

National Workshop on Gall Inducing Arthropods on Forest Trees

July 17, 2018

Institute of Forest Genetics and Tree Breeding, Coimbatore

The Institute of Forest Genetics and Tree Breeding, Coimbatore organised the National Workshop on Gall Inducing Arthropods on Forest Trees on July 17, 2018.

Galls are the plant's reaction that arises in response to insect attack. In a majority of cases, plants experience a stress; but in a few instances they suffer extensive damage affecting their performance and productivity and even experience death. Recently, invasive foreign species of gall-inducing Eulophidae (Hymenoptera) have been known in India inflicting economic damage to *Eucalyptus* plantations and *Erythrina* which act as a support for pepper cultivation.

The Workshop, therefore, aimed to take stock of the present situation of gall infestations on commonly planted trees in India and conduct a reassessment in terms of their status, spread to other related and unrelated plants and associated natural enemies.

Dr John Prasanth Jacob, Entomologist, at the Institute co-ordinated the workshop, which was attended by national level gall-arthropod specialists from different parts of the country and, students and researchers working on arthropod-induced plant galls.

The Director, Dr Mohit Gera in his inaugural address, stressed the need for an assessment of the economic losses incurred due to the infestations by the gall causing insects. He also emphasised the need to develop better understanding of the insect behaviour in the wake of climate change. The keynote speaker, Dr A. Raman, Professor, Charles Sturt University, Australia, explained the need for adopting the long forgotten autecological approaches to develop a better understanding of the gall physiology. He encouraged the researchers to undertake dedicated studies on gall physiology drawing parallels from pathogenic infections in plants.

The Workshop had elaborate discussions on five different themes including role of biochemistry, molecular biology and biotechnology. The deliberations helped to come out with recommendations for intensive studies on gall biology, and a better understanding of plant-insect interactions.

Some of the major recommendations of the workshop include

- Tolerance genotypes of host plants and biotypes especially new biotypes of gall insects to be identified and mechanisms of interactions understood for effective management.
- The potential of gall induces as biocontrol, agents of invasive species source of medicines as well as nutraceuticals to be probed.
- Exploration, studies on taxonomy and biology of gall inducing insects to be taken up in biodiversity hotspot.
- Bioprospecting of insect galls as source for phenolics, tannin, dyes, etc., is to be taken up and their industrial utilization probed.

Future research along these lines will be useful in the management and control of insect pests of trees planted especially on farmlands and help the farmers in dealing with insect pests which often cause significant economic losses to the plantations.



Dr Mohit Gera addressing the gathering



A view of the participants



Prof A. Raman delivering the keynote address

