Andrzej Stasiak, Jerzy Lechowski, Anna Kasprzyk

The evaluation of Polish Large White, Polish Landrace and Puławska breed swine crossbreeding

Summary

The analysis of reproductive performance included 159 sow litters. The litters were taken from Polish Landrace (55 piglets) and Puławska breed sows (24 piglets). The sows were mated with pure breed or with Polish Landrace (PL), Puławska (Puł.) and Polish Large White (PLW) boars in a scheme: sow PL x boar PL (84 litters), sow Puł. x boar Puł. (23 litters), sow Puł. x boar PL (24 litters) and sow PL x boar PLW (28 litters). The evaluation of reproductive performance features included the number of piglets born and raised to the 21 day, the litter mass in the 21 day, the number of nipples, the sow's age at first farrowing and the time interval between litters. The largest number of piglets were born (11,30 piglets) by Puławska breed sows which were mated with PL breed boars. The smallest number of piglets were born (9,48 piglets) by Puławska breed sows mated with boars of the same breed. PL breed sows mated with same breed boars had on average 11 piglets, while those mated with PLW breed boars had 11,20 piglets. The results obtained confirm that mating sows of one breed with boars of an alternate genotype is suitable. The largest number of piglets surviving to 21 days derived from cross bred litters, being in (Puł. x Puł.) crosses 11 piglets and (Puł. x PL) crosses 10,90 piglets. The birth interval between litters was at the optimum level of 160-180 days. In the survival rate evaluation 251 sows were analyzed. This included PL x PLW genotype – 132 piglets, PL x PL genotype – 84 piglets, Puł. x PL genotype – 20 piglets and Puł. x Puł. genotype – 15 piglets. The crossbred sows had 1 to 2% more meat in mass. Considering the EUROP evaluation scale of carcass crossbreds had more meat in smaller body mass. A general evaluation of two breed crossing results shows, that hetero-breed swine mating makes production more effective in terms of reproductive performance, as well as the final butcher fattener features of cross breeds in comparison to purebred crosses.