INSTITUTE OF FOREST PRODUCTIVITY
(INDIAN COUNCIL OF FORESTRY RESEARCH & EDUCATION)
RANCHI

MONTHLY RESEARCH SEMINAR

12thMarch, 2021

REPORT

THEME – FOREST GENETIC RESOURCES MANAGEMENT AND TREE IMPROVEMENT

Topic: "Genetic evaluation and improvement techniques of Flemingia used for lac cultivation"

Speaker 1: Dr. Jyotirmoy Ghosh, Principal Scientist, IINRG Namkom

Topic: Drought resilient *Flemingia semialata*Roxb. for improving lac productivity in drought prone ecologies.

Speaker 2: Dr. Aditya Kumar, Scientist-D, Institute of Forest Productivity, Ranchi

Topic: Flemingia Cultivation and Genetic Improvement

The Monthly Seminar/Webinar was organized on 12th March, 2021 on "Genetic evaluation and improvement techniques of Flemingia used for lac cultivation". The seminar started with the welcome address by Dr. Aditya Kumar, Scientist-D and organizer of the seminar. Thereafter, Dr. Yogeshwar Mishra, Group Coordinator Research, IFP, Ranchi in his opening remarks thrown light on the importance of the species. He also informed the august gathering about the need of genetic improvement of the species. He stressed on selection and development of productive variety/clone of the species so, the income of lac growing farmers could be increased.

Dr. Jyotirmoy Ghosh, presented details of his work on development of drought tolerant line of *Flemingia semialata* and informed the gathering about his planning to conduct multilocation field trial of the selected line to test its stability. Dr. Aditya Kumar presented his work on genetic improvement and selection of genetically superior accessions of *Flemingia semialata* and *Flemingia macrophylla*. He spoke on details of his work of DNA isolation protocol development for the species, identification of polymorphic SSR primers through cross species transferability and genetic diversity assessment of collected accessions by using SSR markers. Dr Kumar also informed that the identified accessions of both the species of Flemingia will be utilized and multilocation field trial will be established along with the line developed by Dr. Ghosh for the identification and development of productive variety.

In the seminar/webinar different stakeholders viz. SFD Bihar, SFD Jharkhand, Students and researchers participated. At the end, participants discussed about the collaboration aspects between different agencies and research groups so the productive lines of the species can be developed and reached upto the stakeholders. The seminar ended with the closing remarks and vote of thanks by Dr. Yogeshwar Mishra, Group Coordinator, IFP, Ranchi.

Expected outcome of the seminar:

1. Identification of research needs:

- It is needed to broaden the genetic base of the species so, productive lines/varieties can be developed.
- It is needed to develop Flemingia based agroforestry models so, the flemingia based lac cultivation will be more profitable.
- To establish multilocation field trial of the identified genotypes to test their stability.

2. Formulation of future strategies/road map

- To collect and conserve the maximum possible genetic variants of the species at one place so that effective breeding strategies can be developed and variability can be preserved.
- To make Flemingia based lac cultivation more attractive it is needed to identify suitable planting distance and agricultural intercrops.

3. Networking research options & opportunities

- It is needed to exchange the breeding material between IFP, Ranchi and IINRG Namkom (ICAR Institute), so that diverse genetic material can be assessed under the trials.
- It is needed to share experience/techniques of lac cultivation and management practices between both the institute so, the actual genetic potential of the Flemingia can be assessed.

Glimpses of the Seminar


Participants participating in the seminar


Glimpses of the Seminar