

Antoni Jarczyk, Robert Eckert, Krzysztof Kurzyński

An attempt to define the causes of negative index values in boars' mating at the testing station

Summary

The aim of the paper was to define the causes of negative values of half and full sibs tested in the Station of Swine Meat Control – be it the influence of reproductive mother's traits and/or mothers' and fathers' tested performance results. Moreover, the scientists tried to define to what extent the body weight of a piglet brought to the station influenced its indices. 303 gilts originated from 30 boars were analyzed. Within each boar's full sib index (based on the 10 gilts from 5 sow mothers) there had to be at least one negative value half sib index (based on the 2 gilts from one sow mother) lower than the so-called "mobile average" of the station calculated on the basis of the last two years' data. The causes of statistically significant negative index values within tested gilts were a low body weight of piglets (below 20 kg and 20.1-25.0 kg), fact of being born in the fifth and further litter, father's high adjusted daily gain in farm performance testing (801 g and more). The efficiency of selective/breeding work is hampered by interaction of a few factors. In many cases the best indices were recorded for the animals (gilts) whose fathers and mothers obtained average results in performance testing. This suggests occurrence of genetic homeostasis phenomena. Its concept assumes that medium forms which are the most heterozygous, force out from the population the marginal forms, usually the most homozygous.

SŁOWA KLUCZOWE: pigs / SKURTCh / negative indices of mating / successive birth litter / size of litter born / results of life performance test of parents / initial body weight of young sows