

**ASSESSMENT OF PHYSICOCHEMICAL, SENSORY  
ATTRIBUTES AND SHELF LIFE OF A STIRRED  
YOGHURT INCORPORATED WITH WATERMELON  
(*Citrallus lanatus*) SEED POWDER**

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## ABSTRACT

Popularity of yoghurt has increased due to its higher health benefits. The purpose of this research is to develop a value added stirred yoghurt by incorporating watermelon seed powder and to evaluate the effect of watermelon seed powder. Sensory, physico chemical and microbiological properties of stirred yoghurt samples were determined. Complete randomized design was used for analyzing purpose. There were two types of watermelon (*Citrallus lanatus*) (var. crimson sweet) seed powder obtained through sun drying and oven drying methods. Stirred yoghurts were prepared by incorporating 0%, 1%, 2% and 3% of seed powder from two different drying methods. Treatments were subjected to physicochemical, microbiological and sensory evaluation for color, texture, flavor and aroma, mouth feel and overall acceptability sensory attributes, in five point hedonic scale using 30 untrained panelists. Sensory analysis data were analyzed using Friedman non parametric test using Minitab 17 software. Comparatively, there were no significant difference ( $P < 0.05$ ) between all the treatments. However, scores for flavor and aroma and mouth feel showed high scores as 98.5, 95.0 respectively. Sun dried watermelon seed powder incorporated stirred yoghurt showed higher preference by the consumer compared to oven dried watermelon seed powder incorporated stirred yoghurt. The addition of watermelon seed powder in to the stirred yoghurt showed an increase in moisture content, decrease in ash content and no changes in fat content. According to the results of chemical properties of stirred yoghurts pH and total solid were drastically decreased with storage period at 4°C. Titratable acidity was slightly increased with storage period at 4°C. In addition, mold, yeasts and coliform were not detected in samples at day 1. Yeast population was detected with storage period.