### HIMALAYAN FOREST RESEARCH INSTITUTE

## **CONIFER CAMPUS, PANTHAGHATI,** SHIMLA-171 013 (HIMACHAL PRADESH)

# A Training Programme on Application of Mycorrhizae in Forestry and Eco-friendly Management of Insect-Pest and Diseases: A Report

(7th - 8th March, 2018)

Himalayan Forest Research Institute, Shimla organized a two days training programme on the "Application of Mycorrhizae in Forestry and Eco-friendly Management of Insect-Pest and Diseases" from 7<sup>th</sup>-8<sup>th</sup> March, 2018 in the Conference Hall of the institute. Major focus of the training revolved around application of mycorrhizae to raise healthy planting stock and the insect-pests and disease incidences in the nurseries of forestry species and their subsequent management. It also aimed at to promote awareness amongst various stakeholders including field functionaries of Himachal Pradesh State Forest Department and college students of Himachal Pradesh.

On the first day of training **Dr. Ashwani Tapwal**, Scientist- E and coordinator of the training programme welcomed the participants and appraised them about 2 day training programme. **Dr. V.P. Tewari**, Director, HFRI in his inaugural address after welcoming all the guest and participants emphasized upon the artificial application of mycorrhizal fungi during seed sowing. Which will help in better growth and also reduce the transplantation period considerably, he added. He was also of opinion that early detection of insect-pest and diseases in forests can prevent their outbreak in near future. He advised the stakeholders especially the SFD to use eco-friendly means for the insect-pest and disease management. Dr. Tewari encouraged the trainees to actively participate in the discussion to make the training programme quite fruitful.

In the first technical session, **Dr. Ashwani Tapwal**, highlighted the importance of mycorrhizae in the forest ecosystem and artificial application mycorrhizal fungi to produce tall planting stock. **Dr. Ranjeet Singh**, Scientist-G, of the institute deliberated upon the impact of insect pests on the productivity of forests and eco-friendly measures to manage same were also discussed. He was of opinion that different types of control measures should be combined together to devise integrated approach towards insectpests management. **Dr. T.N. Lakhanpal**, Prof. Emeritus, H.P. University, Shimla discussed the role of mycorrhizae in forestry and their application in the management

of root-rot diseases. He also emphasized upon the application of microbial consortia for maximum benefit.

Second technical session started with the presentation of **Dr. Santosh Watpade**, Scientist, IARI Regional Station, Shimla emphasized the important diseases of forest nurseries and their management. He also guided the participants on modern methods of disease diagnosis and about safe handling of pesticides, fungicides etc. **Dr. Sandeep Sharma**, Scientist- G, HFRI, delivered a talk on containerized nursery techniques of important conifers of Himachal Pradesh. He appraised the participants on modern techniques applicable for raising conifer nursery. He also discussed the simple methodology for the preparation of vermicompost and aerobic and anaerobic compost. After second session, trainees visited Forest Protection Laboratory, where they were made aware about the current research activities of the division, specimens of mycorrhizal fungi and insect pests of forestry species.

**On the second day**, a field trip was organised to Model Nursery, Baragaon, Shimla, where **Sh. P.S. Negi**, Scientist-C, HFRI, elaborated upon various ongoing nursery trials and seed sowing techniques of Juniper. During the visit, Dr. Tapwal also demonstrated the mycorrhizal association in nature.

In the evening session, **Dr. Tapwal**, highlighted the important fungal diseases of conifers and emphasized on their eco-friendly management. **Dr. Pawan Kumar**, Scientist- D, delivered a talk on insect-pests of trees and application of the botanicals for their management. He has also discussed about various insects, their life cycles, and their management by using different methods.

During concluding and feedback session, **Dr. V.P. Tewari**, appreciated the participants for showing their keen interest in the training programme and the organizers for successful conducting the training program. Feedback of the training programme was also taken from the participants so as to compile the valuable and important suggestions. In the concluding remarks **Dr. K.S Kapoor**, Scientist-G and Group coordinator Research emphasized upon the genesis of organizing of this training programme.

In the end, Dr. Ashwani Tapwal proposed a vote of thanks and also wished best of journey back home to the participants.

# **GLIMPSES OF TRAINING**





































#### MEDIA COVERAGE

# पंथाघाटी में बीमारियों की पहचान के तरीके सुझाए

शिमला, 8 मार्च (ब्यूरो): हिमालयन वन अनुसंधान संस्थान पंथाघाटी में माईकोराइजा का वानिकी में महत्व एवं कीट-पतंगों और बीमारियों का पर्यावरण हितैषी प्रबंधन विषय पर 2 दिवसीय प्रशिक्षण कार्यक्रम संपन्न हुआ। इस प्रशिक्षण कार्यक्रम में हिमाचल वन विभाग में कार्यरत कर्मचारियों और महाविद्यालयों से आए करीब 20 प्रतिभागियों ने भाग लिया। डा. वी.पी. तिवारी निदेशक हिमालयन वन अनुसंधान संस्थान ने बताया कि समय रहते वनों में कीट-पतंगों एवं बीमारियों की पहचान करने से भविष्य में उनके द्वारा होने वाले प्रकोपों से बचा जा सकता है। उन्होंने वन विभाग से आए प्रतिभागियों को कीट-पतंगों एवं बीमारियों के पर्यावरण प्रबंधन की सलाह दी।

पंजाब केसरी

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## शंकुधारी वनों की स्वस्थ पौधशाला को तैयार करना सिखाया

सिटी रिपोर्टर शिमला

माइकोराइजा का वानिकी मे महत्व एवं कीट पतंगों और बीमारियों का पर्यावरण हितैषी प्रबंधन को लेकर हिमालयन वन अनुसंधान संस्थान, पंथाघाटी में दो दिवसीय प्रशिक्षण कार्यक्रम का आयोजन किया गया। इस प्रशिक्षण कार्यक्रम में हिमाचल वन विभाग में कार्यरत कर्मचारियों और महाविद्यालयों से आए 20 प्रतिभागियों ने भाग लिया। इस प्रशिक्षण कार्यक्रम की प्राथमिकता माइकोराइजा के उपयोग द्वारा शंकुधारी वनों की स्वस्थ पौधशाला को तैयार करना और उत्तर पश्चिम हिमालय क्षेत्रों के वनों में कीट पतंगों और बीमारियों की बढ़ती घटनाओं पर प्रकाश डालना और इनके प्रबंधन पर प्रदेश के विभिन्न हित कारकों में जागरूकता पर बल देना रहा। प्रशिक्षण के समन्वयक वैज्ञानिक एवं प्रभागाध्यक्ष वन बचाव प्रभाग डा अश्वनी तपवाल ने संस्थान की ओर से नई विकसित तकनीकों को प्रतिभागियों से सांझा किया गया । इस मौके पर एचएफआरआई के निदेशक डा वीपी तिवारी ने पौधशाला में बीजाई के दौरान माइकोराइजा, कवक के प्रयोग पर बल डाला और बताया कि यह अंकुरित पौधों की अच्छी बढ़ोतरी के लिए मददगार साबित होगा।

शिमला भास्कर, श्क्रवार 9 मार्च, 2018