

Evaluation of the quality of milk on selected semi-subsistence and large commercial farms

Summary

The aim of the study was to compare the chemical composition and quality of raw cows' milk from selected farms supplying milk directly to dairies, depending on production volume, diet, housing system, and milking system. The research material consisted of Polish Holstein-Friesian cows of the black-and-white variety from ten dairy farms, divided into two groups according to annual milk production: large-scale (over 100,000 litres/year) and semi-subsistence (under 100,000 litres/year). Over 12 months of research, the following were evaluated in individual barns: feeding system and method of feeding, feed rations, average feed intake, weight and body condition of cows, and milk yield, composition and quality. The results obtained confirm that in addition to genetic factors, the quality and chemical composition of milk is affected by a number of environmental factors. The feeding model, housing system, and milking system were largely tailored to the size of the herd, and thus were linked to the milk production technology on the farm, which significantly affects the quality of the commercial milk produced. The highest quality of raw material is obtained on farms using modern systems.

KEY WORDS: cows, milk, chemical composition and quality of milk, nutrition, TMR, PMR