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ISOLATION OF 5-HYDROXY-3,7,4′-TRIMETHOXYFLAVONE FROM *CROTON LACCIFER* AND EVALUATION OF ITS POTENTIAL AS A CHEMOTAXONOMIC MARKER IN THE GENUS *CROTON*

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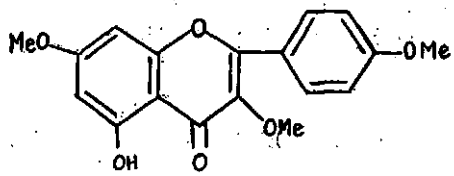
Croton laccifer (Euphorbiaceae), a widely distributed plant in Sri Lanka, finds applications in traditional agriculture and also in ethnomedical preparations. Apparent insecticidal properties of this plant have been noted in a recent study.[1] In the process of identifying the insecticidal constituents, we isolated 5-hydroxy-3,7,4′-trimethoxyflavone (1) from *C. laccifer*.

The hot methanol extract of fresh leaves of *C. laccifer* afforded, after chromatographic fractionation, a yellow crystalline solid (m.p. 147-148°C, lit.[2] 144-147°C) which was identified as the flavone (1) from its physical data (uv, ir, 1H nmr and mass spectra). This is the first report of this compound from the genus *Croton*.

To assess the potential of this flavone as a chemotaxonomic marker, seven species of *Croton* found in Sri Lanka were examined chemically for the presence of (1). *C. laccifer* and *C. persimilis* contained (1) in both fresh and dry leaves while the compound was absent in *C. bondplandianus*, *C. klotzschianus*, *C. tiglium*, *C. romaticus* and *C. hirtus*. The latter set of plants did not yield the flavone even after acid treatment of their extracts. This eliminates any possibility of the presence of flavone glycoside.

(1)



The presence of the flavone in *C. laccifer* and its absence in *C. aromaticus* support the view that the two are distinct species in contrast to Trimen's contention[3] that *C. laccifer* is a variety of *C. aromaticus*.

References

1. Ranasinghe, S., Faculty of Agriculture, University of Peradeniya, *unpublished work*.
2. Erdtman, H. *et al.* (1966). *Tetrahedron*, Suppl. 8 (1), 71.
3. Trimen, H. (1898), Handbook of the Flora of Ceylon, Part IV, 46.