



FOREST RESEARCH CENTRE FOR ECO-REHABILITATION PRAYAGRAJ Umbrella Scheme of Forestry Training and Capacity Building

(Training of other Stakeholders in 2019-2020)

MEDICINAL PLANTS BASED AGROFORESTRY UNDER TRADITIONAL ORCHARDS

Training sponsored by: MoEF & CC, Govt. of India

13-15 November' 2019

In Eastern U.P, tree orchards of Mango, Aonla, Mahua, Guava, Bael etc are very common in the villages. Cultivation of Medicinal Plants in the inter-spaces of orchards can be promoted for the different stakeholders of this region by increasing their awareness for strengthening their economic status and better land utilization. Therefore, Forest Research Centre for Eco-rehabilitation organized three days training programme (13-15 Nov'2019) entitled "**MEDICINAL PLANTS BASED AGROFORESTRY UNDER TRADITIONAL ORCHARDS**" with the objective Up-scaling livelihood options by cultivation of medicinal plants under traditional tree orchards in Eastern Uttar Pradesh. Training aim was utilization of vacant space lying under the orchards, cultivation under it can improve the sustainable development of the natural resources of the trainees. Training was attended by thirty participants from different streams, NGO, Academicians, Forest, Students, Ph.D scholars.

DAY 1

On inauguration day, Dr. Suneesh Buxy, DIG Forests (Research & Training) Ministry of Environment Forest and climate change Government of India was the chief guest. The programme started with the welcome address by Head, FRCER Dr. Sanjay Singh who highlighted the importance of medicinal plants. He address that there is a great potential to cultivate economically important medicinal plants as understorey crops. These medicinal plants have promised a good market not only in Indian Ayurvedic/ Allopathic/Unani/Homeopathy/ Naturopathy system of medicine but also in the other parts of the world. These silvi-medicinal systems with agroforestry technologies can act as a key for landscaping and utilization of unused land in and outside of orchards for socio- economic development of the rural people besides conservation of medicinal plant resources under *in-situ* conditions.

Course Director, Dr. Anita Tomar, Scientist E informed three days planning and execution of the training programme which was divided into four technical session covering 7-8 class lectures and one full

day field visits. Training manual was released consisting of English and Hindi materials as well. Manual was compiled and edited by Dr. Anita Tomar. One pamphlet in Hindi on "*Cultivation Technique of Poplar*" prepared by Dr. Anita Tomar and Dr. Anubha Srivastav was also released by Chief Guest Dr. Suneesh Buxy, IFS, during the inaugural session.

The Chief Guest in his address highlighted that in medicinal plants several species are in great demand for domestic consumption as well as for commercial use by the herbal drug industry. This high demand by the herbal industry has put enormous pressure on the wild populations leading to destructive collection of the produce. Commercial cultivation of medicinal plants may reduce the dependency on the wild collections as well as promote the socio-economic profile of the farmers. He emphasized that thickly populated state of Uttar Pradesh has tradition of orchard of Mahua, Mango, Aonla farming and in Prayagraj mainly Guava which presents an opportunity for medicinal plants cultivation in understory or as intercrop. This medicinal plant based agro-forestry under traditional orchards needs to be developed in a planned manner addressing all aspects viz. cultivation, crop interactions, harvesting, storage and marketing of medicinal plants. In his address he focuses domestic use of *Aloe Vera, Kalmegh* and several other medicinal plants suitable for cultivation in kitchen garden or flower pots as well.

After the inaugural session *Technical session I* was started in which first lecture was delivered by Dr. Anita Tomar entitled Medicinal plants cultivation under traditional orchards in Eastern Uttar Pradesh". Dr. Tomar gave a pictorial presentation showing the vacant spaces under different orchards in eastern U.P. She emphasized that the species as Sarpagandha, Sataver, Kalmegh, Haldi, Adrak etc. are some shade-loving crops, which are fairly suitable for cultivation under orchards.

Second Lecture was by Dr. Sharad Srivastav, Senior Principal Scientist from CSIR-NBRI, Lucknow. Dr. Srivastava delivered a lecture on "Quality Planting Material and Post harvest practices-A value chain for quality raw material to AYUSH industry". Dr. Sanjay Kumar, Principal Scientist from CSIR-CIMAP Lucknow delivered a lecture on Medicinal and Aromatic Plants based Agribusiness Opportunity in Eastern Uttar Pradesh: Present Scenario and Future Prospects. Dr. Kumar focuses on various plants suitable for cultivation under orchards. Dr. Hemant Kumar, Assistant Professor from Sam Higginbottom University of Agriculture, Technology and Sciences, formerly Allahabad Agricultural Institute, talked on "Collection and Storage techniques of different plant parts viz. Rhizome, seeds, leaves, roots, bark of medicinal plants."

DAY 2

Field visit to CMP Degree College was conducted by Technical Officer. Dr. S.D. Shukla to Medicinal Plants garden. At CMP degree college Assistant Professor Dr. Deepak Gond delivered a talk on cultivation of medicinal plants and all participants visited the garden where they saw more than 60 medicinal plants.

In the afternoon Sh. Alok Yadav, Senior Scientist and Sh. Ratan Gupta, Technical Officer ,FRCER conducted a visit to research centre nursery Padilla where they demonstrated the herbal garden and medicinal plants in nursery. Also agroforestry plot of Eucalyptus and Poplar showing cultivation of medicinal plant like *Asparagus racemosus* under it.

Day 3

In *Technical session III-* Dr. Anubha Srivastav delivered talk on "Existing market facilities of medicinal plants in and around the region for sale of end products" Dr. Srivastav advised growers should search the existing market places first before starting any work on commercial basis. A well checked online market linkage *e-charak*, developed by NMPB was also communicated for sale of end produce between traders and growers for smooth flow of cultivation of medicinal plants.

Dr.Kumud Dubey, Scientist E delivered her talk on "marketing of minor forest produce through minimum support price (msp) and value chain development. She told that currently marketing of medicinal plant produce happens through Mandis and other wholesale markets. There are numerous intermediaries. Trade is rather opaque and information on prices, arrivals and other trends are not easily accessible to farmers/growers.

In Technical session IV, Prof (Dr.) G. S. Tomar Adjunct Professor Kayachikitsa, Faculty of Ayurveda, Institute of Medical Sciences, Banaras Hindu University Varanasi also President of Vishwa Ayurveda Mission delivered his talk on "Therapeutic Utility of the medicinal plants. The Lecture of Prof (Dr.) G. S. Tomar was very useful for the trainees and was most appreciated lecture as reflected in the feedback form.

In valedictory session certificate were distributed and following recommendation comes out:

- 1. Programme was for very short duration. It should have been for at least 5 days.
- 2. More of field oriented and less class lecture.
- 3. Demonstration like seed sowing/ cultivation techniques of medicinal plants in nursery by trainees themselves would have been more useful.
- 4. Visit to medicinal plant sector at CIMAP, Lucknow and other relevant places would have been more beneficial under this training.

At the end Head, FRCER Dr. Sanjay Singh informed the trainees about *Green Skill development scheme of MoEF & CC*. The Compering was done by Dr. Anubha Srivasta. The programme ended with Vote of Thanks by Dr.Anita Tomar, Coure Director.



DAY -1



Lightening of Lamp by Chief Guest Dr.Suneesh Buxy, IFS



Briefing about 3 days Training Schedule

Releasing of Training Manual



Welcome address by Head, FRCER Dr.Sanjay Singh



Address by Chief Guest Dr.Suneesh Buxy, IFS



Releasing of Pamphlet on "Poplar"

Day 1 : Classroom Sessions







External Resource Persons : Dr.Sharad Srivastav (NBRI), Dr.Sanjay Kumar (CIMAP) and Dr.Hemant Kumar (SHUATS)

DAY 2 : FIELD VISIT















किसानों को बढाना होगा भूमि का उपयोग



पुस्तक का विमोचन करते मुख्य अतिथि एवं संस्थान के अन्य पदाधिकारी • जागरण औषधीय खेती से संबंधित दो पुस्तकों में होने वाली औषधीय खेती के बारे में का विमोचन भी किया। केंद्र के प्रमुख डॉ. संजय सिंह ने कहा कि उत्तर प्रदेश ने किया। इस मौके पर डॉ. जीएस तोमर, में औषधीय पौधों की खेती की अपार संभावनाएं हैं। कार्यक्रम संयोजिका डॉ. अनीता तोमर ने प्रदेश के विभिन्न हिस्सों कुमार गुप्ता आदि मौजूद रहे।

जासं, प्रयागराज : भूमि एक सीमित संसाधन है। लेकिन, केंद्र सरकार की नीति के अनुसार, हमें किसानों की आय दोगुनी करनी है। इसके लिए भूमि का विधिवत उपयोग बढ़ाना होगा। यह दोनों लक्ष्य इस प्रशिक्षण कार्यशाला में हम प्राप्त कर सकते हैं। ये बातें महानिरीक्षक (शोध एवं प्रशिक्षण) पर्यावरण एवं वन मंत्रालय सुनीश बक्शी ने कहीं।

पारि-पुनर्स्थापन वन अनुसंधान केंद्र की ओर से बगीचों में औषधीय खेती करने के लिए आयोजित तीन दिवसीय कार्यशाला के उद्घाटन पर बतौर मुख्य अतिथि सुनीश ने कृषि वानिकी और

Dainik Jagran 14th Nov'2019, Prayagraj



औषधीय पौधों पर चल रहा तीन दिवसीय प्रशिक्षण कार्यक्रम सम्पन्न

प्रयागराज। पूर्वी उत्तर प्रदेश में बाग-बगीचों में पड़ी खाली एवं बेकार जमीनों से किसानों की अतिरिक्त आय बढाने में औषधीय खेती के महत्व को जानने के लिये तीन दिवसीय प्रशिक्षण कार्यक्रम चलाया गया। कार्यक्रम के मुख्य अतिथी हा. सुनिश बक्शी, महानिरीक्षक (शोध व प्रशिक्षण) पर्यावरण एवं वन मंत्रालय,

भारत सरकार द्वारा सरकार की नीति के अन्तर्गत सीमित भूमि का विधिवत उपयोग करते हुए किसानों की आय को बढाने से सम्बंधित कुछ तथ्यों के बारे मे बताया गया साथ ही पॉपुलर आधारित कृषि वानिकी एवं औषधीय खेती की दो पुस्तकों का विमोचन



भी किया। इसी दौरान केंद्र के प्रमुख डा. संजय सिंह ने पूर्वी उत्तर प्रदेश के पारम्परिक बगीचों की भूमि पर फ़लदार वृक्षों के साथ कृषि वानिकी औषधीय पौधों की खेती करने से किसानों की आय मे होने वाली वृद्धि के बारे में बताया। कार्यक्रम की संयोजीका डा. अनिता तोमर द्वारा देश के विभिनन हिस्सों मे होने वाली खेती के बार में बताया गया साथ ही उन्होंने पूर्वी उत्तर प्रदेश में सतावर, सर्पगंधा, लेमन ग्रास, खस आदि औषधीय पौधों की खेती की संभावनाओं के बारे में भी बताया। प्रतिभागियों को प्रशिक्षण प्रदान करने हेतू सीमेप, एन.बी.आर.आई. लखनऊ से आए विशेषज्ञों-डा. शरद श्रीवास्तव, डा. संजय कुमार, डा. जी. एस. तोमर ने सम्बंधित विषय में प्रतिभागियों से अपने-अपने अनुभव साझा किये। तत्पश्चात प्रतिभागियों को सी.एम.पी. डिग्री कॉलेज, प्रयागराज स्थित हर्बल गार्डन ले जाया गया जहां डा. दीपक गौड, डा. आलोक सिंह, डा. संजय सिंह, डा. मीना राय एवं डा. नेहा पांडेय द्वारा औषधीय पौधों के बारे में विस्तृत रूप से बताया गया और अन्त मे केंद्र की पौधशाला में वैज्ञानिक आलोक यादव द्वारा औषधीय पौधों की नर्सरी तैयार करने की विधियों से अवगत कराया गया। इस दौरान केंद्र की वरिष्ठ वैज्ञानिक डा. कुमुद दुबे, डा. एस.डी. शुक्ला, रतन कुमार गुप्ता एवं अन्य कर्मचारी गण उपस्थित रहे। कार्यक्रम का संचालन डा. अनुभा श्रीवास्तव द्वारा किया गया।

Group Photograph



Inaugural Session



Valedictory session