

Comparison of Proximate and Nutrient Analysis of Selected Accessions of True Cinnamon (*Cinnamomum zeylanicum* Blume) at Different Maturity Levels

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Cinnamon (*Cinnamomum zeylanicum* Blume) is increasingly becoming an important and potential foreign exchange earner and it is one of the most important highest income generating export crops in Sri Lanka. Cinnamon has been used as a spice in the food industry and anti-microbial agent in the therapeutic medicine for many years. The study was aimed to determine and quantify the nutrient composition of the selected Cinnamon accessions of the commonly cultivated varieties named Sri Gemunu, Sri Wijaya and Common cultivated accession at different maturity levels. Ten replicates of each accession were evaluated for moisture, ash content, crude fat, crude protein, carbohydrate, caloric value, pH value and colour (L* brightness, a* Red and Green, b* Yellow and Blue) by following the standard procedures. Three accessions did not show any significant difference in the nutrient content with maturity. Nutritional analysis of Cinnamon varieties showed that there were no significant differences in the values of crude protein and fat of the three accessions ($\alpha = 0.05$) and only carbohydrate content was significantly higher in the Sri Gemunu variety (78.8%) than the other two varieties. Therefore, energy value is significantly higher in Sri Gemunu variety (323.6 Cal) than the other varieties. The ranges of crude protein percentage and fat percentage of all the Cinnamon accessions varied between 2.3-2.6 and 0.7-0.8 respectively. There were no significant differences among the Cinnamon accessions in the proximate analysis of ash content, pH and colour a*, b* values. Colour L* (brightness) value of Sri Gemunu and Sri Wijaya accessions were significantly lower than the common accession. The range of colour L*, a* and b* values for all three accessions respectively 38.3-42.3, 12.6-12.7 and 21.8-23.8. Ash content percentage and pH value of all the Cinnamon accessions were in the range of 5.6-6.3 and 5.1-5.4 respectively. Therefore, it was concluded that there were no variations in the nutrient content of the Cinnamon barks harvested from the three accessions of Sri Lanka with the maturity.

Keywords: Cinnamon, Maturity, Nutrient, Proximate, Sri Gemunu variety