ABSTRACT

Bacterial contamination of fresh milk may start when milk is taken from dairy cow’s teat. Accordingly, the hygiene of cow’s udder before milking must be taken into account. Unhygienic cow’s udder may produce milk of low quality. In order to reduce the potential for bacterial contamination of fresh milk, it is necessary to apply disinfectant to cow’s udder before milking. This research aims to analyse the difference in fresh milk bacteriological content in relation to application and non-application of disinfectant to dairy cow’s udder prior to milking, which is located in the “Karunia” Dairy Cow Breeding, village of Jong Biru, Regency of Kediri. This is a purely experimental research. The research design used was the Post-test with control group in which a replication was performed twice. A simple stratified random sampling was organized of which the samples criteria comprised lactating dairy cow that did not suffer from mastitis. The number of the required samples was 10 Holstein dairy cows for control group and 10 Holstein-Friesian dairy cows for treatment group. The data analysis used was the Shapiro-Wilk normality test, which was followed by the Mann-Whitney non-parametric test with $\alpha = 0.05$. The results of research indicate that the fresh milk bacteriological content of treatment group is lower than the fresh milk bacteriological content of control group. Results of analysis also show $p=0.000$ which means that there is a significant difference between the cow’s udder in the “Karunia” Dairy Cow Breeding which is cleaned by warm water mixed with disinfectant before milking and the one which is cleaned only by warm water in its fresh milk bacteriological content.

Keywords: cow’s udder, bacteriological content, fresh milk