

Technological method of heightening efficiency of swine breeding in specialized farm

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The purpose. To study efficiency of different methods of placement of pigs under papillae of a sow. **Methods.** Productivity of animals was determined according to demands of «Instruction on bonitation of quality of pigs» and with the help of innovative method. **Results.** It is established in two runs that for farm the most effective method of placement of pigs under papillae of a sow is the following: strong pigs in a nest should be place to forward papillae, and weak ones — to back. It is proved that at such approach the authentic variance occurs at comparison of results of control group with indexes of Illrd and Ist (monitoring) to such attributes: «specific weight of amount of weaners from number born», and «mass of a nest at a wean» at $td_{2,1}=6,38$ and $td_{2,3}=6,34$ by the first attribute, and $td_{2,1}=6,0$ and $td_{2,3}=6,74$ by the second attribute at number of degree of freedoms 38 in both events. **Conclusions.** It is expedient to make the first placement of strong pigs in a nest under the forward papillae of a sow, and weak ones — under back. That ensures in the further normal growth of pigs in a nest in conditions of adaptability to manufacture of their growth with human controller.

Key words: sow, papillae, pigs, placement, preservation, growth of animals, productivity.

<https://doi.org/10.31073/agrovisnyk201806-07>

Introduction. The quality of the nest in sows further determines the growth rate of piglets, their preservation and the efficiency of the pork production process in the farm in modern economic conditions.

Analysis of recent research and publications on the topic under study. The lack of unanimity about the method of first feeding the piglets to the sucking ducts leads in the future to obtain a poor quality nest on the basis of the development of animals and their equilibrium for live weight at weaning.

The purpose of research. To investigate the effectiveness of different methods of first feeding the piglets under the nipples to the sow in the conditions of industrial pork production technology.

By an important technological factor that influences on efficiency of conduct of the pig breeding in the special farm there is a question of the first adding of piglets under baby's dummies of sow. Thus it should be noted that in this case in zootechnic science there are two ideas in relation to this question, but an absolutely affirmative conclusion in behalf on some opinion of scientists of rules of adding of piglets on this time is not [1-3].

Usually, part of scientists recommend more weak piglets to allow to approach under front baby's dummies as most milk, and prepotent under back. The supporters of this method find a way out, that weak piglets will get more milk and heights will become better, and strong piglets are able to get the sufficient amount of milk from back nipples due to their intensive resolution. Proponents of this method proceed from the position that weak piglets will receive more milk and will grow better, and strong pigs will be able to get enough milk from the back nipples due to their intense resorption.

Proponents of the other approach to the solution of this issue believe that each piglet in the nest should have the maximum opportunities for development, and therefore strong pigs should be planted to the front, and the weak to the rear, because the latter need a little milk, but to receive his piglets more often. In our opinion, this approach corresponds to the zootechnical logic and the common sense of the manager [3-9].

Materials and methods of research. Productive quality of animals was determined in accordance with the requirements of the Guidelines for the boning of pigs and in an innovative way. Feeding and keeping the pigs met zootechnical standards.

By us in 2016 research and practice experience was conducted on pig complex LTD. "Ekspert-agrotreid" the Dnepropetrovsk area, where efficiency of the above-mentioned methods of the first adding of piglets was studied to the nipples of sow. Control the I group of sows served as, where piglets elected baby's dummies independently. In II group it was added the of more weak piglets to the back nipples, and prepotent - to the front nipples, and in III - did vice versa. In a table 1 results over of the first experience are brought.

1. Quality of the nest depending on the first feeding of piglets to nipples of sows (Experiment №1), $\bar{X} \pm S_x$

Group	n	Piglets at birth, head	Great fruit-nity kg	Cv, %	Parted head	Specific fraction divorced from born, %	Limits of the offspring %	Weight of the nest kg	Cv, %
I	20	210	1,21 ±0,026	9,59	170	81,0 ± 1,36	100-63,6	53,4 ± 0,66	4,83
II	20	200	1,28 ±0,011	11,72	181	90,5 ±0,75***	100-80,0	59,7 ±0,67***	5,03
III	20	208	1,24 ± 0,010	12,10	171	82,2 ± 1,07	100-71,4	53,3 ± 0,68	5,66

There is a probable difference in favor on the animals of II of group on a sign "percent of the separated piglets" comparatively with I and III by groups: $td_{2,1} = 6,13$ за $y - 38$; $td_{2,3} = 6,34$ after $y - 38$. Difference between the indexes of animals I and III of groups statistically unreliable. The analysis of data of the second series of experiments confirms conformity to law of reliable advantage of results of animals of the second experience group above the indexes of sows from the group of control and other experience group.

In a table 2 results over of the second series of experiments that were conducted in 30 days after the first are brought.

Analysis of data of table 2 witnessed advantage of results of animals of II of group above animals I and III of groups on indexes, that in a complete measure characterize the display of genetic potential of animals at the terms of grant to the sows of favourable technological terms for his display.

Criteria of meaningfulness of difference two middle at comparison accordingly folds $td_{2,1} = 2,03$ $td_{2,1}$ $td_{2,3} = 2,17$ for the numbers of degrees of freedom 38, that answers the level of difference of authenticity as $P < 0,05$ (index: percent of the separated piglets).

Thus, during researches such conformity to law was certain in character of lactational period of sow : the piglets of category are "strong" in the case when they were added to the back littlesucklings nipples quickly enough sucked out milk from the nipple, ran across to other nipples, caused a crush in a nest, fights for a nipple, to be nervous an uterus.

2. Quality of the nest depending on the first feeding of piglets to nipples of sows (Experiment №2), $\bar{X} \pm S_x$

Group	n	Piglets at birth, head	Great fruit-nity kg	Cv, %	Parted head	Specific fraction divorced from born, %	Limits of the offspring %	Weight of the nest kg	Cv, %
1	20	206	1,2 ± 0,01	12,5	161	79,6 ± 3,15	100-63,6	49,8 ± 0,64	6,1
2	20	204	1,21 ± 0,012	13,8	179	87,7 ± 2,45	100-77,8	58,8 ± 0,89	7,2
3	20	205	1,27 ± 0,011	11,8	162	79,0 ± 3,20	90,9- 54,5	48,7 ± 0,98	9,0

At the end of ends strong piglets seized the front most sucklings baby's dummies, and weak piglets so not got it to portion of milk and colostrum.

As a result development of piglets in a nest after living mass and level of вирівняності animals in III an experience group for certain yielded to the result of II of group ($td_{2,3}=2,45$ за $y=339$, при $P<0,05$, at $P<0,05$ on an index "percent of the separated piglets" of $td_{2,3} =7,65$ за $y=339$ при $P<0,001$ on an index "mass of nest at a separation"). Comparisons on the above-mentioned signs of results of II of an experience group with the indexes of control (I) group witnessed $td_{2,1}=8,18$ after $n=341$ at $P<0,001$ (after mass of nest) and $td_{2,1} = 2,03$ за $y=341$ at $P<0,05$ (after the percent of the separated piglets).

The results of researches of the second series confirmed efficiency of method of adding of strong piglets under front baby's dummies of udder of sows, that witnessed the unchange of the got results of the first series of experiments.

Conclusions

1. Using a box maintenance of lactation sows with piglets for 20 uteruses in boxing assists optimization of level of the technological loading on one operator and provides the increase of the productivity of animals of basic herd, after such by indexes: stored of piglets for sucking period, their development and alignment after living mass in a nest at a separation

2. It is expedient to conduct the first adding of strong piglets in a nest under front baby's dummies on an udder for a sow, and weak under back, that provides in future normal development of piglets in a nest at the terms of manufacturability of their service by an operator.

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