

323 Evaluation of fermented soybean meal in diets fed to weanling pigs. O. J. Rojas*², B. G. Kim¹, and H. H. Stein¹, ¹National University of Colombia, Bogota, Colombia, ²University of Illinois, Urbana.

PepSoyGen[®] (Nutraferma, Sioux City, IA) is a novel feed ingredient that is produced from fermentation of high protein soybean meal in the presence of *Aspergillus oryzae* and *Bacillus subtilis*. This product contains on an as-fed basis 91.3% DM, 53.7% CP, 3.11% Lys, 0.76% Met, 0.8% ether extract, 3.3% crude fiber, 0.29% Ca, and 0.82% P. The objective of the experiment was to compare performance of pigs fed diets containing PepSoyGen with performance of pigs fed diets containing fish meal or whey powder. A total of 300 pigs with an initial BW of 7.67 ± 0.84 kg were allotted to 5 treatments in a randomized complete block design based on initial BW. There were 10 replicate pens per treatment and 6 pigs per pen. Pigs were weaned 7 d before the start of the experiment and had been fed a common phase 1 diet from weaning and until the start of the experiment. The diets fed during the initial 2 weeks of the experiment were 1) the positive control diet containing 8% fish meal and 15% whey powder, 2) the negative control diet in which all fish meal and whey powder were replaced by corn and soybean meal, 3) a diet where PepSoyGen (9.0%) replaced fish meal, 4) a diet where PepSoyGen (2.5%) replaced whey powder, and 5) a diet where PepSoyGen (11.5%) replaced both fish meal and whey powder. Soybean oil and crystalline AA were included as needed to balance the concentration of ME, Lys, Met + Cys, Thr, and Trp among diets. From d 14 to 35 of the experiment, pigs were fed a common diet based on corn and soybean meal. Results of the experiment showed that from d 0 to 14, there were no differences among treatments in ADG (306, 303, 302, 280, and 316 g/d) and ADFI (452, 428, 438, 428, and 438 g/d), but G:F (0.677, 0.708, 0.693, 0.654, and 0.722) was greater ($P = 0.023$) for pigs fed the diet containing PepSoyGen and no fish meal or whey powder compared with pigs fed the positive control diet or the diet in which PepSoyGen replaced only whey powder. During the following 3 wk, growth performance was not different among treatment groups. The present results indicate that PepSoyGen can effectively replace protein sources of animal origin in diets fed to weanling pigs.

Key Words: fermented soybean meal, PepSoyGen, pigs