

Palatability of piglet diets : role of salt and sugar

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Incorporation of certain proportions of sugar (5 to 10 p. 100) into piglet-diets, with the aim of increasing the palatability has long been recommended. Four successive experiments were conducted using two methodologies in order to determine the nutritional and economic significance of this practice.

In a first experiment the palatability of two feeds was compared : the one coated with sugar (5 to 7 p. 100), the other (control feed) containing 5 p. 100 sugar and offered as a single diet to four successive litters of piglets weaned at 8 weeks. The feed intakes appeared to be identical at 35 or 56 days of age. These results show that coating of the feed was not advantageous. When a *single feed* including pellets with 5 to 15 p. 100 of sugar was allotted to each litter (31 replicates per treatment) identical results were obtained.

Furthermore, when comparing simultaneously the feed intake of piglets receiving diets containing either sucrose or glucose, the results are different according to the methodology used. If several feeds were offered at the same time, the animals weaned at 35 days showed a rapid and exclusive preference for the feed containing 5 p. 100 sucrose (512 g feed intake per day) to the detriment of the feed containing 5 p. 100 glucose (71 g feed intake per day) and of the feed containing 5 p. 100 starchy mixtures with saccharin (feed intake : 141 g per day). Conversely, if the animals received a single feed containing 5 p. 100 sucrose, 5 p. 100 glucose or 10 p. 100 glucose, the feed intakes during the same period were identical (651, 644 and 655 g/day/piglet respectively).

In the case of supplementation with various levels of salt (NaCl), *i. e.* 0.5 to 1 p. 100, the suckled animals showed a marked, rapid and definitive preference for the non-supplemented feed, although only the feed supplemented with 0.5 p. 100 of salt corresponded to the quantitative chlorine and sodium requirements.

These results suggest that the notion of palatability *measured by the preference of the piglet for such and such feed according to a free choice*, remains very subjective.

Thus, such a methodology should not be used to estimate the quantitative requirements for sucrose and sodium chloride in the piglets.