THE PROGRESSION OF THE LACTATION PERIOD IN COWS

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Abstract

Research has shown that the milk productivity of local cows depends on the nature of the lactation process. Cows with a uniform course of lactation are characterized by higher milk productivity.

Keywords: cow, lactation, yield, milk, productivity

The milk productivity of cows is associated with the characteristics of their lactation period. Generally, cows with uniform lactation demonstrate better milk productivity. Our study examined how the course of lactation affects milk yield in cows.

Research was conducted on local cows in household farms in the Muynak district of the Republic of Karakalpakstan.

In household farms, the milk productivity obtained from livestock is quite low. This is due to the lack of opportunities to provide adequate feed, the absence of processing technologies for available feed, and the lack of understanding of feeding livestock based on a balanced ration. In our research, we studied the milk productivity indicators of cows by feeding them a fully balanced ration (Table 1).

Table 1

Milk productivity of local cows at different lactation stages in the experimental herd

	III and above	
Indicators	X±Sx	Cv,%
Milk yield, kg	2014,8±182,1	29,9
Fat content in milk, %	3,94±0,043	3,63

Milk fat yield, kg	79,17±7,35	30,73
Protein content in milk, %	3,56±0,029	2,78
Milk protein yield, kg	718,8±9,34	30,93
4% fat-corrected milk yield, kg	1988,9±185,7	30,57

According to the data in Table 1, a higher level of feeding for local cows created an opportunity to significantly increase their milk productivity during the lactation period. On average, 2014.8 kg of milk with a fat content of 3.94% was obtained from one cow during lactation, and the protein content in the milk was 3.56%.

Table 2 presents the monthly milk yield of the cows in the experiment during the lactation period, along with the persistency coefficient of the milking period and the milk yield decline index.

Table 2

Changes in cows' monthly milk yield, milking period persistency coefficient, and milk yield decline index

Milking moths	Groups		
	I		
	Milk yield, kg	Milking period persistency coefficient, %	Milk yield decline index, %
I	156,8	100	54,4
II	224,5	143,2	77,8
III	288,2	128,4	-
IV	285,7	99,1	99,13
V	262,2	91,8	90
VI	229,7	87,6	79,7
VII	199,2	86,7	69,1
VIII	168,7	84,6	58,5
IX	128,6	-	44,6
X	70,8	-	24,6
Milk yield for the entire milking period, kg	2014,8	102,6	-

According to the table data, the monthly milk yield of the cows changed uniformly, which can also be observed from the persistency coefficient of the milking period and the milk yield decline index.

Studying the lactation curve is of particular importance when evaluating the uniformity of the milking period in cows (Figure 1).

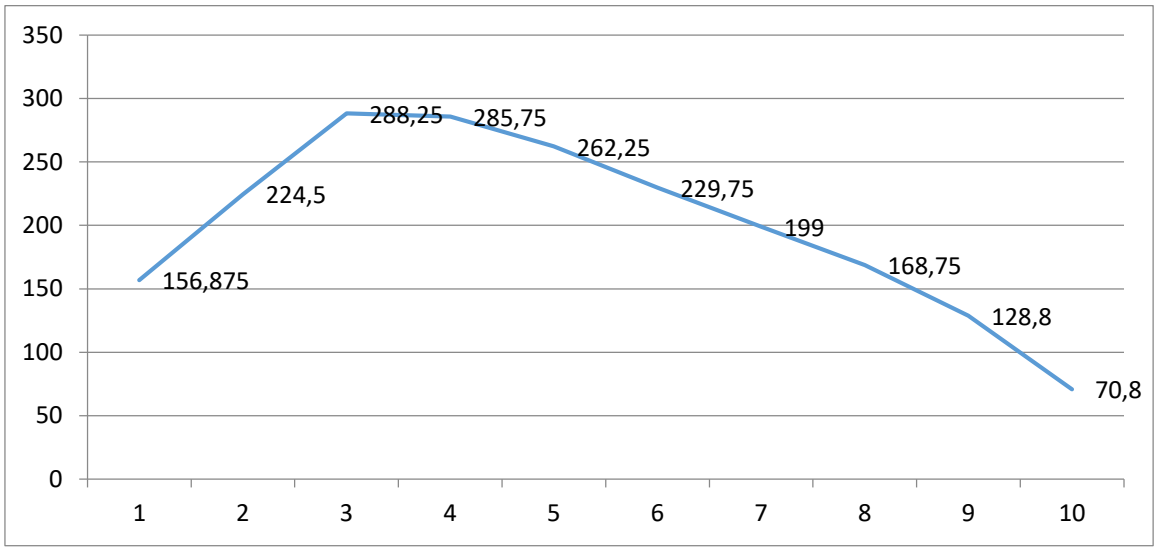

Figure 1. Dynamics of Monthly Milk Yield During Cow Lactation

As seen in Figure 1, the highest monthly milk yield in cows was observed in the third month of lactation, and it remained high until the fifth month. Starting from the sixth month, the yield gradually began to decline.

These findings indicate that, along with achieving high milk productivity through balanced feeding, the milk yield during lactation in local cows also followed a uniform course.

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