

## Studien on Mozzarella cheese

### ABSTRACT

The objectives of this study was to determine the impact of milk type, using ultrafiltration and homogenization of milk on functional poperties of Mozzarella cheese during storage period at  $5\pm 1$  °C.

Mozzarella cheeses were made traditionally from buffaloes', cows' milk and their mixture of them (1:1) to serve as controls. Also, Mozzarella cheeses were made from milks concentrated by ultrafiltration and from homogenized milks. Cheeses examined fresh and during extended storage period at  $5\pm 1$  °C for 6 weeks.

The cows' milk Mozzarella cheese tended to be softer, slightly better in flexibility and contained slightly higher level of moisture, fat, salt whereas buffaloes' milk Mozzarella cheese had higher protein and ash.

Rheological properties were better in cows' milk Mozzarella cheese when made by traditional or UF-technique or homogenization process, during different ripening intervals, compared with buffaloes' milk or mixture (1:1) of both.

UF and homogenization of milk cheese lower rheological properties in all treatments than that of traditional method, which improved during storage.

Microstructure of cheese matrix varies in appearance according to the kind of milk and other treatments such as concentration the milk by UF process or by milk homogenization.

Sensory evaluation showed that traditional cows' milk cheese exhibited the highest score than other treatments. During storage, the total score showed an improvment in all treatments.

**Key Words:** Mozzarella, Cow milk, Buffaloes milk, Ultrafiltration, Homogenization, Rheolgical, Microstructure, cheese storage, cheese manufcature, Textural properties.