

RELATION OF UDDER QUARTER DEVELOPMENT WITH DAILY MILK YIELD, COMPOSITION AND SOMATIC CELL COUNT

Evaldas Šlyžius¹, Vida Juozaitienė¹, Saulius Tušas², Arūnas Juozaitis³, Judita Žymantienė⁴

¹*Department of Animal Breeding, Veterinary Academy, Lithuanian University of Health Sciences
Tilžės 18, LT-47181 Kaunas, Lithuania; Tel. +370 37 363575; E-mail: biometrija@lva.lt; slyzius@lva.lt*

²*Department of Animal Husbandry, Veterinary Academy, Lithuanian University of Health Sciences
Tilžės 18, LT-47181 Kaunas, Lithuania*

³*Department of Animal Nutrition, Veterinary Academy, Lithuanian University of Health Sciences
Tilžės 18, LT-47181 Kaunas, Lithuania*

⁴*Department of Anatomy and Physiology, Veterinary Academy, Lithuanian University of Health Sciences
Tilžės 18, LT-47181 Kaunas, Lithuania*

Abstract. The aim of this study was to investigate the impact of the development of udder quarters on cow productivity and milk composition and somatic cell count in milk. The rear quarters produced more milk with higher fat, protein and lactose content than the front quarters but in urea content there was no difference between the front and the rear quarters. The front quarters produced 41.8 % of the total yield, and rear quarters produced 58.2 % ($p < 0.001$). Front teats were longer than rear teats. The diameter of the rear teats was smaller than that of the front teats. The difference of the distance between the front and the rear teats was 7.49 cm, while the distance difference between the left and the right teats was insignificant and amounted to 0.29 cm ($p < 0.001$). The distance between the front teats was 2.52 times higher than the distance between the rear teats. In addition, the distance between teats is subject to considerable variation (22–60 %) and shows the need to increase the intensity of selection. Significant correlation of milk yield and SCC with teat thickness, teat length and teat distance measures was established.

Keywords: cow, somatic cell count, milk, udder quarters, teats.