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DEPENDENCE OF PRODUCTION PROPERTIES OF SIMMENTAL COWS ON TYPES

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Annotation. Studies have shown that the level of milk productivity, the nature of the course of lactation, the yield of dairy products per 100 kg of live weight and the level of payment for feed with dairy products of Simmental cows are interconnected with body types. In dairy cows, milk yield per lactation is 672.5 and 958.5 kg, respectively, 4% milk is 507.4 and 735.4 kg higher, milk yield per 100 kg of live weight of milk is 164.9 and 228, 7 kg more than that of their peers of milk-meat and meat-and-milk types. The highest monthly milk yield in cows of dairy type was noted in the third month, in cows of milk-meat and meat-and-milk types in the second month of lactation. This indicates that in cows of the dairy type, lactation proceeded more evenly than in other types of peers. The data obtained testify to the high efficiency of the use of dairy cows for the purpose of milk production.

Keywords: livestock products, milk productivity of cows, Milk yield, Milk ratio

INTRODUCTION

In meeting the growing demand of the population of the countries of the world for highly nutritious livestock products, increasing the volume of production of high-quality livestock products is of paramount importance. Under these conditions, the creation of highly productive herds with a high breeding value of the animals used comes to the fore. This requires the improvement of selection and breeding work, the use of recognized leader breeds with a high genetic potential for productivity and high-value improver bulls in the selection, and of course, the provision of livestock with full nutrition.

In recent years, in order to strengthen the breeding base and create highly productive herds, breeding stock of leading livestock breeds has been imported to Uzbekistan from a number of European countries with developed cattle breeding. Cattle of these breeds are distinguished by a high genetic potential for the milk productivity of cows. However, the productive qualities of imported livestock are fully manifested only when adequate feeding is provided and optimal conditions are created.

The Simmental breed is considered one of the most widespread breeds, successfully bred in numerous countries on five continents of the globe and is distinguished by fairly high milk and meat productivity, good adaptive properties to various breeding conditions. Three production types are distinguished in the breed, and livestock breeding taking into account these types creates the prerequisites for the effective use of the potential of the breed.

METHODS AND RESULTS

The object of research was cows of the Simmental breed III lactation of different production types. Three groups of cows were selected for research on the principle of analogues in the breeding

herd of the farm "K-Eldor" of the Pastdargom district of the Samarkand region of Uzbekistan. In group I, cows are of dairy type, in group II - milk-meat and in group III - meat - milk type. The origin of cows was studied according to the data of breeding records, live weight, productivity, types of cows by methods generally accepted in zootechnics. Cows of all types were in the same conditions of keeping, they were fed taking into account milk productivity, live weight, and physiological state. The parameters of milk productivity of cows were studied by methods generally accepted in zootechnics.

Research results. The milk productivity of cows of different types was characterized by the indicators given in table 1.

Table 1

Milk productivity of cows of experimental groups

Index	Group					
	I		II		III	
	$\overline{X} \pm S_{\bar{x}}$	C_v,%	$\overline{X} \pm S_{\bar{x}}$	C_v,%	$\overline{X} \pm S_{\bar{x}}$	C_v,%
Milk yield, kg	4077,0±71,9	5,86	3404,5±66,6	6,40	3118,5±75,9	8,07
Fat in milk,%	3,98±0,053	4,46	4,17±0,045	3,62	4,26±0,048	3,79
Yield of milk fat, kg	162,2±0,37	5,30	142,0±1,72	4,03	132,8±1,96	4,90
Milk yield of 4% milk, kg	4056,6±35,5	2,91	3549,2±43,1	4,03	3321,2±49,1	4,91
Milk ratio	817,5±9,83	3,98	652,3±8,53	4,34	588,8±10,2	5,77
Live weight, kg	498,7±7,97	5,30	521,9±6,36	4,04	529,6±7,15	4,48

As can be seen from the data in Table 1, the milk yield for lactation in cows of group I of the dairy type was 672.5 kg and 958.5 kg, respectively, the yield of milk fat was 20.2 and 29.4 kg, the milk yield of the 4th milk was 507, 4 and 735.4 kg is higher than in group II and III peers with a significant difference.

Figure 1 shows the change in milk yield of cows in the experimental groups, the data of which confirm the high level of milk yield of dairy cows per lactation.

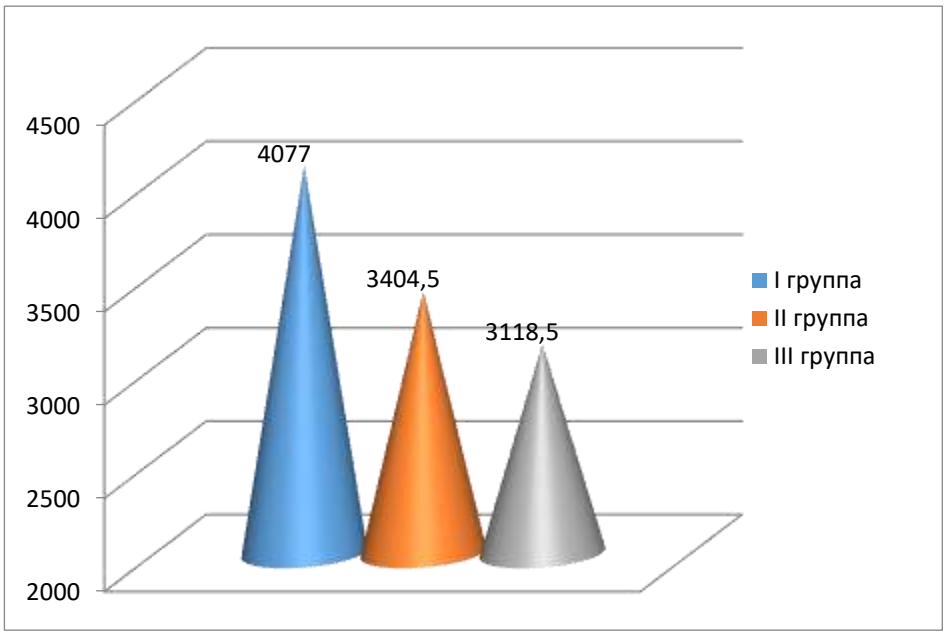

Figure 1 shows the change in the lactation curve of the cows of the experimental groups.

In the studies, the milk yield of group I cows was 377 kg (10.2%), the fat content in milk was 0.18%, the milk fat yield was 22.2 kg higher than the requirements of the current standard for full-aged Simmental cows.

From fig. 1 of the lactation curve shows that cows of the dairy type have a relatively evened lactation curve. Cows of this type of group I reached the highest monthly milk yield of 595 kg in the third month of lactation and maintained this high level with a slight decrease until the fifth month, while in cows of the milk-meat type, the maximum monthly milk yield was noted in the second month, but they had a relatively sharp decrease milked by the fifth month. In cows of meat - dairy type, a high monthly milk yield was also noted in the second month of lactation, but by the fifth month, it decreased by 12.6% compared to the first month.

We studied the yield of dairy products for every 100 kg of live weight of cows (table 2).

Table 2

The output of dairy products for every 100 kg of live weight of cows

Index	Group		
	I	II	II
Milk yield, kg	498,7	521,7	529,6
Milk ratio, kg	817,5	652,6	588,8
For 100 kg of live weight produced:			
4% milk, kg	813,4	680,3	627,1
milk fat, kg	32,52	27,22	25,07

The data in Table 2 indicate that dairy cows are characterized by a higher yield of dairy products per 100 kg of live weight. So, per 100 kg of live weight, they produced milk by 164.9 and 228.7 kg, 4% milk by 133.1 and 186.3 kg, milk fat by 5.3 and 2.13 kg more than cows. milk-meat and meat-milk types, respectively.

Conclusions. 1.The cows of the Simmental breed of dairy production type in terms of milk productivity exceed cows of dairy-meat and meat-dairy types, respectively, by 672.5 and 958.5 kg, milk fat yield by 20.2 and 29.4 kg with a significant difference.

2. Dairy cows are distinguished by a high yield of dairy products per 100 kg of live weight. In dairy cows, the production per 100 kg of live weight of dairy products turned out to be noticeably higher than in other types of cows, which indicates the high efficiency of their use in the dairy herd for milk production.

3. The selection of dairy cows and the formation of dairy herds by them is the key to creating highly productive herds and increasing milk production.

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