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Rapeseed « OO » associated to wheat or maize in the bacon pig feeding

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In order to determine whether the effect of incorporating low glucosinolate rapeseed meal (LGRM) into diets for growing-finishing pigs (25-103 kg) depended or not on the basal cereal used, four diets were compared : two maize-based diets and two wheat-based diets containing 0 or 12 p. 100 LGRM. All the diets included 25 p. 100 spring peas and more or less soyabean meal so as to provide 2.65 g/1 000 kcal DE. The maize and wheat diets supplemented with peas and rapeseed meal contained 3.0 and 0 p. 100 soyabean meal, respectively.

Feed intake corresponded to the feed restriction plan. No interaction between the cereal (maize or wheat) and rapeseed meal (0 or 12 p. 100) was observed on the main characteristics of growth and carcasses. The four diets led to almost the same growth rate (687, 682, 688 and 704 g/d, respectively). Feed conversion ratios were similar (3.27 ; 3.39 ; 3.35 and 3.36). A slight reduction in the carcass yield was observed with diets containing rapeseed meal (77.5 ; 77.4 ; 77.5 and 77.2 p. 100). Carcass composition was almost equivalent with the four diets (the loin/backfat ratio was 3.77 ; 4.09 ; 3.34 and 3.49, respectively). The muscle percentage was slightly higher with diets including rapeseed meal and with maize-based diets.

Thus, incorporation of LGRM has an effect independent of the cereal used, at least up to 12 p. 100 and when nitrogen supply is sufficient. In practice, the association peas-LGRM can totally replace soyabean meal.

Prediction of the energy value of sunflower oilmeals from cell wall content

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Two digestibility experiments were made successively to determine the nutritive value of sunflower oilmeals for the pig. In *the first experiment*, several types of oilmeals prepared with sunflower seeds of the same origin were compared : a normal oilmeal issued from whole seeds, two dehulled « type 40 » oilmeals obtained by two processing methods and one oilmeal made of pure sunflower kernels. All the experimental diets were based on wheat. Normal oilmeal was tested at two levels of incorporation : 10 and 20 p. 100, whereas the dehulled and pure kernel oilmeals were incorporated into the diets only at the level of 20 p. 100. In *the second experiment*, the control diet was also based on wheat (group 1), the experimental diets included 20 p. 100 pure kernel oilmeal (groups 3, 4 and 5) admixed or not (group 2) with increasing proportions of sunflower hulls in order to reconstitute a dehulled « type 40 » (group 3) oilmeal, a normal oilmeal (group 4) and a high fibrous oilmeal (group 5).

The experiment involved 44 *Large White* castrated male pigs with a mean liveweight of 37.5 kg kept in individual pens specially fitted for digestive balance. After an adaptation period, excreta (faeces and urine) were collected for 10 consecutive days.

The matrix of simple correlations showed that the energy value (DE) of oilmeals highly depended ($r = -0.96$) on their cell wall (CW) content. The same holds true for the other parameters highly correlated with the latter, like proteins. Equations of similar accuracy