

Training cum Demonstration on Biocontrol Strategies for Management of Invasive Whiteflies in Coconut at Nagthihalli, Mandya District

(7th October 2022, Mandya district, Karnataka)

The coconut palm (*Cocos nucifera* L.: Arecaceae) is an important plantation crop and many farmers of South India depend on coconut for their livelihood. Recently there were four Neotropical invasive whiteflies viz., rugose spiraling whitefly, *Aleurodicus rugioperculatus*, Bondar's nesting whitefly, *Paraleyrodes bondari* and Nesting whitefly, *Parleyrodes minei* and palm infesting whitefly, *Aleurotrachelus atratus* invaded into India. All these four Neotropical whiteflies causes direct damage by sucking sap from the plant tissue and causes drying and drooping of the coconut fronds and indirect damage through black sooty mould formation on the infested palm leaves. These invasives have become regular and serious pests and warrant control measures.

ICAR-National Bureau of Agricultural Resources has reported the natural parasitism of *Encarsia guadeloupae* on rugose spiraling whitefly and *Encarsia cubensis* on palm infesting whitefly for the first time and identified and validated the bioefficacy of entomopathogenic fungus, *Isaria fumosorosea* against these invasive whiteflies. Further, ICAR-NBAIR conducting training, awareness and demonstration programme on augmentation and conservation of these natural enemies in collaboration with other stakeholders.

ICAR- NBAIR conducted farmers training cum demonstration on biocontrol strategies for management of invasive whiteflies in coconut on 7th October, 2022 at Nagathihalli, Mandya district, Karnataka in collaboration with Department of Horticulture, Mandya district, Government of Karnataka and Horticulture Farmer Producer Company, Nagathihalli. Dr. S.N. Sushil, Director, ICAR-NBAIR inaugurated in presence of Shri D. Manjunath, Deputy Director of Horticulture, Mandya, Shri E. Aravazhi, Director, Coconut Development Board, Regional centre, Bengaluru. Further, Dr. S.N Sushil addressed the farmers on importance of biocontrol to tackling these invasive whiteflies in coconut and distributed the parasitoids & entomopathogenic fungus formulations to the farmers. Besides, Shri R. Jayanath, Assistant director, CDB, DSP farm, Mandya, Officials from RCIPMC, Bengaluru and President Shri N.T. Subramanian, President & other board members of Nagathihalli Horticulture farmers producing company and about 100 farmers participated and benefitted the programme.

In the technical session, Dr. A.N. Shylesha, Principal Scientist (Entomology), Dr. A. Kandan, Principal Scientist (Plant Pathology) delivered talk on pest and diseases of coconut and their management strategies. Dr. K. Selvaraj, Senior Scientist (Entomology) briefed about the whiteflies origin, invasion, distribution, other different host plants, life cycle, nature of damage, management strategies to farmers. Further, we conducted demonstration on biocontrol agents such as *Encarsia guadeloupae* (release techniques) and *Isaria fumosorosea* (preparation and foliar application) and explained to farmers in the nearby coconut garden.



Dr. S.N. Sushil, Director, ICAR-NBAIR distributing of biocontrol agents

This training cum demonstration on biocontrol strategies for management of invasive whiteflies in coconut organized under research project on **“Exploration of entomopathogenic fungus *Isaria fumosorosea* for the management of emerging invasive whiteflies in coconut”** sponsored by Coconut Development Board, Kochi. This training cum demonstration was coordinated and organized by Dr. K. Selvaraj, Dr. A. Kandan and Dr. B.S. Gotyal (Senior Scientist) for the benefit of farmers and other stakeholders.



Dr. S.N. Sushil, Director, ICAR-NBAIR briefing about invasive whiteflies



Demonstration on foliar application of *Isaria fumosorosea* (ICAR-NBAIR Pfu-5)



Farmers and dignitaries attended the training cum demonstration programme