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पत्र सं./ F.No. 6-7/2017-18/Tech. / 1928
भारत सरकार / Govt. of India

कृषि एवं किसान कल्याण मंत्रालय / Ministry of Agriculture & Farmers' Welfare
कृषि, सहकारिता एवं किसान कल्याण विभाग / Department of Agriculture, Cooperation & Farmers' Welfare
वनस्पति संरक्षण, संगरोध एवं संग्रह निदेशालय / Directorate of Plant Protection, Quarantine & Storage
केन्द्रीय एकीकृत नाशीजीव प्रबंधन केन्द्र / Central Integrated Pest Management Centre
सं 16., अब्दुल सलाम स्ट्रीट, खाजा नगर / No.16, Abdul Salam Street, Khaja Nagar
तिरुचिरापल्ली / Tiruchirapalli-620020. तमिलनाडु / Tamil Nadu

दिनांक / Date: 02.03.2018

To,
The Director,
ICAR-National Bureau of Agricultural Insect Resources,
P.Bag No:2491, H.A. Farm Post
Bellary Road, Bengaluru - 560 024.
Karnataka, INDIA.

Sub: **Organizing 02 Days Awareness cum IPM - Orientation Training Programme on Rugose Spiraling Whitefly (RSW) (*Aluerodius rugioperculatus*), an invasive pest of Coconut for Farmers and Pesticide Dealers of Thanjavur (Dt), T.N. - reg.**

Dear Madam,

I have the honour to inform you that Central Integrated Pest Management Centre (CIPMC), Tiruchirapalli (Tamil Nadu) is one among 35 centres established in India under the Directorate of Plant Protection, Quarantine & Storage (DPPQ&S), DAC&FW, Ministry of Agriculture & FW. The main objective of CIPMC, Tiruchirapalli is to promote and popularize Integrated Pest Management (IPM) concepts among Farmers, Pesticide Dealers and Agricultural Extension Officers to protect agro ecosystem from ill – effects of pesticides and create better environment for sustainable agriculture.

In this regard, it is informed that recently, Rugose Spiraling Whitefly (RSW), an invasive pest of coconut has caused a wide spread damage in the coconut palms and other host plants of Peravurani (Block) and surrounding areas of Thanjavur (Dist.) of Tamil Nadu. To address this issue, CIPMC, Trichy is organising a Two days "Awareness cum IPM - Orientation Training Programme (OTP) on Rugose Spiraling Whitefly (RSW)" for the Coconut farmers, Pesticide dealers and Agricultural Extension Officers (AOs) at Pattukottai, Thanjavur (Dt.), Tamil Nadu (State) during **08.03.2018 to 09.03.2018**. The main objective of this training will be to create awareness among the Farmers, Pesticide Dealers and Agricultural Extension Officers of Thanjavur district, so as to implement IPM for the management of RSW and to take precautionary steps to avoid further spread of RSW in the other predominant coconut growing areas of Tamil Nadu.

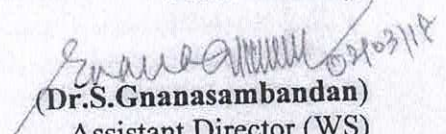
Continued.....

It is therefore, requested to depute **Dr. K.Selvaraj, Scientist**, Division of Molecular Entomology, ICAR-NBAIR, Bengaluru, to participate the above said programme at Pattukottai on 08.03.2018 and 09.03.2018, as a Guest Resource Person to share his technical experience for the management of RSW in Coconut. It is also requested to provide sufficient numbers of parasitoid, i.e. *Encarsia guadeloupae* to release them into coconut gardens in Pattukottai during the OTP.

Your kind cooperation in this regard is earnestly solicited.

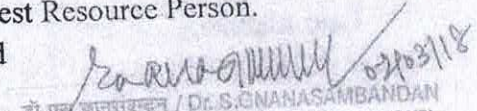
Thanking you,

Yours faithfully,


(Dr.S.Gnanasambandan)
Assistant Director (WS)

Copy for favour of kind information to:

1. **Dr.K.Selvaraj, Scientist**, Division of Molecular Entomology, ICAR-NBAIR, Bengaluru with the request to participate the OTP as Guest Resource Person.
2. **The Joint Director (IPM)**, Dte. of PPQ & S., Faridabad


डॉ. ए. आचरसम्बन्धन / Dr. S.GNANASAMBANDAN
सहायक निदेशक (ख.वि.) / Assistant Director (WS)
केन्द्रीय एकीकृत नाशीजीव प्रबन्धन केन्द्र
Central Integrated Pest Management Centre
भारत सरकार, कृषि एवं किसान कल्याण मंत्रालय
Govt. of India, Ministry of Agri. & Farmers' Welfare
तिरुचिरापल्ली, तमिलनाडु / TIRUCHIRAPPALLI - 20 (TN.)

ICAR-NBAIR - Farmers field day on 12th

PME, NBAIR, Bengaluru

Wed 1/6/2021 6:16 PM

To: ddhnamakkal@yahoo.com <ddhnamakkal@yahoo.com>;

Cc: DR K Selvaraj <K.Selvaraj@icar.gov.in>; Dr M Sampath Kumar <m.kumar1@icar.gov.in>;

Dear Sir

Thank you for the consent to have a farmers field day (Either at Kalkurichi or Belukurichi village) on 12th January 2021 on the management of cassava mealybug and coconut rugose spiraling whitefly. We will be bringing the copies of extension folders on these aspects for circulation to the farmers. Please find herewith the topics of our talk along with resource persons from your side

Topic	Resource Person
Role of ICAR-NBAIR in biological control of crop pests	Dr N. Bakthavatsalam Director, ICAR-NBAIR
Biology and alternate host of cassava mealybug and progress in importation of <i>Anagyrus lopezi</i> from other countries	Dr M. Sampathkumar Scientist (Entomology), ICAR-NBAIR
Management of cassava mealybug	Dr. M. Mohan Principal Scientist (Entomology), ICAR-NBAIR
Management of rugose spiralling whitefly in coconut	Dr. K. Selvaraj Scientist (Entomology), ICAR-NBAIR

Contact us for any other arrangements

Sincerely

Dr. M. MOHAN

Principal Scientist & In-Charge, Project Monitoring & Evaluation Cell

ICAR-National Bureau of Agricultural Insect Resources, Bengaluru

(Mini of Agriculture & Farmers Welfare, Govt. of India)

Ph. (Off.) 080-2351 1982/98, Mob: +91 9686785470

www.nbair.res.in

ಕರ್ನಾಟಕ ಸರ್ಕಾರ

ತೋಟಗಾರಿಕೆ ಇಲಾಖೆ

ಸಂ.ತೋ.ಉ.ನಿ(ಜಿ.ಪಂ)/ತು/ತಾಂಸ3/01/2020-21

ತೋಟಗಾರಿಕೆ ಉಪ ನಿರ್ದೇಶಕರ ಕಛೇರಿ

(ಜಿ.ಪಂ), ತುಮಕೂರು ಜಿಲ್ಲೆ.

ದಿನಾಂಕ:02/01/2021

ರವರಿಗೆ,

ನಿರ್ದೇಶಕರು,

ICAR NBAIR,

ಬಳ್ಳಾರಿ ರಸ್ತೆ, ಹೆಬ್ಬಾಳ,

ಬೆಂಗಳೂರು,

ಮಾನ್ಯರೇ,

ವಿಷಯ: ತೆಂಗಿನಲ್ಲಿ ಕಂಡುಬಂದಿರುವ ಪ್ರಮುಖ ಕೀಟಗಳಾದ ರೂಗೋಸ್ ಬಿಳಿ ನೋಣ (Rugose Spiralling white fly), ಹಾಗೂ ಬಿಳಿ ನೋಣಗಳ (white fly), ಹತೋಟಿ ಕ್ರಮಗಳ ಕುರಿತು ಕ್ಷೇತ್ರ ಪ್ರಾತ್ಯಕ್ಷಿಕೆ ಮತ್ತು ತರಬೇತಿ ನೀಡುವ ಬಗ್ಗೆ.

ಮೇಲ್ಕಂಡ ವಿಷಯಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ, ತುಮಕೂರು ಜಿಲ್ಲೆಯಲ್ಲಿ ತೆಂಗು ಬೆಳೆಯನ್ನು 1.76 ಲಕ್ಷ ಹೆಕ್ಟೇರ್ ಪ್ರದೇಶದಲ್ಲಿ ಬೆಳೆಯಲಾಗುತ್ತಿರುತ್ತದೆ. ಆದರೆ ಇತ್ತೀಚಿನ ದಿನಗಳಲ್ಲಿ ತೆಂಗಿನಲ್ಲಿ ರೂಗೋಸ್ ಬಿಳಿ ನೋಣ (Rugose Spiralling white fly) ಹಾಗೂ ಬಿಳಿ ನೋಣಗಳ (white fly), ಹಾವಳಿ ಹೆಚ್ಚಾಗಿರುವುದರಿಂದ, ಇಳುವರಿ ಕುಂಠಿತಗೊಂಡು ರೈತರ ಆದಾಯ ಕಡಿತಗೊಳಿಸುವಲ್ಲಿಯೂ ಸಹ ಪ್ರಮುಖ ಪಾತ್ರವಹಿಸಿರುವುದು ಕಂಡುಬಂದಿರುತ್ತದೆ. ತುಮಕೂರು ಜಿಲ್ಲೆಯ ಲೋಕಸಭಾ ಕ್ಷೇತ್ರದ ಸದಸ್ಯರಾದ ಮಾನ್ಯ ಶ್ರೀ. ಜಿ. ಎಸ್. ಬಸವರಾಜು ರವರ ತೋಟದಲ್ಲಿ ಹೆಚ್ಚಿನ ಭಾಧೆ ಕಂಡು ಬಂದಿದ್ದು, ಹಾಗೂ ಜಿಲ್ಲೆಯ ಎಲ್ಲಾ ರೈತ ಭಾಂಧವರ ತಾಕೂಗಳಲ್ಲಿಯೂ ಸದರಿ ಕೀಟಗಳ ಭಾಧೆಯು ಕಂಡು ಬರುತ್ತಿರುವುದರಿಂದ ಅಗತ್ಯ ಹತೋಟಿ ಕ್ರಮಗಳನ್ನು ಕೈಗೊಳ್ಳುವಂತೆ ಸೂಚಿಸಿರುತ್ತಾರೆ.

ಮುಂದುವರೆದು, ತೆಂಗು ಬೆಳೆಯನ್ನು ಭಾಧಿಸುತ್ತಿರುವ ರೂಗೋಸ್ ಬಿಳಿ ನೋಣ (Rugose Spiralling white fly) ಹಾಗೂ ಬಿಳಿ ನೋಣಗಳ (white fly) ಹಾವಳಿ ತಡೆಗಟ್ಟುವ ನಿಟ್ಟಿನಲ್ಲಿ, ಜಿಲ್ಲೆಯ ರೈತರ ತಾಕೂಗಳಿಗೆ ದಿನಾಂಕ:05/01/2021 ರಂದು ಭೇಟಿ ನೀಡಿ ನಿಯಂತ್ರಣದ ಬಗ್ಗೆ ಮಾಹಿತಿ ಹಾಗೂ ಪ್ರಾತ್ಯಕ್ಷಿಕೆ ಕೈಗೊಳ್ಳಲು ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ ಹಿರೇಹಳ್ಳಿ, ರವರಿಗೆ ತಿಳಿಸಲಾಗಿದ್ದು, ಸದರಿಯವರೊಂದಿಗೆ

ತಮ್ಮ ಅಧೀನ ಕಾರ್ಯ ನಿರ್ವಹಿಸುತ್ತಿರುವ ಶ್ರೀ.ಕೆ.ಸೆಲ್ವರಾಜ್, ವಿಷಯ ತಜ್ಞರನ್ನು ಮಾಹಿತಿ ಹಾಗೂ ಪ್ರಾತ್ಯಕ್ಷಿಕೆ ನೀಡಲು ಅಗತ್ಯ ಸಸ್ಯ ಸಂರಕ್ಷಣಾ ಪರಿಕರಳೊಂದಿಗೆ (ಸದರಿ ಕೀಟಗಳ ನಿಯಂತ್ರಣಕ್ಕೆ ಸಂಬಂಧಪಟ್ಟ ಶೀಲಿಂದ್ರ ಹಾಗೂ ಬೇಪಿನ ಸೋಪು) ಕಳುಹಿಸಿಕೊಡುವಂತೆ ಈ ಮೂಲಕ ತಮ್ಮಲ್ಲಿಂದ ಮಂದಗಾಪೂರ್ವಕವಾಗಿ ಕೋರಿದೆ.

ತಮ್ಮ ನಂಬುಗೆಯ

ತೋಟಗಾರಿಕೆ ಇಲಾಖೆ ನಿರ್ದೇಶಕರು (ಜಿ.ಪಂ)

ತುಮಕೂರು ಜಿಲ್ಲೆ

ಪ್ರತಿಯನ್ನು: ಹಿರಿಯ ವಿಜ್ಞಾನಿ ಹಾಗೂ ಮುಖ್ಯಸ್ಥರು, ಕೃಷಿ ವಿಜ್ಞಾನ ಕೇಂದ್ರ ಹಿರೇಹಳ್ಳಿ, ತುಮಕೂರು ರವರಿಗೆ ಸಲ್ಲಿಸುತ್ತಾ, ಸದರಿ ಪ್ರಾತ್ಯಕ್ಷಿಕೆ ಮತ್ತು ತರಬೇತಿಗೆ ಹಾಜರಾಗುವಂತೆ ಈ ಮೂಲಕ ಕೋರಿದೆ.



**ICAR-NATIONAL BUREAU OF AGRICULTURAL
INSECT RESOURCES**

भाकृअनुप - राष्ट्रीय कृषि कीट संसाधन ब्यूरो



P. B. NO. 2491 ♦ H. A. FARM POST ♦ BELLARY ROAD ♦ HEBBAL
BENGALURU 560 024 ♦ Karnataka ♦ India

Dr. K. Srinivasa Murthy
PME Cell I/c.

F. No. NBAIR/PME-20/2016-17/ 8428
Date: 17th December, 2016

To
Dr. S. Gnanasambandan
Assistant Director (WS),
Central Integrated Pest Management Centre (CIPMC),
Directorate of PPQ&S, DAC&FW,
Ministry of Agriculture & Farmers' Welfare,
Govt of India, Khajanagar, Trichy – 620 020
Tamil Nadu

Sub.: Sensitization cum training programme on “Integrated Pest Management (IPM) for
Rugose Spiraling Whitefly in Coconut” to the Farmerts of Pollachi (Taluk), Coimbatore
(District) during 21-22nd December, 2016 – Reg.

Ref.: F. No. 10-4/2016-17/Tech. (Part-II), dated 16.12.2016

Sir,

With reference to the above mentioned subject, I wish to inform that the Director is
pleased to nominate Dr. K. Selvaraj, Scientist, Division of Molecular Entomology from this
Bureau as a resource person to deliver lecture/practical demonstrations in the two days
sensitization cum training programme on “Integrated Pest Management (IPM) for Rugose
Spiraling Whitefly in Coconut” to the Farmerts of Pollachi (Taluk), Coimbatore (District)
during 21-22nd December, 2016 at Coconut Research Station (CRS), TNAU, Aliyar, Pollachi.

Thanking you,

Yours faithfully,

(K. Srinivasa Murthy)
17/12/2016

Copy to: Dr. K. Selvaraj, Scientist, Division of Molecular Entomology, ICAR-NBAIR,
Bengaluru



Date :18.01.2021

Demonstration, Popularization, Dissemination, Adoption and Impact of Technologies for the Management of Rugose Spiraling whitefly in Coconut using Innovative Extension Methodologies

Erode district is one of the leading producers of Coconut in Tamil Nadu and currently the crop is being cultivated in 6,000 hectares of land with the average productivity of 17,777 nuts/ha. Based on the report received from my department officials on incidences of this pest on coconut across the district, I requested an expert team from ICAR-NBAIR, Bengaluru to visit the infested coconut plantations and advise the remedial measures to manage the pest for the department officials and farmers. In response to my request Dr. K. Selvaraj, Dr. T. Venkatesan and Dr. G. Sivakumar made many visits and supplied and validated the following technologies to farmers in the villages viz., Alathukombai, Vellode, Modachur, Alukulli and Voothimadai Puthur in Erode Dist., Tamilnadu.

1. Mass production technology for parasitoid "*Encarsia goudeloupae* for the suppression of rugose spiralling whitefly *Aleurodicus rugioperculatus* using in coconut.
2. Potent (Strain ICAR-NBAIR Pfu-5) *Isaria fumosoroseus* for the management of rugose spiraling whitefly (RSW) *Aleurodicus rugioperculatus*

Furthermore, the scientists conducted several awareness-cum-field demonstration programmes on biological control of rugose spiralling whitefly in the district during 2019-2021 using the following innovative extension methodologies viz., farmers participatory approach, Gosti meeting, distribution of technical materials, field demonstration and mobile communication (Whats App) to farmers and department officials. Besides, the scientists also established a new infrastructure in 500 sq. Metre area for the large scale production of parasitoid (*Encarsia guadeloupae*), with the financial support (Rs. 20 lakhs) from Kumaraguru Institute of Agriculture at Erode District for the purpose of distribution to farmers for the management of the pest. The parasitoids (*Encarsia guadeloupae*) were produced in large numbers and distributed to farmers for the augmentative release.

The progressive coconut farmers in and around Erode district visited the production unit on fortnightly basis. The trainings were imparted to them on establishment of RSW on Cana and banana plants, release of parasitoids on whitefly colonies and further multiplication of parasitoids on the pest. Identification of RSW and parasitoids was imparted on the spot to the farmers. Furthermore, the farmers were trained on collection and field release of parasitoids.

I am happy to state that the released parasitoids and the entomopathogenic fungus *Isaria fumosorosea* established in the coconut crop ecosystem and multiplied in large numbers and the pest incidence has declined drastically. The technology was adopted by 150 farmers and has disseminated to 1000 ha in and around Erode Dist, Tamilnadu. Economic analysis of the impact of conservation and augmentation of *E. guadeloupae* and foliar application of *I. fumosorosea* for management of RSW indicated that there is a reduction of crop protection cost @ Rs 9500/ha and reduction in pesticide usage @ 900 ml of pesticides/ha. I felt that the adoption of these biological control technologies improved the standard of living of the marginal and small farmers by improving their marginal income, soil health, soil productivity and attained a great success.

I congratulate and appreciate the scientists Dr. K. Selvaraj, Dr. T. Venkatesan and Dr. G. Sivakumar for their outstanding contributions for the cause of farming community.

Thanking you


Yours faithfully,
(C.KATHIRAVAN)