INFLUENCE OF GENETIC AND NON-GENETIC FACTORS ON MILK UREA OF COWS

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Summary. The aim of performed study was to determine milk urea (MU) heritability coefficient and to evaluate influence of non-genetic factors. In the population of Lithuanian dairy cattle was determined the marked fenotipic variation (Cv=61.99-68.42%) of urea concentration in cows milk and statistically significant influence of year, season, month and farm (p<0.001). The highest level of urea in cows milk was determined in autumn (22.8±0.010mg%), particularly in September (24.8±0.017 mg%). The MU at the pasturable time was on 16.5% higher than at stable period (p<0.001). It was observed the statistically significant tendency of MU decrease in cows milk in rising of lactation (p<0.001). The MU at third and upper lactations was on 9.8% and on 11.4% lower compared to second and first lactation. The MU of congenerous coupling cows in average was statistically significantly on 6.7% higher (p<0.001), compared to cows of unrelated coupling. It was determined that MU heritability coefficient in Lithuanian cows population ranged from 0.182 to 0.205.

Keywords: milk, urea, non-genetic factors, breed, heritability, cows.