

PRELIMINARY DATA ON THE LONGITUDINAL CONFORMATION
OF «LONGISSIMUS DORSI» MUSCLE IN PIGS

Präliminardaten über die Längenbildung des Muskels «longissimus dorsi»
beim Schwein

Datos preliminares sobre la conformación longitudinal del músculo
«longissimus dorsi» en el cerdo

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The area of the loin eye (cross-section of the *longissimus dorsi* muscle) is one of the most often measured traits of pig carcasses. It has an independent commercial value, deciding in many instances on the consumers' preference for pork chops or back rasher (in bacon). On the other hand, it is used as an indicator of the development of the loin muscle or of the total leanness of the carcass (alone or in relation to the area of the overlaying layer of backfat).

The location of the plane of cutting across the pork loin in order to estimate the area of the loin eye varies from country to country. Several papers were devoted to the changes in size of the loin eye along spinal column (e.g. JUDGE, 1964; KLIESCH and HORST, 1965; KLINE and GOLL, 1964), but CSIRE and BEREK (1963) were first to call attention to very great individual differences in the rate of change of the loin eye area along the back of different carcasses. OSINSKA (1968) obtained a rank correlation coefficient of only 0.5 for the average loin eye area at 10th and last ribs of progeny groups of 16 boars. MICHALSKI (1972) reported a phenotypic correlation coefficient of 0.69 between the area of loin eye at tenth and last ribs and a genetic one of 0.8.

The data of MICHALSKI (1972) were re-evaluated with the aim to obtain further informations on the conformation of the *longissimus dorsi* muscle. 664 carcasses of white meat-type pigs from one of the Polish Progeny-Testing Stations were used. Average slaughter weight was 86 Kg. The pigs were sired by 63 boars. The loins were cross-sectioned between 10th and 11th thoracic vertebrae and between the last thoracic and first lumbar ones, the area of *longissimus muscle* was traced on waxed paper and measured with a polar planimeter. The difference between the

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- d) Mayor mortalidad (12,5 % al año) frente a 5,09 % en las puras del mismo rebaño (SIERRA, 1973).
- e) Por el contrario, presentan un gran instinto maternal (superior al de la Rasa Aragonesa) y buena capacidad lechera.

Todo lo anterior ha hecho que, aun continuando el estudio de los resultados del cruce Finesa × Rasa Aragonesa, hayamos iniciado el cruzamiento con la raza Romanov, que a su elevado índice de prolificidad y mediano tamaño, une un período de actividad sexual más amplio y una mayor rusticidad.

RESUME

On a réalisé la lutte (juin-juillet 1973) de 107 femelles (21 croisées Finnoise × Rasa Aragonesa et 86 Rasa Aragonesa) en obtenant dans le premier agnelage une fertilité de 0,76 et 0,30 respectivement ($P < 0,01$), un taux de prolificité de 1,43 et 1,07 ($P < 0,01$) et finalement 1,10 et 0,33 de fécondité. Ces résultats montrent l'intérêt du croisement avec la race Finnoise pour augmenter la prolificité. Cependant les femelles croisées sont moins rustiques et avec un anoestrus saisonnier plus grand; pour cette raison nous avons commencé aussi les croisements avec la race Romanov.

SUMMARY

In the first lambing of two lots (21 first generation crossing of the Finnish Landrace × Rasa Aragonesa and 86 Rasa Aragonesa breed) the following results were obtained: the fertility was 0.76 and 0.30 respectively ($P < 0.01$), the prolificacy 1.43 versus 1.07 ($P < 0.01$) and the fecundity index was 1.10 and 0.33.

These results prove this crossing to be very interesting for increasing the prolificacy in Rasa Aragonesa breed. However, the crossbred females are less rustic than Rasa Aragonesa and they have a bigger anoestrous period.

At present the Romanov breed is employed in new experimental crosses.

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