

Effect of powdered leaves of *Lantana camara*, *Clerodendrum inerme* and *Citrus limon* on the rice moth, *Corcyra cephalonica*

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Abstract

Powdered leaves of *Lantana camara* (L.) (Lamiales Verbenaceae), *Clerodendrum inerme* (L.) (Lamiales Verbenaceae) and *Citrus limon* (L.) (Sapindales Rutaceae) were tested for their efficacy against the stored grain insect pest *Corcyra cephalonica* (Stainton) (Lepidoptera Pyralidae). Seven different doses ranging from 0.05 to 2.0 g (0.05, 0.1, 0.15, 0.5, 1.0, 1.5, and 2.0 g) per 20.0 g of rice were tested against this common insect pest of rice to evaluate their effect on its life cycle and mortality. Three higher doses were further tested for their effect on physiological parameters like Total Haemocyte Count (THC), total protein content and glycogen level along with starved insects. *L. camara* and *C. inerme* exhibited biopesticidal activity as evidenced by the high mortality rate in treated insects while *C. limon* was ineffective against *C. cephalonica* in the tested conditions. There was also a significant reduction in the THC (39-53%), protein (30-38%) and glycogen (40-61%) content in *L. camara* and *C. inerme* treated larvae with respect to their controls. This was however similar to the results observed in starved groups (52.0, 39.0 and 82.0% respectively for THC, protein and glycogen) which mimic a physiological condition similar to them.

Key words: *Lantana camara*, *Clerodendrum inerme*, *Citrus limon*, mortality, total haemocyte count, glycogen, protein, *Corcyra cephalonica*.

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