

**DEVELOPMENT OF A READY-TO-DRINK
(RTD) BEVERAGE- BASED ON ORGANIC
COCONUT SEED CAKE FLOUR**

(Cocos nucifera)

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 Palm and Latex Technology & Value Addition

By

**THUSHARA GAMAGE DESHANI MALEESHA
MADHUSANKA**

**Palm & Latex Technology and Value Addition Degree
Programme**

Faculty of Animal Science and Export Agriculture

Uva Wellassa University of Sri Lanka

2021

ABSTRACT

Coconut industry can be dated back to 19th century. Coconut act as a cash crop and as a food crop in the industry. Coconut seed cake flour is the major by-product of the virgin coconut oil company. This study was conducted to develop a Ready to Drink beverage incorporated with organic coconut seed cake flour. The product was prepared by mainly changing the amount of coconut seed cake flour. Four beverages were based on organic coconut seed cake flour, and three beverages were based on organic coconut seed cake flour and matured coconut water. Following the product formulation, a sensory evaluation was conducted, and the results indicated that the formulation with 13.75 percent coconut seed cake flour and 7.5 percent fructose incorporated beverage sample to be the most preferred treatment combination. The final product was with Energy 59.8 kcal, total fat 1.0g, potassium 268.9 mg, calcium 12.5mg, sodium 56.8mg, total carbohydrate 12.1g, available carbohydrate 11.3g, protein 1.4g, total dietary fibre 0.8g per 100g of beverage. According to the results it could be concluded that, the microbial counts of the product for refrigerated conditions at 3rd week was zero while room temperature conditions of the product was 4×10^1 CFU ml⁻¹ for Total Plate Count and 2.3×10^2 CFU ml⁻¹ for Yeast and Mould count. The sample under the refrigerated conditions (4 °C) had a longer shelf life and can be stored more than 3 weeks without any alteration in properties. As per the results the titratable acidity, pH and Total soluble sugar of the final product were recorded as 6.4 percent, 5.2 and 14 respectively. The shorter shelf life observed was due to the fact, the product was made without using any artificial preservative or additives.

Keywords: Coconut Seed Cake Flour; Organic; Byproduct; RTD beverage