One day National Seminar was organized at ICAR-CPCRI, Regional Station, Kayamkulam on 22-09-2021

As part of *Bharat ki Azadi ka Amrit Mahotsav*, ICAR-CPCRI, Regional Station, Kayamkulam organized a one-day National Seminar on "*Advances in Biological Suppression of Pests*" on 22-09-2021 in virtual mode to stock take on bio-control in crop pest management in general and biological pest suppression in coconut, in particular. As coconut and bio-control are synonymous, this seminar was more relevant amidst COVID-19 pandemic leveraging upon ecological integrity for green farming and one-health approach.

Dr S Kalavathi, Head, ICAR-CPCRI, RS, Kayamkulam welcomed the gathering and introduced all dignitaries and the theme of the seminar. Dr Anitha Karun, Director, ICAR-CPCRI, Kasaragod delivered the presidential address and highlighted on the contributions made by all Kayamkulam entomologists from Dr KK Nirula to Dr Chandrika Mohan during their professional tenure. The National Seminar was inaugurated by Dr Chandish R. Ballal, Former Director, ICAR-NBAIR, Bengaluru, a well renowned Biocontrol expert in the country. She also delivered the key note address on the topic 'Classical Biological Control - India as a Beneficiary and Benefactor' and elaborated on the role of classical biological control in the suppression of invasive pests and the impact running into several crores of rupees in synergy with safeguarding the environment as well. Dr Chandrika Mohan, Principal Scientist delivered the first 'Dr KK Nirula Memorial lecture (2021)' on 'Advances in Bio-Suppression of Coconut Pests' and narrated the salient accomplishments of bio-control advancements in coconut pest management with special emphasis on augmentative biological suppression of black headed caterpillar. As a commemoration on her 35 years of distinguished service in biological suppression of coconut pests, she was awarded with a citation and memento on the occasion. The special guests Dr Madhu Subramanian, Director of Research, KAU and Dr M. Nagesh, Director, ICAR-NBAIR, Bengaluru offered felicitation address. Two publications viz., Entomology Luminaries @ Kayamkulam and Proceedings of the National Seminar on Advances in Biological Suppression of Pests with abstracts from PG scholars as well as a short video on "Ecological engineering for Pest Regression" was released.

A panel discussion moderated by Dr CPR Nair, Former, Head, ICAR-CPCRI, RS, Kayamkulam and attended by esteemed dignitaries, Dr Santhosh J Eapen, Head, Crop Protection, ICAR-IISR, Kozhikode, Dr CA Jayaprakas, Head Division of Crop Protection, ICAR-CTCRI, Thiruvananthapuram, and Dr G Suja, Head, ORARS, Kayamkulam. The dignitaries deliberated on challenges in biological pest suppression and evolved future thrusts to take forward in this sector including the availability of bioagents at farmer's doorstep and quality control of bioagents. Dr Vinayaka Hegde, Head, Crop Protection, ICAR-CPCRI proposed vote of thanks at the end of the inaugural function.

Dr R Chandramohanan, Former Head, Division of Crop Protection, ICAR-CPCRI, Kasaragod chaired the Technical session on "*Bio-control of pests, nematodes and diseases of crops*" Dr Rohini Iyer, Former Head, Division of Crop Protection, ICAR-CPCRI, Kasaragod and Dr K Subaharan, Principal Scientist, ICAR-NBAIR, Bengaluru served as co-

chairs of the session. Ten students were selected for oral presentation based on the abstracts submitted and nine of these PG scholars presented their research finding which was evaluated by the jury. Three scholars were bestowed upon with the best oral presentation award. Fourteen PG students presented their research papers in the form of poster.

Dr Vinayaka Hegde, Head, Division of Crop Protection, chaired the valedictory function and farewell felicitation meeting for Dr Chandrika Mohan, PS. Dr K. Subaharan, PS presented the seminar recommendations and announced the best oral presentation awards for successful three scholars. Dr A Joseph Rajkumar, PS outlined the Entomology Luminaries at Kayamkulam from Dr Nirula to Dr Chandrika Mohan briefly. During the farewell session, distinguished guests Dr Pathumal Beevi, former ADR, KAU shared her association with Dr Chandrika Mohan. This was followed by farewell felicitations from panellists, guests, scientists and other dignitaries. Dr A Joseph Rajkumar proposed vote of thanks and the meeting concluded with National Anthem.

Recommendations of National Seminar on Advances in Biological Suppression of Pests

- 1) Virulence validation, smart packaging of entomorphaga and quality assessment of entomorphagen formulations used in palm system
- 2) Ecological intensification through crop pluralism induced conservation biological control for tackling pest outbreaks and conserving pollinators and defenders.
- 3) Promoting one-health approach encouraging animal, plant, human and environmental health for sustainable food production system
- 4) Ecosystem services of pollinators in plantation crops
- 5) Deciphering the Functional genomics and evolutionary approaches to unravel the questions to betterment for development of strategies
- 6) Imaging techniques for non-invasive diagnosis of pest and diseases
- 7) Impact of climate change in palm pest and disease dynamics and their mitigation measures

Dr A Joseph Rajkumar, Dr Anes KM, Dr Merin Babu, Dr Kalavathi S and Dr Vinayaka Hegde coordinated the seminar.







