

## THE CURRENT GLOBAL SITUATION AND CHALLENGES OF RPW MANAGEMENT PROGRAMS

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The Red Palm Weevil *Rhynchophorus ferrugineus* L. (RPW) is a pest originating from the South Asia region, which has moved westwards to Middle East, North Africa and parts of Europe in the past three decades. Although use of Integrated Pest Management (IPM) through judicious combination of various control methods gave positive results in certain regions, these results could not be sustained and replicated elsewhere due to various factors. The cryptic nature of this pest makes the early detection very difficult and lack of awareness about methods of control and coordination among the stake holders about the pest were some of the other known reasons for its rapid spread and distribution throughout the NENA (Near East and North Africa) region.

Dependence on the conventional visual inspection method of palms to detect pest infestations was both laborious and time consuming. In recent years emphasis was given on the development of devices for the early detection of the infestations in palms with bio-acoustic devices, X-rays machines, Thermal image systems, etc. The alternate method of using trained sniffer dogs for the early detection of infestations in young palms and offshoots was standardized in certain private farms to some extent, to reduce the dependence on visual inspection by laborers. In early 1990's the aggregation pheromone traps of red palm weevil were commercialized and were included in the IPM as an important component. There were excellent improvements in the lure dispensers, trap designs, trap density, besides the augmentation of trap catches through the addition of kairomones in various forms. However, the limited availability of human resources and transportation reduced the success rate of mass trapping and monitor trapping of weevil adults, as the traps needed periodic serving with replacement of fresh food bait and water. However, in recent times research was in progress to develop and introduce efficient, sustainable, dry traps.

The biological control methods using entomo-pathogenic nematodes and fungi in the Gulf countries were not successful due to high temperatures in summer months and inadequate delivery systems. A novel method of microencapsulation technology has been developed for increasing the shelf life and tolerance to UV light of entomo-pathogenic fungus *Beauveria bassiana* and such technologies need to be explored in future for incorporation in the overall strategy of IPM. For long the source and transport of planting materials have received very little attention from most authorities, resulting in spread of the RPW. A step in the right direction would be to establish certified nurseries for the supply of pest free planting material for new farms and gap filling purposes. The matrix of research, development and farmer participation for the overall subjugation of RPW in a viable and sustainable manner is presented.