CHARACTERISTICS OF THE MILK PERIOD OF COWS AND MILK YIELD

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Abstract. The article describes the results of scientific research on the development of animal husbandry in our republic and the increase in the productivity of animal husbandry. Scientific conclusions are also presented based on an analysis of factors affecting the increase in dairy productivity of cattle, as well as expert evaluation, comparison and monographic observations of the productivity of experimental groups and cattle raised in the traditional way. The coefficients of milk yield per 100 cows have been developed, scientific conclusions have been drawn, and recommendations have been given based on the results obtained

Key words; Milk yield, adaptation period, experimental groups, control groups, milk yield, milking period, productivity level, milk fat content, milk yield.

Introduction.

When assessing the level of adaptation of experimental cows to the conditions and milk productivity, it is important to study the change in the amount of milk during the months of lactation.

The changes in the amount of milk in experimental cows by months, the coefficient of endurance of the milking period and the index of reducing the amount of milk, the results of which are presented in were studied.

In all three groups, the highest monthly milk yield of cows was observed in the third month of their lactation, in the future, a steady decrease in monthly milk yield is noticeable. On the third month of the experiment, the cows of I and II experimental groups gave 15.4 and 15.3% of milk, respectively, and the cows of the control group - 14.5%.

It can also be seen that the milk period of cows in all groups was uniform and was quite high until the sixth month of lactation and gradually decreased by the eighth month.

The uniform change in the monthly milk yield of cows of the experimental groups is also evidenced by the milk yield, which decreased from the tenth to the fourth month of peak lactation by 46.3% in the I experimental group, by 43.1% in the II experimental group, and by 39.8% in the control group.

The coefficient of milk productivity of cows of experimental groups

When assessing the direction of productivity of cows and the effectiveness of their use, it is important to study the coefficient of milk productivity, that is, indicators of milk productivity per 100 kg of live weight. The experiment shows the

indicators of milk productivity per 100 kg of live weight of cows of the experimental groups.

The coefficient of milk productivity of cows of I and II experimental groups was 112.5 kg or 15.3% (R<0.001) and 42.3 kg or 5.7% (R<0.05) compared with cows of the control group, respectively, per 100 kg of milk. milk at 4% live weight was 131.4 kg or 19.4% (R<0.001) and 50.7 kg or 7.5% (R<0.001), respectively, milk fat yield 5.46 kg or 20.2% (R<0.001) and 2.24 kg or 8.3% (R<0.01), milk protein yield 4.63 kg or 19.5% (R<0.001) and higher by 2.06 kg or 8, 7% (R<0.01).

Thus, the experiments showed that 12 and 10 kg of beets per day in the diet of cows were more effective in cows of I and II experimental groups compared to cows in the control groups.

Peculiarities of milk coating of experimental cows

The study of the characteristics of feed coverage with milk is important in assessing the milk yield and economic efficiency of cows.

The table below shows the indicators of milk productivity of cows of the experimental groups.

table 1

Milk index of cows of the experimental group

Indicators	Groups		
	Control	experiment I	experiment II
Feed consumption per cow per lactation, feed unit	4143,9	4363,5	4290,3
The amount of milk produced in 305 days, kg	3610,6	4225,4	3833,8
Amount of 4% milk, kg	3330,7	4035,3	3594,2
Feed unit used for milk production in 1 kg of natural fat, kg	1,15	1,03	1,12
Feed unit used to obtain 1 kg of 4% milk, kg	1,24	1,08	1,19
Produced per 100 kg of feed unit: natural fat milk, kg	87,13	96,84	89,36
4% milk, kg	80,38	92,48	83,78

Analysis of tabular data showed that in groups of cows with high milk yield, the degree of milk production was also slightly higher. For example, in our studies, cows of experimental groups I and II with the highest milk yield used 0.12 or 11.6% less and 0.03 or 2.7% less feed units for milk production per 1 kg of natural fat compared to control cows. groups. Also, the cows of the experimental groups I and II used 0.16 or 14.8% and 0.05 or 4.2% less feed units than the cows of the control group to obtain 1 kg of 4% milk. For every 100 kg of feed unit, the cows of the experimental groups I and II, compared with the cows of the control group, had 9.71

kg or 11.1% and 2.23 kg or 2.6% of natural fat milk and 12.10 kg or 15.1 % and gave 4% more milk by 3.40 kg or 4.2%.

These data indicate that the experimental cows have good feed coverage of dairy products and the efficiency of their use.

Thus, according to the results of the study, in the group of highly productive cows, the level of forage coverage with milk was also high, which indicates the effectiveness of their use.

Morphofunctional characteristics of the udder of cows

In dairy herds, udder morphological and functional properties are of particular importance when assessing the degree of adaptation of the udder of cows to modern milking equipment.

The data obtained on the size of the udder in the cows of the experimental group are presented in the following table.

table 2

Dimensions of the udder of the cows of the experimental group, cm

Indicators	Groups					
	Control		I тажриба		Control	
	$\overline{X} \pm S\overline{x}$	$C_в$, %	$\overline{X} \pm S\overline{x}$	$C_в$, %	$\overline{X} \pm S\overline{x}$	$C_в$, %
Udder volume	132,2±1,41	1,06	138,7±1,72**	1,24	135,0±1,27*	0,94
Udder length	44,0±1,0	2,40	48,4±0,95**	1,96	45,8±0,85*	1,86
Udder width	40,0±0,79	2,01	43,7±0,74***	1,70	41,3±0,76	1,86
Front udder depth	30,1±0,92	2,58	34,3±0,93**	2,66	30,5±0,87	3,01
Back udder depth	33,2±0,88	2,67	38,2±0,99***	2,45	34,0±0,90*	2,57
Front teat length	8,06±0,47	5,93	8,43±0,77*	9,23	8,24±0,61*	7,50
Rear teat length	7,45±0,48	6,55	8,9±0,65*	8,13	7,92±0,56	7,17
Sucker diameter, mm	2,1±0,39	1,79	2,4±0,30*	1,31	2,5±0,34	1,54
Udder index, %	42,5	-	43,8	-	43,0	-
Conditional udder size, cm^3	3970,0	-	4774,6	-	4134,0	-
Milking speed, kg min	1,27±0,02	2,33	1,36±0,05	4,40	1,30±0,04	3,80

Note: *P<0,05 **P<0,01, ***P<0,001

Table 4 shows that the udder circumference in cows of I and II experimental groups was 6.5 cm or 4.9% (R<0.01) and 2.8 cm or 2.1% (R<0.05), udder length by 4.4 cm or 10.0% (R<0.01) and 1.8 cm by 4.1% (R<0.05), udder width by 3.7 cm or 9.2% (R<0.001), front udder depth 4.2 cm or 13.9% (R<0.01) and 0.4 cm or 1.3%, rear udder depth 5.0 cm or 15.1% (R <0.001) and 0.8 cm or 2.4% (R<0.05), anterior nipple length by 0.37 cm or 4.6% (R<0.05) and by 0.18 cm or 2, 2% (R<0.05), posterior nipple length by 1.45 cm or 19.5% (R<0.05) and by 0.47 cm or 6.3% (R<0.05), index udder by 1.3 and 0.5%, conditional udder volume by 804.6 or 164.0 cm^3 and milk yield by 7.1 and 2.4% were higher. Also, the diameter of the udder teats of cows was within the regulatory requirements and there was no significant difference between the groups, which indicates their compliance with the requirements of machine milking.

Thus, our studies have shown that the morphological and functional characteristics of the udder of cows and milk yield are integrally dependent on the size of their udder.

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