

INSECTICIDAL CONSTITUENTES OF CROTON
LACCIFERUS (EUPHORBIACEAE)

B.M.R. Bandara*, W.R. Wimalasiri* and K.A.N.P. Bandara**

*Dept. of Chemistry, University of Peradeniya.

**Central Agricultural Research Institute, Peradeniya.

In addition to medicinal applications, the leaves of C. lacciferus are used in traditional agriculture, e.g. rice and betel vine cultivation.

Extractives of the leaves and the roots showed insecticidal properties against aphids and bruchids found in cowpea leaves and mung beans, respectively.¹ In order to identify the active constituents, the petroleum and chloroform extracts of the roots were fractionated by chromatography^{2,3} to give 7 kauranoids, 2 cis-clerodanes, 2 oleananes and a benzoquinone, and the compounds tested for activity against Aphis craccivora using the microapplicator method.⁴

2-Deoxytinophyllone³ caused 95% mortality to the aphids while ent-15 β , 16-epoxykauran-17-ol, ent-kauran-16 β , 17-diol and ent-kaur-15-en-3 β , 17-diol² showed moderate activity (60-70% mortality) after 24 h at a dose of 5 ppm/insect.

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References

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