



ILRI



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RESEARCH HIGHLIGHTS

Survey of lac insect and its host-plants under NATP

A preliminary survey of selected areas of Punjab (Ludhiana, Amritsar, Gurdaspur, Hoshiarpur and Patiala) and Jammu and Kashmir (Akhnoor, Jammu) was undertaken during June 22nd to July 3rd, 2003 to gather information on availability of lac insects and their host plants and to collect the available material. Different samples of seeds / pods / saplings of lac-host plants and mature lac insects were collected from the areas surveyed. *Ziziphus mauritiana* (*ber*) was the only major host in Punjab. Occurrence of lac insects was also found to be very rare as most of the natural *ber* population has been replaced with improved *ber* varieties for fruit production and these trees are regularly pruned every year leading to erosion in biodiversity of lac insects. While in Jammu region *ber* and *palas* (*Butea monosperma*) are present in abundance. Some minor hosts as *Ficus spp.*, *Albizia saman* (rain tree) and *Acacia spp.* were also observed in large numbers. This area has a good potential for systematic introduction of lac cultivation.

Design and development of power-operated lac scraper

Manual lac scraping is a very slow and tedious process. One person scraps 5-10 kg of lac in a day. In order to increase output and reduce drudgery of lac growing farmers, a simple power operated lac scraper has been designed and developed. The machine is driven by 0.5 HP single phase electric motor. One person can operate the machine and scrap about 13 kg lac sticks in an hour. The scraping efficiency of the machine is about 95%.



Power-operated lac scraping machine

Lac utilization

- Amide has been synthesised from aleuritic acid (9,10,16-trihydroxyhexadecanoic acid), the major component acid of lac for the first time. The compound may act as muscle relaxant.
- Treatment of both, seedlac and shellac with an antioxidant checked their degradation as revealed from higher flow values compared to those of untreated ones.
- Some polish compositions (black and red) based on lac wax have been prepared for use on leather surfaces. On trial, these compositions have been found to be satisfactory with regard to shine and smoothness of the leather surfaces.

TRANSFER OF TECHNOLOGY

Publicity

An exhibition depicting modern methods of lac cultivation and utilization was organised at Mahila Udyog Mela, Ranchi during 5-9 April, 2003.

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Publicity & Promotional Activities

A business representative From Indonesia, dealing with lac visited the Institute and interacted with experts to learn about application areas and mutual cooperation for development of lac.

- ILRI website has been updated w.e.f. 1st April 2003 and is available at www.icar.org.in/ilri/default.htm

Institute Publications

- Plant growth regulator - a folder, 4 pp analogues from aleuritic acid
- *Lakh ki Kheti ke Liye Unnat Yantra* - a folder, 8 pp

TV Talks

- Pruning of lac host trees by Dr KK Sharma on 29.4.03 by ETV Bihar
- *Kaise karen kusum vriksh per lakh ki kheti* by Dr KK Sharma on 14.5.03 by DDK, Ranchi.

Summer placement training



Bio-technology stuents of Bangalore University in the lab

Under Summer Placement programme, 9 students of Garden City College, Bangalore and 4 students of Capital College, Bangalore were given training on plant tissue culture techniques during May, 2003. A similar training programme was organized for one student of Madurai Kamaraj University (TN), 4 students of Bundelkhand University and one student of



B.Sc. students of BHU on a visit to a lac processing factory

Training Activities



Farmers sponsored by Alpsankbayk Vikas Samiti, Jamtara receiving demonstration on lac cultivation techniques

Training	No. of farmers/ students	Village/Place	Sponsoring agency	Period
On-farm training on lac cultivation by scientific method	419	Khalari and seven other villages of Mahasamund Dist. (Chhattisgarh)	Watershed Project & Zila Parishad	13-16.6.03
-do-	30+35	Boraya, Ranchi	Forest Deptt.	2 & 20.5.03
-do-	110	Hundra Jara (Angara, Ranchi)	R.K. Misssion, Ranchi	19.6.03
One-week training on lac cultivation, processing and utilization	19	ILRI	Self, farmers of Lacharagarh, Simdega	1-5.4.03
	16	ILRI	Swa-Shakti	21-26.4.03
	24	ILRI	Nav Bharat Jagriti Kendra, Murhu	
	9	ILRI	AID, Lesliganj, Ranchi	19-24.5.03
	29	ILRI	Sidhu Kanhu Alpsankhayak Vikas Samiti, Jamtara	26-31.5.03
One day Orientation Programme on lac	14	ILRI	PRADAN, Khunti	9-14.6.03
	58	ILRI	R.K. Mission, Ranchi	5.4.03
	53	ILRI	Farmers of Kharua Jarha Lacharagarh, Simdega	7.4.03
	30	ILRI	Centre for Entrepreneurship Development, Ranchi	30.4.03
	20	ILRI	-do-	2.5.03
	16	ILRI	Farmers of Kharua Jarha Lacharagarh, Simdega	24.5.03



Women sponsored by 'Swa-shakti' learning about lac processing

Institute Management Committee (IMC) Meeting



36th meeting of IMC was held on June 28th, 2003 under the Chairmanship of Dr KK Kumar, Director, ILRI. The other members of the committee present in the meeting were: Dr P. Chandra, ADG (PE), ICAR, New Delhi; Dr GS Dubey, Dean (PG Studies), BAU, Ranchi; Shri Krishnanand Mishra; Shri Bagheshwar Singh, Joint Director, Industries & Textiles, Govt. of India; Dr N. Prasad, Head,

LP & PD Division; Shri R. Ramani, I/c Head, TOT Division; Dr BP Singh, Pr. Sc., LP Division, Dr AK Jaiswal, Sr. Sc., TOT Division and Shri D. Ghosh I/c AO (Member Secretary)

During the deliberations, action taken on recommendation of previous meeting, progress and achievements of on-going research projects, Ad-hoc projects and Revolving Fund Scheme, action taken on

Institute Joint Staff Council proceedings, Grievance and Women's Cell proceedings were reviewed. The committee approved the purchase of equipment and execution of item of works to be undertaken during the year 2003-04 including those in SFC. Agenda put forth by Heads of various Divisions were also discussed and appropriate decisions were taken.

Banaras Hindu University, Varanasi in the month of June.

Lac development

A group making was held at the Institute wherein Mrs. Sushma Singh, Development Commissioner, Jharkhand Government interacted with the scientists of the institute, representatives of PRADAN (an NGO) and lac growers. Different aspects of lac development activities to be taken in the State were discussed in the meeting.

Visitors

The Institute museum was visited by 309 farmers during the period of report. Besides, 3 VIPs and 28 others also visited the museum.



Development Commissioner Smt. Sushma Singh in the lac museum.

MISCELLANEA

New sponsored Projects

Two Projects have been awarded to the Institute by Department of Biotechnology, New Delhi on:

- 'Application of molecular fingerprinting for genetic characterisation of races and species of lac insects. This collaborative project will be carried out by R. Ramani, J. Nagaraju (Centre for DNA Fingerprinting and Diagnostics, Hyderabad) and D. Saha. The allocated amount is 20.65 lakhs.
- 'Biological, Chemical and Molecular characterization of lac insect-host plant interaction'. This collaborated project will be carried out by KK Sharma, D. Saha, HM Chawla (IIT, New Delhi) and Suman Lakhanpaul (Delhi University, Delhi) The allocated amount is 50.79 lakhs.

Seminars/workshops attended/visits undertaken

by the Director

- Attended Screening Committee (PSC) meeting at SMD, ICAR, New Delhi on 2-3.4.03

- Participated in meeting at India International Centre, Lodhi Road, New Delhi on 28.4.03
- Attended Research Advisory Committee meeting at CTR&TI, Nagri, Ranchi on 5-6.5.03
- Attended meeting at Secretariat, Govt. of Jharkhand on 12.5.03
- Attended meeting of Kharif Research Council, BAU, Kanke, Ranchi on 23-24.5.03
- Attended SFC, X Plan meeting at SMD, KAB-II, ICAR, New Delhi on 13.6.03
- Chaired Institute Joint Staff Council (IJSC) meeting, ILRI, Namkum, Ranchi on 20.6.03
- Chaired ILRI Women Cell meeting on 25.6.03
- Chaired Institute Management Committee (IMC) meeting, ILRI, Namkum, Ranchi on 28.6.03
- Attended a workshop organised by BASIX, Ranchi on 9.5.03
- Attended a regional seminar on Vocational Training and Entrepreneurship Development organised by VARDAN, New Delhi at BAU, Kanke on 19-20 May, 2003



Bidding farewell to Mr. Ashish Rastogi, A.O.

Jharkhand - Scope and Reality with special Reference to Lac' by KK Kumar and R. Ramani.

Resource generation

An amount of Rs 58,000/- (Rupees fifty eight thousand) was earned during the period under report through training, sale of lac product/colour

photo copies/Books etc.

Quality control

After interaction with Central Research Institute on Unani Medicine (CRIUM), Lucknow, standardization of lac for use in Unani medicine has been taken up. About 10 quintals of lac is currently being consumed by this industry.

Quality Testing Laboratory carried out 73 tests on 30 samples received from entrepreneurs/business houses/different Divisions of the Institute during the period under report. An amount of Rs 5700/- (Five thousand seven hundred) was earned as testing charges.

PERSONALIA

Transferred from the Institute

- Sri A. Rastogi, A.O. relieved on 7.5.03
- Sri R.K. Singh, F & A.O. relieved on 13.6.03

Transferred to the Institute

- Sri Devesh Nigam from CIRCOT, Mumbai joined as F&AO on 16.6.03



New Charge

- Sri Dipak Ghosh, T.O. was given charge of AO on 7.5.03

Retirement

- Dr S.K. Jaipuria, Sr. Scientist retired on 30.6.03

संस्थान संयुक्त कर्मचारी परिषद् की बैठक

संस्थान संयुक्त परिषद् की 39वीं बैठक दिनांक 20.6.03 को संस्थान के निदेशक डॉ. के. के. कुमार की अध्यक्षता में आयोजित की गई। बैठक में सभी 13 सदस्यों ने भाग लिया। परिषद् के निर्वाचित सदस्यों द्वारा सुझाये गये मुद्दों पर विचार विमर्श के बाद कर्मचारियों की सेवा, संस्थान की कार्य प्रणाली आदि नियमों पर 19 निर्णय लिये गये। पिछली बैठक में लिये गये निर्णयों की समीक्षा भी की गई। निदेशक महोदय ने निर्वाचित सदस्यों से सौहार्दपूर्ण वातावरण में कार्य करने का आह्वान किया ताकि बैठक में लिये गये निर्णयों पर उचित कार्यवाही की जा सके।

Obituary

Mr Mahabir Singh Bariak, Lab attendant and Mr. Jublal Mahato - SG-II expired on 5.5.03 and 10.5.03 respectively. Director and the staff condole the bereaved families. May the departed souls rest in peace.

राजभाषा कार्यान्वयन समिति की बैठक

संस्थान राजभाषा कार्यान्वयन समिति के अध्यक्ष एवं निदेशक डॉ. कौशल किशोर कुमार ने राँची नगर राजभाषा कार्यान्वयन समिति के सक्रिय सदस्य एवं सहायक महाप्रबंधक सेन्ट्रल बैंक ऑफ इन्डिया, राँची श्री यू. कृष्णामूर्ति को उनके स्थानान्तरण पर स्मृति चिन्ह देकर सम्मानित किया।

इस अवसर पर श्री हर्ष, सचिव, नराकासा; डॉ. रमापति तिवारी, वरीय राजभाषा अधिकारी मेकन, राँची एवं श्री लक्ष्मी कान्त, सहायक निदेशक (राजभाषा) उपस्थित थे।



निदेशक महोदय नगर राजभाषा कार्यान्वयन समिति के सदस्य के साथ बातचीत करते हुए