Effect of dietary soybean oil on slaughter value and meat quality of Polish Large White and Puławska fattening pigs

Summary

Polish Large White and Puławska gilts and barrows, kept at the Experimental Station of the National Research Institute of Animal Production in Mełno were studied. A total of 72 fatteners were divided into three groups: group I contained animals that received a complete diet without soybean oil throughout the fattening period, and groups II and III were animals fed a diet with 6% soybean oil (group II - animals from 80 to 100 kg b.w.; group III - animals from 70 to 100 kg b.w.). Slaughter value of carcasses was evaluated according to the Pig Testing Station methodology. Meat quality was determined based on pH45, colour, water holding capacity and fatty acid content in the meat of ham, loin and backfat. The results obtained show different reactions of the pigs of the breeds studied to the presence of dietary oil. In the Polish Large White breed, the proportion of dietary oil had no effect on slaughter traits, whereas in Puławska pigs the use of 6% soybean oil had a significant effect on improved slaughter traits. Dietary oil was shown to have a significant effect on the meat quality of the pig breeds studied, with barrows showing a greater response to dietary oil than gilts.