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INFLUENCE OF BOARS OF DIFFERENT BREEDS ON REPRODUCTIVE QUALITIES OF SOWS IN MULTIPEDIGREE CROSSBREEDING*

The purpose. Searching of highly productive combinations of boars and sows. **Methods.** Material for probes — mixed sows $\sigma^1VB \times \sigma^1L$, impregnated by mixed boars $\sigma^1D \times \sigma^1P$, $\sigma^1P \times \sigma^1D$. Conventional procedures, index SIVYS. **Results.** Advantage is fixed of mixed progenies over the thoroughbred analogues on the majority of indexes. **Conclusions.** Productivity of boars $D \times P$ and $P \times D$ in cross-breeding with sows $VB \times L$ is determined.

Key words: cross-breeding, hybrids, reproductive qualities, large white breed, Landras, Duroc, Pietren.

The reproductive quality of the uterus is one of the main factors that characterize the efficiency of the pig industry and its profitability. They determine the amount of rearing and rearing of young animals, the number of breeding products [7, 9]. The lowest values of the coefficients of succession have characteristics of reproductive qualities, but the increase of these parameters is possible in interbreeding. Maternal breeds should be characterized by high fertility, intense growth, and parenting - with intense growth, good meat qualities [3]. Improvement of reproductive qualities is due to the crossing of 2-4 rocks in different directions of productivity [10]. Many scientists have found increased reproductive qualities of pigs in transplantation [1, 2, 5, 8]. Investigations, where the maternal form is the pitrean breed, is insufficient, therefore, our research is considered to be valid. The purpose of the research is to search for the most effective variants of combinations of hams and sows of meat genotypes, which would provide high indicators of productive qualities in animals. Materials and methods of research. For research, pure-breed pigs of the great white breed were selected and localized - rocks large white \times Landrace ($\sigma^1BB \times \sigma^1L$), covered with locusts of Duroc \times Pyatrene and Pyatrene \times \times Duroc ($\sigma^1D \times \sigma^1P$, $\sigma^1P \times$

♂Д). Experiments were conducted under the conditions of Freedom Farm Bacon. Key words: breeding, breeding, reproductive qualities, large white breed, Landrace, Duroc, Pitreen. Kherson region. The sow was fed with special mixed fodders, taking into account age, live weight and physiological condition. The reproductive qualities of sows were evaluated according to generally accepted methods [4]. The breeding index of reproductive qualities of sows (IRQS) was calculated according to the method of O.M. Tsarenyuka [6]:

$$IRQS=6X1+9,34(X2/X3),$$

where IRQS - breeding index of reproductive qualities of sows; X1 - multiplicity, goal .; X2 - weight of the nest during the withdrawal, kg; X3 - the term of weaning, days; 6 and 9.34 - coefficients. Research results. In terms of fertility, the advantage was found in favor of pure-bred breeding stock (10.45 head) (table). The worst at the time of the ration were the piglets of the variant of crossing ♀ (WB × L) × ♂ (D × P), which +0.12 kg exceeded their pure-headed peers and +0.05 kg - local piglets of varieties ♀ (WB × L) × ♂ (P × D). The weight of the nest at the time of rabies is determined by the number of piglets in the nest and their live weight. The highest difference was the uterus of the variant of crossing ♀ (WB × L) × ♂ (D × P) (15.87 kg), which was +0.7 kg higher than the ick-crossing uterus ♀ (WB × L) × ♂ (× × E) and +1 kg - pure-bred uterus of large white breed. This tendency persists in the 30-day-old age at the crossing of the variant ♀ (WB × L) × ♂ (D × P) (82.63 kg), which is higher by +5.12 kg and by +5, 18 kg respectively.

Відтворювальні якості свиноматок у різних породних поєднаннях

Показник	ВБ×ВБ	♀(ВБ×Л) × ♂(П×Д)	(ВБ×Л) × (П×Д)
Багатоплідність, гол.	10,45±0,43	10,30±0,37	10,20±0,33
Великоплідність, кг	1,42±0,02	1,54±0,03**	1,49±0,02*
Маса гнізда на час опоросу, кг	14,87±0,69	15,87±0,72	15,17±0,48
Жива маса гнізда на час відлучення (30 діб), кг	77,45±3,90	82,63±4,63	77,51±3,31
Жива маса 1 гол. (30 діб), кг	7,66±0,07	8,43±0,05***	7,92±0,10*
Збереженість до 30 діб, %	96,50	94,62	96,00
СІВЯС, балів	86,84±3,77	87,53±3,60	85,33±2,76

* P<0,05; ** P<0,01; *** P<0,001.

The most severe were sown nests in the sow nests of the variant of crossing ♀ (WB × L) × ♂ (D × P), which most likely exceeded the pure-parent analogues by +0.77 kg (P <0.001) and +0, 51 kg of local peers of the variant of crossing ♀ (WB × L) × × ♂ (P × D). The survival of the piglets was at the highest level - from 94.62% in nests of domestic sows ♀ (WB × L) × ♂ (D × P) to 96% ♀ (WB

$\times L) \times \sigma (P \times D)$. The index evaluation of the reproductive qualities of the sows was conducted taking into account the signs of multiplicity and the mass of the nest for the time of weaning. It was established that the sows of the crossbreeding variant $\text{♀} (WB \times L) \times \sigma (D \times P)$ were characterized by the highest index (87.53 points), which was +0.86 points higher than pure-born uterus and +2.2 points - the moth the variant of crossing $\text{♀} (WB \times L) \times \sigma (P \times D)$. The dispersion analysis has established the share of the effect of the pupa on the weight of 1 head. for the time of weaning (65.80%) with high reliability ($P < 0.001$) and for the weight of pig breeding nests (3.77%). Correlation relationships between the signs of multiplicity and the mass of the nest for correctional time from $r = 0.66$ ($P < 0.05$) to $r = 0.95$ ($P < 0.001$) were established.

Conclusions

As a result of the research, the effectiveness of the use of chickens $D \times P$ and $P \times D$ in crossing with the stems of $WB \times L$ was established. They exceeded the pure-breed analogues of large white breed for the time of weaning (30 days) by the weight of the nest at +5,18 and +0,06 kg and the average weight of 1 head. - at -0.77 and +0.26 kg respectively.

Bibliography

1. Reproductive quality of sows in the hybridization system/M.D. Berezovsky, V.M. Popova, KO Tsirik, VS Ogurenko//Pigs. - 2012. - No. 60. - P. 21-24.
2. Vovk V.G. Heterozytic effect when combining different genotypes of pigs/V.G. Wolf//Livestock of Ukraine. - 2013. - № 12. - P. 11-13.
3. Genetic basis of animal selection/V.L. Petukhov, L.K. Ernst, II Goodilin et al. ; ed. V.L. Petukhova, II Hudilin - Moscow: Agropromizdat, 1989. - 448 pp.
4. Methodical instructions/Methods of studying the processes of breeding, breeding and reproduction of pigs. - M.: VASKHNIL, 1986. - 80 p.
5. Narizhnaya O. Performance of sows in combination with different genotypes of buds/O. Nariush, V. Vovk//Livestock of Ukraine. - 2014. - No. 3-4. - pp. 24-27.
6. Pat. UA 100641 U Ukraine, IPC A 01 K 67/02 (2006.01). Method of selection of sows/O.M. Cerenyuk; Owner: Institute of Animal Husbandry of NAAS, application. 13.10.2014; has published 08/10/2015 - Bull No. 15.
7. Pelikh V.G. Breeding methods for increasing the productivity of pigs/V.G. Pelly - Kherson: Aylant, 2002. - 264 p.
8. Pozdnyakova T.S. Reproductive qualities of pure-breeding and domestic sows when crossing with domestic and foreign breeding breeds/T.S. Pozdnyakova//Visn. Poltava state agrar acad. - 2011. - No. 1. - P. 180-183.

9. Breeding of farm animals/B.M. Hopka, V.P. Kovalenko, Yu.F. Melnik [and others]; for ed. Yu.F. Melnik, V.P. Kovalenko, A.M. Ugnevienka - K., 2007. - 553 p.

10. Sokolov N. Prospects of using the genetic potential of domestic and foreign origin of hogs/N. Sokolov//Slaughtering. - 2007. - No. 3. - P. 5-7.