

**EFFECT OF CINNAMON (*Cinnamomum verum* Presl)
LEAF FLUSH COLOR AND MATURITY LEVELS
ON LEAF OIL CONTENT AND QUALITY**

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By
MADHAVI WATHSALA GEEGANAGAMAGE

**Faculty of Animal Science and Export Agriculture
Uva Wellassa University**

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ABSTRACT

Cinnamon is a spice obtained from the inner bark of the several trees from the genus *Cinnamomum*. Four types of essential oil obtained from the different parts of the cinnamon tree namely, Cinnamon bark oil, Cinnamon root oil, Cinnamon leaf oil and Cinnamon seed oil. There are many factors which affect the Cinnamon leaf oil content and quality such as location, season, time of harvest, age of the tree etc. Purpose of this current study was to determine the effect of Cinnamon (*Cinnamomum verum* Presl) leaf flush color and maturity levels on leaf oil content and quality. In addition to above purpose this study set to determine the different flush colors in cinnamon population, different component of leaf oil related to leaf flush color and different component of leaf oil related to different maturity levels.

By conducting experiment to determine the effect of Cinnamon leaf maturity levels on leaf oil content and quality in "SRI GAMUNU" variety at Cinnamon Research Station, Palolpitiya, Matara it has found that mature leaves (5GY/5/6) contain high leaf oil content and quality. Quality of the leaf oil was determined by the amount of Eugenol concentration. Leaf flush do not contain any leaf oil and ripen leaves do not contain any Eugenol, are the best findings in this study. Second experiment was conducted to determine the effect of leaf flush color on leaf oil content and quality. Among five different flush colors in the Cinnamon cultivation dark red flush color (5R/3/10) was having the highest amount of leaf oil, but leaf oil quality was maximum in the light green flush color (2.5GY/8/6).

The results of this study indicate that there was a significant relationship ($p=0.000$) between Cinnamon leaf maturity levels on leaf oil content and quality but flush color only affects to the leaf oil content and there was no effect of flush color on leaf oil quality ($p=0.440$).

Key words: Leaf oil, Flush color, Maturity level, Eugenol, Essential oil