

**POTENTIAL OF ENTOMOPATHOGENIC NEMATODES
AGAINST THE RED PALM WEEVIL IN
UNITED ARAB EMIRATES**

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Abstract

The Red Palm Weevil (RPW) *Rhynchophorus ferrugineus* (Oliver) (Coleoptera: Curculionidae) was detected in the Middle East Region in early 1980's. This insect is now considered as one of the serious pests which threatens date plantation of the region. As part of research activities under Biological Control Project of the Red Palm Weevil in the Middle East a survey was conducted during 2005 in UAE mainly to detect presence of local entomopathogenic nematodes (EPNs) isolates which are adapted to UAE environments and might possess great potential to infect and control the Red Palm Weevil. Laboratory and field investigations were conducted to assess the pathogenicity and control potential of these and other EPNs isolates against adults of RPW. Results have shown that local UAE isolate of EPN *Heterorhabditis indicus* (Poinar *et al.*, 1992), is effective against RPW. Field assessments using novel procedure of targeted application with highly concentrated suspension of local UAE isolate *H. indicus* have resulted in substantial decline in the population of Red Palm Weevil after two successive applications within a period of two months. We concluded that UAE local isolate of *H. indicus* has great control potential against adults of RPW provided that nematode suspension is applied in specific manner in date fields.