

## **MALTED CEREAL YOGHURT USING BARLEY (*Hordeum vulgare*) MALT EXTRACT POWDER**

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Yoghurts are available in different types and demand is high for value added yoghurts. Incorporation of cereal malt into yoghurt could enhance the nutritional value and fulfill the market demand. This study was conducted to develop malted cereal yoghurt and to study the chemical and microbial quality of the product. Four concentrations of powdered barley malt extract (T1-1%, T2-3%, T3-5%, T4-7%) with a control; chocolate flavored yoghurt were used. Best level of the malt extract powder was determined by a sensory evaluation using five point Hedonic scale and selected samples were stored at 4 °C for shelf life evaluation. Sensory evaluation, measuring of pH and microbial analysis of the stored samples were done at five day intervals during storage period of 21 days. Experiment was conducted using Completely Randomized Design. Microbiological data were compared with the SLS (Sri Lanka Standards) specifications. Sample with 2% malt extract powder was selected as the best and there was no significant difference ( $p>0.05$ ) in taste, flavor and overall acceptability while there was a significant difference ( $p<0.05$ ) in texture and appearance compared to the control. Yoghurt with 2% barley malt extract was highly acceptable for all the sensory qualities than the control except for flavor. Finished product had 3.2% fat, 453.6 kj energy, 3.6% protein, 4.5 pH and 26.2% total solids. During storage, pH of the sample was not significantly changed ( $p>0.05$ ) with control and coli-form, yeast and mould counts were compatible with SLS specifications. The appearance of the finished product was poor after 12 days of storage. Hence incorporation of barley malt extracts powder at 2% into yoghurt is possible and the product can be kept for 12 days without any quality deterioration.

**Key words:** Cereal, Malt extract powder, Set yoghurt