

D/1 JACQUET ET AL. : APPRÉCIATION DE L'APTITUDE DU JAMBON DE PORCS
PIÉTRAIN X LARGE-WHITE ET HAMPSHIRE X LARGE-WHITE
A LA TRANSFORMATION EN JAMBON DE PARIS.

QUESTION DE M. TULLOH :

Was the advantage of the P x L.W. pig over the H x L.W. entirely due to differences in carcass composition or to a more favourable muscle distribution (that is, a higher proportion of expensive muscles on the right places ?).

REPOSE :

Il est difficile de répondre à cette question dans la mesure où nous n'avons apprécié strictement ni les différences de composition corporelle (importance relative du muscle, du gras et de l'os dans la carcasse) ni la distribution du muscle dans la carcasse (importance relative des grands groupes musculaires par rapport au poids total du muscle). Notre évaluation de la carcasse s'est limitée aux résultats de la découpe normalisée d'une demi-carcasse. Au niveau de l'ensemble longe + bardière qui semble le plus utile à considérer dans cette situation, l'avantage du P x L.W. (n = 202) sur le H x L.W. (n = 171) s'est traduit par un poids de longe supérieur de $0,23 \pm 0,06$ kg et un poids de bardière inférieur de $0,26 \pm 0,07$ kg. Au niveau du jambon, son poids brut est plus élevé chez le P x L.W. ($+ 0,29 \pm 0,04$ kg, différence estimée sur l'ensemble des animaux) ; par l'échantillon de jambons soumis à transformation, le rapport poids de muscle dans le jambon/poids total du jambon apparaît équivalent dans les 2 types génétiques mais au total, il existe toutefois un avantage du P x L.W. pour le poids de muscle dans le jambon ($+ 0,16 \pm 0,07$ kg, P 0,05). Tels sont les éléments d'appréciation dont nous disposons actuellement dans la comparaison entre Hampshire et Piétrain.

D/2 PLIMPTON ET AL. : PHYSICAL AND CHEMICAL CHARACTERISTICS OF THE CAMEL-BACK CONDITION IN LAMB CARCASSES AS INFLUENCED BY DIET.

QUESTION DE M. EIKELENBOOM :

1. Does vit. E plays a role in the development of this condition ?
2. Have serum enzymes (CPK, GOT, etc...) been determined in these animals and could they be used for (very) early diagnosis ?

REPOSE :

1. Currently we do not know because we used a combination of selenium and vitamin E as a treatment to correct this condition. Usually vitamin E and selenium are interrelated in fonction and I would suspect that this is the case here. However our work to date does not prove this point.
2. We have not attempted serum enzyme analysis at this point but it certainly would seem to be a reasonable approach.

QUESTION DE M. HENRY :

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Composition en Base (barium selenate) et Vit. E de la solution utilisée pour les injections ?

REPOSE :

There is one milligram of selenium per CC in BaSe and we injected on CC at birth, 30, 60 and 90 days of age. I do not have the quantity of vitamin E in BaSe with me but will send it to you.

QUESTION DE M. DUMONT :

Do you think that it will be easy to apply the tender stretch method to lamb carcasses with the camel-back condition ?

REPOSE :

We have not tried the tender stretch method on camel-back lamb carcasses but as I understand it a stretching of the muscle during rigor increases tenderysation. Enven though the vertebral column of the camel back lamb has a different configuration than the normal animal, I see no reason why the tender stretch hanging position would not also stretch approximately the same muscles and consequently increase the tenderyzation of these animals.

QUESTION DE M. SYBESMA

- a) You refer to literature about the relation between pneumonia and camel-back. Is death loss rather high of these lambs ?
- b) How does the meat looks like. Is it much more whiter than the normal lamb meat ?
- (You did a good and spiritual job, we could very good follow you)

REPOSNE :

- a) No, death losses are not high in the camel-back condition ; in fact, these are generally a fast-growing well doing lamb.
If we have death losses, it would probably be early in life prior to the time we recognize the camel-back condition and therefore one might miss the relationship if there is one.
- b) We are able to see no difference in reflectance, quantity of myoglobin or panel score evaluation when comparing the color of camel-back tissue to normal lamb tissue. However some of our work with pork has shown a much lighter color in some of the muscles in the carcass when an animal is on a selenium-deficient diet.
We are currently speculating that some pork muscle, that is classified as PSE (not all) could be improved by adding selenium to the diet.

REPONSE :

Our results and indications are in accordance with your assumption that the low coefficient of correlation between fibre diameter and area of longissimus dorsi could be due to the differences in total number of muscle fibers between the lambs of different carcass weights. We have found also that some differences in muscle fiber diameter exist between breeds and sex of lambs, but this fact did not affect considerably the coefficient of correlation between the fiber diameter and the area of longissimus dorsi.

QUESTION DE M. FROUIN :

Le poids varie certainement davantage en fonction du carré du diamètre (D^2) qui, en fonction du diamètre (D) pour des raisons mathématiques évidentes.

Que donnent les corrélations de cette grandeur D^2 avec le poids ?

REPONSE :

The average fiber diameter was obtained by measuring of about 200 fibers of each muscle taken from 96 lamb carcasses . These average values for fiber diameter were used for calculation of the coefficient of correlation between the fiber diameter and the weight, shape and area of m. longissimus dorsi. /Tab. 2 in the paper/.

We did not use the obtained data of the fiber diameter for the calculation of the cross-section area of individual or average muscle fiber because this could not affect the coefficient of correlation between the weight of m. longissimus dorsi, on one side, and either diameter $|D|$ or the cross section area of the fiber $|D^2|$ would be taken for calculation. This would be the answer if I have well understood your question.

D/3 : OGNJANOVIC A. : CARCASS COMPOSITION AND SOME QUALITY CHARACTERISTICS OF MUSCLE TISSUE AS AFFECTED BY THE AGE AND THE WEIGHT OF PIGS AT SLAUGHTER.

QUESTION DE M. EIKELENBOOM :

Do you agree that these older pigs in the age group experiment are in fact animals of the early mature type, which are, if they are not slaughtered at lower liveweight as 100 kg, in fact less economic in spite of their superior carcass composition traits. Differences in meat quality might be more pronounced then.

REPONSE :

I could not agree that these older pigs in the age group experiment were of a different mature type than the younger ones, for a simple reason : They were brothers from the same litters. But generally I may agree that the common differences in the age of pigs at slaughter are mostly due to the differences in type and that these differences in age may affect the carcass composition, meat quality and economy of pork production.

Our experiments were carried out with the aim to find out how much the difference in age may affect the carcass composition and the quality parameters when the genetic and some other factors/final weights, sex etc.../are excluded. The obtained results indicate that even younger age of the pigs at slaughter may affect both the quantity and quality parameters to a certain degree. However, if an equal attention would be paid to the quality and quantity criteria in the future, a considerable lowering of meat quality could be omitted

D/4 : OGNJANOVIC ET AL. : CORRÉLATION BETWEEN MUSCLE FIBRE DIAMETER AND SOME CHARACTERISTICS OF LAMB :

QUESTION DE M. WISMER-PEDERSEN :

Could the rather low coefficient of correlation between fiber diameter and area of longissimus dorsi of the lambs be due to differences in total number of muscle fibres between the lambs. Total number of muscle fibers may be heritable and differ between breeds.

D/5 : DESMOULIN B. ET COL. : INDEX DE DENSITÉ DES JAMBONS ISOLÉS DE L'ENSEMBLE DE LA CARCASSE DE PORC.

QUESTION DE M. JANICKI :

1. les méthodes densimétriques ont-elles été utilisées en usine pour le contrôle des fabrications de jambons ? Dans quelles conditions ?

2. QUESTION DE M. WIERBICKI : même type de question.

3. QUESTION DE M. HOFMANN :

Les différences de densité des graisses externes et des graisses internes peuvent-elles être expliquées ?

REPONSE :

1. Les mesures de densité des jambons n'ont pas fait l'objet d'application au contrôle en usine des séries de fabrication. Par ailleurs, un premier essai a été effectué, en collaboration avec l'Institut Technique du Porc, pour le contrôle des carcasses en abattoir industriel. Les difficultés rencontrées concernent pratiquement la mise en place du dispositif de mesure et le contrôle des températures de mesure dans un local annexe de la chaîne d'abattage. Pour les estimations de composition corporelle, l'intérêt des méthodes densimétriques est ici confirmé.

2. et 3. Les densités des graisses externes et internes n'ont pas été mesurées après les opérations de dissection. Les coefficients affectés aux deux types de graisses pour expliquer les variations de poids immergés des jambons résultent d'un calcul de régression multiple et progressive. Toutefois, la densité des graisses internes, plus élevée que celle des graisses externes, peut ici résulter de deux séries de considérations. On peut penser à :

- la différence de composition chimique : les graisses internes sont plus hydratées et plus riches en tissus conjonctifs. La composition en acides gras est plus saturée en moyenne que celle des graisses externes,
- la différence de localisation anatomique : les graisses internes sont plus étroitement associées aux tissus, muscles et os, de densité beaucoup plus élevée que les autres tissus corporels.