

O. STADNYTSKA

Institute of Agriculture of Carpathian Region of NAAS

**EXTERIOR MEASUREMENTS OF COWS
AND THEIR RELATIONSHIP WITH DAIRY PRODUCTIVITY**

Results of our investigations were showed that the highest milk yield in cows of Ukrainian Black Mottley dairy breed in conditions of the Ternopil region were in cows with height at withers 132–135 and 136–139 cm. Difference in milk yields between cows with height at withers 120–123 and 136–139 cm in the first lactation was 713,1 kg, 740,0 in the second and 779,7 in the third and the highest – 667,4 kg, as for the milk fat – respectively 19,8; 26,2; 27,7 and 27,2 kg. Animals with height at the withers 124–127 cm were inferior (concerning milk yield) to individuals with height 136–139 cm for the first lactation by 43,8 kg, the second – to 409,8, the third to 454,3, the highest at 557,9, and for the milk fat – by 18,6; 14,1; 16,1 and 19,8, and cows with height at the withers 120–123 cm inferior to peers with height at the withers 132–135 centimeters above mentioned indicators for respectively 724,6; 656,6 kg, 343; 516,1 kg and 18,9; 11,5; 11,7 and 18,3 kg.

There was a significant difference in terms of milk production also between other groups of cows. Our results of research were showed that the optimum height at the withers for cows Ukrainian Black Mottley dairy breed in the conditions of the region is 138–139 cm.

We founded that the highest yield in cows of Ukrainian Black Mottley dairy breed were in animals with chest depth of 75–77 cm.

Cows with chest depth of 75–77 cm by milk yield dominated cows with a chest depth of 60–62 cm in the first lactation at 616,0 kg, the second – to 773, the third – to 785, the highest lactation – 839, 9 kg, by the milk fat – urespectively by 21,4; 27,7; 28,0 and 29,8 kg. Between cows with deep chest 63–65 and 75–77 cm difference in yields in the first lactation was 873,0, the second – 596,8, the third – and the highest 701,6 –700,0 kg, and the quantity of milk fat – respectively 20,3; 21,3 kg, 24,5 kg and 24,9. Advantage of the cows with chest depth 75–77 cm over the cows with deep chest by 66–68 cm after mentioned indices were 494,8; 572,9; 585,0 and 580,0 kg, 17,7; 20,2; 20,9 and 20,6 kg – between cows with chest depth 60–62 and 72–74 cm difference in the milk yield for the first lactation was 680,0 the second – 666,0 the third – 618,2 and the highest – 681,9 kg, and the number of milk fat – respectively 21,9 24,1; 21,4 and 24,6 kg. Cows with a chest depth of 72–74 cm in milk yields were superior to animals with chest depth of 62–65 cm in

the first lactation at 502,9, the second – at 489,8, with the third – at 534,4 and the highest – at 544,5 kg, and the number of milk fat, respectively, 17,8; 17,7; 18,3 and 18,0 kg. It was established reliable difference in terms of milk production also between other groups of animals.

Results of our investigations showed, that for cows of Ukrainian Black Mottley dairy cattle in the conditions of Ternopil region, optimum depth of the chest is 75–77 cm.

We are established that the highest milk yield in cows of Ukrainian Black Mottley dairy cattle in the conditions of Ternopil region was observed in animals with breast width of 47–50 cm, and the lowest – in animals with breast width 31–34 cm. The first animals dominated the second by milk yield per lactation in the first lactation to 623,0, the second – to 698,0, the third – to 758,1, the highest – at 901,0 kg, and the number of milk fat – by 22,1; 27,4; 27,4 and 31,7 kg.

Advantage of the cows with a breast width of 47–50 cm over the individuals in which this figure was within 35–38 cm, concerning above mentioned indices, were 440,0; 484,7; 566,8 and 671,5 kg and 15,6; 16,8; 20,7 and 23,8 kg by the milk fat. Among other groups of animals in terms of milk production, reliable difference was also established.

Thus, that the optimal height at the withers for cows Ukrainian Black Mottley dairy cattle is 136–139 cm deep chest – 75–77 cm, and width of the chest – 47–50 cm.