

بسم الله الرحمن الرحيم

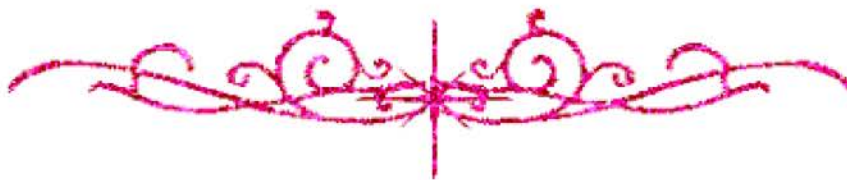


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شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم



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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
على هذه الأقراص المدمجة قد أعدت دون أية تغيرات



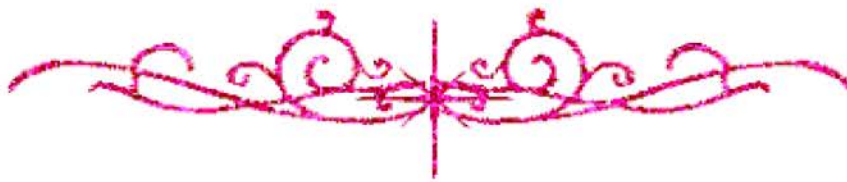
يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

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بعض الوثائق الأصلية تالفة



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بالرسالة صفحات

لم ترد بالأصل



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B 1050A

STUDIES ON PROCESSED CHEESE

By

OMAR BEN AHMED ZAMMAR

B.Sc. Agric., Aleppo University, 1988

**A thesis Submitted in Partial Fulfillment
of
The Requirement for the Degree
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MASTER OF SCIENCE

In

**Agriculture
(Dairy Science and Technology)**

**Department of Food Science
Faculty of Agriculture
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APPROVAL SHEET

STUDIES ON PROCESSED CHEESE

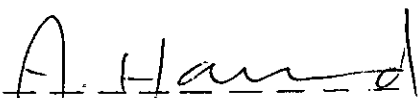
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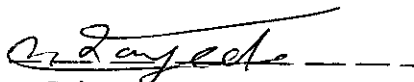
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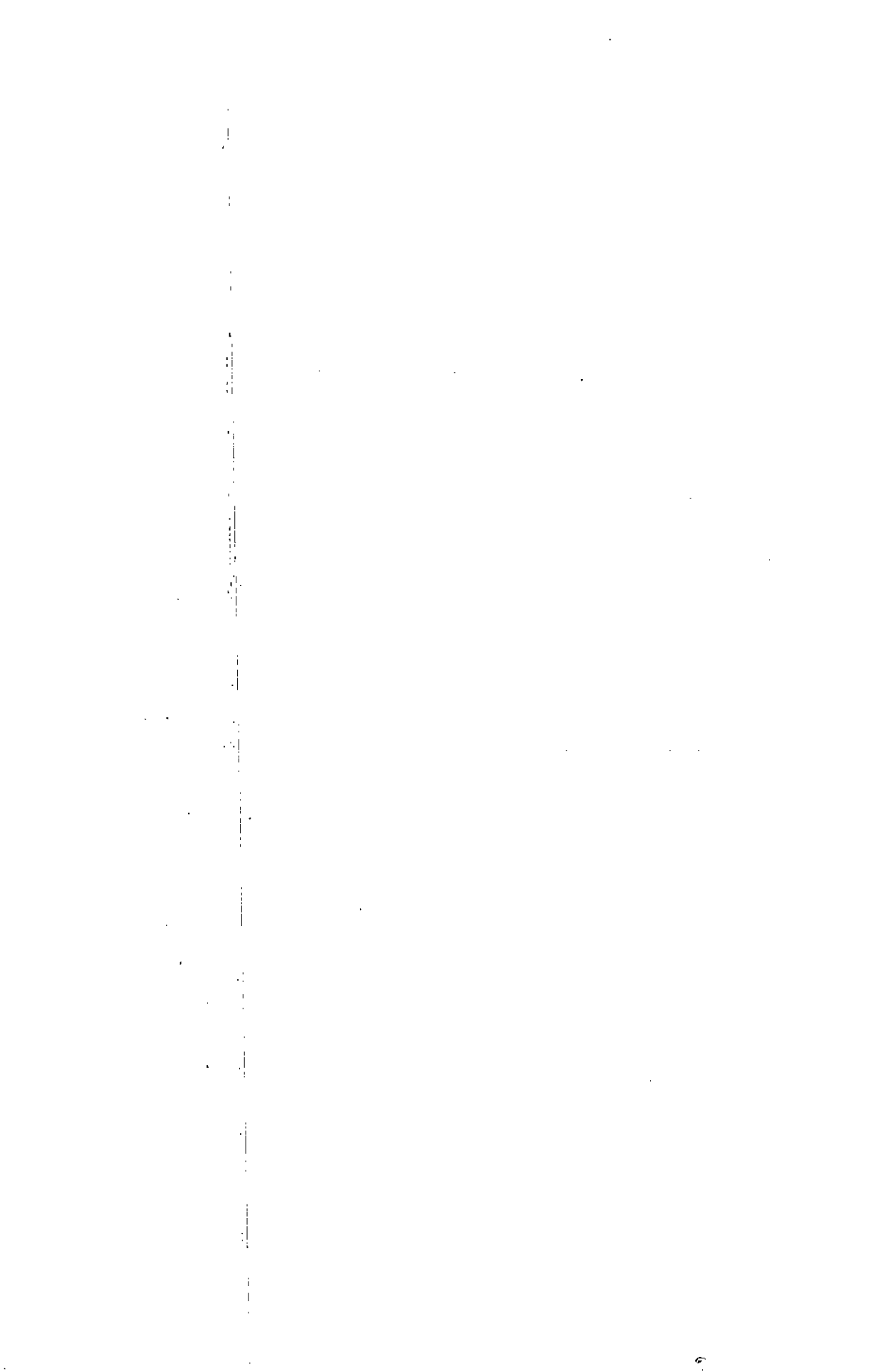
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ABSTRACT

Omar Ben Ahmed Zammar. Studies on processed cheese. Unpublished Master of Science, Ain Shams University, Faculty of Agriculture, Department of Food Science, 1997.

Twenty samples of different local and imported brands of processed cheese spread were randomly collected from the Egyptian and Syrian market, and analysed for chemical composition and physical properties. The microbial lipase and protease enzymes were added in mixtures at different levels to accelerated slurry ripening for flavour development to use in processed cheese manufacture. Slurries were incubated at 30°C for 7 days. Samples were chemically analysed and tested for flavour evaluation after 1, 3, 5 and 7 days. Good quality flavour could be obtained by using combination of 0.0002% lipase and 0.005% protease mixture after incubation at 30°C for 7 days.

Mature Cheddar cheese at level of 25% was used for the manufacture of processed cheese spread as control. While, the treatment of rapidly ripened Cheddar curd slurry with good quality and flavour intensity was used in the blends of processed cheese spread at percentages of 5, 10, 15, 20, 25 and 30 of the cheese blend. The resultant cheeses were taken when fresh and monthly during storage up to 3 months at $7 \pm 3^\circ\text{C}$ and $25 \pm 3^\circ\text{C}$ for organoleptic evaluation, chemical and physical analyses. Moisture and F/DM were adjusted to be 58 & 47.5% in the resultant cheese. The TN, salt and ash contents as well as the acidity exhibited an increase by increasing the slurry percent and storage period at both temperatures. Lactose content and pH values were decreased by increasing the levels of slurry and during storage. Levels of SN and TVFA were higher in treatments with slurry and during storage at room temperature.

Increasing the level of ripened curd slurry used tended to decrease the oil index. Processed cheese containing Cheddar curd slurry had good melting properties. Shear stress values of all treatments were generally variable, while the treatments with 25 and 30% slurry were the lowest. Treatments of processed cheese with 15 - 20% slurry gave a product with good flavour, consistency and outer appearance when fresh or after storage.

Key Words : Processed cheese spread - Rapidly ripened slurry - Cheddar cheese spread.

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