

INFLUENCE OF MILKABILITY TRAITS ON MILK SOMATIC CELLS COUNT IN LITHUANIAN RED AND RED AND WHITE CATTLE

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Summary. The aim of the present study was to estimate the relationships between milkability, milk yield and somatic cell score in milk of Lithuanian Red and Red-and-White cattle. The research was carried out with 574 cows of Lithuanian Red and Red-and-White breed in 2005–2006. Cows were grouped by lactations and by points of milking rate. The statistical analysis was carried out at the Laboratory of Establishment of Animal Breeding Value and Biometry, Lithuanian Veterinary Academy. The results indicate that 84–93% of cows had slow and very slow milking. The highest milk yield (21.51 – 37.50 kg; $P < 0.01$) was found for cows with average and fast milking in all lactations (1.87–2.33 kg/min; $P < 0.01$). Highly significant positive correlations were observed between milk yield and milking speed (0.491, $P < 0.01$) and between milk yield and high milk flow (0.670, $P < 0.01$). Furthermore, in cows of all lactations statistically significant negative correlation was estimated between milking speed and somatic cells count (-0.145; $P < 0.01$). Lowest somatic cells count was estimated in cows with average and fast milking of all lactations ($143\text{--}298 \cdot 10^3/\text{ml}$; $P < 0.001$) and the highest somatic cells count was estimated in cows with very slow and slow milking of all lactations ($279\text{--}619 \cdot 10^3/\text{ml}$; $P < 0.001$). The results from this study indicate, that there is a need of purposeful selection by cows' milkability in Lithuanian Red and Red-and-White cows population.

Key words: milking time, high milk flow, milking speed, somatic cells count.