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Milk quality of three cow breeds during the successive years of performance

S u m m a r y

The research aim was to evaluate quality of milk obtained from three breeds of cows in the successive lactations. The analysis covered 696 milk samples, i.e. from Polish Holstein-Friesian Black-White variety - 308, Polish Holstein-Friesian Red-White variety - 236 and Jersey - 152. All animals were maintained in loose housing intensive rearing technology system. The feeding of cows were conducted in TMR system. Milk samples were collected during control milking individually from the specified animals, twice a year. The somatic cell count (SCC), chemical composition, active and potential acidity, density and freezing point were evaluated in each milk sample. Significant influence of the cows' breed and age on milk chemical content as well acidity and freezing point was found. The highest content of the analyzed compounds was recorded in the milk

obtained from Jersey cows. This milk was characterized by the highest acidity and lowest freezing point as well. The successive lactation had also an influence on SCC. Milk obtained from primiparous cows (independently on the cows' breed) was characterized by the lowest SCC and the highest content of dry matter, including crude protein and casein. Milk potential acidity and its freezing point, gradually with cows' age, were significantly changed, as well.