ICAR-NBAIR Demonstrated Biocontrol Technologies for the Management of Invasive Rugose Spiralling whiteflies in Coconut Plantations

Of late, the invasive whitefly species such as rugose spiraling whitefly, *Aleurodicus rugioperculatus*, Bondar's nesting whitefly, *Paraleyrodes bondari*, Nesting whitefly, *Parleyrodesminei* and palm infesting whitefly, *Aleurotrachelus atratus* pose major threat to coconut production in India. The potential of natural parasitism by hymenopteran wasps, *Encarsia guadeloupae* on rugose spiraling whitefly and *Encarsia cubensis* on palm infesting whitefly were documented. Further, the biocontrol potential of an entomopathogenic fungus, *Isaria fumosorosea* (ICAR-NBAIR Pfu-5) against all these invasive whiteflies were field validated. ICAR-NBAIR is conducting regular training, awareness and demonstration programme on augmentation and conservation of these natural enemies in collaboration with other stakeholders.

In this series, ICAR- NBAIR conducted farmers training cum demonstration on biological management of invasive whiteflies in collaboration with department of agriculture on 20th January 2023 at Ragihosalli village of Shimoga district in Karnataka to educate the different stakeholders on diagnosis, identification, host plants, coexisting pattern, their natural enemies and their management strategies of invasive whiteflies.

Further, a field demonstration on the method of conservation, redistribution, production and use of the parasitoid wasps and *Isaria fumosorosea* were conducted and explained to the farmers. Training kits include biocontrol agents *viz.*, Parasitoid, *E. guadeloupae*, *E. cubensis* and

entomopathogenic fungus *Isaria fumosorosea* formulations (oil and talc) and extension folders on invasive whiteflies and their biocontrol strategies were distributed to all the farmers. Dr. A.N. Shylesha, Dr. K. Sevaraj and Dr C. Manjunatha from ICAR-NBAIR arranged the event and around 150 formers participated and got benefitted.

Source: ICAR-National Bureau of Agricultural Resources, Bengaluru