

## **Quality and chemical composition of milk of cows maintained in various types of cowsheds**

### **Summary**

The aim of the study was to analyze the influence of cows' maintenance system, herd size and milk production scale on raw milk chemical composition and quality. The study included 30 milk producers who delivered the raw material to the district cooperative dairy plant located in Central Poland. The purchased milk was characterized by good quality parameters qualifying it to the extra class and had a desirable chemical composition. Statistically significant ( $p \leq 0.01$ ) influence of herd size and production scale on fat and protein content and SCC in milk as well as significant ( $p \leq 0.05$ ) effect on TBC in milk was demonstrated. Maintenance system statistically significantly ( $p \leq 0.01$ ) affected fat content and SCC in milk. The most profitable quality parameters (SCC, TBC) were recorded in case of the cows maintained in loose barns, and less profitable in stanchion barns with cows' milking using milking machine. Irrespective of cowshed type connected with the technology of milk obtaining and a scale of its production, chemical composition of milk should be improved systematically, and an attention should be paid to health status of mammary gland of cows and sanitary regime while milk obtaining.

**KEY WORDS:** cows, SCC, TBC, milk chemical composition, maintenance system, herd size, production scale