

SUMMARY

CARCASS AND MEAT QUALITY OF NON CASTRATED MALE PIGS FROM 120 TO 140 KG :
ADDITION OF BHT TO MAIZE-SOYBEAN OR BARLEY-SOYBEAN DIETS

The production of non castrated *Large White* male pigs was studied from 20 to 120 or 140 kg live weight. The growth rate of these animals was defined by the length of the fattening periods : 100 days at 100 kg, 120 days at 120 kg, 140 days at 140 kg. Feeding with the maize-soybean diet allowed a total sparing of 42 kg dry matter compared to the barley-soybean diet. In addition, increased utilization of very energetic maize diets resulted in a lowering of the carcass quality due to excessive fatness. However, addition of 0.8 p. 100 of an antioxygen (BHT) to the diets brought about a limitation of this excessive fatness without application of feed restrictions. As a matter of fact, a *spontaneous* limitation of the appetite, particularly marked in heavy pigs (120-140 kg), was obtained by addition of BHT to the diets. The effects of BHT on the constitution of body fats will be defined more precisely later on.

The body characteristics of the non castrated heavy male pigs were determined. The low predicting value of cutting criteria and backfat thickness measurements was confirmed by the fatness of the carcasses determined by measurement of the specific gravity : the carcasses of the boars were leaner than those of the castrated male pigs of 100 kg. The paradox concerning production of « lean pigs after early castration » has thus been emphasized once more.

On the basis of organoleptic meat tests and independently of the results of laboratory controls concerning odour anomalies of fatty tissues, reserves were made about meat quality which was only scored 5/10 at 140 kg. The frequency of unpleasant odours due to boar taint was maximum (17.4 p. 100) for kidney fat at 120 kg and minimum (2.5 p. 100) for backfat at 140 kg. No odour anomalies due to boar taint could be noticed during the roasting or grilling of the meat. The origin of some of the unpleasant odours and savours observed in the meat of these animals has to be defined more accurately.

ESTIMATION DE LA FORME DU DOS ET DU REIN
DANS LA CARCASSE DE PORC

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RÉSUMÉ

La conformation du dos, du rein et de la croupe a été étudiée sur des carcasses de porcs mâles entiers de race *Large-White* de poids différents (poids moyen de carcasse respectivement de 94,3 et 108,6 kg). On a considéré six niveaux anatomiques (2^e vertèbre dorsale, entre la 8^e et la

9^e vertèbre dorsale, entre la 13^e et la 14^e vertèbre dorsale, entre la 2^e et la 3^e vertèbre lombaire, entre la dernière vertèbre lombaire et la 1^{re} vertèbre sacrée et au niveau du bord antérieur de la symphyse ischio-pubienne. La conformation était enregistrée à l'aide du profilomètre (DUMONT *et al.*, 1970, *Ann. Zootech.*, **19** (2), 235-237). Le contour de la carcasse était apprécié en relation avec le squelette sous-jacent. La conformation de la carcasse de porc variait grandement d'un niveau à l'autre et elle était améliorée par l'augmentation du poids de carcasse. La grande variation de l'épaisseur de « viande », latéralement à la colonne vertébrale, qui a été observée dans les deux groupes de porcs, suggère qu'il existe de très grandes différences dans la forme du dos, du rein et de la croupe entre porcs de même poids de carcasse. A partir des résultats obtenus ici il est proposé de juger la valeur de la carcasse des porcs en considérant, à la fois, la forme de la carcasse à différents niveaux de la colonne vertébrale et l'épaisseur du gras aux mêmes niveaux.

SUMMARY

EVALUATION OF CONFORMATION OF BACK, LOIN AND RUMP IN PIG CARCASS

Conformation of back, loin and rump has been studied in carcasses from entire male *Large White* pigs of two carcass weight classes (94.3 and 108.6 kg). Six anatomical levels were considered (2nd thoracic vertebra, between 6th and 9th thoracic vertebra, between 13th and 14th thoracic vertebra, between 2nd and 3rd lumbar vertebra, between last lumbar and first sacral vertebra and at the level of the anterior part of pubis). Conformation was recorded by using the profilometer (DUMONT *et al.*, 1970, *Ann. Zootech.* **19**, 235-237). The outline of the carcass was assessed in relation to the supporting skeleton. Conformation of the pig carcass varied greatly between the six levels considered and was improved when carcass weight increased. The great variation of the depth of flesh laterally to backbone which was observed in the two groups of pigs suggested that there are very large differences in the shape of back, loin and rump between pigs of the same carcass weight. From the results obtained here it is proposed to judge carcass value of pigs by considering both the shape of the carcass at different levels and the depth of backfat at the same levels.

ÉVOLUTION, AVEC LE POIDS D'ABATTAGE, DE LA COMPOSITION ANATOMIQUE DU JAMBON DE PORCS MÂLES ENTIERS DE RACE « LARGE-WHITE »

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RÉSUMÉ

On a étudié la composition anatomique des jambons de porcs mâles entiers de race *Large-White* abattus à 80 (N = 15), 100 (N = 18), 120 (N = 14) et 140 kg (N = 16). On a trouvé à chacun des quatre stades de faibles différences dans les pourcentages des muscles (respective-