

EFFECT OF PARITY AND LACTATION STAGE ON MILK FLOW CHARACTERISTICS OF SLOVAK SIMMENTAL DAIRY COWS

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Summary. This research is focused on the evaluation of milk flow traits of Slovak Simmental dairy cows, using electronic mobile milk flow meters - Lactocorders. All measurements were carried out on a farms located in the western Slovakia. We evaluated a total amount of 124 Simmental dairy cows. The Main group of Slovak Simmental dairy cows was divided according to parity and lactation stage respectively, into the experimental groups in order to carry out a comparison of traits and parameters of milkability, obtained by Lactocorder within these groups. The average total milk yield was 9.79 ± 3.89 kg per milking with an average milk flow rate of 1.80 ± 0.64 kg.min⁻¹ and maximum milk flow rate of 2.66 ± 0.98 kg.min⁻¹. The total milk yield showed a positive correlations with average milk flow rate ($r = 0.54+++$) and with maximum milk flow rate ($r = 0.31+++$). In the second part of our study we divided the whole group of Simmental dairy cows (124) into 3 sub-groups according to parity. The highest average and maximum milk flow rates were reached by the dairy cows in the second lactation (1.83 ± 0.69 kg.min⁻¹ and 2.71 ± 1.03 kg.min⁻¹ respectively). On the other hand, the dairy cows in the second lactation reached also the highest percentage of bimodal milk flow curves (32 %). In the case of dividing the dairy cows according to lactation stage, the highest average and maximum milk flow rates were measured in the group of dairy cows "from 100 to 200 days in milk" (2.22 ± 0.69 kg.min⁻¹ and 3.09 ± 1.01 kg.min⁻¹). We detected a significant influence of lactation stage on total milk yield, average milk flow rate and duration of main phase of milking ($r = -0.52+++$, $-0.30+++$, and $-0.32+++$).

Keywords: milkability; lactocorder; Slovak Simmental cattle.