

## SUMMARY

### **Kocak P. The microbiological investigation of white, tulum, kasar and lor cheese produced at dairy processing premises located in Aydın**

In this study, a total of 120 cheese samples, (30 white cheese, 30 tulum cheese, 30 kasar cheese, 30 lor cheese) collected from various dairy product sale points in Aydın province, were investigated in order to determine their microbiological features between April and September 2012.

The results of microbiological analyses showed that the mean total viable counts of white cheese, tulum cheese, kasar cheese and curd (lor) cheese were 9.43 log cfu /g, 9.87 log cfu/g, 7.71 log cfu/g and 9.80 log cfu/g, respectively. The mean number of *S. aureus* observed on the cheese samples were found to be as 4,87 log kob/g, 5.62 log kob/g, 4.14 log kob/g, 5.09 log kob/g for white cheese, tulum cheese, kasar cheese and curd (lor) cheese, respectively. Samples were also examined in order to evaluate the levels of coliform bacteria and the results showed that although the least contaminated cheese was found to be kasar cheese, the coliform loads of other cheese types were found to be statistically higher than the expected levels ( $p < 0.001$ ). When the presence of *E. coli* was considered, it was determined that *E. coli* was present in 32 samples (26.6 %). One kasar cheese sample was also found to be contaminated with *L. monocytogenes*. No *Salmonella* spp. were encountered in any of the cheese samples investigated. The presence of the pathogenic bacteria, such as *E. coli*, *Salmonella* spp. and *L. monocytogenes*, in samples examined were investigated in every sample.

As a result, it was concluded that microbiological quality of the cheese samples were generally poor due to inadequate hygienic conditions provided during production and marketing. Presence of *S. aureus* causing food poisoning, *L. monocytogenes* causing listeriosis, and coliform bacteria accepted as hygiene indicator in cheese samples examined showed the importance of food safety protocols of from farm to fork approach and the public health risk caused by cheese.

**Key Words:** *E.coli*, *L. monocytogenes*, *Salmonella* spp., *S. aureus*, cheese