

digestible energy concentration. However, this effect only appeared during the 2nd age period, barley being as efficient as maize immediately after weaning (1st age feed).

Pelleting of weaning feeds improving the feed efficiency also reduced the frequency of diarrhoea and therefore seemed to be very favourable in particular for the youngest and lightest animals at weaning.

Study of some factors of variation of the digestive transit in pregnant sows (crude fibre level and constipation)

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Use of high energy diets with low crude fibre levels was studied in pregnant sows. The experiment showed the existence of:

- a relationship between the crude fibre level and the transit rate owing to the utilization of markers (chromium oxide);
- an increase in the apparent digestibility of the diet after reduction of the cellulose level.

Comparative utilization of the three French barley varieties by the growing-finishing pig

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A comparison was made in the bacon pig between three types of barley: spring barley, two-row winter barley and six-row winter barley and an energy rich cereal, *wheat* (trial 1 during the finishing period) as well as *maize* (trial 2 during the growing-finishing period). The cereals were supplemented with soybean meal so that the protein supply be not limiting.

The digestible energy value of the barleys was estimated according to Henry and Bourdon's proposals by taking into account their crude fibre and moisture contents assuming that, in terms of energy, 2.13 points water equal 1 point crude fibre. In each trial the animals received daily the same digestible energy supply, the feed restriction schedule being modulated according to the energy concentration of the diets.

In both trials we obtained comparable growth performances with the different diets, 665 g and 688 g/d, respectively. The energy ratios were also very close whatever the control cereal or the type of barley used, 11.39 Mcal/kg \pm 0.22 and 9.90 Mcal/kg \pm 0.12.

This relative steadiness of the energy ratio confirmed our results and the information from literature. The feed conversion ratios (kg feed/kg live weight gain) increased therefore with the crude fibre content of the barley variety used, the discrepancy between energy cereals and barleys reaching 10 p. 100 on an average at the expense of the latter.

Thus, the correction proposed by Henry and Bourdon seems to be interesting. It is based upon the variation of the energy apparent digestibility coefficient according to the crude fibre level. Thus using as a basis the digestible energy implies a constant gross energy value whatever