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EFFICIENCY OF FEED USE OF WET FATTENING PIGS

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The results of studies on the performance and economic efficiency of fattening young pigs under different feeding conditions. It was established that the feeding wet animal feedstuffs compared with feeding dry forage increases the productivity indices of pigs and pork production efficiency.

Fattening young, performance, feeding conditions, economic efficiency.

Competition in the market pig production currently leads producers to resort to saving and ecological technologies.

Select the type, method of feeding and delivering food directly to animals is caused by climatic and material resources management.

According VNTP-AIC 02.05 [1] fed pigs prepared, nutritionally balanced foods, such as: dry granular or alluvial or moist animal feed in feeders; wet concentrates, grass or hay flour, potatoes and other fodder beet (humidity 60-75%), wet animal feed previously diluted with water (at a ratio by weight of feed and water is not more than 1: 3).

When creating a modern pig farms and reconstruction of existing technologists to question the choice of method of feeding pigs. Science has proven that the productive performance of feed depends not only on quality, but on the method of feeding. In the literature the authors teach mixed views on the advantages and disadvantages of dry and wet feeding [3, 4, 6]. Discussions about the advantages and disadvantages of each method of feeding are open now, so in-depth study of this issue is important.

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Material and methods research. The study was conducted in terms of "Yaros-Agro" Gorodotsky district Khmelnitsky region.

The purpose of scientific-economic experiment was supposed to determine the effect of different conditions of feeding pigs on their performance and economic efficiency of pig production. For this 63-day age by the method of analogues formed two groups of pigs: control and research, and 30 goals in each (table 1).

1. Scheme experiment

Group	number of animals in the group	The periods of the experiment				
		egalitarian (14 days)			main (98 days)	
		age, days	live weight, kg	Terms feeding	age, days	Terms feeding (study factor)
1	30	63	20	Dry food twice a day	77	Dry food twice a day
2	30	63	20	Dry food twice a day	77	The wet food twice a day

The material for the particular experiment served as German pig breeding (¼large white ¼Landrace ¼ Duroc ¼ Peitrain), which were imported from Germany.

The experiment lasted 16 weeks and was divided into two periods. Equalizing time experiment lasted 14 days, during which the pigs received dry complete feed two times a day. In the main experiment period lasting 98 days in young control group remained the same feeding conditions as in egalitarian period, animals and 2nd experimental group were fed twice a day with wet feed. Feeding all experimental animals meet established standards [2] and the recommendations of the German company Weda.

Microclimate parameters facilities supported by special devices and meet the established hygienic standards. Weighing growth of experimental animals was estimated by weighing results, performing individually on a weekly basis.

Calculation of economic efficiency of fattening young pigs was done by determining the cost in setting pigs on research and profits from the sale of the 175-day age at prices that were at the time of the studies using conventional methods.

Research results processed by variation statistics [5] using a personal computer and Microsoft Excel.

Results and discussion. Found that the removal of the feeding of 175-day age young control group had a live weight of 93.6 kg, while the advantage of peers 2nd experimental group for this indicator was 8.7% ($p < 0.001$).

Proved that the main period of the experiment, the animals of the experimental group on average daily live weight gain of control dominated counterparts by 12.0% ($p < 0.001$).

Differences in terms of feeding young pigs, as well as its intensity varies significantly affected the growth of expenditures feed, energy and protein per 1 kg increase in body weight (table 2).

Particular found that almost all periods of fattening animals treated with wet feed had lower rates of feed conversion compared with analogs that eat dry food. Thus, the average time for the main experiment (78-175 days) the cost of feed per 1 kg of live weight gain in young 2nd experimental group compared with the control counterparts were lower by 10.8%.

Power feeding of young pigs in turn affected the performance of economic efficiency of pork production (table 3).

Despite the fact that the cost of the purchase and feeding of animals in group 2 compared with peers 1st were higher at 402 UAH, their total live weight at the time the slaughter was higher by 8.7%, which in turn increased and proceeds from the sale of 5115.6 UAH.

As a result of lower cost of feed per 1 kg live weight gain cost of 1 kg of live weight pork produced in animals in group 2 compared with control counterparts was less than 7.9 %, which in turn increased the net profit from the sale of animals in 4713, 6 UAH.

2. The costs of feed per 1 kg increase in body weight in pigs

Week fattening	age, days	Group					
		1			2		
		Costs per 1 kg increase					
		Feed, kg	Energy, MJ	Protein, g	Feed, kg	Energy, MJ	Protein, g
1	63–69	1,84	24,4	318,5	1,94	25,8	336,2
2	70–77	1,78	23,6	308,0	1,84	24,4	317,9
3	78–84	1,98	26,3	343,2	1,82	24,1	314,6
4	85–91	2,55	33,5	449,3	2,48	32,6	436,5
5	92–98	2,72	35,8	480,3	2,49	32,8	439,5
6	99–105	2,93	38,6	517,4	2,73	35,9	481,4
7	106–112	3,10	40,7	545,8	2,60	34,2	458,1
8	113–119	3,16	41,5	556,7	2,61	34,4	460,6
9	120–126	3,23	42,3	502,9	2,60	34,1	404,8
10	127–133	3,31	43,4	515,2	3,27	42,8	508,4
11	134–140	3,86	50,6	600,9	3,40	44,6	529,1
12	141–147	4,04	53,0	629,6	3,82	50,1	594,5
13	148–154	4,23	55,2	570,4	3,86	50,3	519,6
14	155–161	4,35	56,6	585,3	4,02	52,4	541,3
15	162–168	4,44	57,8	597,7	4,10	53,4	552,5
16	169–175	4,65	60,6	626,6	4,35	56,7	586,1
On average	78–175	3,59	47,0	568,0	3,24	42,5	512,6

All these parameters affected the profitability of pork production, which in the 2nd experimental group compared with the control increased by 8.62 %.

3. The economic efficiency of fattening pigs

Indicators	Group	
	1	2
Increase in body weight of young pigs during the experiment, kg	76,0	84,3
Fuel feed during the experiment at a rate of 1 head, kg	263,6	266,3
The cost of feed for fattening spent 1 head, UAH	767,7	775,9
Total cost of producing 1 head, UAH	971,8	985,2
The cost of purchasing a 1 fattening pig, UAH	826,3	826,3
Expenses went for the purchase and feeding 1 head, UAH	1798,1	1811,5
The cost of purchasing and feeding all experimental animals, UAH	53943	54345
The total live weight of all experimental animals at the time for slaughter, kg	2889	3141
Selling price of 1 kg of body weight, UAH	20,3	20,3
Proceeds from the sale of all experimental animals, UAH	58646,7	63762,3
Sales revenue 1 Head, UAH	1954,9	2125,4
Net income from the sale of all experimental animals, UAH	4703,7	9417,3
Net income from the sale of one head, UAH	156,8	313,9
Net income from the sale of 1 kg of live weight, UAH	163,3	299,8
Cost of 1 kg of live weight produced pork, UAH	1867,2	1730,2
The level of profitability of pork production,%	8,71	17,33

Note: prices in 2013

Conclusions

Fattening of young pigs that eat wet feed, compared with dry feeding complete feed increases live weight of the animals at the removal of feeding in 175-day age by 8.7 %, average daily gain - by 12.0 % and reduces the cost of feed per 1 kg increase in body weight by 10.8 %. This, in turn, increases the profitability of pork production by 8.6 %.

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