

QUALITY CHANGES IN WHITE CHEESE MANUFACTURED FROM ULTRAFILTERED MILK

H. Özgür, İ. Vural, M. Kılıç-Akyılmaz^{*},
E. Çapanoğlu-Güven, A. Yüçetepe

Istanbul Technical University, Faculty of Chemical and Metallurgical
Engineering, Dept of Food Engineering, Istanbul, Turkey

Ultrafiltration is a special membrane separation technology which is used for concentration of milk prior to cheese making. Changes in quality of White cheeses manufactured from ultrafiltered milk with two different coagulants were investigated. Two samples of White cheese were produced in a special cheese processing line by using calf rennet and microbial coagulant. The samples were stored at 4°C and their pH, titratable acidity, levels of proteolysis and lipolysis, textural and sensory properties were measured during storage for sixty days. While there was no change in pH values of the samples, their titratable acidity increased during storage time. Level of proteolysis measured as the amount of water-soluble nitrogen increased to a higher extent in the sample produced with microbial coagulant compared to that of the sample produced with calf rennet. Level of lipolysis measured with the amount free fatty acids increased significantly in both samples after twenty days of storage. Hardness of both samples decreased during storage time. In sensory analysis, intense bitterness was detected in both samples after forty days of storage. Sourness of the sample produced with calf rennet was more intense during storage time compared with that of the other sample. There was no difference between other measured sensory properties of the samples. In general, use of different coagulants did not cause significant changes in quality of White cheese.

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^{*} Corresponding author: meral.kilic@itu.edu.tr