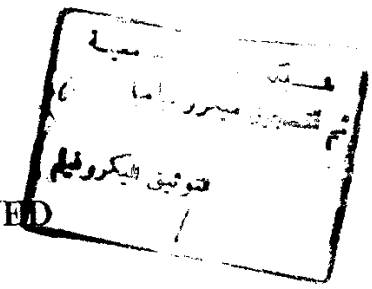
STUDIES ON THE MANUFACTURE OF RICOTTA CHEESE

By

MAHMOUD ABD EL-AZIZ EL-SAYED

B.Sc. Agric. (Dairying) Assuit Univ., 1991



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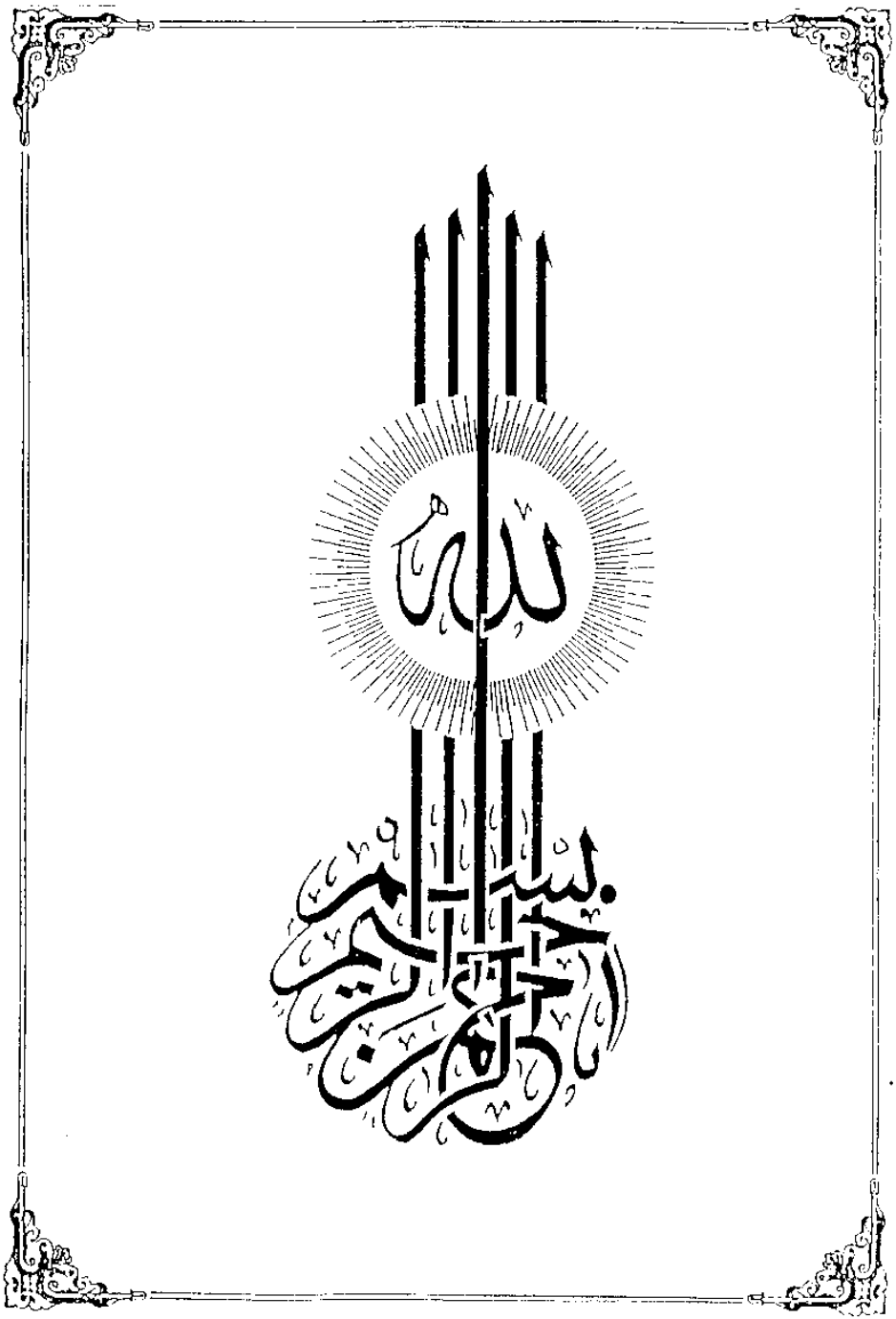

APPROVAL SHEET

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ABSTRACT

Mahmoud Abdel-Aziz El-Sayed. Studies on the manufacture of Ricotta cheese. Unpublished Master of Science, Ain Shams University, Faculty of Agriculture, Department of Food Science, 1997.

Fourty-two samples of Ricotta cheese were randomly collected from cairo market, and analysed for chemical composition and scoring. The average of chemical composition was 64.7, 36.61, 46.88, 9.41, 6.53, 1.25 and 0.29% for moisture, protein, fat, lactose; ash., salt (in water phase) and acidity contents respectively, as well as the average of pH value was 6.1. Average scoring was 32.0, 38.7 and 7.8 points for flavour (40 points) body & texture (50 points) and appearance (10 points) respectively.

Ricotta cheese was made from whey or whey fortified by skim milk powder (SMP) (0.5, 1.0, 1.5 and 2.0%) by direct acidification with acetic, citric or lactic acid to pH 5.8-5.9 at 87-88°C. Cheese made using lactic acid had a higher protein and fat recovery, and protein content than that from acetic and citric acids. Although, cheese made with acetic acid showed a higher yield and moisture content but lowest firmness than citric and lactic acids. There were some small differences in fat, lactose ash, salt and acidity contents, as well as pH values of Ricotta cheese manufactured with different acids. No major differences in organoleptic propreties were apparent between different acids. On the other hand, yield, protein and fat recovery, protein content,

and firmness increased with increasing the levels of SMP added to whey. Although addition of 1.0% SMP to whey was enough for reaching the maximum protein and fat recovery with lactic and acetic acids, citric acid needed to addition of 1.5% SMP to reach the maximum protein recovery. Morever, addition of different levels of SMP to whey had no effect on the lactose, ash, salt and acidity contents as well as pH values compared with control cheese. Ricotta cheese made from whey/SMP blends (0.5 and 1.0%) had a higher scoring, which resembles control cheese (100% whey), than that made from whey/SMP blends (1.5 and 2.0%).

Key words : Ricotta cheese-acetic acid-citric acid-lactic acid.

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