

Digestible energy content of *Camelina sativa* co-products for growing pigsA Cerisuelo¹, P Ferrer¹, E Gómez¹, T Woyengo², H Stein³, J Cano⁴ and O Piquer⁵¹Centro de Investigación y Tecnología Animal - Instituto Valenciano de Investigaciones Agrarias; ²South Dakota State University; ³University of Illinois; ⁴Innovater; ⁵Universidad CEU-Cardenal Herrera

Camelina sativa is an oilseed cultivated in Europe and its oil is used for biofuel production. Solvent-extracted camelina meal (CM) and expeller-extracted camelina expellers (CE) are the co-products that remain after oil extraction. A study was conducted to evaluate the apparent digestible energy concentration of CM and CE for growing pigs. Thirty-six Pietrain x (LandracexLarge white) barrows of 61.8 ± 2.83 kg body weight were allotted to 6 treatments (6 pigs/treatment). Experimental diets were a basal corn-soybean meal diet without or with 10% or 20% CM and 10%, 20% or 30% CE. The experiment lasted 15 days with 10 days for adaptation and 5 days for separate and total collection of faeces and urine, using ferric oxide to mark the beginning and the end of the faecal collection period. Pigs were fed at 3 times the requirement for maintenance metabolizable energy in two equal meals daily. Apparent digestible and metabolizable energy content of CM and CE was calculated by regression. The CM was greater in protein (419 vs. 381 g/kg dry matter; DM) and fibre (397 vs. 351 g neutral detergent fibre/kg DM) compared with CE. The proportion of soluble and insoluble fibre was not different between CM and CE (6.8g/100g DM soluble and 19.1g/100g insoluble non-starch polysaccharides). However, CE was greater in ether extract (120 vs. 20 g/kg DM) and gross energy (5050 vs. 4639 kcal/kg DM) compared with CM. The apparent digestibility of energy in CM and CE was 0.653 (0.965 CV, $R^2 = 0.86$) and 0.655 (1.21 CV, $R^2 = 0.89$) for CM and CE, respectively. The digestible and metabolizable energy values were 3027 and 2996 kcal/kg DM in CM and 3307 and 3278 kcal/kg DM in CE. In conclusion, the CE had greater energy value than CM, likely due to the greater oil content in CE than in CM.