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CHARACTERISTICS MILK PRODUCTION OF COWS WITH DIFFERENT BODY COMPOSITION

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Abstract:

In the researches, Simmental breed cows with milk and milk-meat body composition III and above lactation were characterized by high milk productivity during lactation, and it was also found that they have the properties of covering feed with milk products at a high level. These results have been found to be of great practical importance in creating dairy herds from high-yielding cows and determining their efficiency in carrying out selection work taking into account body structure types, determining efficiency in cattle breeding.

Keywords: Breed, cattle, simmental, milk, fat, protein, milk sugar, meat, cow, live weight

RELEVANCE OF THE TOPIC.

Cattle breeding is one of the main sectors in world animal husbandry and occupies the first place in terms of production volume of livestock products. The main part of livestock products produced in all categories of farms in our republic is accounted for by the cattle industry, which is considered important in meeting the population's demand for livestock products.

Simmental cattle will take the first place in the farms of our republic in terms of import from abroad in the next 15 years. This breed is one of the leading breeds in the double-yielding direction, and in terms of the number of heads, it takes the leading places in the world among other breeds in terms of milk yield and quick maturation of cows, and meat yield, and in terms of the distribution area of the breed. Cows are distinguished by the proportional development of their exterior, good adaptation to breeding in different climatic conditions, high milk quantity and fat content in milk, and duration of use in the farm. Also, the calves of the breed have high growth energy and good feed coverage characteristics. Due to these important features, selection of cattle of this breed according to different production and constitution types is one of the urgent tasks [1,2,3,4].

THE PURPOSE OF THE STUDY.

The purpose of the work is to improve the milk yield, exterior and fertility characteristics of Simmental cows depending on the types of body structure and constitution types..

PLACE AND METHOD OF RESEARCH.

Scientific research was conducted in 2020-2022 in a herd of Simmental cows at the "Hamro Tokhta" breeding farm in the Romitan district of the Bukhara region.

For the experiment, 3 groups of 10 Simmental cows of lactation III and above were selected, taking into account the similarity of origin, breed, age, live weight, milk yield of mothers, selection of fathers.

The origin of the cows in the experimental groups and the productivity of their parents were determined from the primary zootechnical records of the farm.

Feeding of cows in all groups was organized taking into account their live weight, milk yield and physiological condition, and their keeping conditions were the same.

RESEARCH RESULTS.

Our research showed that the milk yield of Simmental cows during lactation depends on their body structure types, and the results of this are shown in Table 1. According to the data of Table 1, the amount of milk of cows of milk production type of group I during the 305-day period of lactation is 5273.8 kg, and it is 313.8 kg (P>0.01) of cows of milk-meat production type of group II (P>0.01) and 443.2 kg (P>0.001), milk fat output 11.3 kg (P>0.01) and 16.1 kg (P>0.001), milk protein output 10, 35 kg (P>0.01) and 14.85 kg (P>0.001), 4% milk was found to be higher than 282.9 kg (P>0.01) and 401.5 kg (P>0.001). The dry matter, skimmed milk solids and milk sugar content of the cows in all experimental groups were within the required range. It is worth noting that the milk content of the first group of cows in lactation III and above

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1 Table
Milk yield of cows in experimental groups, n=10

Indicators	I group		II group		III group	
	X±Sx	Cv, %	X±Sx	Cv, %	X±Sx	Cv, %
Amount of milk, kg	5273,8±68,91	4,13	4960,0±58,12**	3,71	4830,6±41,87***	2,74
Milk fat, %	4,04±0,02	1,86	4,07±0,03	2,51	4,08±0,03	2,23
Milk protein, %	3,64±0,02	2,04	3,67±0,03	2,62	3,67±0,03	2,21
Milk fat yield, kg	213,1±3,08	4,58	201,8±1,70**	2,66	197,0±1,14***	1,83
Milk protein yield, kg	192,05±2,81	4,63	181,7±1,55***	2,70	177,2±1,04***	1,85
4% milk content	5326,7±77,07	4,58	5043,8±42,47***	2,66	4925,2±28,44***	1,83
dry matter,%	12,23	-	12,25	-	12,26	-
YQSQ,%	8,47	-	8,47	-	8,48	-
milk sugar,%	4,32	-	4,32	-	4,32	-

**P≤0,01, ***P≤0,001

2173.8 kg in the I group, 1860 kg in the II group and 1730.6 kg in the III group from the sample requirements of the Simmental breed cows, the fat content of the milk is 0.24, respectively; 0.27 and 0.28%, and milk fat output is 95.1%; It was higher by 83.8 and 79 kg. Thus, it was shown that the milk productivity of cows depends on their production types. When organizing dairy herds of Simmental cows, the organization of selection and mating activities taking into account their body structure types expands the possibilities of increasing the weight of cows in the direction of milk productivity in herds.

Maintaining the milk productivity of cows during the first hundred days of lactation and the uniform decrease of the amount of milk in the following months, that is, the characteristics of lactation, are considered to be one of the factors that determine the level of milk productivity of cows. High yielding cows have high milk production from the first month after calving to the first, second, third, and fourth months, and then gradually decrease in the following months, which indicates that the cows are producing milk at a moderate level.

In our research, we studied the characteristics of lactation of cows, the results of which are reflected in Table 2.

The analysis of the data in Table 2 shows that cows in groups I, II and III had the highest monthly milk amount in the second month of lactation, these indicators were 12.8% of the milk amount during lactation in group I, 12.9% in group II and 12.9% in group III was equal to %.

In our research, the cows of the experimental group I had 1926 kg of milk during the first 90 days of lactation, which was 36.5% of the milk produced during lactation, in group II it was 1815.1 kg or 36.6%, and in group III it was 1781.8 kg or 36. made up 8%. These data are based on the first 90 days of cows in all experimental groups

2 Table
Changes in monthly milk volume, coefficient of milk period constancy and index of decline in milk volume during lactation of cows in experimental groups

Lactation months	Groups								
	I			II			III		
	n=10			n=10			n=10		
	amount of milk, kg	coefficient of constancy of milk period	milk yield index, %	amount of milk, kg	coefficient of constancy of milk period	milk yield index, %	amount of milk, kg	coefficient of constancy of milk period	milk yield index, %
I	590,3	100	87,4	558,0	100,0	87,2	550,4	100,0	88,0

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II	675,2	114,4	-	639,6	114,6	-	625,3	113,6	-
III	660,5	111,2	97,8	617,5	110,6	98,5	606,1	110,1	96,9
IУ	612,1	105,2	90,6	592,3	106,1	92,6	585,8	106,4	93,7
У	550,3	93,2	81,5	532,4	95,4	83,2	520,7	94,6	83,3
УI	518,2	87,8	76,7	483,4	86,6	75,6	450,2	81,8	72,0
УII	489,0	82,8	72,4	439,5	78,7	68,7	421,7	76,6	67,4
УIII	452,4	76,6	67,0	415,6	74,5	65,0	404,7	73,5	64,7
IX	420,3	-	62,2	389,4	-	60,9	381,2	-	61,0
X	305,5	-	45,2	292,3	-	45,7	284,5	-	45,5
According to the milking period	5273,8	96,4	-	4960,0	95,8	-	4830,6	94,6	-

Shows that the amount of milk is at the level of demand and the index of decrease of the amount of milk is also the same.

Cows of groups I, II and III observed the highest monthly milk amount in the second month of lactation, these indicators were equal to 12.8% of the milk amount during lactation in group I, 12.9% in group II and 12.9% in group III.

In our research, the cows of the experimental group I had 1926 kg of milk during the first 90 days of lactation, which was 36.5% of the milk produced during lactation, in group II it was 1815.1 kg or 36.6%, and in group III it was 1781.8 kg or 36. made up 8%. Our data show that the milk content of the cows in the first 90 days in all experimental groups was at the required level and the index of decrease in milk content was also the same.

Indicators of feeding with milk products during lactation play an important role in improving and evaluating the efficiency of using dairy herds. In our research, we studied the level of feeding with milk during lactation of cows in the experimental groups, the results are presented in Table 3.

3-Table

Indicators	Groups		
	I (п-10)	II (п-10)	III (п-10)
Feed unit consumed per 1 cow during lactation, kg	4957,4	4760,7	4734,0
Amount of milk, kg	5273,8	4960,0	4830,6
Amount of 4% milk, kg	5326,7	5043,8	4925,2
Feed unit used to produce 1 kg of natural milk, kg	0,94	0,96	0,98
Feed unit used for 1 kg of 4% milk, kg	0,93	0,94	0,96
Produced per 100 feed units			
Milk with natural fat, kg	106,4	104,2	102,0
4% milk, kg	107,4	105,9	104,0

The analysis of the data in Table 3 shows that the cows of the experimental group I were characterized by the highest milk yield during lactation and, therefore, the milk content of 4% was high, and they compensated the feed with milk products at a good level. In particular, cows of group I compared to cows of groups II and III used 0.02 or 2.13% and 0.04 or 4.25% less feed units to produce 1 kg of natural milk, as well as for 1 kg of 4% milk the consumed feed unit was also 0.01 or 1.1% and 0.03 kg or 3.12% less.

It should be noted that the cows of experimental group I produced 106.4 kg of milk per 100 kg of feed during lactation, compared to other cows of group II and III, 2.2 kg (2.1%) and 4.4 kg (4.3%) of natural fat content. milk, 1.5 kg (1.4%) and 3.4 kg (3.3%) produced more milk with 4%.

SUMMARY. Cows with milk body structure in the experimental groups were characterized by high milk productivity, therefore, it was found that they have characteristics of covering the feed with milk products at a high level compared to the cows of the milk-meat and meat-milk type. It was found to be of great importance in determining efficiency in cattle breeding. These results show that selection for body type is important and effective in establishing dairy herds from Simmental cows.

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REFERENCES

1. Б.М.Аширов. Қизил чўл ва англер зотларининг генотипига эга сигирларнинг конституция типлари ва паратипик омилларга боғлиқликда маҳсулдорлигини ошириш. Док.Дисс. 2016. 68-72-б.
2. Селков В.Н., Сермягин А.А. "Продуктивные качества и экстерьерные особенности дочерей быков симментальской породы отечественного и австрийского присхождения". Ж.Зоотехния, №4.2010.с. 2-4.
3. Светова Ю.А.Останчук А.В., Гусева Т.А. "Особенности молочной продуктивности коров импортной селекции в процессе адаптации." Ж. "Нива Поволжья" №1 (30), 2014, с. 110-113.
4. Соатов Ў.Р., Аширов М.Э. "Швиц зотли сигирлар сут маҳсулдорлигининг тана тузилишига боғлиқлиги" Ж.Агроилм. №3 2012. 41б.