

The cytological quality of milk produced by cows maintained in different barn types

S u m m a r y

Data concerning somatic cells content in 3448 milk samples from Polish Holstein-Friesian cows of Black-and-White variety out of 15 months of lactation were used in the study. Milk samples originating from 23 herds of cattle kept under the stanchion cowhouse and 12 herds of dairy cattle kept under the free stall cowhouse were examined. The cowhouses were situated in eastern part of Mazovia and southern part of Podlasie. The effect of maintenance system of the cows on the cytological quality of milk was evaluated. It was found that the maintenance system of cows had a significant effect on the somatic cells content in milk. The milk of cows kept under the free stall system contained less somatic cells than from the cows kept under the stanchion cowhouse. The mean content of cell elements in 1 ml of milk amounted to 329 thousand. The cows kept under the stanchion cowhouse produced milk with decidedly higher number of somatic cells (mean – 495 thous./ml). Only in 1, 9 and 12 months of lactation this milk fulfilled criteria of the highest qualitative class. The differences between averages were statistically significant at $P \leq 0.05$.