

Awareness programme on

“Invasive Rugose spiralling whitefly (*Aleurodicus rugioperculatus*) in Coconut at ICAR-KVK, Mangalore on 06th February, 2018

Rugose Spiralling Whitefly (RSW), *Aleurodicus rugioperculatus* Martin, an invasive pest to the Oriental region, was first noticed on coconut at Pollachi, Tamil Nadu during August 2016. Subsequently, it was reported to feed on banana, sapota, mango, oil palm, guava, custard apple, water apple and many more ornamental plants like false bird of paradise, rubber fig, butterfly palm, ruffled fan palm, *Calophyllum* in Tamil Nadu, Karnataka, Kerala and Andhra Pradesh. Due to its polyphagous in nature, moving of planting materials, it was reported from all coconut growing South Indian states within a few months period. Availability of wide range of host plants in large areas, favourable weather conditions might have helped intensity of RSW and established on many more host plants. Besides, direct damage by sucking sap, profuse honey dew excretion, which get deposited on upper leaf surface by the pest attract sooty mould which reduces the photosynthetic efficiency of plants.



Parasitoids (*Encarsia guadeloupae* and *E. dispersa*) and the predators, green lacewing (*Dichochrysa* sp. nr. *astur*) and coccinellids (*Jauravia pallidula* and *Cheilomenes sexmaculata*) were found associated with RSW. Among the NEs, *E. guadeloupae* was found to be dominant and could parasitize more than 70% RSW nymphs, which reduce the pest population significantly. However, *E. guadeloupae* population is not evenly distributed across the infested areas and host plants. RSW population could be significantly reduced through conservation and redistribution of this parasitoid to the place where they are absent or insufficient. Efforts are being made at ICAR-NBAIR to mass produce *E. guadeloupae* for augmentative release for the management of pest with financial support from Coconut Development Board, Kochi.



To sensitize the farmers and other stakeholders about the pest, host plants range, distribution, mode of dispersal and natural enemies, ICAR-NBAIR is organizing "Awareness programme on "Invasive Rugose spiralling whitefly (*Aleurodicus rugioperculatus*) at KVK, Mangalore on 06th February, 2018 jointly with Department of Horticulture, Government of Karnataka and ICAR-KVK, Kankanady, Mangalore. This awareness programme is intended take stock of the pest status of RSW such as augmentative and conservation biological control strategies and plan management strategies in collaboration with other stake holders and experts in Karnataka. The meeting also include field visit to study the extent of damage caused by the pest and release the parasitoid.

For further information, please contact the following:

Organizing Secretary

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Demonstration on
Biocontrol Agents for Management of Rugose Spiraling Whitefly
***Aleurodicus rugioperculatus* in Coconut**
16th February, 2019

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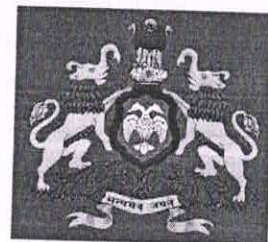
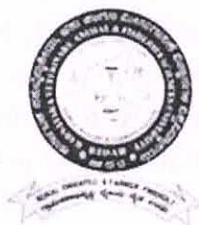
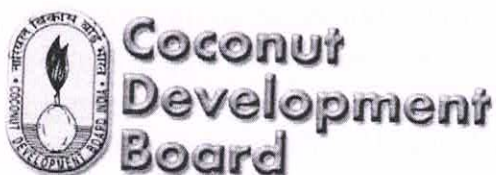
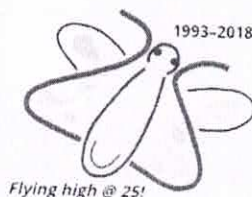
Organized by

ICAR- National Bureau of Agricultural Insect Resources, Hebbal, Bengaluru-
560024

In coordination with

Department of Horticulture, Government of Karnataka and KVK, College Campus,
Kankanady, Dakshina Kannada, Mangalore- 575 002

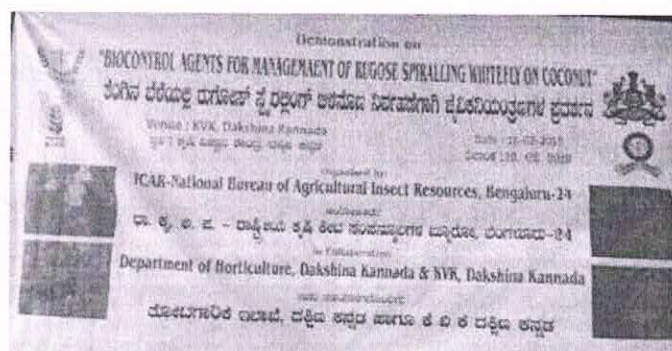
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Hebbal, Bengaluru-560024

Proceedings

Demonstration on “Biocontrol Agents for Management of Rugose Spiraling Whitefly *Aleurodicus rugioperculatus* in Coconut” was conducted in collaboration with Department of Horticulture, Government of Karnataka and KVK, Kankanady, Dakshina Kannada, Mangalore on 16th February 2019 for farmers. The programme was inaugurated by Sri. H. R. Naik, Deputy Director of Horticulture (DDH), Dakshina Kannada in presence of Dr. Ramachandra Naik, Programme Coordinator, KVK. Dr. B. Ramanujam, Principal Scientist, ICAR-NBAIR, Bengaluru, Sri Preetheep Kumar, Senior Assistant Director of Horticulture (SADH), scientific staff of KVK and about 70 progressive farmers were participated.



Sri Preetheep Kumar, SADH welcomed the dignitaries, experts & progressive farmers for the programme. Inaugural address by Sri H. R. Naik, DDH, briefed about importance of this demonstration programme on biocontrol agents for management of RSW in coconut and other Horticultural crops, current status of RSW in Dakshina Kannada district and he recalled various initiatives including several awareness programme in 2017-2018 to contain this pest in the district in collaboration with ICAR-NBAIR and other stakeholders. Miss Sumalatha, B.V, Research scholar explain about integrated management strategies for RSW in Coconut and other crop plants and augmentation & conservation strategies for *Encarsia guadeloupae* for the farmers. Followed by Dr. B. Ramanujam, Principal Scientist (Plant Pathology), ICAR-NBAIR briefed about the entomopathogenic fungus *Isaria fumosorosea* (= *Paecilomyces fumosoroseus*) (Hypocreales: Clavicipitaceae), its mass production techniques, mode of action, preparation of spray fluid and application methods. Extension folder (Kannada) on the biological control of rugose spiraling whitefly in coconut was released by the dignitaries

during the occasion. Nucleus cultures of parasitoid *E. guadeloupae* and formulation of *I. fumosorosea* were distributed to farmers for the subsequent releases, application in their gardens. The meeting was ended with a vote of thanks by Dr. K. Selvaraj, Scientist (Entomology), ICAR-NBAIR.



Foliar application of *I. fumosorosea* @ dose of 5g/litre on coconut palms was demonstrated farmers at KVK, Mangalore as well as Horticultural Research Farm, Thombe. Pre-treatment count on RSW was taken before spray and post treatment will be done after 15 days interval. During the field visit, identification of *E. guadeloupae* and parasitized nymphs and release techniques of the parasitoid were demonstrated to the farmers. This programme was organized by Dr. K. Selvaraj, ICAR-NBAIR, Bengaluru with financial support from Coconut Development Board, Kochi under the project "Biological Control of invasive rugose spiralling whitefly using *E. guadeloupae* in coconut". This programme was widely covered by press and media.

Compiled by
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