

Development of Grape (*Vitis vinifera* L.) Juice Incorporated Set Yoghurt

D. Karikalan¹, J. Sinniah^{1*}

¹*Department Animal Science, Faculty of Agriculture, University of Jaffna,
Jaffna 40000, Sri Lanka*

**jeyalingawathani@gmail.com*

The aim of the study was to develop set yoghurt incorporated with Grape juice incorporated set- yoghurt which fetches high demand due to its nutritional and health benefits to human. Grape juice with three different sugar levels (0%, 20% and 40%) were prepared and added at the rate of 10% and 15% before incubation. Sensory evaluation was performed using 28 untrained panelists to select the best samples for further analysis. Based on 9 point hedonic scale most of the panelist preferred 10% and 15% grape juice with 0% and 20% sugar levels. These samples along with plain yoghurt (control) were subjected to physicochemical analysis and shelf life based on microbiological characteristics (Coliform, Yeast and Mold) at weekly interval for three weeks. Data were analyzed using SAS statistical software version 8.0. Sensory attributes including appearance, body, color, flavor, taste and overall acceptability of the yoghurt were equally acceptable for control, and 10% and 15% grape juice each with 0% and 20% sugar levels. Fat and protein content of all the formulations were lower than plain yoghurt and decreased with storage period. No significant difference among the treatments was recorded with respect to titratable acidity. pH of all yoghurt samples decreased with storage period after seven days. Statistical results revealed that yoghurt incorporated with 10% grape juice with 20% sugar was the most acceptable combination based on physicochemical qualities and sensory attributes. The microbiological quality of the fruit yoghurts was also acceptable until 6 days of storage period according to Sri Lankan Standards. The cost of production of control and the most accepted grape juice yoghurt were Rs 17.00 and Rs 23.00, respectively. It could be concluded that yoghurt with 10% grape juice with 20% sugar (within the grape juice) has a potential for commercialization. **Key words:** Grape juice, Microbiological analysis, Sensory analysis, Titratable acidity, Yoghurt