

**Nematicidal activity of aqueous flower extract of clove, *Eugenia caryophyllata*, against *Meloidogyne javanica*: a laboratory study**

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Under laboratory conditions, second-stage juveniles (J<sub>2</sub>s) of *Meloidogyne javanica* were exposed to aqueous fresh flower extract of clove, *Eugenia caryophyllata* Thunberg (Myrtaceae) at the standard concentration (S) and four dilutions, i.e., 20%, 40%, 60% and 80% of S, at the ambient temperature. The effect of the extract on the survival and mobility of nematodes was investigated, 48 hours after exposure of juveniles. At least 30 J<sub>2</sub>s were exposed to 1 ml of test extract together with 1 ml standard distilled water in glass Petri dishes. Standard distilled water alone was used as untreated controls. The experiment was repeated once with four replications.

In untreated controls, 100% survival was recorded. All the test extracts resulted in significantly higher J<sub>2</sub> mortality at each concentration tested, compared to untreated controls. In addition, significant differences in J<sub>2</sub> mortality were found among the different concentrations investigated. The LC<sub>50</sub> value for J<sub>2</sub> mortality in a 48-h period was found to be at 30% of S. The maximum mortality of 100%, was recorded at the

standard concentration and 80% of S. Moreover, 99.5% mortality was recorded at 60% and 40% of S. The clove extract induced low mortality at 20% of S. Besides influencing the nematode mortality, clove flower extract affected the mobility of nematodes, i.e., nemato-static effect was observed in J<sub>2</sub>s at 20%, 40% and 60% of S. Our findings clearly indicated that the clove flower extract has a high nematicidal activity and the effect was concentration dependent. Hence, it has a potential to incorporate in integrated nematode management systems.