The mean values obtained from samples of manure from fattening pigs were the following:
— % dry matter: Ca = 4,8; Mg = 1.5; Na = 1.1
— ppm dry matter: Zn = 1,120 — Fe = 2,620 — Cu = 838 — Mn = 576.

The results obtained in this study cannot be easily extrapolated to all types of manure. The kind of feeding greatly affects the variation in manure composition. However, for one and the same farm, the variations are small and determination of the dry matter leads to a good approximation of the fertilizing value of the manure. For establishing a general " manure plan " or for correcting errors committed in the feeding, an analysis of a sample of manure from each farm is required.

VII. — Economics

Financial requirements and economic returns in pig production under different production conditions

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Four types of pig rearing and fattening farms of identical size and productivity are analysed. The differences pertain to investment levels, labour requirements, feed production and the existence of a traditional farm system or not. The previsional study of six years is based on analyses of economic efficiency and of investment financing. The results are given before tax deduction. Return to total capital varies from one to three and the differences of return to own capital are much more important. The financial situation is difficult for production units with purchased feed without the support of a traditional farming system. Pig production under these conditions can only survive with a high productivity. The production units having particular advantages at their disposal (existing buildings, on-farm produced cereals, even partially, a lower feed cost) are able to realize their growth stepwise by fully employing available labour at the beginning of the process in order to overcome more easily the financial difficulties of production.

Financial requirements and economic returns in pig production according to productivity

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The author compares two pig producing farms with identical investment and financing conditions but different technical productivities: on farm A, performances correspond to those of 1975, on farm B, performances correspond to those of the best farms in 1975, i.e. 30 per cent of the farms studied. A six year period is considered starting from the moment of investment. Figures are obtained through a simulation of physical flows and a financing model, the PLANFI (I.N.R.A. - Crédit Agricole).

The results clearly indicate the superiority of farm B, net average return increases from 1 to 10,4 per cent, farm income, return to labour and capital and gross margin of self-financing