

**DEVELOPMENT OF GARLIC ADDED YOGHURT USING COW
MILK**

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ABSTRACT

Yoghurt is one of the most important fermented milk products, which has gained great popularity throughout the world for its recognized sensorial, nutritional and health benefits. The study was conducted to investigate physio-chemical properties of garlic added yoghurt. Garlic added yoghurt was prepared using skim milk and its nutritional, sensorial and microbial properties were analyzed at day one and during the storage period of 4 weeks.

At day one quality attributes such as ash, dry matter, total sugar, reducing sugar, pH, and titrable acidity were not ($p > 0.05$) changed. Syneresis was high ($47.78 \pm 1.56\%$) in yoghurt made without garlic and was lower ($45.17 \pm 1.41\%$) in garlic 3% added yoghurt. Syneresis reduced with increasing percentage of garlic. During the storage period, ash, dry matter, total sugar, reducing sugar, pH, and titrable acidity ($p < 0.05$) were changed. At fourth week of storage period yoghurt made with 3% of garlic showed higher mean value of ash, dry matter, total sugar, reducing sugar content and pH as ($0.97 \pm 0.04\%$), ($23.49 \pm 0.12\%$), ($12.60 \pm 1.75\%$), ($1.55 \pm 0.09\%$), (4.78 ± 0.01), respectively. Yoghurt made without garlic measured higher mean value for titrable acidity ($0.50 \pm 0.00\%$). Total sugar and reducing sugar content increased with increasing of amount of garlic added in yoghurt but these two were reduced throughout the storage period. Increasing amount of garlic decreased the acidity but pH was increased. The results of the sensory evaluation showed that organoleptic parameters had ($p < 0.05$) influence on overall acceptability of yogurt product and majority of panelist preferred 1% garlic added yoghurt. Yogurt manufacturers need to improve on the sensory properties in particular flavour and taste for better consumer acceptability.

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