229 Amino acid digestibility in six sources of meat and bone meal fed to growing pigs. D. M. D. L. Navarro*, N. W. Jaworski, H. H. Stein, *University of Illinois at Urbana-Champaign, Urbana.*

An experiment was conducted to determine the standardized ileal digestibility (SID) of AA by pigs in 6 sources of meat and bone meal (MBM). Eighteen ileal-cannulated barrows (initial BW: 69.3 ± 4.4 kg) were randomly allotted to a replicated 4 × 9 incomplete Latin square design with 4 periods and 9 diets, therefore, a total of 8 replications per diet. One diet included 33% soybean meal (SBM) as the sole source of AA and 6 diets contained 1 source of MBM included at 9% and SBM included at 22% as the only AA containing ingredients. A N-free diet was used to determine basal endogenous losses of AA. The last diet was unrelated to the experiment. The SID of AA was calculated using the direct procedure for the SBM diet. The difference procedure was used to calculate the SID of AA for all sources of MBM. The SID of Lys was greater ($P < 0.05$) in MBM 4 than in MBM 2, MBM 3, and MBM 6, but not different from MBM 1 and MBM 5. The SID of Met was greater ($P < 0.05$) in MBM 1 and MBM 4 than in MBM 3 and MBM 6, but not different from MBM 2 and MBM 5. The SID of Thr was greater ($P < 0.05$) in MBM 1 than in MBM 2, MBM 3, and MBM 6, but not different from MBM 4 and MBM 5. The SID of Trp was the least ($P < 0.05$) in MBM 3 among MBM sources. In conclusion, the SID of indispensable AA varies widely among MBM sources.

Key Words: amino acid digestibility, meat and bone meal, pigs

Table 229. Standardized ileal digestibility (%) of indispensable AA in meat and bone meal

	Meat and bone meal						Pooled	
Item	1	2	3	4	5	6	SEM	*P*-value
Arg	94.7^{a}	88.9^{ab}	76.6^{c}	90.3^{ab}	92.1^{ab}	85.2^{b}	3.31	< 0.01
His	93.1^{a}	81.3^{c}	63.6^{d}	89.7^{ab}	93.0^{ab}	83.7^{bc}	3.16	< 0.01
Ile	90.1^{a}	79.7^{bc}	67.8^{d}	87.1^{ab}	88.6^{ab}	75.7^{cd}	4.19	< 0.01
Leu	91.3^{a}	82.3^{ab}	66.6^{c}	87.5^{ab}	89.3^{a}	77.4^{b}	3.90	< 0.01
Lys	86.5^{ab}	77.1^{bc}	62.8^{d}	91.9^{a}	83.2^{ab}	66.6^{cd}	4.65	< 0.01
Met	86.6^{a}	83.0^{ab}	69.8^{c}	87.3^{a}	87.1^{ab}	79.8^{b}	2.94	< 0.01
Phe	91.9^{a}	82.4^{ab}	69.9^{c}	90.2^{ab}	90.6^{ab}	80.7^{b}	4.09	< 0.01
Thr	89.9^{a}	75.3^{bc}	63.2^{d}	80.8^{ab}	83.3^{ab}	67.6^{cd}	4.76	< 0.01
Trp	93.4^{a}	77.8^{b}	63.3^{c}	77.0^{b}	96.7^{a}	76.0^{b}	5.53	< 0.01
Val	87.0^{a}	79.2^{ab}	65.1^{c}	85.7^{a}	87.0^{a}	74.8^{b}	3.89	< 0.01

$^{a-d}$Means within a row lacking a common superscript letter differ (P < 0.05).