

## INFLUENCE OF ENGLISH LARGE WHITE BREED ON FATTENING, MEAT CHARACTERISTICS AND MEAT QUALITY OF LITHUANIAN WHITE PIGS

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**Summary.** The objective of this study was to investigate and to compare the meat characteristics and quality of Lithuanian White (LW) pigs and LW crosses of  $\frac{1}{4}$ ,  $\frac{1}{2}$  and  $\frac{3}{4}$  English Large White (ELW) pigs. Four hundred ninety three pigs were selected and divided to four groups: Group 1 pure breed LW (n=81); Group 2 – ( $\frac{3}{4}$  LW x  $\frac{1}{4}$  ELW; n = 49); Group 3 – ( $\frac{1}{2}$  LW x  $\frac{1}{2}$  ELW; n =188) and Group 4 – ( $\frac{1}{4}$  LW x  $\frac{3}{4}$  ELW; n = 175). During the fattening crosses with  $\frac{1}{2}$  and  $\frac{3}{4}$  of ELW pigs (Groups 3 and 4) have reached 100 kg live weight on 11 days earlier, increased daily weight gain on 5.6 % and consumed on 4.7 % (p <0.05) lower amount of feed/feed unit compared to pure breed LW pigs (Group 1). The fat thickness of crosses (Groups 2-4) beside 10 rib was on 6.4–5.8 mm lower (p <0.05), and muscularity on 4.6– 5.8 % higher compared to LW pigs (Group 1). The highest negative correlation coefficients were estimated between fat thickness both (Fat<sub>1</sub>) and (Fat<sub>2</sub>) points and muscularity of purebred LW pigs (r = –0.95 ir r = –0.96) and LW crosscrosses with  $\frac{1}{4}$  (r = –0.93 and r = –0.95), with  $\frac{1}{2}$  (r = –0.86 and r = –0.87) and  $\frac{3}{4}$  (r = –0.93 ir r = –0.95) (p < 0.001) of ELW pigs..The results from this study indicate that  $\frac{1}{4}$ ,  $\frac{1}{2}$ ,  $\frac{3}{4}$  of ELW pigs crosses improved fattening, meat characteristics and meat quality traits of LW pigs.

**Keywords:** pig breeds, crosses, muscularity, fat thickness, carcass, meat quality.