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 totai 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:

$h2 = 0.20$ to 0.25 for growth and

$h2 = 0.45$ 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

100 kg, the ranking of 70 p. 100 of the animals varied less than 10 ranks). From 85 kg live weight large differences were observed between breeds for criteria such as fattening and increase in backfat according to live weight. This pointed out the difficulty of using the same coefficients of performance fitting for several breeds.

III. — CARCASS AND MEAT QUALITY

Backfat androstenone content in entire male pigs of the large white breed: Variations according to social conditions during rearing

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The influence of social conditions during rearing on the variations in backfat androstenone content according to live weight was studied in two experiments. In the first one 34 entire male pigs were compared according to a 2 × 2 factorial design: the animals were reared in individual or collective pens either with or without visual and olfactive contact with gilts of the same age.

In the second experiment 20 entire male pigs were reared in contact with gilts either in individual or in collective pens. A radio immunoassay of androstenone was performed twice for each animal: First in a biopsy of backfat made at 80 kg live weight and then in a sample of backfat taken from the carcass. The pigs were slaughtered at 95 kg live weight in the first experiment and at 107 kg in the second one.

At 80 kg live weight (approximately 150 days of age) the mean androstenone was low (0.31μ g/g in the first experiment and 0.41μ g/g in the second one), but the variability was already quite large. When animals were slaughtered at an early stage (95 kg and 167 days in the first experiment), the mean androstenone content was only 0.55 μg/g with a high variability (range 0.23 to 2.55 μg/g). When pigs were slaughtered at a later stage (107 kg and 189 days in the second experiment), the mean androstenone content was higher (1.27μ g/g; range 0.21 to 5.13μ g/g). If considering the individual variation according to live weight one can distinguish between two groups of animals:

- for 32 p. 100 (first experiment) to 40 p. 100 (second experiment) of male pigs, there was no variation between the two stages,
- for the others (68 to 60 p. 100 of animals), backfat androstenone content increased. However there were very large individual variations in the rate of increase.

At 80 kg live weight, the backfat androstenone content was not affected by the social conditions during rearing. At 95 kg (slaughter weight in the first experiment) no influence of the social conditions on the mean androstenone content was observed; however the proportion of animals exhibiting no increase in androstenone content between 80 and 95 kg was significantly higher when male pigs were reared without contact with females. At 107 kg (slaughter weight in the second experiment) the mean androstenone content was significantly higher when animals were reared in collective pens.

In both experiments there was no relationship between backfat androstenone content and production parameters (feed intake, growth performance, feed efficiency). Coefficients of correlation between androstenone and carcass characteristics were not significant in the first experiment. In the second one, where the androstenone content was higher, a positive significant