

**PRODUCTION AND QUALITY EVALUATION OF YOGHURT FLAVOURED WITH BLACK VELVET TAMARIND (*Dalium guineense*)**

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**ABSTRACT**

Yoghurt was produced and flavoured by blending with 0.2, 0.4, 0.6, 0.8, and 1.0 g black velvet tamarind powder (*Dalium guineense*) in ten different samples, five flavoured before fermentation (VTB1, VTB2, VTB3, VTB4 and VTB5) and five flavoured after fermentation (VTA1, VTA2, VTA3, VTA4 and VTA5) while VTO was coded as control. The black velvet tamarind flavoured yoghurt was subjected to proximate, micronutrients, microbial and sensory evaluation using standard procedures. Data obtained was subjected to statistical analysis. Results showed that the moisture content of the samples decreased with increased level of the black velvet tamarind powder both before and after fermentation. The ash content ranged from 0.04 to 1.72% in the samples flavoured after fermentation while the highest value for samples flavoured before fermentation was 1.04% and the concentration increased with increase in concentration both before and after fermentation. The fat content increased with increase in concentration. Protein content ranged from 6.48 to 9.31%, and there was a significant ( $p < 0.05$ ) difference between the control sample and the formulated samples. The carbohydrate content increased as the concentration of the black velvet tamarind powder increased before and after fermentation. The vitamin C content increased as the concentration increased which differed significantly ( $p < 0.05$ ) between the control and the formulated samples. The vitamin A content ranged from 11.09 to 74.17 IU and fermentation favoured the increased concentration of the vitamin A. The samples flavoured before fermentation increased calcium and phosphorus. The total viable count ranged from  $1.4 \times 10^5$  (control) to  $2.9 \times 10^5$  cfu/ml (VTA1). The lactic acid bacteria ranged from  $1.1 \times 10^5$  (VTA5) to  $2.6 \times 10^5$  cfu/ml (VTA1). The most acceptable flavoured yoghurt by the panellists contained 0.2 g black velvet tamarind in samples before and after fermentation.

