Abstract

The primary objective of this study was to determine the effects of clinical mastitis on cows. Total of 273 milks were collected from farms around Kasetsart University at Kamphangsaen campus, Nakhonpathom province during a 3-month period (October to December 2002). Somatic cell count (SSC) from the milk use to identify the status of clinical mastitis.

Categorical Principle Component Analysis (CATPAC) reduces attribute space from a 41 variables to disease resistant 5 associated factors which are host and milking, environment, agent, and sanitation and equipment factors. A Hierarchical Logistic Regression Analysis explored the relationship of these factors by following the theoretical assumption of clinical mastitis. The results show that the influential infection factors are host and milking factor (59% of correct classification), environment factor (61.5% of correct classification), sanitation factor (69.6% of correct classification) and the equipment factor decreased the percent of correct classified about 3%. It means that the equipment factor can help prevent the infection of clinical mastitis, which the agent factor is not increased the percent of correct classification. Therefore, the agent factor is the influenced factor between infection and non-infection. The overall correct classification of the model is 67.4% at the significant level of 0.05.