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„Value-chain based bio-economy 2“

Effect of Duroc breed on meat quality of pigs

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The study was carried out in 2022 with pigs belonging to the member farms of the Estonian Pig Breeding Association. Pigs were randomly selected for the experiment using the pig performance data collection program Possu. Landrace (L) and Large White (Y) breed crosses' (LxY 71; YxL 60) and their crosses with Duroc (DxLY 215; DxYL 122) carcasses were evaluated. YxL crosses carcass length did not differ from the D crosses (97.7 vs 98.2 cm). The carcasses of the LxY combination were longer (99.8 cm). No significant differences were found between the groups regarding the backfat thickness of the carcasses (18.4–19.8 mm). Fat tissue was more evenly distributed on the back, and belly thickness was higher, in the D crosses compared to the L and Y combinations. The carcasses of L and Y crossbred pigs had higher lean meat contents (LxY 59.4, YxL 59.1%) than those of the D crosses (DxLY 58.8, DxYL 58.6%). Most of the evaluated carcasses belonged to the S and E quality classes. Few D crosses' carcasses were assessed into the U class (DxLY 1.0, DxYL 7.0%). The *L. dorsi* mean pH₄₅ value determined after slaughter did not differ between groups, being 6.11–6.16. Since the share of the PSE-meat from L, Y and D crosses was relatively low (LxY 2.7, YxL 3.3, DxLY 2.8, DxYL 1.8%). D crosses grew faster (DxLY 663, DxYL 656 g/day) and reached slaughter age earlier (DxLY 166.0, DxYL 172.0 days), and their carcass weight (DxLY 76.8 and DxYL 81.2 kg) was similar to the L and Y crosses (LxY 615, YxL 645 g/day; LxY 182.2, YxL 174.9 days; LxY 80.7, YxL 78.4 kg). It is concluded that the evaluated pig carcasses had good technological properties. Boars of the D breed improved the fattening characteristics of the crossbred offspring. On the negative side, the carcasses of D crosses had a lower lean meat percentage.