Book of Abstracts

XIX BALTIC ANIMAL BREEDING CONFERENCE

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ASTRA project

„Value-chain based bio-economy 2“

Effect of beef cattle breed on finishing performance under coastal pasture conditions

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The study aimed to assess beef cattle breeds' performance when grazed on coastal semi-natural and natural pastures. The beef farm utilized a cow-calf-fattener system. Beef cattle were fed in the winter period with a total mixed ration (silage and straw) and cows, calves and heifers were grazed on semi-natural and natural pastures in the summer period. Youngstock were housed in the stable for fattening at six months of age where additionally grain was added to their ration. A total of 169 animals (Simmental (Si) 39.6%, Aberdeen-Angus (Ab) 35.5%, Hereford (Hf) 10.7%, Blonde d'Aquitaine (Ba) 7.3%, Charolais (Ch) 5.9%) at the age of 12–24 months were slaughtered in one slaughterhouse from 03.01.20219 to 18.10.2022. Gender distribution was 42.6 heifers and 57.4% bulls. Conformation grades were: U = 4, R = 3, O = 2. Results are presented as means ± SD. PCA analysis revealed that the two French-origin breeds were separate from the others. They had better conformation (Ba 3.11 ± 0.90, Ch 3.20 ± 0.63) and greater revenue was paid for their carcasses (Ba 1071.6 ± 315.9, Ch 1279.3 ± 189.3 €) and their slaughter age was younger (Ba 17.46 ± 2.06, Ch 17.80 ± 1.69 months). However, they had lower fatness grades (Ba 2.17 ± 0.79, Ch 2.00 ± 1.15). The highest slaughter age was observed for the Hf breed (18.7 ± 2,69 months) and they also had the highest fat grade (3.71 ± 0.83). However, breed difference was somewhat affected by the gender of the animals as the Ba and Ch groups contained more bulls than the others. Females were slaughtered at an older age (19.6 ± 1.9) than bulls (16.5 ± 1.9 months) and their fat grade was higher (3.74 ± 0.92 and 2.36 ± 0.75, respectively). The male carcass weight (296.5 ± 55.8 kg) was slightly higher than that for females (292.8 ± 58.8 kg). This means that the revenue from the carcass was also higher (949.3 ± 283.5 and 851.5 ± 239.4 €, respectively). Conformation grade was similar in both gender groups (males 2.87 ± 0.66, females 2.76 ± 0.66). Therefore, the difference in meat performance between breeds was affected also by gender in addition to the breed.

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