Dependence of the Productive Properties of Cows of the Simmental Breed on Body Types

Khairullaeva M.Sh., Master's student (Samarkand University of Veterinary Medicine, Animal Husbandry and Biotechnology)

Ochilov O.K., Student (Samarkand University of Veterinary Medicine, Animal Husbandry and Biotechnology)

Isaev. A. M Assistants (Samarkand University of Veterinary Medicine, Animal Husbandry and Biotechnology)

Sattarov F.R., Assistants (Samarkand University of Veterinary Medicine, Animal Husbandry and Biotechnology)

ABSTRACT

Studies have revealed that the level of milk productivity, the nature of the course of lactation, the yield of dairy products for every 100 kg of live weight and the level of payment for feed with dairy products of Simmental cows are interrelated with body types. In dairy-type cows, the milk yield per lactation is 672.5 and 958.5 kg, 4% milk is 507.4 and 735.4 kg higher, the milk yield for every 100 kg of live milk weight is 164.9 and 228.7 kg higher than that of peers of the milk-meat and meat-dairy types. The highest monthly yield in dairy-type cows was noted in the third, in cows of milk-meat and meat-dairy types in the second month of lactation. This indicates that in dairy cows lactation proceeded more equally than in peers of other types. The data obtained indicate the high efficiency of using dairy-type cows for milk production.

Keywords:

Introduction. In meeting the growing demand of the world's population for highly nutritious livestock products, it is of paramount importance to increase the production of high-quality livestock products. In these conditions, the creation of highly productive herds with a high breeding value of the animals used is brought to the fore. This requires improving selection and breeding work, using recognized breeds-leaders with high genetic potential. productivity and high-value bulls-improvers in the selection, and of course, the provision of livestock with full feeding.

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 have a high genetic potential of dairy productivity of cows. However, the productive qualities of cattle of imported breeds are fully manifested

only if full-fledged feeding is ensured and optimal living conditions are created.

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

Material and methods. The object of research was cows of simmental breed III lactation of different production types. 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, three groups of cows were selected. In the I group of dairy cows, in the II-milk-meat and in the III – meat – dairy 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 detention, fed them taking into account milk productivity, live weight, physiological state. The parameters of milk productivity of cows have been studied by methods generally accepted in zootechnics.

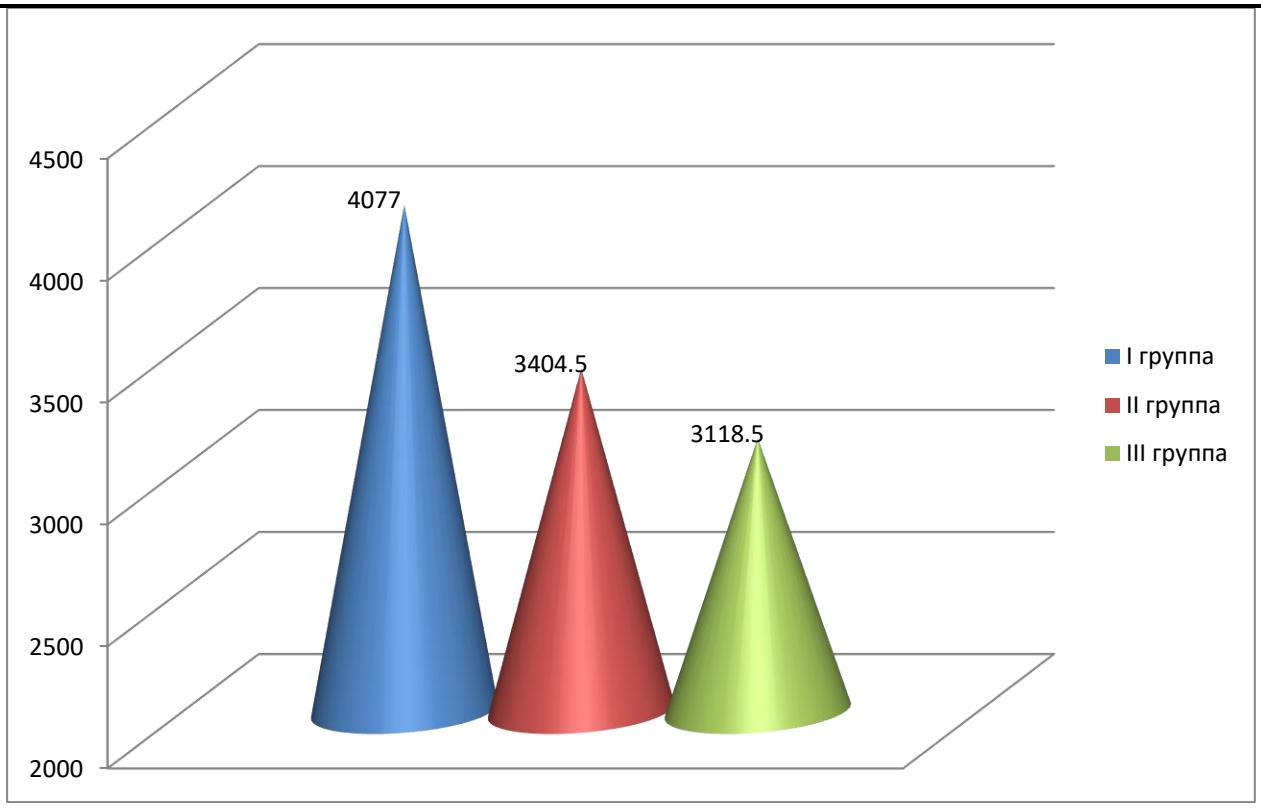
Research results. The milk productivity of cows of different types was characterized by the indicators shown in Table 1

Table 1 Resource requirements by component
Milk productivity of cows of experimental groups

Index	Group					
	I		II		III	
	$\overline{X} \pm S_{\bar{x}}$	Cv,%	$\overline{X} \pm S_{\bar{x}}$	Cv,%	$\overline{X} \pm S_{\bar{x}}$	Cv,%
Udoi,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
Milk fat yield, 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
Milkiness coefficient	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 of Table 1, the yield for lactation in cows of the I group of the dairy type was respectively 672.5 kg and 958.5 kg, the yield of milk fat by 20.2 and 29.4 kg, the milk yield of the 4th milk was 507.4 and 735.4 kg higher than that of the peers of the II and III groups with a significant difference.

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

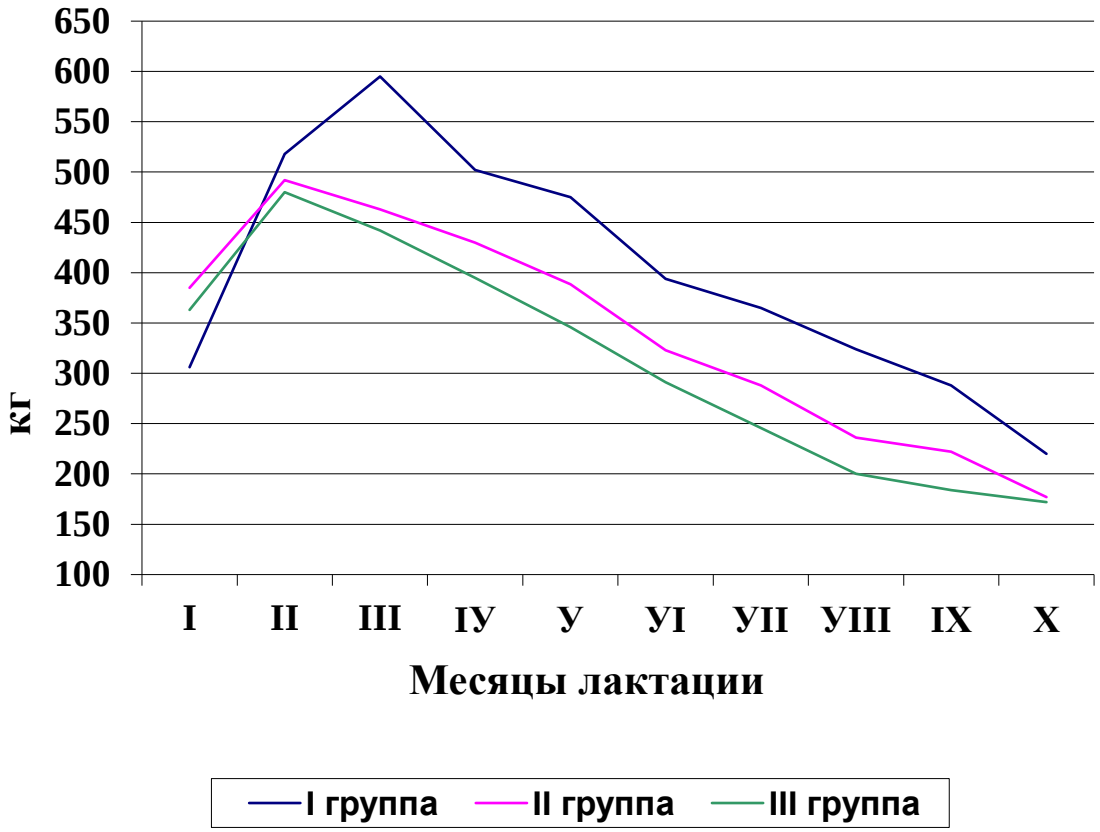


In studies, the yield of cows of group I was 377 kg (10.2%), the fat content in milk was 0.18%, the yield of milk fat was 22.2 kg higher than the requirements of the current standard of full-age cows of the Simmental breed.

Fig.2 shows the change in the lactation curve of cows of experimental groups.

From Fig. 2 of the lactation curve shows that the relatively aligned lactation curve is distinguished by dairy-type cows. Cows of this type I group 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, in cows of the same milk and meat type, the maximum monthly yield was noted in the second month, but they had a relatively sharp decrease in milk yields by the fifth month. In dairy-type meat cows, a high monthly 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.

Ris. 2. Change in the lactation curve of the cows of experimental subjects, kg



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

Table 2 Resource requirements by component

Yield of dairy products for every 100 kg of live weight of cows

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

The data of Table 2 show that dairy cows are characterized by a higher yield of dairy products per 100 kg of live weight. Thus, they produced milk per 100 kg of live weight 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 of dairy and meat - dairy types, respectively.

Findings

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

2. Dairy-type cows are characterized by a high yield of dairy products per 100 kg of live

weight. In dairy-type cows, the production for every 100 kg of live weight of dairy products was noticeably higher than that of peers of other types, which indicates the high efficiency of their use in the dairy herd for milk production.

3.Selection of dairy-type 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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