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**426 Ileal amino acid digestibility values vary depending on the exogenous indigestible indexes in pigs fed a soybean meal-based diet.** B. G. Kim<sup>1</sup>, K. R. Park<sup>\*1</sup>, and H. H. Stein<sup>2</sup>, <sup>1</sup>*Department of Animal Science and Technology, Konkuk University, Seoul, Korea, Republic of (South),* <sup>2</sup>*University of Illinois at Urbana-Champaign, Urbana.*

The objective was to test a hypothesis that ileal AA digestibility values may vary depending on the indigestible index sources including chromium oxide, titanium dioxide, and Celite. Eight barrows with an initial BW of 58.1 kg (SD = 4.3) fitted with a T-cannula in the distal ileum were randomly allotted to a 2-period crossover design with 2 diets and 8 pigs in each period. A soybean meal (SBM)-based diet and an N-free diet were prepared. Both experimental diets contained 0.4% chromium oxide, 0.4% titanium dioxide, and 0.4% Celite as indigestible indexes. A washout diet with no index was provided ad libitum to the pigs for 7 d before each 9-d experimental period. The diets were provided at daily levels of 3 times the estimated maintenance requirement for energy. Equal meals were provided at 0800 and 2000. Ileal digesta were collected from 0800 to 1600 on each day. In the same experiment, we found that the minimum adaptation period before ileal digesta collection to have constant index concentrations was 3 to 4 d. Therefore, the digestibility and endogenous loss of AA data were pooled from d 5 to 9 to investigate the influence of indigestible index on AA digestibility and endogenous losses. The ileal digesta are often collected during d 6 and 7 in many experiments, and thus, the data from d 6 and 7 were also pooled for testing index

effects on AA digestibility and endogenous losses. Based on the pooled data from d 5 to 9, the apparent ileal digestibility (AID) and the standardized ileal digestibility (SID) of all AA except Tyr calculated using Cr or Ti as an index were greater ( $P < 0.05$ ) than the digestibility values calculated using AIA. During d 5 to 9, the basal endogenous losses (BEL) of Arg, His, Ile, Leu, Lys, Thr, Trp, Val, Ala, Asp, Glu, Gly, Pro, and Ser calculated using Cr as an index were less ( $P < 0.05$ ) than the BEL values calculated using Ti but greater ( $P < 0.05$ ) than the BEL values calculated using AIA. When the data from d 6 and 7 were pooled, the AID, SID, and BEL of AA changes by indigestible indexes had the same pattern as the data from d 5 and 9. Overall, AA digestibility calculated using Cr or Ti was greater than that calculated using AIA.

**Key Words:** acid insoluble ash, chromium, titanium  
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