

The amounts of mineral components and the sludge loads excreted (parameters expressed in g/day/animal) are not significantly different according to the type of feeding and in an animal of comparable weight receiving an equivalent amount of dry matter.

The amount of excreta is highly correlated with the amount of feed ingested, but depends also on the nutrient quality. For instance, ingestion of 23 liters whey would produce an excretion of dry matter equivalent to that obtained with the ingestion of 1 kg flour.

### **Farm wastes in the Lamballe-Matignon region (Côtes-du-Nord)**

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The Lamballe-Matignon region has greatly developed its pig and egg production. In 27 towns, 42 000 fattening sows and 240 000 fattening pigs (0.9 fattening sow and 5 fattening pigs per ha agricultural area) and 2 700 000 poultry were recorded.

Taking into account all the animal species, the excreta may produce per ha agricultural area and per year 160 N units, 125 P<sub>2</sub>O<sub>5</sub> units and 120 K<sub>2</sub>O units corresponding to a complete soil fertilization. However, there are frequently losses of the fertilizing elements from animal excreta (at collection, storage and manure spreading) and a reduced efficiency on the cultures, especially for nitrogen. Moreover, the available quantities of excreta are variable depending on the towns and the farms and do not always correspond to the culture needs. For instance, 246 farms produce more than 400 N units/ha, which exceeds their fertilization needs. Others could use more than they produce.

An individual inquiry was made among 133 farmers possessing at least 50 fattening sows or 400 fattening pigs. Most farms have surpluses in N, P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O, which are still increased by the supplies of manure to neighbours and purchases of commercial fertilizers.

Soil analyses were made on 103 parcels, 79 of which had received manure regularly for at least 5 years, not the 24 others. These analyses showed the P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O enrichment of the soils due to animal excreta.

Thus, in this region savings could be made on mineral fertilizers. A better valorization of animal excreta could be obtained from a better knowledge of their fertilizing value, an improvement of pig mature quality, an increase in storage capacities and a development of exchanges between animal producers and neighbour farmers.

### **Pig manure utilization in a region with pig production units**

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The results of an inquiry on the pig manure problem made in Brittany during the summer 1980 among 147 farmers have allowed to determine some of the components of this problem.