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Effect of food restriction on growth performances and visceral measurements in young rabbits between 5 and 8 weeks of age

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fed *ad libitum* until slaughter at 2 kg live weight, as either pellets, mash (60 p. 100 meal, 40 p. 100 water) or meal in a 2 × 3 factorial design with 4 replicates.

Daily liveweight gain (DLG) over a 6 week period for 8 M/D mash and meal diets were — 0.264 and — 6.218 g DLG on 8 M/D pellets was 20.73 g, and was significantly lower ($P < 0.01$) than on any of the 12 M/D treatments. DLG for diets 12 M/D pellets, mash and meal were 33.10, 27.90 and 26.51 g, respectively ($SED \pm 2.321$ g); the pelleted diet gave significantly higher DLG than meal ($P < 0.05$). Mean total DM consumptions of 8 M/D pellets, 12 M/D pellets, mash and meal were 4.688, 1.985, 1.941 and 2.552 kg ($SED \pm 0.614$), respectively. Differences were significant ($P < 0.001$) between 8 M/D and 12 M/D diets.

Killing-out percentages (KO p. 100) were 57.53, 59.08, 61.02 and 63.14 for 8 M/D pellets, 12 M/D pellets, mash and meal diets, respectively ($SED \pm 2.92$). The 12 M/D meal diet gave significantly ($P < 0.05$) higher KO p. 100 than the pelleted diets, while gut contents were significantly ($P < 0.01$) heavier from the 8 M/D diet.

8 M/D mash and meal diets are clearly unsuitable for growing rabbits. The results show that both metabolisable energy concentration and form (particularly with low energy diets) are important in determining food consumption and therefore growth rate and certain carcass characteristics.

Effect of food restriction on growth performances and visceral measurements in young rabbits between 5 and 8 weeks of age

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Forty-eight Californian rabbits of both sexes, aged 5 weeks, were distributed into 4 groups corresponding to 4 techniques of administration of the same pelleted diet.

A group: *ad libitum* feeding every day.

B group: Free access to pellets only during 5 days a week, i.e. Tuesday, Wednesday, Friday, Saturday and Sunday.

C group: Daily administration of a limited quantity of pellets corresponding to 71 p. 100 (= 5/7) of the *ad libitum* feeding of an preexperimental group.

D group: Every week, supply of the same quantity of pellets as in group C, but only two times a week on Tuesday (3/7) and Friday (4/7).

The animals were slaughtered at 8 weeks of age and visceral measurements were made.

Daily food intake during 21 days was similar for the 3 restricted groups (B, C, D) and the mean, 21 p. 100 lower than for group A. As compared with group A, the daily live weight gain of group C was reduced by 27 p. 100, that of groups B and D by 48 p. 100. Considering the daily carcass weight gain, the reduction was similar for the 3 restricted groups (22 to 29 p. 100). Stomach and small bowel weight were not affected by any type of restriction. Caecum was heavier for group C, but colon weight was reduced by 15 p. 100 for groups B and D. The content of viscera was enhanced for the stomach in groups C and D and for caecum in all restricted groups (+ 41 to + 44 p. 100). The liver weight was quite the same for groups A, B and D, reduced by 27 p. 100 for group C.
