.4	87.2	1.1	0.436
Lys	65.9	71.0	2.8	0.066
Met	83.2	85.4	1.4	0.119
Thr	75.3	76.6	1.9	0.451
Trp	74.4	75.9	1.7	0.293
Val	77.7	79.1	1.7	0.357
Cys	81.1	83.8	1.6	0.102

Key Words: digestibility, amino acids, enzymes