

## **The influence of some factors on somatic cell count in milk of high yielding cows**

### **Summary**

The aim of the study was to analyze somatic cell count (SCC) in milk of high yielding cows in dependence on various factors: month of lactation and cow age (subsequent lactation), calendar month, day milk yield as well as milk yield for 305 days of lactation. The research was conducted on the randomly selected group of 70 Polish Holstein Friesian cows coming from high yielding dairy herd. The data on dairy performance of the cows were obtained from the breeding documentation. The influence of milk yield (daily and in lactation), lactation number as well as time of the year and lactation stage on SCC in milk was considered. Milk of cows in the first lactation had the best cytological quality. The average SCC increased together with the subsequent lactation and consequently, with cow age, which indicates to worsening of the udder health in the subsequent lactations. The highest SCC value was recorded in the milk from cows giving up to 20 kg of milk per day, and the lowest one in milk from cows giving over 40 kg of milk per day (453.1 thousand/ml and 282.1 thousand/ml respectively). It was proven, that milk from cows producing over 10 thousand kg of milk per lactation contained more somatic cells than that from lower yielding cows (397.6 thousand/ml and 244.6 thousand/ml respectively). The effect of time of the year and lactation stage appeared to be statistically not significant.

**KEY WORDS:** cows, mastitis, SCC, lactation number, milk yield, lactation month