

## QUALITY INDICATORS FOR PIG CARCASSES OF PIGS HERDS AND THEIR DEPENDENCE FORM THE FIBRES OF SKELETAL MUSCLES

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**Summary.** The present research work has analysed the carcass qualities of nine different pigs herds and the influence of the muscle fibres on the carcass lean meat. The herd with the highest lean meat contents has been English Whites x Polish Landrace x Yorkshire x Duroc crossbreeds (Krekenava AF) – 56.1 %, while the pure breed Lithuanian Whites (Naujasodžio AF) had the Lean meat contents of 46.1 %. Other herds such as cross-breeds from Scandinavian breeds are also characterized with high carcass muscle, e.g. Finnish Yorkshirer Lithuanian Whites x Finnish Landrace – 54.0% (Balciunu UAB) of muscle contents and Danish Yorkshire x Danish Landrace x Danish Duroc x Danish Hampshire cross-breeds (Saremneris) – 54.1%. All genotypes have high correlation between the thickness of fat in the back in standard points  $F_1$  and  $F_2$  and the carcass lean meat  $r = -0.901$  and  $-0.979$  ( $P < 0.001$ ). The correlation between the thickness of the *Longissimus* muscle and carcass lean meat  $r = -0.746$ , but statistically not reliable. The genotypes of Lithuanian Whites had statistically reliable correlation between the carcass lean meat and the thickness of muscle  $r = 0.677$  ( $P < 0.001$ ) in Naujasodis AF and  $r = 0.759$  ( $P < 0.001$ ) in Labunava AF. The parameter of the average size of muscle fibres of various genotypes had no influence on the lean meat, however within the same genotype (Krekenavos AF) those carcasses had more lean meat which had thicker muscle fibres. The average muscle fibres area was  $741 \mu\text{m}^2$  corresponded to the lean meat of 51.4%, and  $1764 \mu\text{m}^2$  to 60.3% ( $P < 0.001$ ),  $r = 0.304$ .

**Keywords:** different pig herds, reliable correlations, carcass lean meat, muscle fibres.