

UO‘T: 636. 082. 11: 636.088.5

RESULTS OF DETERMINING MILK PRODUCTIVITY INDICATORS OF HOLSTEIN COWS

(PhD); Mirsaidova Zuhra Shukhrat kizi

(PhD) Associate Professor; Khuzhamov Jurabek Nayimovich

Samarkand State University of Veterinary Medicine, Animal Husbandry and Biotechnology

Annotation. In this article, milk yield, milk fat, milk protein yield and 4% milk yield per 100 kg of live weight of Holstein cows of Dutch, German and Danish selection were compared and studied depending on the type of constitution. information was provided.

Keywords: Cattle breeding, Holstein, milk yield, Netherlands, Germany, Denmark, breed, selection, lactation, milk yield coefficient, protein, fat.

Relevance of the topic. In recent years, in order to develop cattle breeding based on scientific achievements and advanced experience, great attention has been paid to breeding work, strengthening the feed base, and improving the technology of product production and processing. In this regard, it is important to improve the breed of cattle, enrich and preserve its gene pool. In recent years, farms have been importing improved breeds of cattle such as Holstein, Swiss, Aberdeen Angus, Kazakh Akbash and Flagfix Simmental from Germany, the Netherlands, Denmark, Austria, Kazakhstan, and Poland. Therefore, in recent years, black-and-white and red-and-white Holstein cattle, which differ sharply from other cattle breeds with their economic useful characteristics typical of the world gene pool, have been imported from abroad to various regions of our country.

Materials and methods. We conducted our scientific research on determining the milk yield, milk yield coefficient, 4% milk, milk fat and milk protein yield of Holstein cows of different selections in the “Siyob Shavkat Orzu” specialized cattle breeding farm. 3 groups were divided for the experiment: Group I belonged to the Dutch selection (thin-dense, strong constitution types), Group II belonged to the German selection (thin-dense, strong constitution types), Group III belonged to the Danish selection (thin-dense, strong constitution types), n=10 heads were selected from each constitution type.

The results obtained and their analysis. The constitution of animals is studied based on their body and internal structure. As can be seen from the table, the differences in some characteristics between the Holstein, thin-dense and strong constitution types of cows obtained during the experiment were as follows.

The amount of milk in lactation of Holstein cows in our experimental group I was 1281.1 kg or 14.7 percent higher than that of Holstein cows in our experimental group II, and 1505 kg or 17.3 percent higher than that of Holstein cows in group III. It was precisely in this group I that the cows of the Dutch selection of the strong constitution type were 884.6 kg or 9.32% higher than that of Holstein cows in group II, and 1594.3 kg or 16.8% higher than that of cows in group III. In terms of live weight, cows in group I were 17.2 kg or 2.4% heavier than cows in group II, and 40 kg or 5.5% heavier than cows in experimental group III. Holstein cows of group I, belonging to the strong constitution type, weighed 16.9 kg or 2.3% heavier than cows in group II, and 39 kg or 5.3% heavier than cows in experimental group III. In terms of 4% milk yield, group I was

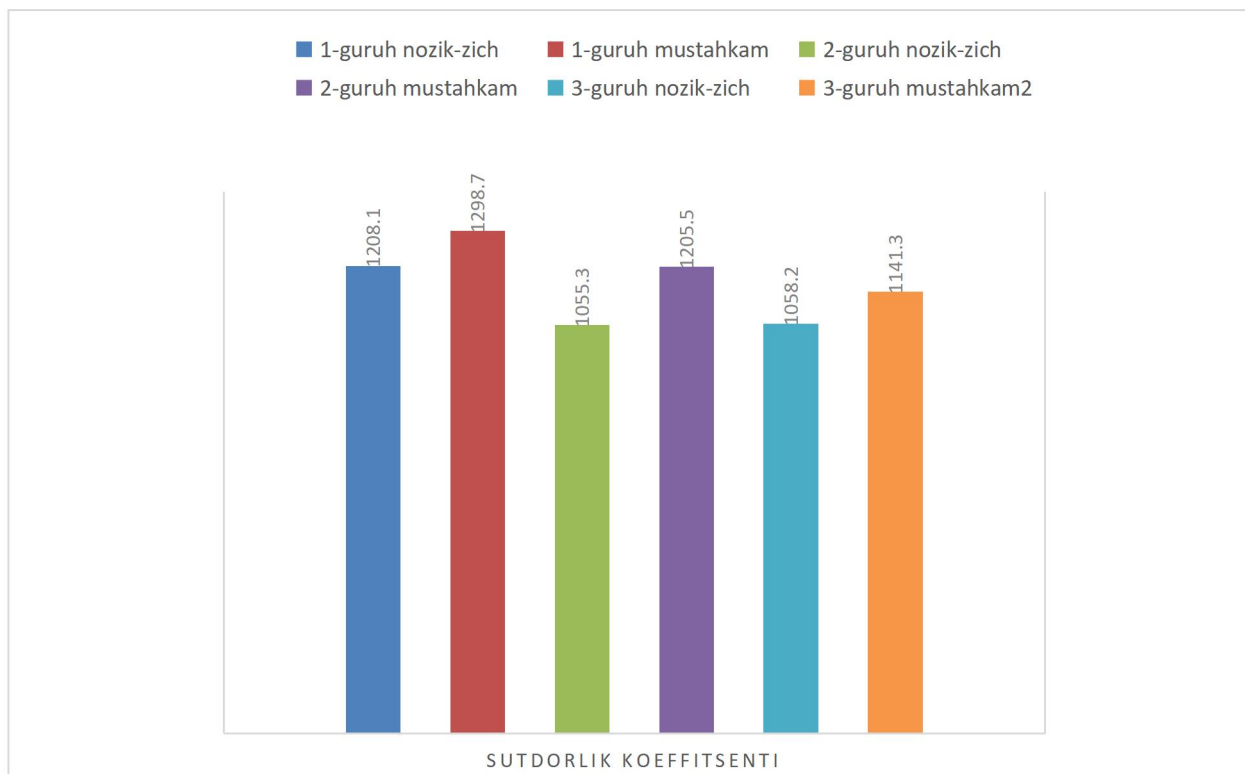
1031.76 kg or 12.5% heavier than group II, and 1835.08 kg or 22.2% heavier than group III. In the strong constitution type, group I was 1057.2 kg or 10.9% heavier than group II, and 1811.7 kg or 18.6% heavier than group III. The milk yield coefficient was 151.63 or 12.5% higher in group I than in group II, and 148.45 or 12.3% higher in group III. In the same groups, the strong constitution type was 93.2 or 7.2% higher in group II than in group III, and 156.4 or 12.1% higher in group III. In proportion to this, when comparing milk fat yield and milk protein yield, group I cows were 51.9; 58.2 kg and 45.97; 55.84 kg or 15.1; 16.95% and 16.4%; 19.9% higher than their counterparts. With this indicator, group I cows with a strong constitution type were 37.15; 67.75 kg and 36.89; 59.35 kg or 9.7; 17.6% and 11.8; 19.0% prevailed.

Table 1

Milk production of cows of different breeds productivity .(n=10)

Indicators	Groups					
	Group I		Group II		Group III	
	thin-dense	solid	thin-dense	solid	thin-dense	solid
	X±Sx	X± Sx	X± Sx	X± Sx	X± Sx	X± Sx
Alive weight , kg	719.5±8.9	730.4±11.3	702.3±12.3	713.5±10.9	679.2±12.3	691.4±10.5
Lactation in milk quantity , kg	8692.4±166.8	9485.5±201.5	7411.3±151.1	8600.9±191.6	7187.4 ±145.7	7891.2±155.3
Milk Fat content , %	3.95±0.043	4.05±0.047	3.93±0.058	4.03±0.053	3.97±0.049	4.01±0.05
Milk in the content protein , %	3.23±0.025	3.29±0.024	3.17±0.024	3.2±0.028	3.13±0.025	3.2±0.027
4% milk , kg	8627.2 ± 1 75.8	9556.6 ± 208.2	733 3 , 2± 181.3	86 39 , 6± 128,3	7 155.0 ± 147.5	7903 ± 83.03
Dairying coefficient	1208.1 ± 18.9	1298.7 ± 28.2	105 5 , 3 ± 22,3	12 05 , 5 ± 27,4	1058.2 ± 22.3	114 1 , 3 ± 25,2
Milk wood yield , kg	343.4 ± 7.7	384.1 ± 9.04	291.3 ± 8.5	346.6 ± 10.9	285.3 ± 6.2	316.4 ± 6.4
Milk protein output , kg	280.8 ± 6.06	312.1 ± 6.2	234.9 ± 4.4	275.2 ± 5.5	224.9 ± 4.9	252.5 ± 5.7

1-rasm



Conclusion. Thus, the use of Holstein cows of different selections with a strong constitution type in dairy herds is considered more effective than cows with a thin constitution, since one calf per year and milk productivity during lactation can be obtained from Holstein cows with a strong constitution. It was found that when assessing the productivity of Holstein cows, it is important to study a number of indicators such as the milk yield coefficient, i.e. milk production per 100 kg of weight, 4% milk yield, milk fat, and milk protein yield.

Adabiyotlar ro'yxati.

1. Narbaeva M.K., Kakharov A.K., Sharapov R.Sh. Milk productivity of Holstein and Holsteinized black-motley cows. //Zooveterinaria Tashkent, 2011.№11-12. 49-50p.
2. Narbaeva M.K. Productivity of Holstein black-motley breeds and their crosses in the conditions of the southern zone of Uzbekistan. Author's abstract of dissertation candidate of agricultural sciences. Tashkent.2001.P.21
3. Khuzhamov, J. N., Mirsaidova, Z., Hamidova, R., & Jo'rayev, B. (2023). STATE OF LIVESTOCK DEVELOPMENT AND PROSPECTIVE PLANS OF OUR REPUBLIC. SCIENTIFIC JOURNAL OF APPLIED AND MEDICAL SCIENCES, 37-44.
4. Khuzhamov Jurabek Nayimovich. Ways to increase milk productivity of cows of different breeds and breeding. Abstract of the dissertation for the degree of Doctor of Philosophy (PhD) in Agricultural Sciences. Samarkand 2019, 41 pages.
5. Z.S. Mirsaidova, Yu.N. Khudzhomov, Kh.S. Mirsaidov, Dependence of milk productivity of Holstein cows of different breeds on the type of constitution, Agrobiotechnology
6. Zukhra Mirsaidova, Mokhigul Narzullayeva, Rasul Amonov, Jurabek Khujamov, Kadyken Rizabek Clinical and hematological indicators of cows belonging to different selections of the holsttin breed by seasons. <https://doi.org/10.1051/bioconf/20249501022> BIO Web

Conf. **Volume 95**, 2024 III International Conference on Current Issues of Breeding, Technology and Processing of Agricultural Crops and Environment (CIBTA-III-2024)

7. Khujamov Jurabek Nayimovich, Soyibjonov Ahmadillo Tohirjono'g'li, Mirsaidova Zuxra Shuxratovna, Kurbanova Shahnoza Ergashevna, Gapparov Shovkhiddin Tazhievich
WAYS TO INCREASE MILK PRODUCTION USING BIOLOGICAL CHARACTERISTICS AND PARATYPICAL FACTORS OF COWS. Journal of Advanced Zoology ISSN: 0253-7214
Volume 44 Special Issue-2 Year 2023 Page 4687:4694