

Mass trapping

- The pheromone traps should be placed under the shade of the palm/tree canopy at a height of one meter above the ground.
- For mass trapping programme 1-2 traps/ha is recommended.
- The traps should be serviced (discarding the attracted weevils and beetles, replacing the food baits and insecticide solution) every 10 days.
- Replace the pheromone lure only when most of the lure is exhausted.
- Community based approach is desired for mass trapping of red palm weevil and rhinoceros beetle in coconut plantations



Preparation of traps for placement



Placement of trap

Attracted RPW

Attracted RB

Popularisation of pheromone technology

ICAR-CCARI with assistance from NABARD conducted awareness training programme and field demonstration on use of pheromone traps for management of red palm weevil and Rhinoceros beetle in coconut in various parts of Goa.

In this project hands on training on trap placement, servicing, lure replacement and other integrated pest management approaches were given to the farmers. In addition traps were supplied to the farmers.



Training and distribution of pheromone traps to the farmers

Feedback

Based on the feedback from farmers, the pheromone technology is very effective in managing Red palm weevil and Rhinoceros beetle in coconut plantations and easy to adopt the pheromone technology.

Other integrated pest management practices for Red palm weevil and Rhinoceros beetle

Remove and burn all dead coconut trees in the garden to avoid breeding of the pests.

Collect and destroy the various bio-stages of the beetle and weevil from the manure pit and from the infested trees.

Place 3 naphthalene balls/palm at the base of inter space in leaf sheath in the 3 inner most leaves of the crown once in 45 days for managing rhinoceros beetle

Place 5 g phorate in perforated sachets in the two inner most leaf axils for 2 times at 6 months intervals for managing rhinoceros beetle.

Apply entomopathogenic fungus *Metarrhizium anisopliae* @ 5×10^{11} Spores/m³ in manure pits to check the multiplication of the rhinoceros beetle.

Acknowledgement

The financial assistance from NABARD for this project "Management of economically important insect pests with the use of pheromone technology through trainings and demonstrations" (NB.Goa/1160/FSDD/ICAR/2016-17/FSPF) is greatly acknowledged.



Material prepared by
Dr. Maruthadurai.R
and
Dr. R. Ramesh

Published by
Dr. E. B. Chakurkar
Director, ICAR-CCARI

For details please contact
Director

Phone: 0832 2284677/78/79 (0)

Fax: 0832 2285649

Email: director.ccari@icar.gov.in

Website: www.icargoa.res.in

Wide area management of red palm weevil and rhinoceros beetle in coconut using pheromone technology



ICAR – Central Coastal Agricultural Research Institute
(Indian Council of Agricultural Research)
Old Goa, North Goa – 403402, Goa

