

البحث رقم (٥)
الملخص الانجليزي

Improving the Quality of Ultrafiltered Ras Cheese using Mature Cheddar Cheese Slurry

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Background and Objective: Ultrafiltered cheese was characterized by slow protein degradation, flavor development and hard texture. So, this study was aimed to improve the overall quality of UF-Ras cheese with adding mature Cheddar cheese slurry to ultrafiltered cow's milk (at a rate of 0, 1, 2 and 3% kg⁻¹ retentates). **Materials and Methods:** Cheese quality was monitored during the 90 days of ripening by evaluating physicochemical, microbiological, microstructure and sensory attributes of control and experimental UF-Ras cheeses. One-way (ANOVA) and Principal Component Analysis (PCA) were used. **Results:** The ripening indices of 60 days UF-Ras cheese with cheese slurries were almost two-fold higher than of 30 days control cheese. PCA showed that the cheese samples were differentiated on the basis of ripening indices, for 90 days slurry-containing cheeses, for 60 days slurry-containing cheeses gathered with 90 days control cheese and for 30 days slurry-containing cheeses gathered with 30-60 days control cheeses. SEM micrographs of slurry-containing cheeses (60 days) and control cheese (90 days) were closely similar and no differences were seen between them. UF-Ras cheese made using mature Cheddar slurry received significantly ($p < 0.05$) higher scores for flavor intensity, texture and overall quality compared to control cheese on the 1st month of ripening. **Conclusion:** These results suggest that the utilization of 2-3% of mature Cheddar cheese slurry to accelerate ripening and improving the overall quality of UF-Ras cheese.

