Usability of slaughter traits obtained after slaughter to determine carcass meatiness for Polish Landrace breed swine

Summary

The purpose of this research was to determine correlation, for the Polish Landrace breed swine, between various carcass slaughter traits obtained after slaughter and percentage meat content in a carcass, determined on the grounds of detailed dissection. 16 traits were analysed in total, that is: 10 linear measurements of the carcass, 2 measurements of muscular and adipose tissue area, and mass of the two primary cuts of carcass - ham and loin, separated from the carcass according to the dissection method developed by Walstra and Merkus, which is employed in the national pig testing stations. Then, the examination involved assessment of phenotype correlations between the studied characteristics and slaughter traits and fleshiness calculated using two methods - the EU reference method and the Pig Slaughter Usability Testing Station (PSUTS) method. On the ground of the results of the conducted studies it is possible to conclude that from among linear traits, the measurements of back fat thickness in sacrum II and III would be most useful in determination of carcass fleshiness using the Walstra method, whereas from among ham and loin parameters - weights of these primary cuts without back fat and skin, separated from carcass according to the Walstra dissection. In case of ham, it is possible to use the weight of the whole cut, as well. The mass of the whole loin is unsuitable for estimation of carcass fleshiness. The following parameters are most useful for carcass fleshiness assessment according to the PSUTS method: height and width of loin eye, and average back fat thickness from 5 measurements. Usability of ham and loin parameters obtained using the PSUTS method is analogical to the Walstra method. When estimating carcass fleshiness with the PSUTS method, we may also use mass of ham and loin without back fat and skin, obtained according to the dissection according to the Walstra method.