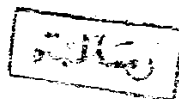


**STUDIES ON RAS CHEESE RIPENING
WITH ENZYMES ADDITION**



By

MAHMOUD ABD-ALLAH IBRAHIM EL-HOFI

B.Sc.Agric.(Dairy Sci. & Tech.) Al-Azhar Univ., 1980

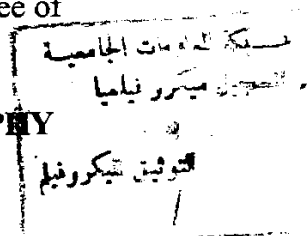
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ABSTRACT
MAHMOUD ABD - ALLAH IBRAHIM EL-HOFI
STUDIES ON RAS CHEESE RIPENING WITH
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Ten microbiological sources were screened for their abilities to produce proteolytic and lipolytic activities .

Three organisms were selected for proteolytic activity and other three organisms , also selected for lipolytic activity Both of the were used to accelerate cheese slurries ripening with concentrations of 0.5 , 1.0 and 1.5 ml / 100 g. curd . Slurries were incubated at 37 °C for 7 days . The best results were obtained when *L.bulgaricus* was used for both protease and lipase . Slurries was made by using mixed enzyme (1:1) v/v from *L.bulgaricus* at concentration being 0.5 , 1.0 and 1.5 ml / 100 g. curd .

The best results were obtained when mixture of 1.0 and 1.5 ml / 100 g. curd to accelerate ripening.

This preliminary experiments on slurry were used to accelerate Ras cheese ripening . Mixture of protease and lipase : being 1.0 ml and 1.5 ml / kg milk were used . Resultant cheese was ripened at 12°C for 4 months .

Cheese samples were weekly analysed for moisture , fat , total nitrogen , acidity , pH , TVFA , SN/TN ,NPN/TN , formol and shilovich ripening indices . Also , free amino acids , free fatty acids and organoleptic properties were measured . After 3 months resultant cheese was exposed for U.V ray for 2 min. to stop the lipase activity and to keep the cheese without detrioration . From the results , it could be

concluded that the use of 1.5 ml of mixture of protease and lipase shortened the ripening period of Ras cheese and saved about 50% of the ripening period . Also , hastened the flavour development and improved the characteristics of body and texture .

Key words :

Acceleration , Ras cheese slurries , Ras cheese ripening , protease , lipase .

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