Nonruminant Nutrition: Feed Ingredients

losses of CP and AA. Data were analyzed by the Mixed Procedure with diet as the main effect, and pig and period as random effects. Results indicate that the SID of AA in camelina seeds is less (P < 0.05) than in camelina expellers and canola meal (Table 1), which limits the use of camelina seeds in swine diets, but the SID of AA in camelina expellers is mostly comparable to that of canola meal. Camelina expellers may, therefore, be used as an alternative feed ingredient in diets fed to pigs.

Table 1. Standardized ileal digestibility (%) of AA in camelina seeds (CS), camelina expellers (CE), and canola meal

					Canola			
Item	CS-1	CS-2	CE-1	CE-2	CE-3	meal	SEM	P-value
Ile	42°	62 ^b	73 ^a	63 ^b	78 ^a	78 ^a	3	< 0.01
Leu	49 ^c	66 ^b	77 ^a	67 ^b	80 ^a	81 ^a	3	< 0.01
Lys	48 ^c	63 ^b	72 ^{ab}	68 ^{ab}	69 ^{ab}	75 ^a	3	< 0.01
Met	54 ^d	72°	84 ^a	76 ^{bc}	82 ^{ab}	85 ^a	2	< 0.01
Phe	46 ^d	65 ^c	76 ^{ab}	68 ^{bc}	79 ^a	80 ^a	3	< 0.01
Thr	38 ^d	56 ^c	64 ^{abc}	59 ^{bc}	67 ^{ab}	73 ^a	3	< 0.01
Trp	45°	57 ^b	67 ^{ab}	58 ^b	71 ^a	75 ^a	3	< 0.01
Val	44 ^c	63 ^b	74 ^a	65 ^b	76 ^a	76 ^a	3	< 0.01

^{a-d}Values within a row lacking a common superscript letter are different (P < 0.05).

Key Words: amino acid digestibility, camelina, pigs

506 Amino acid digestibility in camelina seeds and camelina expellers fed to growing pigs. F. N. Almeida^{*1}, J. K. Htoo², J. Thomson³, and H. H. Stein¹, ¹University of Illinois, Urbana, ²Evonik Industries AG, Hanau, Germany, ³Evonik Degussa Corporation, Kennesaw, GA.

The nutritional value of camelina seeds (Camelina sativa) and camelina expellers fed to pigs has not been reported. Therefore, an experiment was conducted to determine the standardized ileal digestibility (SID) of CP and AA in camelina seeds and camelina expellers and to compare these values with SID values of CP and AA in canola meal fed to pigs. Two sources of camelina seeds (average of 27.9% CP, 39.4% acid hydrolyzed ether extract (AEE), and 27.6% NDF, as-fed basis), 3 sources of camelina expellers (average of 33.1% CP, 15.8% AEE, and 24.9% NDF, as-fed basis), and 1 source of canola meal (36.4% CP, 3.7% AEE, and 34.8% NDF, as-fed basis) were procured from companies located in the United States. Seven pigs (initial BW = 43.5 ± 3.5 kg) were allotted to a 7 × 7 Latin square design with 7 diets and 7 periods. Two diets contained camelina seeds (CS-1 and CS-2), 3 diets contained camelina expellers (CE-1, CE-2, and CE-3, respectively), and 1 diet contained canola meal as the sole source of CP and AA. Each test ingredient was included at 40% in the diets. A N-free diet was used to determine basal endogenous