

REPORT

प्रशिक्षण /Training on

भीमल (*Grewia optiva*) रेशा निकालने की उन्नत तकनीकी

An advance technology for extraction of bhimal (*Grewia optiva*) fibre

on 27th Jan 2022

आयोजन स्थल: पशुधन प्रशिक्षण केंद्र, कालसी, देहरादून

Venue: Pashudhan Prashiksan Kendra, Kalsi, Dehradun

Bhimal (*Grewia optiva*) is an intrinsic part of villagers giving implicit services in the Himalayas. But, neither villagers have any sustainable harvesting technique nor specific technique to extract the fibre from bhimal. The traditional retting method by which, they extract the fibre, consumes more time and new generation think; it is done by old men only. The local people continue to collect fibres from trees naturally grown –traditional retting method. In addition, Shampoo cannot be collected by this method. Besides this, the young-generation is generally not very keen at inheriting this craft and migrating towards cities for instant cash earning.

Developed technique of fibre extraction is showing the extent of sustainable raw material production, processing and marketing of bhimal fibre, which can support the rural livelihood in the remote area of Uttarakhand.

Keeping in view the above, an advance technology for extraction of bhimal (*Grewia optiva*) fibre has been developed by Extension Division, Forest Research Institute, Dehradun and a training programme has been conducted to demonstrate the technology developed at Pashudhan Prashiksan Kendra, Kalsi, Dehradun on 27th January 2022.

Mr. B.B. Martolia, IFS DFO, Kalsi, Dehradun was the Chief Guest of the training programme. In the onset of the programme Dr. Charan Singh, Head, Division Extension, FRI welcomed the Chief Guest and all the participants of the training. He also delivered the lecture on “Agoforestry with bhimal, livelihood improvement and utilization of bhimal fibre”. He explained the benefits of agroforestry with the bhimal tree and various uses of fibre in modern age and generates the income. Thereafter, special guest speaker Mr. Anil Chandola, Incharge, Bhartiya Gramotthan Sanstha, Rishikesh Dehradun spoke about “Utilization of bhimal fibre in industry and livelihood”. Thereafter Dr. Devendra Kumar, Scientist E &Principal Investigator of the project delivered a lecture on

“An advance technology for Extraction of bhimal (*Grewia optiva*) fibre through Eco friendly method”. He explained the fibre extraction technology developed and carried out live demonstration of Steam Explosion Treatment Machine (SETM). He explained SETM operation as follows:

Take 25 to 30 kg bhimal twigs, open the lid of drum and put them inside the drum. Lid of drum should be closed tightly. Set the temperature. Generally 151 °C are kept. Switch on the compressor after ensure water connectivity with the compressor. Water is sucked by compressor and takes 40 to 60 minutes to generate the steam. Check the meter of compressor if it is ok then valve of compressor is to be opened to inject the steam into drum through high pressure tube. Run it for 1 hr for green bhimal twigs and 2hr for dry bhimal twigs. After the incubation time release the steam immediately from durm and after 10 to 15 min lose screw of lid of drum and remove carefully. Take out the bhimal twigs from drum and remove bark from all twigs within 15 to 30 minutes. Collect the bark and put again into drum to agitate half an hour for obtaining saponin. Collect the saponin from bottom of the drum where valve is available to drain it. Thereafter, take bhimal bark and put into a steel pot and add one or two spoons of washing powder per litre and heat it for one hour. After one hour wash manually bhimal bark and get good quality fibre. Dry it in sun. To run 3 hour only consumes 17 units that fall Rs. 51 for 10 to 20kg of bhimal twigs steaming and agitating for obtaining saponin and fibre. The consumption of electricity may be reduced automatically when increase the attempts of steaming process. The washing powder cost is of Rs. 30-50 per kg. When we collect the saponin and sale out it in market then our profit automatically will be increased and input cost will become zero. You are in win win situation if you take as business to extract the bhimal fibre. This is the fastest method to obtain fibre within a day from bhimal twigs to support the livelihood. He showed live demonstration of SETM and within total 3 hours fibre was in hand of trainees. He also showed calculation of economics in the presentation.

Dr. Lokesh Kumar, Project Director, ABF Kalsi was also spoken about uses of bhimal extract in delivery of cow and buffalos. He said the extract of bhimal works as lubricant for painless delivery in cow and buffalos. He appreciate the work done on bhimal and suggest to adapt the technology developed by FRI Scientists for livelihood improvement.

Mr. B.B. Martolia, IFS DFO, Kalsi, Dehradun, chief guest addressed the gathering and he was very confident that fibre extraction technology developed by FRI will be useful for villagers for their livelihood improvement and definitely it may check the migration upto some extent. He also said if trainees are interested then State Forest Department of Uttarakhand may be arranged a SETM and donate it to villagers for their improvement of livelihood. There were 35 participants in this training. All the trainees were happy to hear this technology and promised to work on it.

Vote of thanks was delivered by Dr. Devendra Kumar, Scientist E and PI, Extension Division, FRI. Anchoring was also done by Dr. Devendra Kumar, Scientist E and PI Extension Division, FRI. Other staff member of Extension Division, FRI such Mr. P.P. Singh, RFO, Mr. Anil Kumar, Lab.Astt. and Mr. Anil Kumar, MTS were contributed a lot to make training successful.

प्रशिक्षण की झलकियां

The glimpses of training:



The poster features a background of green foliage. At the top left is the logo of the Indian Council of Forestry Research and Education (ICFRE), and at the top right is the logo of the Forest Research Institute, Dehradun. The central text is in Hindi, announcing a one-day training program on the advanced technology of fibre extraction from *Grewia optiva*. The date is 27th January, 2022, and the venue is the Paddu Paddu Training Centre, Kalsi, Dehradun. The organizer is the Extension Division of the Forest Research Institute, Dehradun.

वन अनुसंधान संस्थान
(भारतीय वानिकी अनुसंधान एवं शिक्षा परिषद्) देहरादून

एक दिवसीय रोजगारोत्सुकी प्रशिक्षण कार्यक्रम
भीमल (*Grewia optiva*) से रेशा निकालने की उन्नत तकनीक

दिनांक 27 जनवरी, 2022

आयोजन स्थल
पधुधन प्रशिक्षण केन्द्र, खालापार, कालसी, विकासनगर, देहरादून (उत्तराखण्ड)

आयोजक: विस्तार प्रभाग, वन अनुसंधान संस्थान, देहरादून (उत्तराखण्ड)
Organizer: Extension Division, Forest Research Institute, Dehradun (Uttarakhand)









