Comparison of carcass and meat quality of F$_1$ (PLW x PL) x PL and F$_1$ (PLW x PL) x Duroc crossbred pigs

Summary

The studies included 40 crossbred pigs: 20 F$_1$ (PLW x PL) x PL (n=20) and 20 F$_1$ (PLW x PL) x Duroc. Management and fattening of animals was carried out under the same nutrition and maintenance conditions. Slaughter was performed at body weight of 105-110 kg, in accordance with the rules, specified for the meat industry. After the slaughter and cooling down of carcasses, their dissection was carried out in accordance with the European Union method, developed by Walstra and Merkus (1996). In the course of the dissection, the meat samples were collected from the longissimus lumborum muscle and its quality evaluation was carried out. The carcasses of the crossbred pigs were characterized, in general, by a low degree of fatness. The mean thickness of backfat in pigs F$_1$ (PLW x PL) x PL was found on the level of 19.18 mm as compared to 16.64 mm in the crossbred pigs with the participation of Duroc breed (P<0.05). In case of the crossbred pigs F$_1$ (PLW x PL) x Duroc, the higher cross-section area of loin was recorded (50.78 cm$^2$) in comparison to 47.81 cm$^2$ in crossbred pigs F$_1$ (PLW x PL) x PL. The higher meatiness was characteristic of the carcasses of three-breed hybrids (53.70%) as compared to two-breed crossbreds coming from backcrossing (51.63%). The revealed differences have been confirmed as statistically significant (P<0.05). The meat of the both analysed groups of pigs was of good quality. The meat was characterized by an appropriate acidity, water holding capacity, free drip loss and colour. More favourable, better saturated colour of meat was found in the crossbreds F$_1$ (PLW x PL) x Duroc pigs as compared to F$_1$ (PLW x PL) x PL (23.41 versus 21.69%, respectively) (P<0.05).