Net energy content of commercial and low-oligosaccharide soybean meal. R. B. Hinson*,1, D. Y. Kil2, A. D. Beaulieu3, L. L. Stewart2, J. Fei2, J. E. Pettigrew2, J. F. Patience3, H. H. Stein2, and G. L. Allee1, 1University of Missouri, Columbia, 2University of Illinois, Urbana, 3Prairie Swine Centre, Saskatoon, SK, Canada.

Two experiments were conducted in order to determine the NE of normal and low–oligosaccharide soybean meal (SBM) in growing and finishing pig diets. Forty growing (initial BW = 26 kg) and 40 finishing (initial BW = 89 kg) barrows were allotted to one of five groups with eight replications based upon initial BW within each growth period. Two groups were randomly selected to serve as an initial slaughter group. The remaining groups were randomly assigned to either a basal, commercial SBM (C–SBM), or low–oligosaccharide SBM (LO–SBM) diet and harvested at the conclusion of the study. Pigs were individually penned and were ad–lib fed for 28 and 35 days for the grower and finishing phases, respectively. The basal diet contained corn, fishmeal, and casein as protein sources, but did not contain any SBM. The test diets were obtained by mixing 75% of the basal diet with 25% of either the C–SBM or LO–SBM. During the growing phase, ADG and G:F were increased (P<0.01) when a source of SBM was added to the basal diet. However, there were no differences in ADG (1.02 vs. 0.96 kg/d) and G:F (0.54 vs. 0.52) between the diets containing C–SBM and LO–SBM, respectively. During the finisher phase, the addition of a SBM source reduced (P<0.05) ADG (1.17 vs. 1.32 kg/d) and ADFI (3.59 vs. 3.94 kg/d) but did not affect G:F (P>0.1) when compared to the basal diet. Apparent total tract digestibility of protein was increased (P<0.001) in both the grower (80.0 vs. 68.3%) and finishing (84.4 vs. 75.5%) phases when a SBM source was added to the basal diet. Protein accretion was higher (P<0.05) in pigs consuming C–SBM (179.5 g/d) when compared to LO–SBM (157.1 g/d). While not statistically different (P>0.05), the NE (DM basis) of LO–SBM was numerically greater then that of C–SBM in both the grower (1,990 vs. 1,634 kcal/kg) and finishing (2,554 vs. 2,150 kcal/kg) periods. The NE of the SBM sources were also numerically greater (P>0.05) in the finishing period than in the growing period.

Key Words: pigs, low–oligosaccharide soybean meal, net energy