

**COMPARISON OF LEAF, STEM AND BARK
CHARACTERISTICS OF A CULTIVATED VARIETY
WITH THREE WILD SPECIES OF CINNAMON IN
SRI LANKA**

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ABSTRACT

Cinnamon is increasingly becoming an important and potential foreign exchange earner and it is the most important spice in Sri Lanka. Currently only two cinnamon varieties are available. Therefore, high yielding and quality more commercial varieties of cinnamon are required. Three experiments were carried out to investigate leaf, stem and bark characteristics of cultivated variety of Sri Gemunu with three (*Cinnamomum dubium*, *C. rivulorum* and *C. sinharajanse*) selected wild species of cinnamon as treatments and compared those characteristics each other. Morphological characters of leaf and stem, yield characters and chemical characters of leaf and bark oil were examined. Cultivated species of cinnamon variety Sri Gemunu had optimal qualitative leaf morphological characters. The highest leaf length was observed in *C. dubium*, 14.16 cm. Abundant of morphological characters of *C. sinharajanse* were equal to Sri Gemunu qualitatively as well as quantitatively. The highest internode length of stem was observed in *C. rivulorum*, 8.84 cm. There was no significant difference among the treatments for the yield characteristics. *C. sinharajanse* required the highest peeling time, 63.16 min kg⁻¹. The highest moisture content of both leaf and bark were observed in *C. dubium*. The highest leaf oil quantity, 2.78% and bark oil quantity, 2.81% were observed in the cultivated variety Sri Gemunu. *C. dubium* and *C. rivulorum* have high percentage of different chemical constituents such as Linalool (33.6%) and Myrcene (44.5%) respectively other than Eugenol and Cinnamaldehyde in leaf and bark oil. Abundant of considered favorable characters are already consisted with cultivated variety Sri Gemunu. But more important characters of long internode and easy peeling ability showed in wild type, indicating the possibilities of improvement of Ceylon cinnamon for these characters through hybridization program.

Key words: Cinnamon, leaf morphology, oil quality, wild species, yield