



## DEPENDENCE OF MILK PRODUCTIVITY OF HOLSTEIN COWS ON LIVING WEIGHT

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### Abstract

Studies have shown that the milk yield of Holstein cows in the first lactation is organically dependent on the live weight at the first birth. The average milk yield per cow in lactation I was 489.7 kg, which is 282.0 and 134.9 kg higher than the average 450.3 and 470.1 kg cows, respectively, and the 4% milk yield was 243.6 and 209.7 kg higher, respectively. found to be

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Holstein cows are the most productive in the world in terms of milk yield. Their milk productivity depends on the sensitivity of feeding, storage conditions, many external environmental factors. At the same time, the level of milk productivity of cows is inextricably linked to live weight [1-5]. Determining the optimal live weight of cows to ensure high milk productivity is of great scientific and practical importance in ensuring an increase in milk production. Therefore, it is important to study the effect of this important factor on the milk yield of Holstein cows. With this in mind, we studied the milk yield level of Holstein cows in relation to their live weight at first birth.

The research was conducted in a herd of Holstein cows of the cattle breeding farm "K.Eldor" in Pastdargom district of Samarkand region. Three groups of Holstein purebred cows in I lactation were selected for the experiment based on the requirements of similarity traits. Group I was allocated 460 kg at the first birth, group II 461-480 kg and group III 481 kg and above live weight cows. The feeding and care conditions of the cows in all groups were the same. The cows were fed taking into account the milk yield, live weight and physiological condition. The milk yield of cows was studied in generally accepted methods in zootechnics. Dry matter in milk, skimmed milk powder, milk sugar were studied by the methods of P.V Kugenev, N.V Barabanshchikov (1978).





Table 1 shows the milk yield of cows in the experimental groups.

Table 1 Milk yield per 1 lactation of cows

Indicators	Groups					
	I		II		III	
	X±Sx	Cv,%	X±Sx	Cv,%	X±Sx	Cv,%
Amount of milk, kg	4283,6±72,0	6,29	4430,7±75,3	6,36	4565,6±107,1	8,78
Milk fat, %	3,94±0,035	3,29	3,93±0,026	2,44	3,91±0,03	2,67
Consumption of milk fat, kg	168,7±2,03	4,52	174,1±2,17	4,68	178,5±3,11	6,52
4% milk, kg	4219,3±49,5	4,40	4353,2±54,5	4,69	4462,9±77,7	6,53
Live weight, kg	450,3±4,69	3,90	470,1±1,82	5,47	489,7±2,25	1,72
Dry matter, %	12,45		12,44		12,41	
Dehydrated dry milk residue, %	8,67		8,67		8,66	
Milk sugar, %	4,51		4,51		4,50	

An analysis of the table data shows that the milk yield level of Holstein cows is inextricably linked to the live weight at first birth. In our study, the amount of milk in lactation I of cows of group III with a live weight of more than 481 kg in the first birth was 282.0 kg ( $P > 0.95$ ) and 134.9 kg, respectively, of cows in groups I and II, respectively, and the milk fat yield was 10.8 kg ( $P > 0.99$ ) and 4.4 kg, 4% milk content was found to be higher than 243.6 kg ( $P > 0.99$ ) and 209.7 kg ( $P > 0.95$ ).

In group II, the average live weight of cows was 450.3 kg, and in lactation I cows of group I were 147.1 kg in terms of milk yield, 6.4 kg in terms of milk fat consumption, 133.9 kg in terms of 4% milk yield. It was found that

Table 2 shows the consumption of dairy products per 100 kg of live weight in the first lactation of cows in the experimental groups.

Table 2 Consumption of dairy products per 100 kg of live weight of cows, kg

Indicators	Groups		
	I	II	III
Milk with natural fat	951,3	942,5	932,3
Milk fat consumption	37,46	37,03	36,45
4 % milk	937,0	926,0	911,3

As shown in Table 2, cows in all groups had high milk production rates per 100 kg of live weight during lactation I. At the same time, the amount of milk produced by cows of group I at the expense of the specified weight is 8.8 and 1.9 kg, respectively, from cows of groups II and III, milk fat consumption is 0.43 and 1.01 kg, 4% milk is 11.0 and 25, It was found to be 7 kg high.



## Conclusions

The level of milk yield in the first lactation of Holstein cows depends on the live weight. Group III cows with an average live weight of 489.7 kg in lactation I had an average milk yield of 450.3 kg, group I and an average live weight of 470.1 kg of group II cows 282.0 and 134.9 kg, respectively, milk fat consumption 10,8 and 4.4kg, 4% milk were characterized by high values of 243.6 and 209.7 kg, respectively.

## References

1. Ashirov M.E., Ashirov B.M., Yuldashev A.A. Intelligence of Holstein cattle in Uzbekistan. Monograph, T., «Navruz», 2020, 270 p.
2. Ashirov M.E., Yuldashev A.A. Parameters xozyaystvenno-poleznykh priznakov evropeyskogo importirovannogo skota v usloviyax Uzbekistana. J. «Zootechnics», №8, 2019, p.7-12.
3. Sivkin, N.V., Strekozov N.I., Chinarov V.I. Molochnye breed of large rogatogo cattle: tribal resources. J. «Molochnaya promyshlennost», №6, 2011, p. 62-64.
4. Ashirov M. E, Donaev X., Ashirov B. M. Productive features of the Holstein breed of Austrian selection in the conditions of Uzbekistan. J. «Zootechnics», №8, 2018, p. 30-31.
5. Dunin I., Kochetkov A. Sharkaev V. Plemennye and productive quality of dairy cattle in the Russian Federation. J, “Molochnoe i myasnoe skotovodstvo”, №6, 2010, p.2-5.

