INFLUENCE OF APPLICATION OF HORMONE ON HEAT SYNCHRONIZATION AT CROSSBRED GILTS [POLISH LARGE WHITE X POLISH LANDRACE]

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ABSTRACT

The research was conducted on the Pol-Lean ltd. Farm in Łosice. The research was carried out on 624 crossbreed gilts (Polish Large White x Polish Landrace) with body weight of 120-140 kg and aged 7-9 months, inserted into the basic herd of sows in Łosice farm in 2008 year. The experiment aimed to determine the effect of the oestrus induction by Serodin and Dinolytic preparations in gilts. The hormone preparations were given to gilts in form of injection to stimulating development and ripening of Graafian follicles. All gilts received on a one-off basic Dinolytic and Serodin. After the pass at 83.49% of them manifestation the oestrus appeared. The rest of gilts at which the oestrus didn't appeared after 14 days the Serodin was being given them again in amount of 2 ml and an appearance of the oestrus was being observed. And all after giving hormones the oestrus appeared at 91.82%. Obtained results proved that the oestrus induction in gilts in a big farm simplifies the technological groups formation in the stage of mating and pregnancy and causes that more sows with the oestrus induced stay in basic herd to the third reproductive cycle.

Key words: oestrus synchronization, gilts, reproduction performance

ÚVOD

The occurrence of the first oestrus in gilts is very important in organizing reproduction, particularly in big farms. The possibility of stimulating the sexual maturity of gilts allows to have them covered in the second oestrus, which can reduce the costs of their covering (fodder consumption and workloads). The biological methods used for stimulating the ovulation the following: improvement on feeding (the amount and quality of fodder, the addition of vitamins A, D_3, E), contact with the boar, changing the environment or term stress reduction as well as proper hormones application.

MATERIÁL A METODIKA

The research carried out on 624 crossbreed gilts (Polish Large White x Polish Landrace), inserted into the basic herd of sows in Łosice farm in 2008 year. The gilts were in age from 7 up to 9 months, and the body weight was from 120 up to 140 kg. At forming a group the quantity sorting technological sows of sows were chosen from the fattening and the hormonal preparations (Dinolytic and Serodin) were being given them in form of injection to stimulating development and ripening of Graafian follicles. Serodin conteined in its composition the chorionic gonadotrophin (HCG, hCG -200 IU) and the pregnat mare serum gonadotrophin (PMSG, eCG- 400 IU). The aim of giving hormones were stimulating the development of Graafian follicles, what should also support luteinization and ovulation. Serodin was given in amount 2 ml per one gilt. Dinolytic have in its composition the prostanglandyne F2 -α , which have property luteinizing hormone. A dose 10 mg was being given to gilts. The gilts at which the oestrus didn't appear, the preparation be called Serodin were being given them through injections once again after 14 days. All of gilts which were useing in research were inseminated.

VÝSLEDKY A DISKUZE

The results were presented in the table 1. Out of 624 gilts 521 demonstrated with appearance of the oestrus. All gilts received on a one-off basic Dinolytic and Serodin. After the pass at 83,49 % of them manifestation the oestrus appeared. The rest of gilts at which the oestrus didn't appeared after 14 days the Serodin was being given them again in amount of 2 ml and an appearance of the oestrus was being observed. And all after giving hormones the oestrus appeared at 91,82 %. The number of live born piglets were 11,20 in farrow with primiparas with synchronization oestrus. In practice different specificities are applied to the purpose of the synchronization of the oestrus. The case of the lack of the appearance of the oestrus in gilts in farm can be low or high temperature in accommodations in farms what was earlier repaid attention by: [Kołacz R., Dobrzański Z., 1988], [Pejsak and others, 1991]. The effectiveness of administered means triggering oestrus can be diversified what was presented in the following researches: [Britt J.H. and others, 1989], [Pejsak Z. and others, 1991], [Kania B.F. and others,1999], [Borowiecka E. De Martin, 2002],[Zięcik A.J.,2004] and [Walkiewicz A. , 2003]. In own research the efficiency of covering the gilts was in 91,82 %.

Table 1.

Details	Number of gilts	% appearance the oestrus	The others gilts
Dinolytic + Serodin	521	83,49	103
Serodin	52	50,48	51
total	573	91,82	51

ZÁVĚR

The possibility of stimulating the sexual maturity of gilts affected to better work planning in farm Łosice. The hormone preparations (Dinolityc + Serodin and Serodin) which provoked the heat was very helpful to introduction gilts to foundation stock and it was very useful to created a new technological cluster. Thanks to that method to stimulating the sexual maturity of gilts there was always the possibility to create technological group of gilts in the stage of mating and pregnancy in 7 days rhythm of production.

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