

Morphological and functional features of the udder of Holstein cows of different constitutions.

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Abstract: The morphological and functional properties of the udder of cattle studied in this experiment have been studied. The fact that the diameter of the udder of cows in the experimental groups was at the level of the requirements of the norm indicates that the cows meet the requirements of milking in the apparatus.

Keywords. Morphofunctionality, fertilization, lactation, milk, udder, pelvic, cupped, constitution.

Introduction.

Today, profound economic, organizational, social and political reforms are underway in all sectors of the economy. The purpose of this is, in the words of the wise President, to please the people, our compatriots, to create a basis for a prosperous life, to raise our children healthy. In short, it is to ensure food security for the population. Agriculture and animal husbandry play a special role in this work.

Research methods and results.

In herds specializing in milk production, the udder of the cows plays an important role in assessing the suitability of cows for machine milking and improving the efficiency of milk production. Therefore, the study of the morphofunctional structure of the udder of cows is of great practical importance. As an experiment, the following groups I (n = 10) were obtained, Dutch cows of Dutch selection, group II (n = 10), Holstein cows of German selection. With this in mind, we examined the udder characteristics of the cows and presented them in Table 1 below.

It should be noted that in our study, the udder of the cow was pelvic, cupped and round, but the main part of the udder was cupped.

Table 1
Size of udder of cows in experimental groups, cm (X ± Sx)

Indicators	Groups			
	I		II	
	X±S _x	Cv%±S _x	X±S _x	Cv%±S _x
Udder circumference	122,3±0,21	1,10	124,4±0,76	1,19
Udder length	37,6±1,20	4,26	38,7±0,81	4,11
Udder width	36,8±1,55	4,01	37,9±3,49	3,51
Front udder depth	27,3±5,09	5,11	32,8±0,78	4,76
Rear udder depth	30,4±1,59	3,18	33,4±0,51	4,53
Length of front udder suction cups	7,73±0,04	2,90	8,90±0,17	3,71
Length of rear udder suction cups	7,23±0,31	3,48	8,60±0,15	3,40
Udder suction diameter	24,5±0,71	4,41	25,60±0,22	1,97
Udder index,%	43,9±0,86	1,69	44,1±0,47	1,81
Conditional udder volume, cm ³	3717,92	X	3980,80	X
Udder milk yield, kg / min	1,34±0,06	3,71	1,35±0,38	4,93

Analysis of the data in Table 1 shows that the udder of cows in the experimental groups differed from each other in morphological and functional properties. It is noteworthy that the udder characteristics of cows belonging to the stable body type were better than those of the thin-bodied cows of the same age. In particular,

the circumference of the nipple was 124.4 cm, the difference was 2.1 cm or 1.7% in favor of the cows of the II experimental group, 1.1 cm or 2.9% in the length of the nipple, 1.1 cm in the width of the nipple, or 3.0%, 5.5 cm or 20.1% of the depth of the front of the nipple, 3.0 cm or 9.9% of the depth of the back of the nipple, 1.17 cm or 7.7% of the length of the front nipples, 1.37 cm behind or 18.9 percent teat length, 1.1 cm 3 or 4.5 percent teat diameter, 0.02 percent teat index and 0.01 kg per minute milking speed.

In both groups, the variability of the udder of the cows was good.

Conclusion It should be noted that the udder diameter of the cows in the experimental groups was at the level of regulatory requirements, which means that they met the requirements of milking on the apparatus.

Thus, the results of our study showed that the morphological and functional characteristics of the udder of cows, as well as milk yield, are directly related to the shape of their udders.

List of used literature

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