134 Digestibility of energy and concentrations of digestible and metabolizable energy in processed soybean and rapeseed products fed to growing pigs. D. M. D. L. Navarro^{1,*}, Y. Liu¹, T. S. Bruun², H. H. Stein¹, ¹University of Illinois at Urbana-Champaign, Urbana, ²Danish Pig Research Centre, Danish Agriculture and Food Council, Copenhagen, Denmark.

An experiment was conducted to determine the digestibility of energy and the concentrations of DE and ME in 2 sources of enzyme-treated soybean meal (ESBM-1 and ESBM-2), extruded soybean meal (SBM-EX), soy protein concentrate (SPC), conventional dehulled sovbean meal (SBM-CV), conventional 00-rapeseed expellers (RSE), and in a fermented co-product mixture (FCM) fed to growing pigs. Sixty-four barrows (initial BW: 19.81 ± 0.90 kg) were placed in metabolism cages and were allotted into a randomized complete block design with 8 diets and 8 pigs per diet. A corn-based diet and 7 diets containing corn and each of the experimental ingredients were formulated. Feces and urine were collected for 5 d after a 5 d adaptation period. The ATTD of GE in corn was not different from SBM-CV, but was greater (P < 0.05) than in the other ingredients. The concentration of DE in ESBM-1, ESBM-2, SBM-EX, SPC, SBM-CV, RSE, and FCM was 4,349, 4,121, 4,432, 4,460, 4,303, 3,793 and 3,610 kcal/kg DM, respectively, with a pooled SEM of 91 kcal/kg. The DE in corn (3,864 kcal/kg DM) was greater (P <0.05) than in FCM, but less (P < 0.05) than in SBM-EX, SPC, ESBM-1, and SBM-CV. The DE in SBM-EX was greater (P < 0.05) than in SBM-CV, ESBM-2, RSE, and FCM, but not different from SPC and ESBM-1. The concentration of ME in ESBM-1, ESBM-2, SBM-EX, SPC, SBM-CV, RSE, and FCM was 4,158, 3,782, 4,240, 4,226, 4,044, 3,522, and 3,364 kcal/kg DM, respectively, with a pooled SEM of 135 kcal/kg. The ME of ESBM-2 was less (P < 0.05) than in all other soybean products, but greater (P < 0.05) than in RSE and FCM. The ME of corn (3,780 kcal/kg DM) was less (P < 0.05) than in all soybean products except ESBM-2, but greater (P < 0.05) than in the rapeseed products. There was no difference in DE and ME between RSE and FCM, but the DE and ME for both ingredients were less (P < 0.05) than in all soybean products. It is concluded that there are differences among processed soybean products, with some having greater concentrations of DE and ME than others. However, the concentrations of DE and ME in all soybean products used in this experiment were greater than in rapeseed expellers and the fermented co-product mixture.

Key Words: energy, rapeseed products, soybean products