

780 Growth performance of weanling pigs fed diets containing copra meal, palm kernel expellers, or palm kernel meal. N. W. Jaworski*, J. C. Gonzalez-Vega, and H. H. Stein, *University of Illinois at Urbana-Champaign, Urbana.*

Three experiments were conducted to separately evaluate copra meal (CM), palm kernel expellers (PKE), and palm kernel meal (PKM) in phase 2 diets for weanling pigs. In Exp. 1, 128 pigs (initial BW = 9.2 ± 1.2 kg) were randomly allotted to 4 diets that were fed for 20 d. There were 4 pigs per pen and 8 replicate pens per treatment. The control diet was based on corn, soybean meal, and 4% fish meal. Three additional diets were formulated by including 5, 10, or 15% CM at the expense of corn and soybean meal. Diets were formulated to contain equal quantities of digestible AA and P, and ME. Individual pig BW was recorded at the start of the experiment, on d 10, and at the conclusion of the experiment. Daily feed allotments were recorded and feed left in the feeders were recorded on the same day as pigs were weighed. In Exp. 2, 128 pigs (initial BW = 9.8 ± 1.0 kg) were randomly allotted to 4 diets. This experiment was similar to Exp. 1 with the exception that 0, 5, 10, or 15% PKE rather than CM was included in the diets. Exp. 3 was also similar to Exp. 1 with the exception that 0, 5, 10, or 15% PKM were used and a total of 160 pigs (initial BW = 8.4 ± 1.3 kg) were allotted to the 4 treatment diets with 5 pigs per pen and 8 replicate pens per diet. Linear and quadratic effects of including increasing levels of CM, PKE, and PKM were determined using orthogonal CONTRAST statements in SAS. Results indicated that weanling pigs fed increasing levels of CM had a linear reduction ($P < 0.05$) in final BW (19.5, 19.1, 18.9, and 18.5 kg), overall ADG, and overall ADFI, but overall G:F was not influenced by CM in the diet. Pigs fed increasing levels of PKE also had a linear reduction ($P < 0.05$) in final BW (20.3, 19.6, 19.9, and 19.2 kg) and overall ADG, but overall ADFI and G:F were not influenced by PKE in the diet. However, if PKM was used, no differences in final BW and overall ADG, ADFI, or G:F were observed. In conclusion, if diets are formulated based on digestible nutrients and ME, phase 2 diets for weanling pigs may include up to 15% PKM without affecting overall performance, but this is not the case for CM and PKE.

Key Words: copra meal, palm kernel products, pig