

**TOXICITY OF *CYMBOPOGON CITRATUS* STAPF. (POACEAE) AGAINST THE  
DIAMONDBACK MOTH, *PLUTELLA XYLOSTELLA* L. (LEPIDOPTERA:  
YPONOMEUTIDAE) LARVAE**

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**ABSTRACT**

*Cymbopogon citratus* Stapf. has been reported to possess antifungal, nematocidal, acaricidal, and insecticidal activities. Active compounds that possess insecticidal activity to the diamondback moth, *Plutella xylostella* L. (Lepidoptera: Yponomeutidae) larvae have not yet been identified. Therefore, this study was conducted to evaluate the efficacy of the extract of *C. citratus* aerial parts and to elucidate the structure of the active compound causing larval mortality to *P. xylostella*. Bioassay-guided fractionation led to the isolation of the active compound as an essential oil, 3,7-dimethyl-2,6,-octadienal or citral. The LD<sub>50</sub> value of this compound was 7.7 µg/insect by topical application.

**Key words:** active compound, botanical insecticide, citral, insecticidal activity