

**DEVELOPMENT OF FUNCTIONAL BEVARAGE BASED ON  
KING COCONUT WATER**

A dissertation submitted to the  
Faculty of Animal Science and Export Agriculture  
Uva Wellassa University  
In partial fulfillment of the requirements for the award of  
Bachelor of Science in Export Agriculture

by  
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**2016**

## ABSTRACT

The study was carried out with the objective of development of a Ready-To-Serve (RTS) functional beverage based on king coconut water. King coconut water, Banana extract and yogurt were used as main ingredients. Carboxy methyl cellulose (CMC) and pectin were tested as thickening agents. Ascorbic acid was used as the acidifying agent. Final product was filled in to 200 ml glass bottle and pasteurized for 15 minutes at 95°C. Best combination of ingredients was selected via a sensory evaluation by using nine-point hedonic scale. Considered sensory attributes were colour, aroma, taste, texture and overall acceptability. Sample consists with king coconut water 400 ml, banana extract 20 ml and yogurt 80 ml was selected as the final product. Proximate composition and other physicochemical properties including pH, °Brix and percentage titratable acidity (%TA) of the developed product were analyzed. Microbial tests were done for Total plate count (TPC), Yeast and Mould content and *Escherichia coli*. Sensory data were analyzed by using nonparametric Friedman test and physicochemical properties were analyzed using ANOVA test with 95% confident interval by using MINITAB 17 statistical software. According to the proximate analysis final product contained carbohydrate 13.5%, protein 0.3%, ash 0.5%, fat 1%, Sodium 0.02% and potassium 0.2%. °Brix, pH and TA of the final product were 14.1, 4.05 and 0.48 respectively. No significant changes were observed in these parameters during the storage period. TPC count and Yeast and mould count were  $< 1.0 \times 10^1$  cfu/ml and *E. coli* was not detected after one month. The developed product can be safely stored at room temperature for one month.

*Key words:* Functional food, proximate composition, Ready-to-serve beverage, Sensory evaluation, Shelf life evaluation.