

(MSG) currently used in human feeding as flavouring agent and/or flavour enhancer has been shown to improve the palatability of diets for piglets and calves. However, these trials have been made in free-choice feeding conditions. In order to confirm these results with a single feed, we compared a conventional starter to the same diet supplemented with 0.5 p. 100 MSG.

This trial involved 10 consecutive batches, i.e. a total of 120 litters of 10 suckled piglets and 7 consecutive batches, i.e. 84 pens of 7 weaned piglets. Feeds were fed ad libitum as pellets.

During suckling, MSG improved feed intake by 35 p. 100 as compared to the control diet without modifying daily weight gain. The difference was highly significant and even reached 53 p. 100 between 18 days of age and weaning. After weaning, MSG incorporation increased feed intake (+ 10.3 p. 100) and daily weight gain (+ 6.7 p. 100). The effect of MSG was more marked in piglets exhibiting a small or mean live weight at weaning (feed intake + 15 p. 100 and DMG + 10 p. 100). By contrast, this effect was not observed in piglets with a live weight at weaning exceeding 8.3 kg.

Effect of different dietary energy contents on the performance of growing-finishing pigs

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Two trials were made in restricted feeding conditions to study the effect of energy concentration on the performance of growing-finishing pigs. Four diets maize — winter barley — soyabean meal — fat and bran were formulated so as to supply 2,900-3,100-3,300 and 3,500 Kcal DE/kg (estimated by the additive method).

In the first trial, the three high energy diets were ingested somewhat as expected by the feeding scheme. Digestible energy intakes were similar. Energy was used with about the same efficiency since daily gains differed by less than 1.1 p. 100. Thus, feed conversion ratios reflected the differences in the energy concentration. Feed intake was slightly lower (– 1.3 p. 100) with the low energy diet and the energy was much less well used for growth (feed conversion ratio 5.6 p. 100 higher than that of the first two diets) and thus, weight gain was about 7 p. 100 lower. Carcass yield was not affected by the energy concentration except with the low energy diet. Fat deposition was slightly higher with the two higher energy diets.

In the second trial, digestible energy intakes were similar with the four diets. This energy tended to be less well used for growth as the dietary energy concentration decreased. Carcass yield increased with the dietary energy concentration except with the lower energy diet. Carcass qualities were similar, but fat deposition tended to be lower with diets of medium energy concentration as compared to the other two regimens.