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Development of a Novel Value-Added Leaf Tea from the Introduced True Cinnamon (*Cinnamomum zeylanicum* Blume) Variety Sri Gamunu

Pabasara, K.A.D.¹, Wijeweera, A.A.^{2*}, Ranaweere, K.K.D.S.¹

¹*Department of Food science and Technology, University of Sri Jayewardenepura, Nugegoda, Sri Lanka*

²*National cinnamon research and training center, Department of Export Agriculture, Matara, Sri Lanka*

**achiniawije@gmail.com*

Abstract

Herbal beverages prepared from various plant extracts have grown in popularity. True cinnamon leaves (*Cinnamomum zeylanicum* Blume) have proven to contain bioactive components that improve organoleptic and functional qualities and reduce non-communicable disease risk. A study was conducted to develop a value-added cinnamon leaf tea using the introduced true cinnamon, cultivar Sri Gamunu. The study used twelve authentic cinnamon aqueous extracts. Cinnamon leaves were harvested immature, half-mature, and mature for extracts. The extracts were also produced separately and compositely. To get extracts, leaves were oven-dried at 50, 70, and 100° C. Twelve leaf extracts were tested for moisture, water activity, pH, colour (L*, a*, and b*), and total phenolics. Three samples with the highest Total Phenolic Content (TPC) were sensory evaluated to select the best leaf extract. Results indicated that the 70° C immature cinnamon leaf tea sample had the best sensory qualities. The best cinnamon leaf extract's shelf life was determined by total aerobic microorganisms, yeast and mould count, and coliform counts. The physicochemical parameters tested were pH 5.20±0.1, total phenolic content 7.52±0.56a, colour L* 12.53±0.12f, a* 1.23±0.06g, b* 11.20±0.36e, moisture content 8.66±0.58bcde, and water activity 0.39±0.02cd. The physicochemical characteristics of the best leaf tea sample showed: water-soluble ash (64.34%), water-insoluble ash (35.66%), alkalinity (1.89%), acid-insoluble ash (1.62%), crude fibre (11.39%), and water extract (29.90%). According to microbiological analysis, the extract can be kept at least for two months but can be extended longer. Therefore, it can be concluded that, value-added cinnamon leaf tea from the new true cinnamon (variant Sri Gamunu) can developed as novel and health promising herbal teas.

Keywords: *Cinnamomum zeylanicum*, Value-added, Leaf tea, Non-communicable Diseases, Sensory evaluation