varies from 8.90 to 9.07 when the age at weaning passes from 16-20 days to 41-45 days). This variation in the number of piglets produced per litter (0.17 piglets) is almost neglectable as compared to the loss of numerical productivity (number of piglets weaned/sow/year) consecutive to a 30 days-lengthening of lactation and of the interval between two farrowings. Thus, after 21 days of lactation, (the optimum being located between 17 and 22 days), any delay of 10 days at weaning and/or at conception leads to a loss of annual productivity of the sow of 1.4 piglets. Consequently early weaning appears to be an efficacious technique for improving the productivity of French sow herds.

I. — THE GROWING-FINISHING PIG NUTRITION

Reduction of protein level and supplementation with lysine of growing-finishing pig diets

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Reduction of the incorporation rate of soyabean oil-meal into the diets of growing-finishing pigs was examined in two experiments.

The first experiment was achieved on 5 groups of females weighing between 18 and 100 kg. In the first group (H), the animals were given a « growing » feed (19 p. 100 of soyabean, 17.7 p. 100 of crude protein, 0.86 p. 100 of lysine), then a « finishing » feed (15 p. 100 of soyabean, 16.0 of crude protein, 0.74 of lysine). Diets containing 14 then 10 p. 100 of soyabean (group M) gave slightly lower performances (weight gain, feed conversion). The supplementation of those diets (group ML) with lysine allowed to reach the same performances as in the reference group. A new reduction of the soyabean content (9 then 5 p. 100) (group B) resulted in a significant fall in the performances, which was stopped by the addition of lysine (group BL). This supplementation with lysine improved the body composition without rendering it as satisfactory as in the pigs of the H group.

The second experiment, achieved on a larger number of animals, castrated males and females, confirmed the preceding results, the performances of the BL group being equal to those of the H group.