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REPRODUCTIVE PERFORMANCE OF DIFFERENT GENOTYPE SOWS DEPENDING ON AGE

N. A. Piotrovych

Influence of age of different genotype sows on their reproductive performance on farm PJSC “PC Podillia” Kryzhopil district Vinnitsa region was studied.

The litter size at birth of different genotype sows was on average 10,9−14,3 piglets. In the group of purebred sows this parameter was the highest for the Yorkshire breed – 13,8 piglets, they dominated over the litter size at birth of Landrace breed sows by 1,2 piglets. Among two-breed sows the highest litter size at birth had sows with genotype Landrace × Yorkshire − 14,3 piglets ($p<0,001$). The highest average litter weight at weaning also had two-breed sows. The best of them are sows with genotype Large White × Landrace (100 kg) and Landrace × Yorkshire (86,6 kg). The weaning weigh after first farrowing was 6,0−9,76 kg. Piglet survival to weaning which were got from different genotype sows was 72,2−88,8 %.

Data analysis of reproductive performance of different genotypes sows during the second parity showed that litter size at birth was 9,3−11,4 piglets. The highest average litter size at weaning had the sow, received from crossing of purebred father and hybrid mother with genotype Landrace × (Landrace × Large White) – 10,3 piglets ($p<0,05$). The highest average litter weight at weaning and the weaning weight were in two-breed sows with genotype Large White × Landrace − 100 kg and 10,0 piglets, respectively. It is established that among two-breed sows at the second parity better piglet survival to weaning had sows with genotype Large White × Landrace – 90,9 %.

At the third parity the highest litter size at birth typical for sows with genotype purebred father (Landrace) × hybrid mother (Large White × Landrace) – 12,1 piglets. Purebred Landrace sows with the third parity had litter size at birth 11,3 piglets, two-breed sows (Landrace × Large White) – 11,7 piglets. The litter size at weaning at third parity was on the level 9,7−10,6 piglets. The highest litter weight at weaning had saws with genotype purebred father (Landrace) × hybrid mother (Large White × Landrace) – 92,7 kg. The highest piglet survival to weaning had purebred sows – 94,4

%, they dominated two-breed sows by piglet survival to weaning by 9,9 % and sows with genotype purebred father × hybrid mother – by 9,1 %.

In the research herd from sows received six and more farrows depending on genotype. The average litter size at birth in sows with the first farrowing was 11,9 piglets, from the second to the fourth parity the litter size at birth increased, from the fifth to the six parity it was approximately on the same level (9,3−9,5 piglets). The maximum litter size at birth was observed in sows with the fourth parity – 12,4 piglets ($p<001$). The litter size at weaning, which were got from the the sows from the first to the third parity, gradually increased (from 9,6 to 9,9 piglets), and litter size at weaning from the fourth to the fifth parity gradually decreased.

The litter weight at weaning from the first to the third parity increased from 76,4 to 83,3 kg and decreased from the fourth to the fifth parity. During the third parity sows had the highest litter weight at weaning – 83,3% ($p<0,05$). It should also be noted that piglet survival to weaning from the first to the third parity increased, it decreased during the fourth parity, and it increased again from the fifth to the sixth parity. The highest level of piglet survival to weaning had the sows with the third parity – 85,6 % ($p<005$), the lowest –the fourth parity – 77,4 %.

It was found a weak correlation between parameters of the litter size at birth ($r=+0,04$), litter size at weaning ($r=−0,01$), litter weight at weaning ($r=+0,07$), weaning weight ($r=−0,02$), piglet survival to weaning ($r=−0,03$) and the parity. The absence of plausible correlation between researched parameters points to the possibility of getting six or more farrows without reducing of sow reproductive performance.