



ILRI

Lac NEWSLETTER

Vol. 6 (2)

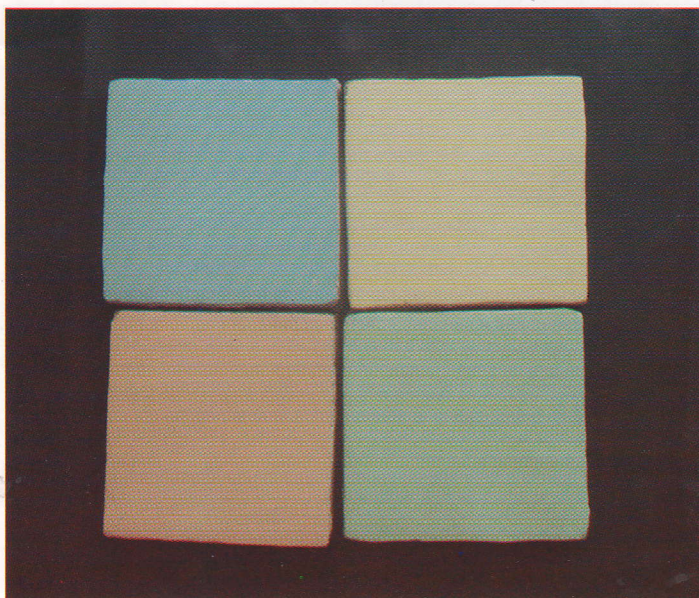
APRIL-JUNE, 2002

RESEARCH HIGHLIGHTS

Lac wax based formulation for fruit coating

Lac wax based formulations were evaluated on two varieties of litchi (*sbabi* & *china*). Coated and uncoated samples were kept, both in open as well as in polythene pouches. Properties like physiological loss in weight, total soluble solid content, titratable acidity, ascorbic acid content and sensory attributes were measured every day throughout the storage period. The shelf-life was determined by judging the parameters such as discoloration and shriveling of the skin, taste, extent of weight loss (<10%) and foul smell due to fermentation.

It was found that coated samples kept in the open have a shelf life



Cementitious tiles finished with water-thinned shellac paints

of 2-3 days in case of *sbabi*; 4-5 days in case of *china* variety and 1-2 days, in control. In samples kept in polythene pouches, the shelf-life was extended upto 5-6 days in *sbabi* & 8-10 days in *china* variety with coating as compared to 3-4 days in uncoated samples.

Water-thinnable shellac-synthetic resin/polymer blends for cementitious surface

Four shellac-based water-thinnable coating compositions have been developed. These compositions can be diluted to desired consistency and produce hard, smooth and matt finish on application on cementitious surface. Air-dried films showed good adhesion on cementitious surfaces as well as on tin-plate,

metal, glass, wood and lined surfaces. Water resistance and resistance to wet abrasion were found very good. The results regarding consistency, drying time, flexibility, finish, coverage and resistance towards different chemical solutions are encouraging and satisfactory.

Use of lac for making particle board from agrowaste

It was observed that particle board (size ~12 cm x12 cm x 1.2 cm) prepared from *arbar* (*Cajanus cajan*) stick particle, using sticklac and seedlac as binders conformed to the requirements of IS 3087 - 1985 specifications with regard to modulus of rupture, tensile strength perpendicular to the surface and face and edge screw

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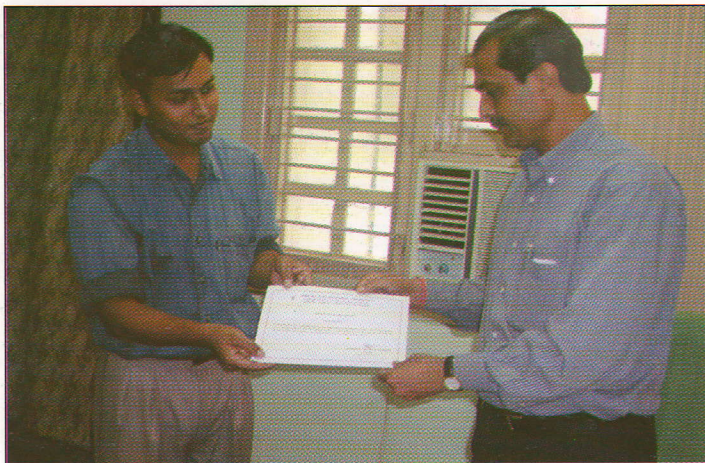
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withdrawal strength. The stick particle size was also found to be greatly influenced by the water absorption property of particle board.

Bleached lac directly from sticklac

In another exploratory work, bleached lac has been prepared directly from *kusmi* sticklac (60% yield on the wt. of sticklac) indicating the possibility of development of a technology for preparing bleached lac directly from sticklac.



Mr. S. K. Thakur receiving the certificate for the course on 'Lac Processing and Application'

TRANSFER OF TECHNOLOGY

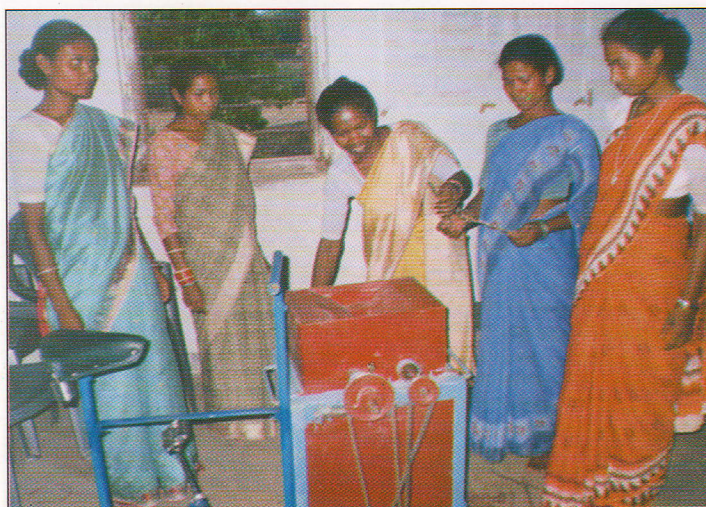
Certificate Course

Mr. Sanjiv Kumar Thakur, a post-graduate student from Bundelkhand University underwent one-month certificate course on 'Processing and Application of Lac' During 8.7.2002.

Lac Culture Training

• One-week training in lac cultivation was organised in five batches for 107 farmers sponsored by Empowering Tribal Project NBJK Murhu; SGCDP, Hazaribag; RK Mission, Ranchi and Jharkhand Farmer Adoption Programme nominated by TUDA.

- 31 B.Sc. (Ag. Students) of BHU and Lac Supervisors / Statistical Supervisors from Institute of Forest Productivity, Ranchi completed one-week special training course on "Scientific Method of Lac cultivation."
- One-day Orientation Programme on lac was organised for 121 farmers in 4 batches from RK Mission.
- One-day Orientation Programme was organised for 20 students of Birsa Agricultural University, Ranchi.
- One-day Exposure Programme was organised for 33 farmers sponsored by SRI, Ranchi.



Demonstration of lac scraping machine to tribal women at Bano, Simdega

A special two-day in-campus training on lac culture was organized for 16 farmers sponsored by AID, Palamau.

- Off-campus Extension Education Programme was organised at Ukauli, Baki and Latkel villages of Bano Block, sponsored by Saptrishi. 112 farmers participated in the programme.
- 14 On-farm education programmes on lac cultivation were organised for 1087 farmers in 20 villages of the Ranchi and Simdega District of Jharkhand.

Product Demonstration

- The methods of preparation of air-drying type of anti-tracking shellac based insulating varnish (SHA64) and high thermal resistant shellac based insulating varnish (SHAKDB) and Melfolac have been transferred to M/S Ganpati Traders, Dhamtari, Chhatisgarh.

PUBLICITY

Institute Publications

- Multipurpose Glazing Varnish from Shellac. a folder, 4pp
- *Bharatiya Laksh Anusandhan Sansthan – Kisanon ke seva mein*, multi colour folder (in Hindi), 4pp

• *Unnat vidhi se laksh ki kheti (Samay Sarini)*, multicolour leaflet, 2pp.

- ILRI Lac Newsletter 5(4) : Oct.-Dec. 2001. 4pp
- ILRI Lac Newsletter 6(1) : Jan.-Mar. 2002. 4pp

TV/Radio talks

- 'Kharab mausam mein Laksh Phasal ki suraksha' by Dr KK Sharma was telecast on 30.6.02 by DDK, Ranchi.

Visitors

The Institute museum was visited by 245 farmers sponsored by various GOs/NGOs during the period of report. Besides, 8 VIPs and 84 others also visited the museum.

MISCELLANEA

Papers/popular articles published

- Sarkar P.C. and Gupta P.C. Shellac-based tin-can lacquers for the packaging industry, *Paintindia*, March (2002) 41.
- Singh, B.P.; Mishra, Y.D.; Sushil, S.N.; Kumar, P and Srivastava, S.C. 2001. Estimation of broodlac, sticklac and biomass yield of *Acacia auriculaeformis*



On-farm training at Bhandra, Kibundi under the project, 'Lac as a Source of Livelihood'

EXTENSION AND TRAINING ACTIVITIES



On-farm training-cum-exhibition on lac cultivation at Patpur, Tapkara

In addition, exhibitions on lac depicting modern methods of lac cultivation and utilization were put up in the following villages under the Project, "Lac as a Source of Livelihood"

Date	Venue	Organised by	Date	Venue	Organised by
4.6.2002	Patpur, Tapkara	PRADAN	5.6.2002	Ronhe, Tapkara	PRADAN
10.6.2002	Tora, Khunti	-do-	11.6.2002	Bhandra, Khunti	-do-
14.6.2002	Laterjang, Khunti	-do-	18.6.2002	Dabgana, Tapkara	-do-
20.6.2002	Churdag, Tapkara	-do-	22.6.2002	Lohajimi, Tapkara	-do-

Lac Awareness Programme

Lac awareness programmes sponsored by RK Mission, Ranchi were organized at two villages. Programme included lectures and exhibition on lac as per detail given below :

Village	Date	No. of Farmers
Putidag (Angara Block)	7.06.02	~ 200
Gattugora (Murhu Block)	12.06.02	~ 225

(Benth) A. Cunn (*Akashmani*)

-A potential lac host. *Indian Journal of Forestry*, 24 (4): 490-493.

Seminars/workshops attended/visits undertaken

By the Director

- Meeting convened by the Director, Khadi & Village Industries Commission State Office, Shanti Bhavan, Ranchi on 2.4.02.
- Field Educational Programme on Lac-held at Shramjivi Mahila Samiti, Mango, Jamshedpur on 2.4.02.
- Scientific Advisory Committee meeting at RK Mission, Morabadi, Ranchi on 17.4.02.
- Meeting of Business Sub-Committee at JASCOLAMF, Ranchi on 20.4.02.
- 18th Meeting of RAC of CTRTI,

Nagri, Ranchi during 14-15.5.02.

- Board of Directors meeting at JASCOLAMF, Ranchi on 16.5.2002.
- To discuss transfer of land with DM, Purulia on 19.5.02.
- Meeting of Business Sub-Committee at JASCOLAMF, Ranchi on 27.5.02.
- Meeting of *Kharif* campaign at BAU, Kanke, Ranchi during 29-30.5.02.
- Seminar at Bihar Yuva Bikas Kendra, Jharkhand Chapter, Ranchi during 15-16.6.02.
- CARE, Jharkhand, Ranchi on 19.6.02.
- All India Radio, Programme Sub-Committee Meeting, Ranchi on 20.6.02.
- Scientific Panel Meeting (Engg.), ICAR, Pusa, New Delhi during 27-28.6.02.

By other staff

- Dr N. Prasad, HOD, LP & PD Division and Dr. PC Sarkar, Scientist (SS) attended the Annual Workshop of Technology Mission on Cotton, Mini Mission I, at Central Institute of Cotton Research, Nagpur, on 24th April 2002.
- Dr KK Sharma, Sr.Sc; Mr A. Rastogi, AO and Mr RK Singh F&AO attended a two day seminar on June 14-15, 2002 at CCL, Ranchi organised by Bihar Yuva Vikas Kendra, Jharkhand Chapter.
- Dr KK Kumar, Director and Dr PC Sarkar, I/c, ARIS Cell, attended a seminar on "Geographical Information Systems for Jharkhand" organized jointly by ESRI and NIIT at Hotel Ashok, Ranchi, on 18th June 2002.

Special Training

Seventeen under-graduate students from Marwari College and Women's College, Ranchi were given one - month training on techniques for lac host tissue culture at Lac Production Division of the Institute.

Library and Information Service

Strengthening of Library & Information Services has been undertaken under NATP Programme. Three computers have been installed in the Library. Air conditioning facility in the reading room of Library has been introduced and cushioned chairs have been made available.

Following new journals have been subscribed w.e.f. 2002 :

- Indian Journal of Biotechnology
- Journal of Non-Timber Forest Products.

Promotion

Sl. No.	Name & Designation	Promoted to	w.e.f.
1.	Shri M.K. Singh, T-II-3	T-4	1.1.2001
2.	Shri Parvez Alam, T-II-3	T-4	1.1.2001
3.	Dr Anjesh Kumar, T-II-3	T-4	29.6.2001
4.	Shri B.P. Keshri, T-II-3	T-4	1.7.2001
5.	Shri Binod Kumar, T-II-3	T-4	1.7.2001
6.	Shri David William Runda, T-2	T-3	1.7.2000
7.	Shri Binod Kumar, T-1	T-2	4.6.2001
8.	Shri Madan Mohan, T-1	T-2	4.6.2001
9.	Shri Raj Kumar Rai, T-1	T-2	4.6.2001
10.	Shri S.K. Tirkey, T-1	T-2	4.6.2001
11.	Shri Sunil Mukherjee, T-1	T-2	4.6.2001
12.	Shri Ajay Kumar, T-1	T-2	5.6.2001
13.	Shri Birendra Kumar, T-1	T-2	5.6.2001
14.	Shri Sanjay Kr. Tripathi, T-1	T-2	5.6.2001
15.	Shri Satish Kumar, T-1	T-2	5.6.2001
16.	Shri Prahlad Singh, Sr. Clerk	Assistant	31.5.2002
17.	Shri Md. Ali Ansari (Ex T-II-3)	Two Increments	
18.	Shri Markus Surin (T-I-3)	One Increment	
19.	Shri Bandhan Runda (T-I-3)	One Increment	
20.	Shri K.C. Jain (Ex T-I-3)	One Increment	



Felicitation of Shri Hariram on retirement

275 books have been added during Jan-March 2002.

Quality Testing Laboratory

The laboratory carried out 97 tests of 42 samples received from business houses/different divisions of the Institute during the period under report. An amount of Rs 4480/- was earned as revenue.

Resource Generation

An amount of Rs 1,56,077/- was earned during the period under report through training, sale of products/broodlac and lac sale counter etc.

EVENTS

Staff Research Council (SRC) Meeting

The Institute Staff Research Council

(SRC) Annual Meeting was held on 7th and 8th May 2002. The Meeting was chaired by Dr KK Kumar, Director. All the scientists of the Institute attended the SRC meeting.

PERSONALIA

HRD

Dr Govind Pal, Scientist (Agril. Economics) and Mr RK Singh, Scientist (SWCE) successfully completed 74th Foundation Course for Agricultural Research Service conducted by National Academy of Agricultural Research Management, Hyderabad scheduled from 3rd Jan. to 2nd May 2002.

Confirmation of Services

The following scientists have successfully completed their probation :

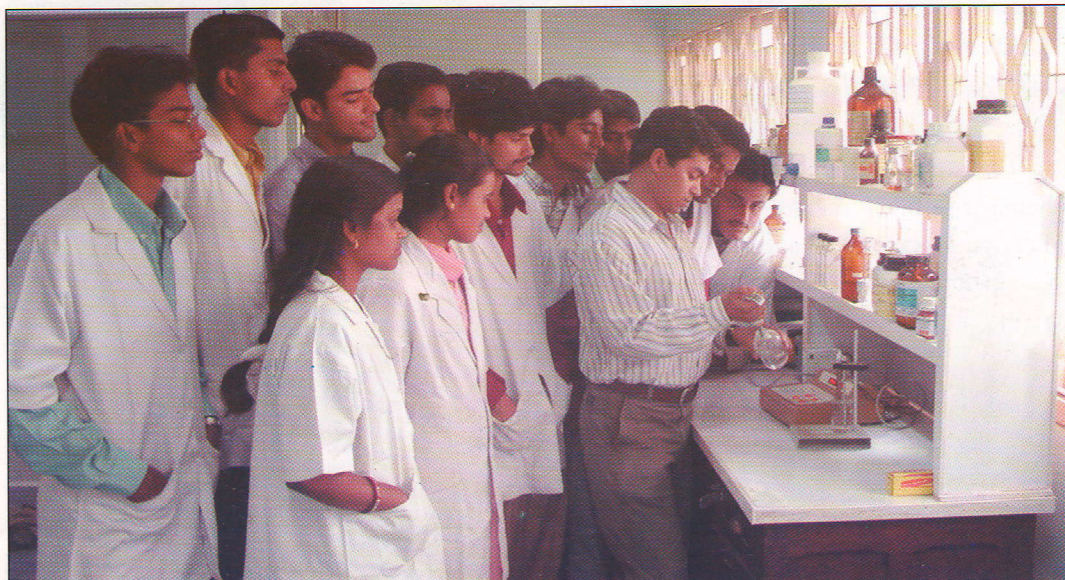
1. Dr Niranjana Prasad, Scientist, TOT Division
2. Shri S.K. Pandey, Scientist, LP&PD Division
3. Shri S.K. Yadav, Scientist, LP Division

Retirement

- Sri Hari Ram, Supporting Grade, w.e.f. 30.6.2002

Obituary

Shri Budhram Oraon, Beldar on 20.6.02 and Shri Shyam Lal Ram (Retd.) ex-peon on 26.6.02. May the departed souls rest in peace.



Undergraduate students undergoing training on tissue culture techniques