
0451 Performance of pigs fed diets containing canola meal produced from high protein or conventional varieties of canola seeds. Y. Liu*, T. Maison, and H. H. Stein, *University of Illinois at Urbana-Champaign, Urbana.*

Two experiments were conducted to determine effects of including high protein canola meal (CM-HP) or conventional canola meal (CM-CV) in diets fed to weanling pigs or growing-finishing pigs. In Exp. 1, 405 weanling pigs (10.07 ± 1.41 kg) were randomly allotted to 9 dietary treatments, with 9 replicate pens per treatment and 4 to 6 pigs per pen. Nine diets were prepared with the control diet being based on corn and soybean meal (SBM) and 8 diets were formulated by adding 10, 20, 30, or 40% of either CM-HP or CM-CV to the control diet. The experiment lasted 21 d. Increased inclusion rate of CM-CV increased (quadratic, $P < 0.05$) ADG of weanling pigs. Increased inclusion rate of CM-HP or CM-CV decreased (linear, $P < 0.05$) ADFI, but increased (linear, $P < 0.05$) G:F of weanling pigs. Weanling pigs fed CM-CV had greater ($P < 0.05$) ADG and G:F than weanling pigs fed CM-HP. In Exp. 2, 280 pigs (27.4 ± 2.92 kg) were randomly allotted to 7 dietary treatments. A 3-phase feeding program was used with grower diets fed from 27 to 57 kg, finisher-1 diets from 57 to 85 kg, and finisher-2 diets from 85 to 112 kg. The 7 treatments consisted of a corn-SBM diet (control) and 6 diets containing a low, medium, or high level of either CM-HP or CM-CV. Low, medium, and high levels of canola meal were defined as the levels needed to replace 33, 66, or 100% of SBM in the diets. Increased inclusion rate of CM-HP decreased (linear, $P < 0.05$) pig BW at the end of phase 2 and at the end of the experiment, decreased (linear, $P < 0.05$) G:F in Phase 2 and the overall period, and decreased (quadratic, $P < 0.05$) ADG in Phase 3. Increased inclusion rate of CM-CV increased (linear, $P < 0.05$) ADFI, but reduced (linear, $P < 0.05$) G:F in Phases 2 and 3 and for the overall period. Growing-finishing pigs fed CM-CV had greater ($P < 0.05$) ADG and ADFI than pigs fed CM-HP. In conclusion, inclusion of 20 to 30% CM-HP or CM-CV have no negative effects on growth performance

of weanling pigs and CM-CV and CM-HP may replace up to 66% of the SBM in diets for growing-finishing pigs.

Key Words: canola meal, high protein canola meal, pigs