

ABSTRACT

The Development of Cottage Cheese from Goat Milk

MARGARET CAROL TAYLOR

In this report, established methods of Cottage Cheesemaking are modified in an attempt to produce a Cottage cheese, first from cow milk, and then finally from goat milk.

Both long and short-set methods are investigated. In an effort to produce Cottage cheese of good quality, manipulation of both the level of starter, and the starter organisms themselves is carried out. The organisms used are *Streptococcus lactis*, *Streptococcus cremoris* and *Leuconostoc dextranicum*.

Chemical analyses and sensory evaluation are carried out. Sensory evaluation data is analysed using the Chi-square distribution method.

Results indicate that methods using 1% starter and an incubation temperature of 32 °C produce the best Cottage cheese from both cow and goat milk, however all three organisms named must be added to the goat milk starter.

Proximate analyses also reveal that low total solids of the goat milk contribute to a less than firm texture.

Statistical analyses reveal that while the colour of the products are found to be acceptable, the taste and aroma are not. The data also reveals that further work

is necessary to bring the cheeses obtained by the methods used, on par with a commercially available product.

The author is indebted to a great number of people who were in many ways instrumental in the completion of this research project.

Firstly, I express my sincerest appreciation to Mrs. Gail Baccus-Taylor, my supervisor, who guided the course of this research, and helped in other innumerable ways.

Secondly, I would like to thank Mr. Deberah Maharaj and Mrs. Caren Agerwall, fellow students, who shared the burdens as well as the triumphs.

My special thanks are also given to the workers in the lab. at Nestle for their help, especially Mr. A. Chin and Mr. R. Tikasingh.

Finally, I would like to acknowledge the assistance of Mr. A. Narina, Ms. G. Mitchell and Ms. B. Mitchell.