

**Extension Division**  
**ICFRE- Forest Research Institute, Dehradun**  
**Training on**  
**“Biofertilizer and its application under agroforestry”**  
[21 -23 February, 2024]

Extension Division, ICFRE-FRI, Dehradun conducted three days training on “Biofertilizer and its Application under Agroforestry” from 21<sup>st</sup> to 23<sup>rd</sup> February, 2024 for farmers and frontline staff of Punjab Forest Department under extension activities of CAMPA- Extension-Van Vigyan Kendra at State Forest Research Institute, Ladhawal, Ludhiana (Punjab).

The training was inaugurated on 21<sup>st</sup> February, 2024. During the inaugural session Dr. Charan Singh Scientist –F Extension Division briefed about the training and welcome the Chief Guest Sh. Satnam Singh, IFS Director, State Forest Research Institute-Ladhawal and all the participants. Then he invited the Chief Guest for addressing the participants. Shri Satnam Singh spoke on the importance of Biofertilizers and Agroforestry. He also explained about the role of biofertilizers and need to supplement chemical fertilizers with organic one. If they are applied under agroforestry, they will certainly be beneficial for human and soil health. Participants introduced themselves before the Chief Guest and organizing team.

The technical session was started with the lecture of Dr. Charan Singh, Scientist, F, Extension Division, ICFRE-FRI, Dehradun. The focus of talk during the lecture was on agroforestry for livelihood opportunity and sustainable agriculture. Dr. Singh spoke on importance and need of agroforestry and told about *Melia dubia*, *Populus deltoides* and *Neolmarckia cadamda* based agroforestry models with their economic value. Dr. Vipin Prakash Scientist-F spoke on Endo-mycorrhiza based biofertilizer and method of multiplication and its application to enhance production under

agroforestry. He also gave a practical demo and distributed the media matter for multiplication to produce biofertilizer for its utilization on crops and trees. Dr. Maneesh Singh Bhandari, Scientist-E spoke on production of quality planting stock of agroforestry species and their sustainable management for enhancement of yield under agroforestry by introducing improved planting stock on Farmland under agroforestry practices. Dr. Harmeet Singh Saralch, Professor, Department of Forestry and Natural Resources, Agriculture college, Punjab Agriculture University (PAU), Ludhiana spoke on prevalent agroforestry systems in Punjab. He described Poplar and Eucalyptus based agroforestry systems with their economics. Dr. Saralch also told about application of bio-fertilizers in agroforestry systems with their recommended doses. Sh Lokinder Sharma, Scientist-B spoke on Bio-fertilizer based potting media mixture for its application in the nurseries and plantation. He told about the methods of making *Azolla* based biofertilizer and its application. Sh. Rambir Singh Scientist-E spoke on suitability of soil and nutrients under agroforestry systems. He told the necessity of nutrients to maintain the fertility of soil for sustainable agroforestry systems.

During open discussion, subject experts and participants interacted together on different issues and queries raised by the participants were answered by subject experts. A field visit was also arranged for participants where they visited wheat-Guava based Agri-horticulture system and plum based horticulture systems at farm of PAU, Ludhiana and came to know about agri-horticulture systems of agroforestry. The training was concluded on 24 February, 2024 with the vote of thanks delivered by Dr. Charan Singh Scientist-F Extension Division, FRI Dehradun. Total 29 participants including frontline staff of Punjab Forest Department and farmers participated in the training.

The team members including Shri Rambir Singh, Scientist-E, Shri Lokinder Sharma, Scientist-B and Shri Naveen Chauhan and Shri Pawan Devshali, Technical Assistants did a commendable work to make the training successful.

### Glimpses of the training programme





**Inaugural and interaction session of training**





**Subject experts interacting with participants**



**Subject experts interacting with participants**



**Trainees in field**



**Trainees and faculty altogether**