

**Houses for early weaned piglets :
influence of rearing on the floor or in batteries,
temperature and feeding on the performances of the animals**

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This trial was made on a total of 144 piglets from 24 litters (6 homogenous piglets per litter) distributed into 3 groups in order to determine the influence of rearing conditions (housing, room temperature) and feeding on the animals performances between weaning at 36 ± 3 days and 70 days of age.

Housing characteristics were the following :

- Traditional rearing house, concrete floor with straw, room temperature $17^{\circ} \pm 1,5^{\circ}$ relative humidity 70 ± 10 p. 100, continuous housing of the animals (group 1).
- Weaning house with flat-deck batteries on wire floor divided into 2 compartments : one at $18,4^{\circ} \pm 1^{\circ}\text{C}$, relative humidity 61 ± 10 p. 100 (group 2), the other at $23,3^{\circ} \pm 1^{\circ}\text{C}$, relative humidity 51 ± 1 p. 100 (group 3), all-in-all-out housing system.

During the 2 weeks (period I) following weaning, the piglets received the same feed containing 5 p. 100 skim-milk powder and during the 3 following weeks (period II), skim-milk powder was *not* added to the diets of half of the animals.

Growth rates (g/d) of the animals reared on the floor and in batteries were the following : 148 and 236 (period I), 425 and 495 (period II). *i. e.* differences in favour of the animals reared in batteries ranging from 16 to 60 p. 100 ($P < 0.05$) according to the period of measurement. The health of the piglets estimated by number of days with diarrhoea per animal and per period was also better in the latter animals.

For piglets reared in batteries, the performances obtained at 18°C or at 23°C were not significantly different when the diet contained skim-milk : 233 g gain per day at 18°C versus 240 g at 23°C (period I) and 523 versus 524 (period II) Suppression of the milk caused a significant lowering ($P < 0.05$) of the growth rate only in the animals kept in batteries at a temperature of 18°C (significant interaction between the temperature and the diet).

These findings show the impact of the mode of rearing (on the floor or in battery) and of housing conditions (all-in-all-out system) on the performances of weaned piglets.

Furthermore, piglets weaned at 5 weeks and placed in batteries can be reared at a room temperature of 18°C provided that the diet contains skim-milk powder.