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**STUDIES ON USING
ULTRAFILTRATION PROCESSING
IN MANUFACTURING
DOMIATI-LIKE CHEESE**

تحت

By

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STUDIES ON USING ULTRAFILTRATION PROCESSING IN MANUFACTURING DOMIATI-LIKE CHEESE

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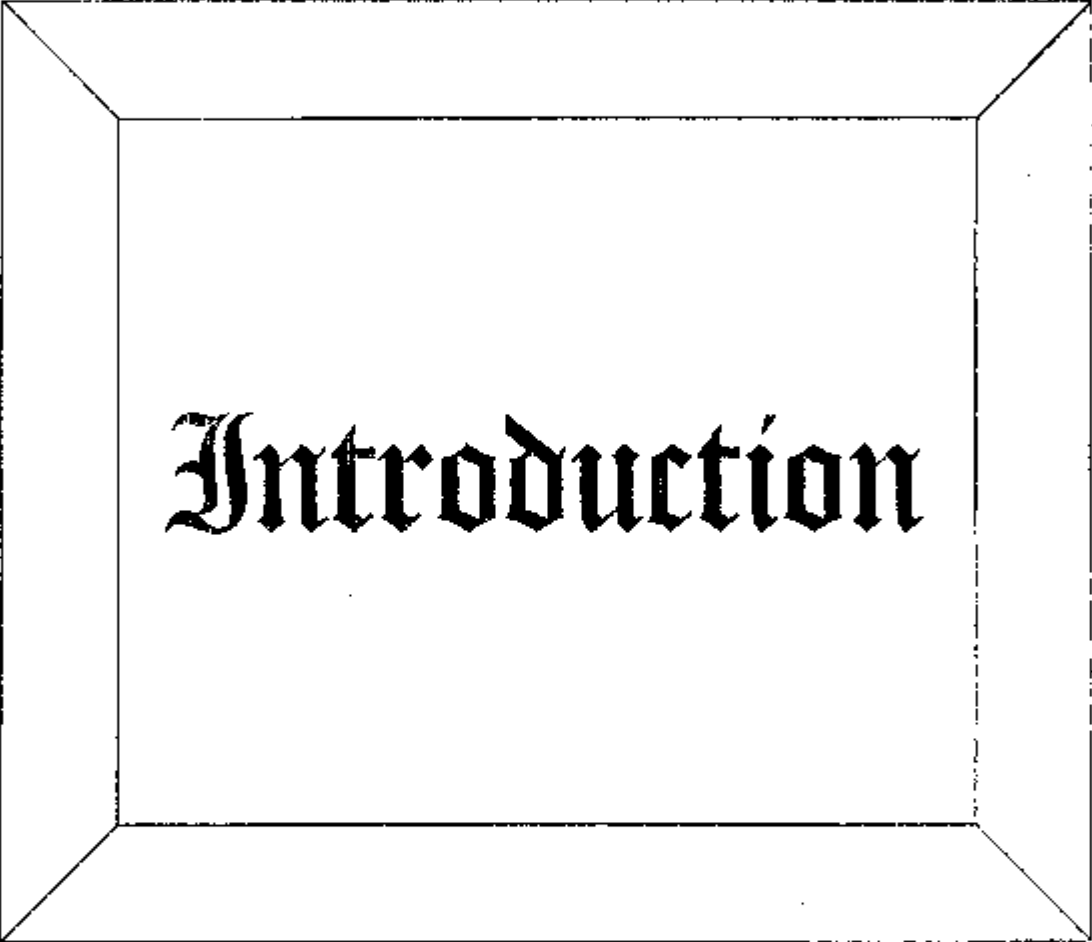
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Introduction

**Review
of
Literature**

REVIEW OF LITERATURE

Domiaty cheese:

The most important cheese variety in Egypt is Domiaty, the white soft cheese consumed either fresh or as is usually the case after maturation by pickling in a salted solution or salted whey drained during processing. Such variety is well known in Egypt as well as in the Arab World. Domiaty cheese is characterized by the addition of appreciable amounts of salt to the milk as a first step prior to renneting (El-Koussy 1988).

Fresh Domiaty cheese has a soft body. As it ripens in the 'pickle' the body usually becomes firmer up to the third month of age after which it mellow, mainly as a result of protein breakdown. It possesses a close texture with no holes; as ripening proceeds it becomes slightly flak and is brittle rather than elastic when broken.

Domiaty cheese manufacture:

The manufacturing process can be summarized as follows, Approximately one-third of the standardized milk (8%, 4% and 2% fat for full cream, half cream and quarter cream cheese respectively) is heated to 80° C, and salt (5-14%) is added to the remainder. The percentage of salt differs according to the season of manufacture and the ripening temperature of the cheese. For refrigerator-stored cheese, known locally 'Tallaga cheese' salt is added to the milk at a level of 5-6% in winter, 6-7% in spring and autumn, and 7-8% in summer for ambient-temperature-stored cheese, known locally as 'Khazin cheese', salt is added at a level of 8-10% in winter, 10-12% in spring and autumn and 12-14% in summer. The two portions of milk are mixed, renneted and starter is

added. The best temperature for coagulum is ladled out into moulds of wood or steel lined with coarse cloth or netting.

The moulds vary greatly in size, with very large moulds being used for industrial-scale manufacture. Small moulds are turned frequently; for large moulds the curd is put under pressure and is then cut into blocks of convenient size. The drainage time varies from 12 h to 24 h.

The moulds are removed prior to marketing the cheese; in the case of wooden moulds, the cheese is cut into pieces 8 cm square. It is then wrapped in waxed paper. The cheese may be consumed fresh. If the cheese is pickled, it is held in a salty whey for 4-8 months. The cheese pieces are arranged in layers in suitable tins and are completely covered with brine. The tins are soldered and then stored at refrigerator or ambient temperature. The manufacturing process for Domiati cheese has been described in more detail by Fahmi & Sharara (1950) and Abo-Donia (1986).

Manufacture of Domiati cheese by ultrafiltration:

Most of the Domiati cheese production made by traditional procedure, recently, the ultrafiltration technique was in Domiati cheese making specially in new plant production. Ultrafiltration was first proposed for use in cheese making by Moubois *et al.* (1969). The major use is in the manufacture of soft cheeses, defined as those containing more than 45% moisture. Typical examples are Mozzarella, Camembert, Brie, and cottage cheese using UF-treated milk, those with a moisture content of less than 45% (Cheddar, Brick, Colby, Swiss cheese).

During ultrafiltration, water and small molecular weight components ($< 10^3$) passes through the membrane, while fat and proteins