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139 **Effects of high-protein canola meals fed to weanling pigs on growth performance, organ weights, bone ash, and blood parameters.** C. K. Parr\*, Y. Liu, C. M. Parsons, H. H. Stein, *University of Illinois at Urbana-Champaign, Urbana.*

An experiment was conducted to evaluate the effects of 2 high protein canola meals (CM-A and CM-B, respectively) and a conventional canola meal (CM-CV) on growth performance, organ weights, bone ash, and blood parameters of weanling

pigs. Inclusion rates of canola meal in the diets were 10, 20, 30, or 40% for CM-A and CM-CV and 10, 20, or 30% for CM-B. A control diet containing corn and soybean meal and no canola meal was also used. A total of 420 pigs (initial BW:  $9.8 \pm 1.1$  kg) were divided into 3 blocks and randomly allotted to 1 of the 12 diets with 8 replicate pens per treatment and 4 or 5 pigs per pen. At the conclusion of the 3-wk experiment, one pig per pen was sacrificed to measure organ weights, blood parameters, and bone ash. Results indicate that ADFI was linearly ( $P < 0.05$ ) reduced as CM-A, CM-B, or CM-CV were included in the diets, and ADG for pigs fed CM-A tended to increase quadratically if 10 or 20% canola meal was used ( $P = 0.06$ ). However, G:F was linearly increased ( $P < 0.05$ ) by adding CM-A or CM-CV to the diets. Liver weights were linearly increased ( $P < 0.05$ ) when pigs were fed diets containing CM-B, but kidney weights were linearly decreased ( $P < 0.05$ ) if CM-CV was used. Thyroid gland weights increased (linear,  $P < 0.05$ ) for pigs fed diets containing CM-A, but heart and bone weights were not influenced by canola meal. Addition of any of the 3 canola meals to the diets increased (linear,  $P < 0.05$ ) bone ash percentage. Inclusion of CM-A or CM-CV decreased (linear,  $P < 0.05$ ) serum triiodothyronine, and the inclusion of CM-A also decreased ( $P < 0.05$ ) serum thyroxine concentrations. No differences were observed for complete blood counts and blood urea nitrogen when canola meal was added to the diets. In conclusion, conventional or high-protein canola meals can be included by at least 20% in diets for weanling pigs without reducing growth performance or negatively affecting organ, bone, or blood parameters, but greater inclusion levels may result in reduced performance.

**Key Words:** canola meal, growth performance, pigs

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