

A great number of studies show that a more « economical » pig production is interesting for the farmers, as a supplementary production. The present economic situation requires a diversification of production systems and changes in the agricultural policy leading to allocation of state subsidies to other farms than the most modern ones.

II. — GENETICS

Pig production in Corsica. An activity deserving interest?

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Marginal zones do not only represent relics of the past. They result from a decrease in the biological potential. Thus in Castagniccia (Corsica) the pig which the last century belonged to the complex autarchic system has become the only user of a chesnut grove losing gradually its fertility. Formerly kept in pens, the pig is nowadays subjected to an extensive badly controlled management. In the present socio-economic situation it may be asked whether there is any place for extensive pig management? This question suggests other ones: is there place for non specialized management systems?

Is it possible or desirable to consider and promote research adapted to a large range of users? Which should be the trends of this research? We have no precise answer yet, but the problem should be considered if we want to reduce the process of impoverishment leading to an increase in the extent of marginal zones.

Some data on the Corsican pig breed

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In extensive pig production, the productivity should not be the main concern of the farmer. However, this is not incompatible with an assessment of the potentialities of the animals used. This is the case for Corsican pigs. According to observations made in small herds at C.N.R.Z. (National Centre for Animal Husbandry Research), the litter size of this breed is 5.4 piglets and the mean weight 1 kg. The litter size at weaning (60 days) was 3.7 piglets with a mean

weight of 7.1 kg. The growth rates were very low, the animals reaching the weight of 22-23 kg at six months, 60 kg at 12 months and 100 kg at 18 months. Some data uneasily collected on the field confirm the restricted abilities of this breed as regards the current performance parameters. According to this it may be asked whether this population presents any interest. The answer is yes. The scientist may indeed use the isolated situation of Corsican pig production to develop simple and unexpensive performance testing methods intended for more conventional environments. He may attempt to determine the specific abilities of the breed owing to which it has been able to persist despite the improved breeds. He may also attempt to promote a policy preconizing use of genotypes according to environments. In addition hardy breeds may be used as laboratory animals.

Heritability of individual performance in a pig herd Genetic significance of the deviation from batch average

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The heritability of 3 groups of Large White and Landrace pigs representing a total of 50 873 animals was calculated using the analysis of variance according to various hierarchical classification models.

The method of deviation from batch average (a birth to three week period) widely used in France for presenting the on-the farm tested individual performances involves a certain number of disadvantages. The batch average is not only the result of rearing conditions, but is also due to genetic factors. Consequently, it is not possible to compare the performances of animals from one batch to another, and even less from one herd to another. Nevertheless, the heritability values obtained with the less questionable method were very close to those classically found:

$h^2 = 0.20$ to 0.25 for growth and

$h^2 = 0.45$ to 0.50 for backfat thickness.

Comparative study of fattening and fatness performance of entire males from three pig breeds according to terminal fattening weight

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A study concerning on the one hand the variation in the performances of three breeds: Large White, Landrace and Belgian Landrace during late fattening, and on the other hand, the consistence of performance test data until 90 kg live weight or 100 kg live weight, was made in young boar performance testing stations. The data collected from the 436 experimental animals showed that the correlations observed between the variables 90-100 kg and 35-90 kg were low (from 0.20 to 0.30).

These results emphasized the importance of late fattening and difficulty of extrapolating performance from 90 to 100 kg. On the other hand, the fitting error was smaller from 100 to 90 kg.

Ranking of the animals until 90 or 100 kg varied within reasonable limits (between 90 and