



The Influence of Simmental Cow Build Types on Productive Properties

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ABSTRACT

The degrees of milk productivity, the nature of lactation, the yield of milk production per 100 kg of live weight, and the amount of payment for feed by milk production of Simmental cows are all linked to the kind of building, according to the study. Dairy cows produce 672.5 and 958.5 kg of milk per lactation, respectively, with 4 percent milk yields of 507.4 and 735.4 kg. Milk yields 164.9 and 228.7 kg more per 100 kg of living weight than its dairy-meat and meat-dairy counterparts, respectively. In dairy cows, the highest monthly milk yield was found in the third month of lactation, while in dairy-meat and meat-dairy cows, the highest monthly milk yield was recorded in the second month of lactation. This suggests that dairy cows lactate more evenly than other breeds of cows. The results show that using dairy cows for milk production is quite efficient.

Keywords:

Introduction. Increased production of high-quality animal products is critical to meeting the world's population's growing need for highly nutritious livestock products. The formation of highly productive herds with high breeding value of the animals employed comes to the fore under these conditions. This necessitates improved selection and breeding work, the employment of recognized leading breeds with high genetic potential for productivity and high-value bulls in the selection process, and, of course, full-fledged feeding of the cattle.

In recent years, a number of European countries with strong cattle breeding have imported breeding stock of leading breeds of

cattle into Uzbekistan in order to enhance the breeding basis and create high-yielding herds. The great genetic potential for dairy productivity distinguishes these breeds of cattle. The productive characteristics of imported cattle, on the other hand, are completely realized only when enough diet and optimal housing circumstances are provided.

The Simmental breed is one of the most widely used breeds, having been successfully grown in a number of nations across the globe's five continents. It is known for its high milk and meat productivity, as well as its adaptability to diverse breeding conditions. The breed has three production kinds, and breeding cattle with these types in mind

creates the conditions for the breed's potential to be fully realized.

Material and methods. The study included cows of the Simmental breed that were in their third lactation and were of various production kinds. Three groups of cows were chosen for analogue research in the breeding herd of the farm "K. Eldor" in the Pastdargom district of Samarkand region of Uzbekistan. Dairy cows are in Group I, dairy-meat cows are in Group II, and meat-milk cows are in Group III. The origin of cows is investigated using methods

commonly used in zootechnics, such as breeding records, live weight, productivity, and cow types. Cows of various kinds were kept in the same conditions and fed based on their milk production, live weight, and physiological state. The parameters of cow milk productivity were investigated utilizing zootechnical approaches.

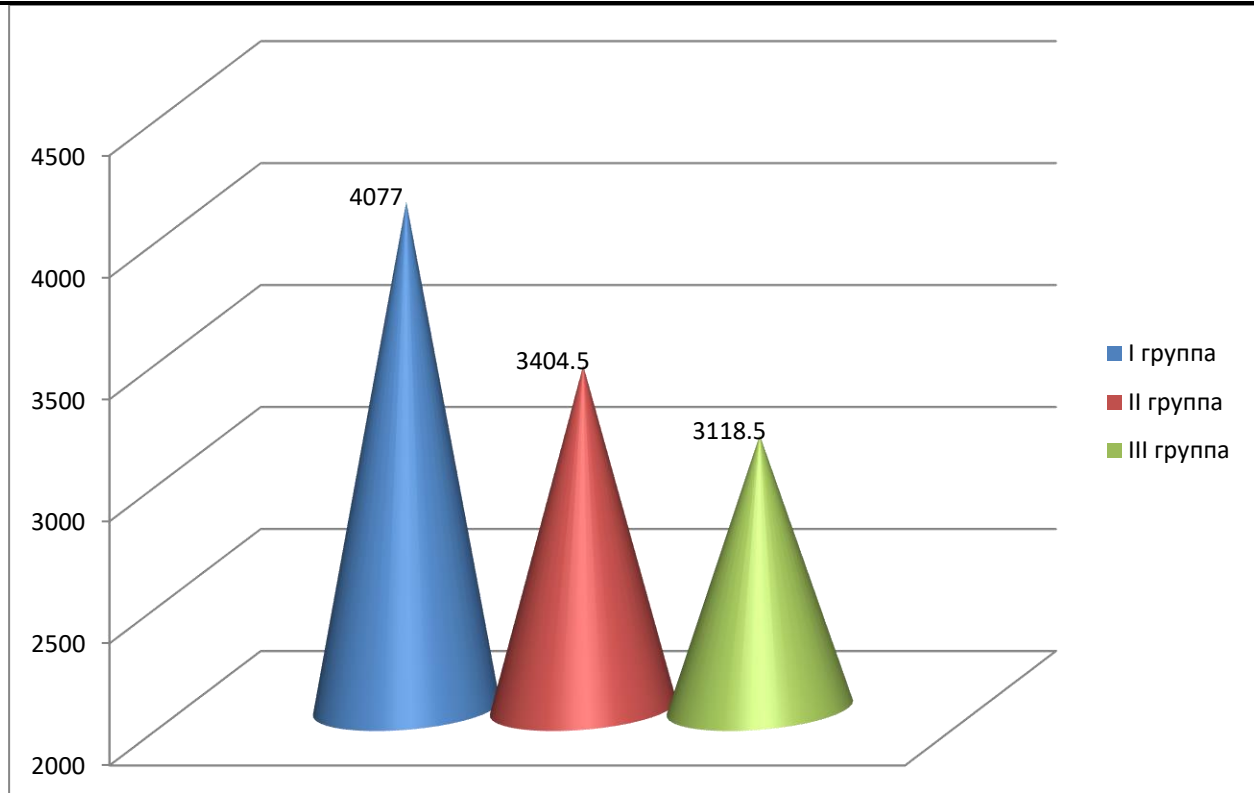
Research results. Dairy productivity of cows of different types was characterized by the indicators given in Table 1.

Table 1
Milk productivity of cows of experimental groups

Indicator	Group					
	I		II		III	
	$\bar{X} \pm S_x$	Cv,%	$\bar{X} \pm S_x$	Cv,%	$\bar{X} \pm S_x$	Cv,%
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
Milk fat yield,kg	162,2±0,37	5,30	142,0±1,72	4,03	132,8±1,96	4,90
Milk yield 4%, 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 Table 1, the yield per lactation of dairy type I cows was 672.5 kg and 958.5 kg respectively, yield of milk fat 20.2 and 29.4 kg, yield of 4-milk 507.4 and 735.4 kg higher than that of their peers in groups II and III, with a significant difference.

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



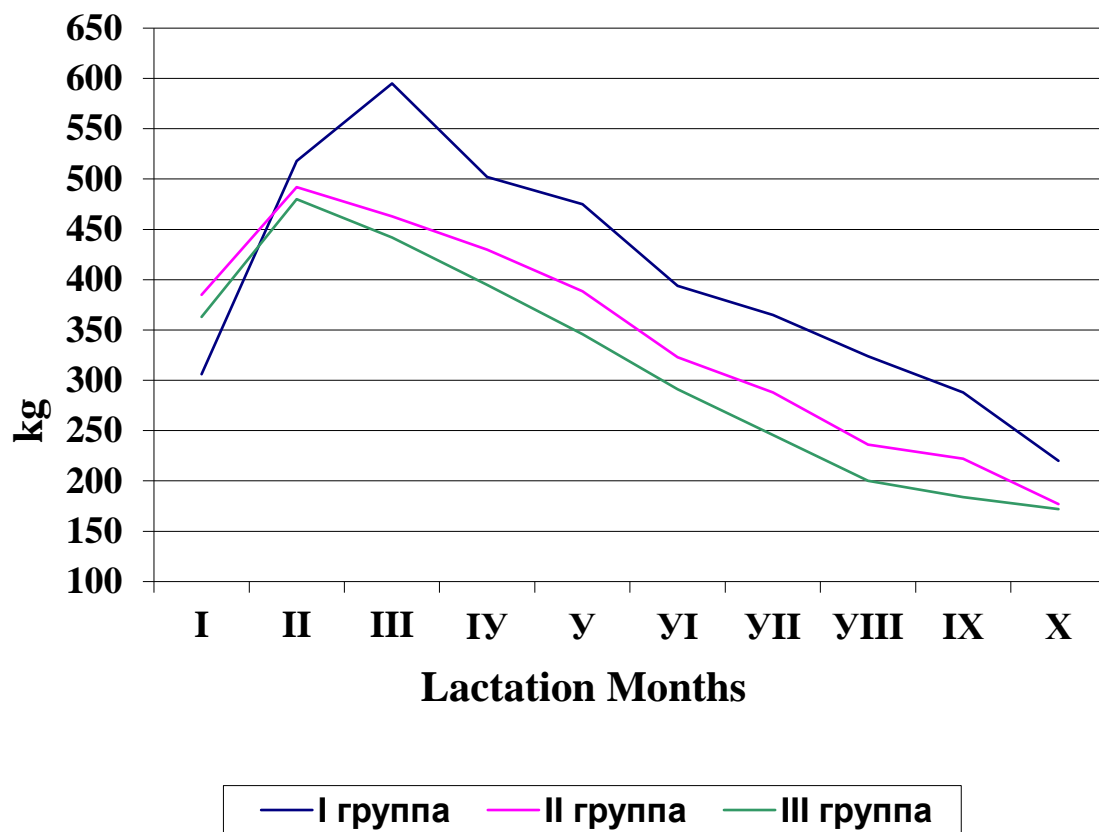
In researches the milk yield of the Group I cows was 377 kg (10,2%), fat content in milk - 0,18%, yield of milk fat - 22,2 kg above the requirements of the current standard of full-grown cows of Simmental breed

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

Figure 2 of the lactation curve shows that dairy cows have a relatively level lactation curve. Group I cows of this type achieved 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 cows of the dairy-meat type had the highest monthly milk yield in the second month, but they showed a comparatively sharp decrease in milk yield by the fifth month. In meat and dairy cows, the high monthly milk yield was also noted in the second month of lactation, but by the fifth month it had decreased by 12.6% compared to the first month.

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



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

Table 2
Milk yield per every 100 kg of live weight of cows

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

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

Conclusion

1.Cows of Simmental breed of dairy production type surpass dairy-meat and meat-meat cows by 672.5 and 958.5 kg respectively, milk fat yield by 20.2 and 29.4 kg with a reliable difference.

2. Dairy cows have a high yield of dairy products per 100 kg of live weight.In dairy type cows the production per every 100 kg of live

weight of dairy products was noticeably higher than in peers of other types, indicating the high efficiency of their use in the dairy herd for milk production.

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

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