

ABSTRACT

The Development of a Cottage cheese from Buffalo Milk.

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Cottage cheese is a lactic acid precipitated product made from fresh skim milk or skim milk powder. It is usually a soft, white, cooked curd to which cream and salt are eventually added. It is considered a food for the health-conscious due to its low fat, high protein, vitamin and mineral content.

Buffalo Milk (BM) is richer than cow milk. It is especially suitable for the production of fresh cheeses and Mozzarella cheese. BM is well studied in India, Egypt and Italy. However, it is under-utilized in the Caribbean.

This study investigated the effect of the cutting pHs 4.8, 4.7, 4.6, 4.5 and the cooking temperatures 53 C., 57 C. and 60 C. on curd yield, percent total solids (TS), percent protein and sensory score. The best BM cottage cheese was selected and compared to a market sample. D cultures were used in standard methods of Cottage cheese production.

Cutting at pH 4.8 produced a curd which matted and

developed a rubbery texture on cooking. This curd underwent putrefactive spoilage earlier than curds cut at lower pHs. Cutting at the other pHs and cooking at the 3 different temperatures stated above had no effect on yield, percent total solids, percent protein or sensory score of the products.

The Buffalo Milk product was white with a yellow tinge, showed good cream absorption properties and exhibited no wheying-off. Diacetyl was prominent in the aroma and flavour profiles. The flavour was also slightly tart. The texture was meaty.

Average yield was 114g. drained, uncreamed curd/500ml. buffalo skim milk. Average percent total solids was 20.4% . Average percent protein was 16.2% . BM Cottage cheese texture was firmer than that of the market sample. These findings were due to the higher percent total solids of Buffalo Milk.

Buffalo Milk Cottage cheese produced by laboratory methods was acceptable after one month storage at 4 C. in an air tight container.

Although both the Buffalo Milk and the market samples of Cottage cheese were acceptable as cottage cheeses, there was a significant difference between them. There was a significant preference for the Buffalo Milk sample.