

Assessment of Sensory Acceptability of *Diyamiththa (Cissampelos pareira)* Leaves Extract Incorporated Lacto-vegetarian Set Yoghurt during Storage

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The addition of stabilizers in dairy industry helps to improve viscosity and texture especially in set yoghurt production. The texture of yoghurt results from a complex interaction between milk proteins, acid and exopolysaccharide produced by starter culture. Gelatin is an animal originated stabilizer used in yoghurt production. Food habits in the world have started to change with an increasing demand for vegetarian food. *Diyamiththa (Cissampelos pareira)*, a medicinal plant exhibit a unique gelling properties which could be an alternate for gelatin. Thus, the present study was conducted to assess the organoleptic acceptability of lacto-vegetarian set yoghurt with incorporation of a gel from *diyamiththa* leaves. Three levels of *diyamiththa* leaves extract (DLE) were used as treatments, 1%, 2% and 3% while 0.68% gelatin incorporated yoghurt served as the control. Treatments were evaluated by 30 untrained panelists for color, aroma, texture, mouthfeel, taste and overall acceptability (OA) attributes at 7 days interval for 21 days of storage at 4 °C. Data from sensory evaluation were analyzed using Friedman non-parametric test using Minitab 17®. Based on sensory evaluation at day 0 all treatments showed significant difference ($P<0.05$) with respect to all the attributes while 2% DLE incorporated yoghurt showed the highest estimated median values for both taste and OA; 7.50 and 7.78, respectively. Moreover, at day 21 treatments showed significant difference ($P<0.05$) with all attributes while amongst all treatments, 2% DLE incorporated yoghurt scored the highest estimated median values for texture, mouthfeel, taste and OA; 7.50, 7.06, 7.81 and 8.03, respectively. However, after 21 days of storage the organoleptic acceptability was declined particularly with taste and mouthfeel in all treatments. Results revealed that, 2% DLE incorporated set yoghurt can be stored for 21 days at 4 °C without deteriorating organoleptic properties.

Keywords: *Diyamiththa* leaves extract, Gelatin, Set yoghurt, Stabilizer