

Volvetkanola: Alternatiewe proteïenbron vir groei- en afrondvarke

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Summary

Canola (*Brassica napus*), cultivar Oscar [260 g kg⁻¹ crude protein (CP) and 410 g kg⁻¹ ether extract (EE)], was evaluated as alternative protein source in diets of weanling and grower-finisher pigs. Four diets for weanling pigs were formulated on an iso-nutrient basis [approximately 16.2 MJ kg⁻¹ DM digestible energy (DE), 198.9 g kg⁻¹ CP, 15.2 g kg⁻¹ lysine, 8.3 g kg⁻¹ methionine and cystine and 2.4 g kg⁻¹ tryptophan on a DM-basis] so that full-fat soy-bean meal was substituted by increasing levels of full-fat canola meal (0%, 8%, 16% and 24%). Similarly four diets for grower-finisher pigs were formulated on an iso-nutrient basis (approximately 14.9 MJ kg⁻¹ DE, 178 g kg⁻¹ CP, 10 g kg⁻¹ lysine, 6.8 g kg⁻¹ methionine and cystine and 2.2 g kg⁻¹ tryptophan on a DM-basis), where soy-bean oilcake meal was substituted in the same way. Weanling pigs (n = 80) were fed *ad libitum* from 9.6 to 26.7 kg live weight. Grower-finisher pigs were fed *ad libitum* from 22.9 up to 91.11 kg, whereafter pigs were slaughtered, carcass characteristic determined and back-fat samples taken. No significant difference in the intake, growth rate or feed conversion of weanling pigs was observed. The inclusion of up to 24% canola had no significant effect on feed intake, live weight gain or feed conversion ratio of growing-finishing pigs, although regression analysis revealed a linearly decrease of 21.7 (SEb = 5.9) g day⁻¹ in growth rate with increasing canola levels. The back-fat of pigs consuming diets with 16% and 24% full-fat canola in their diets has 13% ($P \leq 0.05$) higher iodine numbers than pigs that received 0% and 8% full-fat canola in their diets. Generally all saturated fatty acids decrease while mono-unsaturated and poly-unsaturated fatty acids increase with increasing levels of canola in the diets.