

## SUMMARY

### **The Investigation of *Escherichia coli* O157:H7 Serotype in White Cheeses.**

This research has been carried out for the purpose of insulating enterohemorrhagic *Escherichia coli* O157: H7 strains in 100 white cheese samples obtained from different places (village market places, milking barns and stores) of Aydın province. Culture is applied to lauryl sulphate tryptose broht (LSTB) which contained 4-methylumbelliferyl- $\beta$ -D-glucuronide of the cheese samples which are subjected to fortification during the study and fertility is determined in 82 of the cheese samples. As a result of culture application to the sorbitol mconkey agar (SMAC), of the samples in which the fertilization is determined, colorless and medium size colonies observed in 16 cheese sample. As a result of the microscopic examination of the colonies, active factors are determined in 11 cheese sample. 5 of these 11 samples found to be indole positive. Latex agglutination test applied to these 5 indole positive samples in order to confirm the existence of *E. coli* O157:H7 and it has been observed that none of the samples produced agglutination. It has been determined that cheese samples contained 82 coliform bacteria. Furthermore, fecal origin *E. coli* is detected in 62 cheese samples.

No *E. coli* O157:H7 strain, which is a fecal origin factor, in any of the cheese samples can be insulated. However, it has been determined that contamination levels, of the cheese being sold, with the hygene indicator microorganisms such as coliform and fecal *E. coli* are exceeding the levels set forth by the communiqué of the Turkish Food Codex Microbiological Criteria and may create risks for the customer health.

**Key Words:** Cheese, Coliform Bacteria, *E. coli*, *E. coli* O157 : H7