

Brainstorming on
Invasive Rugose Spiraling Whitefly *Aleurodicus rugioperculatus* Martin
20-21 March, 2017

.....

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

In collaboration with

Tamil Nadu Agricultural University, Coimbatore- 641003
Society for Biocontrol Advancement, ICAR-NBAIR, Hebbal, Bengaluru-560024



The invasive rugose spiraling whitefly (RSW), *Aleurodicus rugioperculatus* Martin has invaded our country and reported on coconut, banana, custard apple, sapota and several ornamental plants in Tamil Nadu, Andhra Pradesh and Kerala. This is the first report of this pest in India as well as oriental region (Selvaraj *et al.*, 2016; Sundararaj and Selvaraj, 2017). It was initially noticed to feed on coconut in Pollachi and Coimbatore (Tamil Nadu) during August, 2016 and later on recorded from other parts of peninsular India. The severity of infestation reached an alarming situation causing extensive damage to coconut and banana and thus has assumed major pest status. This pest is highly polyphagous and expected to extend its host range in India. This brainstorming session was conducted to take stock of the pest status of RSW in different states and plan management strategies in collaboration with other stakeholders and experts in the country.

Field Visit on 20/03/2017

An expert team identified by ICAR and all the stakeholders from different organizations *viz.*, ICAR-NBAIR, TNAU, Coimbatore, Coconut Research Station, Aliyar Nagar, State Dept. of Agriculture, TamilNadu, Coconut Development Board, CIPMC centres (Tiruchirappalli, Ernakulum, Vijayawada and Bangalore), CPCRI, Kasargod, NRC Banana, Tiruchirappalli, KVK, Alappuzha and progressive coconut growers visited farmers' fields at Pollachi and Aliyar Nagar on 20/03/2017 and studied the extent of damage caused by the pest. The presence of natural enemies was evident in many of the plots.



Visit to farmers fields at Pollachi and interaction with coconut and banana growers on 20th March 2017

The expert team members visited several coconut farms and interacted with farmers regarding incidence of rugose spiraling whitefly, host plants infested, impact on crop yield and efficacy of control measures adopted. Farmers appreciated and acknowledged the efforts of various stakeholders including NBAIR to manage the pest through conducting sensitization cum awareness programmes. The different organizations concentrated on various activities which included survey and monitoring, identification of the pest and natural enemies, mode of spread, host plant range, conduct of farmers' field schools and supply of natural enemies. Considerable reduction in pest population was recorded by the expert team and farmers due to enhanced natural parasitism by *Encarsia guadeloupae*, conserved through avoidance of chemical insecticide sprays.

Inaugural Session on 21.03.2017

The brainstorming session held at Department of Entomology, TNAU, Coimbatore on 21/03/2017, was inaugurated by Dr. K. Ramasamy, Hon'ble Vice Chancellor, Tamil Nadu Agricultural University. Dr (Mrs) Chandish R Ballal, Director, ICAR-NBAIR, Bengaluru, Dr. M. Maheswaran, Director of Research, TNAU, Coimbatore, Dr. K. Ramaraju, Director, Centre for Plant Protection Studies, TNAU, Coimbatore and Dr. S.K. Jalali, Head, Molecular Entomology Division, ICAR-NBAIR was also present. Dr. R.J. Rabindra, Former Director, NBAIR, Dr. H. H. Khan, Former Project Coordinator (ACRIP on Palms) and representatives from Coconut Development Board also participated in the meeting.

Dr. K. Ramaraju welcomed the dignitaries on the dais, experts and participants from different organizations including progressive farmers. Felicitations were delivered by Dr. M. Maheswaran who appreciated NBAIR for playing a vital role in identification of this invasive pest and associated natural enemies. Further, he emphasized the need to intensify studies on RSW biology and ecology for the development of integrated management strategies.

Dr. (Mrs) Chandish R Ballal addressed the gathering and focused on the importance of the brainstorming on rugose spiraling whitefly, pest identity, host plant range, natural enemies conservation, etc. She appreciated all the organizations/institutes for their work on various aspects of rugose spiraling whitefly management. Dr. R.J. Rabindra recollected the past success stories on invasive pest management either through classical/ augmentative biological control especially the biological control of sugarcane woolly aphid and papaya mealybug. He emphasized that similar strategies could be adopted for rugose spiraling whitefly management.. Dr. H. H. Khan appreciated the team work adopted by various stakeholders including Department officials and farmers. Inaugural address was delivered by Dr. K. Ramasamy, Hon'ble vice chancellor who emphasized on the need for sustenance of earlier successes in management of invasives, measuring the level of success through continuous monitoring of the pests & natural enemies and maintenance of separate databases for the same. Since, RSW infests several host plants including mango, banana, guava etc, continuous monitoring on different host plants from the pest in future. Two extension folders compiled by NBAIR, TNAU on rugose spiraling whitefly (English and Tamil) were released. This brainstorming event was widely covered in national dailies in Tamil

language including multimedia. The inaugural session ended with a vote of thanks by Dr. S. K. Jalali.



Brainstorming on invasive rugose spiraling whitefly at Department of Entomology, TNAU, Coimbatore on 21st march 2017

Technical session: The technical session started with a presentation on “Invasion of Rugose Spiraling Whitefly (*Aleurodicus rugioperculatus* Martin in India” by Dr. T. Venkatesan, Principal Scientist (Entomology) and Dr. K. Selvaraj, Scientist (Entomology), NBAIR, Bangalore followed by presentations by other experts from Coconut Research Station of Tamil Nadu Agricultural University, Aliyar Nagar, ICAR-CPCRI, Kayamkulam Centre, Central Integrated Pest Management Centre from Tiruchirappalli, Ernakulum, Vijayawada, ICAR-NRC on Banana, Tiruchirappalli. During the plenary session, several recommendations emerged for the continuous monitoring and containment of the pest. Besides, various researchable issues for the management of rugose spiraling whitefly on short and long term basis were suggested. After the plenary session, the programme ended with a vote of thanks. The brainstorming programme was organized and coordinated by Dr. T. Venkatesan, Principal Scientist (Entomology) and Dr. K. Selvaraj, Scientist (Entomology), Molecular Entomology Division, ICAR-NBAIR, Bengaluru. The programme was strongly supported by TNAU, Coimbatore and CRS, Aliyar Nagar. Overall, the field visit and brainstorming on rugose spiraling whitefly was fruitful and a grand success. The financial grant to conduct the brainstorming received from ICAR, New Delhi is gratefully acknowledged and appreciated.