B - 45

A STUDY OF MICROFLORA OF MEAT PRODUCTS AT DIFFERENT STAGES OF PROCESSING

D. G. N. G. Wijesinghe
(*Department of Agricultural Chemistry, University of Peradeniya*)

The objective of this study was to ascertain the growth of micro-organisms on a variety of meat products at six different stages of processing, viz : before washing the carcasses with chlorine solution, after washing, mincing, curing, smoking and cooking.

Every sample of meat product was tested for the total viable count of micro-organisms, coliform count, *Escherichia coli* count, *Staphylococci* count and for the presence of *Salmonella*. Thirteen varieties of intermediate or finished products which were of meat origin were subjected to the study, drawing samples in duplicate for each test. The experiments were repeated to achieve a greater accuracy.

Total viable count of micro-organisms reduced after washing the carcasses with chlorine solution but increased while mincing. There was a gradual reduction of the total viable count in the subsequent stages of processing.

The drop in the coliform count due to washing the carcasses with chlorine solution was negligible. However, the count increased while mincing but declined gradually in the subsequent stages of processing.

Escherichia coli count dropped drastically due to the effect of washing the carcasses with chlorine solution. It was fairly constant while mincing and dropped gradually in the subsequent stages of processing. After cooking, the count was nil.

Staphylococci count dropped after washing the carcasses with chlorine solution and increased while mincing. Further increase in the count occurred during curing. The count gradually reduced in the subsequent stages of processing.

Salmonella was found to be absent at all stages of processing.