

## ARE SOWS INFERTILITY DIFFERENT?

**Trunevich A.O.,**

*master of 1 year of study*

**Lykhach A.V.,**

*doctor of agricultural sciences,*

*professor of the department of animal biology*

**Lykhach V.Ya.,**

*doctor of agricultural sciences,*

*professor of the department of technologies in poultry, pig and sheep breeding*

*National University of Life and Environmental Sciences of Ukraine*

*Kyiv, Ukraine*

**Introduction.** The pig industry is well aware of the causes of infertility or infertility of the breeding stock of pigs, as well as the main reasons for the lack of basic and re-sown sows in specialized industrial farms. However, as the analysis shows, this is not enough to conduct breeding and breeding work and work on the reproduction of the herd in farms on an industrial basis. In addition, to confirm a form of infertility requires a lot of time and money, because it requires various studies that can be conducted in individual cases, and not everywhere and not always [2, 3, 4]. Pig breeding practitioners who are engaged in herd reproduction would be satisfied with such a technique, by means of which it is possible to establish one or another form of infertility directly in the conditions of production, and most importantly - to quickly find and apply specific measures for its prevention and elimination.

Based on these assumptions, to characterize the various forms of infertility of the main and tested sows in the basic farm, we used the criterion for assessing the forms of infertility, proposed by I. M. Kharenko [1]. In connection with the above, the aim of our research was to characterize the forms of infertility of the main and tested sows.

**Materials and methods.** The research was conducted in the conditions of LLC «RusMoloko», Cherkasy region. The material for the study was local (♀LW X ♂L) main and tested sows in the amount of 469 heads for the study period 2019-2020. The object of the study were indicators of reproductive function, the form of infertility of the sows. Analysis of infertility forms of sows and indicators of intensity of use of uterine pig population for two years were carried out taking into account the season and age of females, feeding conditions and technology of animals on the basis of anamnestic data, clinical studies and analysis of accounting documentation of veterinary services and equipment for artificial insemination of the relevant farm, as well as on the basis of indicators and causes of culling of sows. To characterize the different forms of infertility of the sows in the basic farm, we used the criterion for assessing the forms of infertility, proposed by I.M. Kharenko (1995) [1].

**Results.** The analysis of the conducted researches testifies that in this economy there are almost all forms of infertility of sows, for 2019 55 heads of sows were rejected. The main form of infertility fell on the main sows - 2.5%, repair - 6.7%. In turn, the old form of infertility in the main sows accounted for - 7.5%, in the tested - similarly congenital - 6.7%. Symptomatic and immune forms of infertility had a similar pattern and were found in 4 heads of main and 2 heads of tested sows. Such forms of infertility as climatic and operational infertility were observed in the same number in the main and tested sows - 2.5%

and 6.7%, respectively. It should be noted that the largest percentage of both main and tested sows have an artificially acquired form of infertility, which is 35% and 26.6%, respectively, and a slightly lower percentage belongs to the alimentary form of infertility (30% and 20%, respectively). It is estimated that 52 sows were culled in 2020. Thus, the congenital form of infertility was found in the same numerical value - 1 head both in the main, which is 2.6, and in the tested sows (7.1%). The old form of infertility in the main sows was 7.9%, and in the tested - 7.1%. The symptomatic form of infertility in 2019 accounted for 10.5% of the main and 14.3% of tested sows out of their total number. Again, artificially acquired and alimentary forms of infertility shared the first and second place in terms of prevalence among the forms of infertility in the main sows - 34.4% and 28.9%, respectively, in the tested - 28.8% and 21.4%. In turn, the immune form of infertility accounted for 10.5% of basic and 7.1% of repair sows. With regard to climatic and operational forms of infertility, we note the number of these forms is equally common in the main - 2.6%, and tested sows - 7.01%.

**Conclusions.** On the basis of the conducted researches it is established that the main forms of infertility of sows in the farm on average for two years are artificially acquired - 35%, alimentary - 30%, symptomatic - 14% and immune - 12%. All other forms of infertility are registered in no more than 7% of animals.

#### References

1. Kharenko M. I. Otsinka neplidnosti svynomatok // Tvarynnytstvo Ukrainy. 1995. № 4-5. P. 24. [in Ukrainian].
2. Management of innovative technologies creation of bio-products: monograph / V. Lykhach, A. Lykhach, M. Duczmal, M. Janicki, M. Ogienko, A. Obozna, O. Kucher, R. Faustov. Opole-Kyiv, 2020. 222 p.
3. Tekhnolohichni innovatsii u svynarstvi : monohrafiia / V. Ya. Lykhach, A. V. Lykhach. Kyiv : FOP Yamchynskiy O.V., 2020. 291 p. [in Ukrainian].
4. Voshchenko I. B. Diahnostyka i profilaktyka neplidnosti osnovnykh svynomatok: avtoref. dys... kand. vet. nauk. 16.00.07. K., 2004. 14 p. [in Ukrainian].