



ILRI Newsletter

Vol. 3 (2)

JULY-DEC 1999

RESEARCH HIGHLIGHTS

Survey and collection of lac insects

Selected areas of Assam, Karnataka & Kerala states were surveyed for occurrence and collection of lac insects during Oct. - Nov. Lac insect, *Kerria* spp. was found infesting *Ficus* sp. at Amsoi Bazar area about 50 kms from Guwahati and at Bangalore and *Acacia auriculaeformis* (Akashmani) at Chitradurga about 200 kms from Bangalore in Karnataka. Natural populations of lac insect were observed on an exotic plant species *Amherstia nobilis* at Thrissur and some trees of *Albizia saman* (Rain tree) near Palakkad in Kerala. Sandal, *Santalum album* and two of its hosts *Casurina equestifolia* and *Pongamia pinnata* were observed to be heavily infected by *Paratachardina* sp. Lac insects observed were at different stages of development and were collected to study pest infestation. Substantial quantity of lac is collected in Karbi Anglong district of Assam.



Lac on *A. nobilis*

The areas surveyed in Karnataka and Kerala have favourable climatic conditions for growth of lac insects but people are uninformed about lac and its cultivation.

Field release of egg parasitoids against lac predators

Field release of egg parasitoids *Trichogramma pretiosum* and *T. chilonis* were carried out in katki '99 crop reared on *bhalia* (*Flemingia macrophylla*) bushes and *palas* (*Butea monosperma*) trees respectively. The per bush release of *T. pretiosum* was @ 10 (T_1), 15 (T_2) and 20 (T_3) while the per tree release of *T. chilonis* was 50 (T_1), 75 (T_2) and 100 (T_3). Results have indicated that the percent reduction in *Eublemma amabilis* population was 82 to 87 per cent and in *Pseudohypatopa pulvereana* population, 89 to 92.5 per cent over control due to release of *T. pretiosum*. In case of release of *T. chilonis*, the per cent population reduction of *E. amabilis* over control was 65 to 79 per cent and in *P. pulvereana* it was 57 to 74 per cent. The yield ratio with respect to brood used to brood obtained was 1 : 3.83, 1 : 3.64, 1 : 4.01 and 1 : 2.18 in T_1 , T_2 , T_3 and control respectively in *bhalia* and 1 : 4.39, 1 : 3.17, 1 : 4.46 and 1 : 2.47 in *palas*. The study has indicated that these parasitoids hold promise for pest management in lac cultivation.

Evaluation of insulating varnish

Samples of 'Air-drying type anti-tracking insulating varnish' and 'Improved high-thermal resistant baking type insulating varnish' were supplied to a local consumer, M/s Om Electrical Power Pvt. Ltd., Hatia, Ranchi for evaluation. The varnishes were applied on the coils of 6.6KV, 330 KW and 3.3 KV, 400 HP electric motors respectively. Performance of the varnishes has been reported to be best of their satisfaction.

We Wish
all Our Readers
a Very Happy Y2K

TRANSFER OF TECHNOLOGY

ILRI organises Lac Buyers' Meet



Dr Anwar Alam, DDG (Engg.) ICAR addressing the delegates

A Lac Buyers' Meet was organised by the Institute on Oct. 13, 1999 mainly to create awareness about lac and lac-based technologies in order to boost domestic lac utilization. It was attended by 58 entrepreneurs, representatives from SSIs and other agencies



Mr. S. L. Choudhury, GM, SIDBI, Patna releasing a folder on lac-based processes and products

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besides those concerned with lac. The meeting included a presentation session on various lac-based technologies by the scientists, followed by interaction session. This programme was sponsored by Small Industries Development Bank of India (SIDBI), Patna.

DDG inaugurates premiere of video film on lac



Inauguration of the premiere by Dr Alam

A video film on lac in two parts has been produced as a result of the maiden attempt of the Institute. Part-I of the film entitled, 'Thou Springeth from Blest Trees' covers lac production while Part-II entitled, 'Resource of the New Millennium' covers lac processing and utilization.

The film has been made for educational purpose and each part is of approximately 18 min. duration.

The premiere of this film was held in a well attended function on 12th Oct. 1999. Dr Anwar Alam DDG (Engg.) inaugurated the premiere. Prof. R. P. Roy Sharma, V.C., BAU released the film on VCD which Ms Rosaline Lakra, Station Director, AIR released the film on VHS Cassette. Copies of the film are available through the sale counter of the Institute.



Prof. R. P. Roy Sharma, V.C., BAU releasing VCD on lac

Off-campus training activities

A two-day training programme on *kusmi* lac cultivation was organised by KC Pur Lac Industrial Cooperative Society in collaboration with Integrated Tribal Development Agency (ITDA) at Makadpara, Dist. Mayurbhanj (Orissa) on 25-26.6.99. Dr. A Bhattacharya and Mr. DK Singh trained about 70 farmers on scientific methods of *kusmi* lac cultivation.

Dr. A Bhattacharya, Mr. ML Bhagat and Mr. L Ram participated in a two-day lac training programme on 16-17.7.99 to train farmers in lac cultivation. The programme was organised by Central Coalfields Ltd. and an NGO, IPDP (Indigenous People Development Programme); it and was attended by about 40 beneficiaries. An exhibition on lac was also organised during the programme.

Dr. KK Kumar, Dr. A Bhattacharya and Sri L Ram participated in a two day seminar-cum-exhibition on 28-29.08.99, organised by Department of Zoology, St. Columba's College, Hazaribagh. The exhibition on lac was the centre of attraction during the seminar. Dr. Bhattacharya delivered a popular lecture on, 'Lac culture in India - an overview.'



Broodlac distribution at Tezpur

Dr. A Bhattacharya and Dr. KK Sharma visited TRIFED, Guwahati and DRL, Tezpur during first week of October along with 100 kg of *rangepeni* broodlac for distribution among the cultivators of NE Region. Two training programmes on lac cultivation were organised by TRIFED (NE) in collaboration with DRL, State Forest Department and ILRI at Tezpur and Sonapur. 147 villagers benefitted from the programmes. Villagers were demonstrated the methods of lac cultivation and spraying of pesticides.

Technical advisory service

20 mature broodlac samples from different places were examined for forecast of larval emergence.

Awareness through Lac Museum

The Lac Museum at the Institute was visited by 610 persons from all walks of life. Besides, 636 farmers sponsored by various GOs and NGOs also visited the museum during the period under report.

Literature published

- Package of Practices for Lac Cultivation on *Akashmani* (*Acacia auriculiformis*), a booklet, 8pp.
- Advanced Broodlac Production Technology on *kusum*, a booklet, 8pp.
- Heat and Water-proof Shellac Varnishes, a leaflet, 1p.
- Shellac-based Tyre-glazing Varnish, a leaflet, 1p.

- Shellac-based Insulating Varnishes, a leaflet, 2p.
- Fibre glass Reinforced Sheets based on Shellac and Epoxy Resin, a leaflet, 1 p.
- Technologies on Aleuritic Acid and Isoambrettolide from Lac, a leaflet, 2p.
- ILRI Newsletter, Jan-Jun 1999, 4pp.

In addition to the distribution of publicity literature printed earlier, about 3000 copies of different publicity material were reprinted and distributed during various training programmes of the Division and exhibitions etc. Besides, more than 14000 copies comprising of copied pages of different proformae of office, divisions etc. were also produced with the copy printing facility available with the unit.

Papers published

- Jaiswal AK, Sharma K Krishan and Agarwal SC 1999. A modified and upgraded version of insect separating device used in pest management. *Nat. Acad. Sci. Letters*, 22(5&6) : 106-110.
- Jaiswal AK, Sharma K Krishan, Kumar KK and Agarwal SC 1999. Growth and instability analysis of domestic consumption and supply of lac in India. *J. Non-Timber Forest Products*, 6(1&2) : 44-48.
- Sharma K Krishan, Bhattacharya A and Sushil SN 1999. Indian lac insect, *Kerria lacca* as an important source of honeydew. *Bee World* (UK), 80(3) : 115-118.
- Sharma K Krishan and Ramani R 1999. An update on synoptic catalogue of lac insects (Homoptera : Tachardiidae). *J. Bombay nat. Hist. Soc.*, 96(3) : 438-443.

Radio/TV talks

- *Lah Keet Palan ka Vaigyanik Tareeka* by Dr. KK Sharma was broadcast from AIR Ranchi on 10.07.99
- *Poshak Vrikshon par Adal-badal kar Lakh ki Kheti* by Dr. KK Sharma was telecast from DDK Ranchi on 25.08.99
- *Kusmi Lah ki Vaigyanik Kheti* by Dr. KK Sharma was telecast from DDK Ranchi on 25.11.99

Quality Testing Lab

The laboratory carried out 132 tests of 49 samples received from entrepreneurs/business houses/different Divisions of the Institute during the period under report. An amount of Rs. 7130/- was realised as testing charges.

MISCELLANEA

Ad-hoc Project

Work on ad-hoc project entitled, 'Pilot studies on Forecasting of Broodlac yield from *palas* trees.' sanctioned under AP Cess Fund Scheme has been initiated w.e.f. 16.08.99

Participation in *kisan melas* and exhibitions

Date	Venue	Organised by
16-17.7.99	Training-cum-exhibition, CCL Community Hall, Rajrappa	CCL, Rajrappa, Hazaribagh
28-29.8.99	Training-cum-exhibition, Dept. of Zoology, St. Columba's College, Hazaribagh	Dept. of Zoology, St. Columba's College, Hazaribagh
22-23.9.99	Seminar-cum-exhibition, Khadi Grama Ydyog Kendra, Tudurma, Gumla	Rangadih Samagra Vikas Parishad, Tudurma
15.10.99	Training-cum-exhibition, Chamghati, Angara block, Ranchi	Society for Rural Industrialization, Ranchi
14-27.11.99	India International Trade Fair, Pragati Maidan, New Delhi	Trade Fair Authority of India, Govt. of India
17.12.99	Seminar-cum-exhibition, Murhu, Khunti, Ranchi	Nav Bharat Jagriti Kendra, Murhu



Hon'ble Union State Minister for Agriculture Sri H. N. Yadav at ILRI stall in IITF, New Delhi.



Scientist explaining students about lac

Seminars/Meetings/Visits

Mr. R Ramani, Sr Sc and Dr KK Sharma Sc (SS) attended as resource persons, the brainstorming seminar on Holistic review of import and export of beneficial organisms held on 27.10.99 at Project Directorate of Biological Control, Bangalore.

Dr. N Prasad, Sc TOT Division attended XXXIV Annual Convention of the ISAE held at CCS HAU, Hisar from 16-18 December, 1999 and presented following two papers : (i) Mechanisation of lac cultivation – a challenge by Dr N Prasad and (ii) Status of mechanisation and scope of improvement in making seedlac by Dr N Prasad, Dr SC Agarwal and Dr KK Kumar.

Dr DN Goswami and Dr A Bhattacharya attended the Coordination Committee Meeting of AICRP on Post Harvest Technology from 27-29 December 1999 at IAS, Bangalore and presented the progress of the ongoing Ad-hoc research projects.

Dr. A Bhattacharya attended the brain storming session on, 'Holistic review of import and export of beneficial organisms – presentation of guidelines' at Project Directorate of Biological Control, Bangalore on 29.12.99.

Dr. A Bhattacharya and Dr. SN Sushil visited Entomology Department of PAU, Ludhiana from 25-27.11.99 and held discussions with scientists and experts on studies related to pesticide residue analysis and biological control.

Training programmes conducted during the period of report

Sl. No.	Course	No. of trainees	No. of courses	Resource generation (Rs.)
<i>Certificate course</i>				
1.	Modern Methods of Lac Culture - 4 months	16	1	17,400
<i>Short term Courses</i>				
2.	One-week training programme	108	6	41,200
3.	(a) One-day extension education programme	394	10	–
	(b) Orientation programme for students	179	4	–
	(c) Exposure training for farmers	150	2	–
4.	Off-campus extension education	411	4	5,000
5.	On-farm training programme	29	1	700
6.	One-week special training programme on lac for B. Sc. (Ag) students	8	1	–
<i>Product / Process demonstration</i>				
			<i>Duration</i>	
1.	Analysis and Testing of Lac	1	16.8-2.9.99	15,000
2.	Lac Processing	1	4-14.10.99	5,000
3.	Lac Dye	1	14-24.10.99	5,000

Honours / Recognition / Awards

Dr. N Prasad, Sc TOT Division has been awarded SERC Visiting Fellowship 1998-99 by DST, Ministry of Science and Technology for getting training in Computer Aided Design of Farm Machinery.

Mr VK Singh, T-5 has been awarded the degree in Master of Library & Information Science by Institute of Distance Education, Guru Ghasidas University, Bilaspur (MP).

EVENTS

Staff Research Council (SRC) Meeting

A meeting of the SRC or the institute was held on 2, 4-6th August, 1999 to review the progress of research made during the year and was attended by all the scientists of the institute. Important findings and research progress of regular and ad-hoc projects were presented by respective project leaders. One new project proposal was submitted to SRC and is to be placed before RAC for approval.

Institute Management Committee (IMC) Meeting

The 28th meeting of IMC was held on 28-29th October, 1999. The meeting was chaired by Dr SC Agarwal, Director and attended by Dr GS Dubey, Dean PG, BAU, Ranchi, Dr JB Tomar, Incharge NBPG Station, Ranchi; Dr PC Gupta, Head LP&PD Division, Dr KK Kumar, Head TOT Division; Dr G Singh, Sr Sc; Mr RK Singh, FAO Mr SK Bose, FAO, CIFRI, Barrackpore and Mr A Rastogi, AO (Member-Secretary). The committee reviewed the progress of research projects, ad-hoc projects and Revolving Fund Scheme. Three project proposals, two on toxicity evaluation of lac wax and lac dye and one on lac based formulations for fruit coating, to be sponsored by ILRI to CTRI, Lucknow and CFTRI, Mysore respectively were also recommended besides approving equipment to be purchased during the year.

Broodlac distribution by SEPC

One quintal good quality *kusmi* broodlac was distributed free to ten beneficiaries of Kishore Chander Pur Lac Industrial Cooperative Society

by Shellac Export Promotion Council, Calcutta at village Notapada, Block Nilgiri of district Balasore (Orissa) on 1.12.99. The broodlac was provided by Indian Lac Research Institute, Ranchi and was distributed by Mr LD Patnaik, Project Administrator, Intergated Tribal Development Agency, Nilgiri. Mr S Mandal and Mr BK Sinha represented SEPC. Dr KK Sharma and Mr DK Singh from ILRI were also present on this occasion.



A special broodlac distribution function was organised by the institute on 12.10.1990 at the TOT Division, under sponsorship of SEPC, Calcutta. Three quintals of broodlac was distributed by Dr. A. Alam, DDG (Engg.), ICAR among the farmers adopted by different NGOs.



PERSONALIA

Appointments

Mr Arbind Kumar, Sc (SWCE) w.e.f. 8.11.99
Mr Saroj Kumar Giri, Sc (AS&PE) w.e.f. 15.11.99
Mr SKS Yadav, Sc (Org. Chem.) w.e.f. 16.11.99
Mr Dipnarayan Saha, Sc (Bio-Tech., Agri.) w.e.f. 20.11.99

Retirements

Mr PB Sen, T-I-3 w.e.f. 31.7.99
Mr SC Gope, SG-III w.e.f. 31.7.99
Mr RD Pathak, T-II-3 w.e.f. 30.11.99
Mr N Minz, T-II-3 w.e.f. 31.12.99

Wedding bells

Mr KK Deonath, Jr. Clerk on 2.12.99
We all wish him a very long and happy married life.

हिन्दी दिवस समारोह



मुख्य अतिथि श्रीमती रोजलिन लकड़ा द्वारा सम्बोधन साथ में हैं डॉ. गनौरी सिंह (बायें) और निदेशक डॉ. सतीश चन्द्र अग्रवाल (दायें)

संस्थान में दिनांक 30.09.99 को हिन्दी दिवस समारोह का आयोजन किया गया। समारोह का उद्घाटन मुख्य अतिथि श्रीमती रोजलिन लकड़ा, केन्द्र निदेशक आकाशवाणी राँची ने दीप प्रज्वलित कर किया। संस्थान के निदेशक डॉ. अग्रवाल ने अपने स्वागत भाषण में कहा कि शताब्दी के अंतिम हिन्दी दिवस व राजभाषा हिन्दी के लागू होने के स्वर्ण जयंती वर्ष का विशेष महत्व है। मुख्य अतिथि के प्रति आभार प्रकट करते हुए उन्होंने संस्थान की उपलब्धियों के प्रचार एवं प्रसार में आकाशवाणी के योगदान की चर्चा की। उन्होंने बताया कि राजभाषा अधिनियम पारित होने के पूर्व ही संस्थान द्वारा अनुसंधान की उपलब्धियों की हिन्दी में प्रकाशित करने में हमें संस्थान के वैज्ञानिकों एवं अन्य सभी अधिकारियों-कर्मचारियों का सहयोग मिलता रहा।

मुख्य अतिथि श्रीमती लकड़ा ने अपने-सम्बोधन में कहा कि हिन्दी एक सरल और सर्वग्राह्य भाषा है। पूरे देश में हिन्दी स्वीकार्य है। खास कर कृषि अनुसंधान संस्थानों में हिन्दी का विशेष महत्व है क्योंकि यह संस्थान एवं कृषकों के बीच कड़ी का कार्य करती है।

श्री लक्ष्मी कान्त, सहायक निदेशक राजभाषा ने सूचित किया कि प्रशासनिक एवं तकनीकी कार्यों की भाँति वैज्ञानिक क्षेत्र में भी हिन्दी का प्रयोग सहजतापूर्वक बढ़ रहा है। हिन्दी के माध्यम से प्रशिक्षण, प्रदर्शन एवं किसान मेलों का आयोजन होता रहा है। कम्प्यूटरों में हिन्दी के सॉफ्टवेयर उपलब्ध हो जाने से हिन्दी के कार्यों में आशातीत प्रगति हुई है।

समारोह में संस्थान द्वारा आयोजित हिन्दी की विभिन्न प्रतियोगिताओं के विजेताओं को पुरस्कृत किया गया। इस अवसर पर हिन्दी में प्रकाशित पुस्तक-पुस्तिकाओं की एक मनोरम प्रदर्शनी भी लगायी गई। डॉ. गनौरी सिंह, अध्यक्ष हिन्दी दिवस आयोजन समिति के धन्यवाद ज्ञापन किया।

हिन्दी में वैज्ञानिक कार्यशाला का आयोजन

कृषि में शोध प्रसार के लिये द्रुत, विश्रान्त एवं ग्रामीण सहभागिता की महत्ता विषय पर 21.09.99 को प्रौद्योगिकी हस्तांतरण विभाग के व्याख्यान कक्ष में एक वैज्ञानिक कार्यशाला का आयोजन किया गया जिसमें संस्थान के वैज्ञानिकों के साथ-साथ केन्द्रीय बागवानी परीक्षण केन्द्र एवं राष्ट्रीय पौध प्रजनन संस्थान ब्यूरो राँची के वैज्ञानिक ने भी भाग लिया कार्यशाला में उपरोक्त विषय पर डॉ. कौशल किशोर कुमार अध्यक्ष, प्रौ. हस्त, विभाग ने सरल एवं सारगर्भित व्याख्यान दिया।

कौमी एकता सप्ताह

संस्थान में 19.11.99 से 25.11.99 तक कौमी एकता सप्ताह का आयोजन किया गया। इस दौरान संस्थान के निदेशक सहित वैज्ञानिकों, तकनीकी एवं प्रशासनिक अधिकारियों व कर्मचारियों ने देश की एकता बनाये रखने और उसे मजबूत करने के लिये समर्पित हो कर कार्य करने की शपथ ली तथा कभी हिंसा का सहारा नहीं लेने व धर्म, भाषा, क्षेत्र से संबंधित भेदभाव और झगड़ों तथा राजनैतिक या आर्थिक शिकायतों का निपटारा शांतिपूर्ण तथा संवैधानिक तरीकों से करने के लिये प्रयास करने की प्रतिज्ञा की।



अन्ताक्षरी प्रतियोगिता का एक दृश्य

हिन्दी अन्ताक्षरी प्रतियोगिता

संस्थान द्वारा 3.8.99 को हिन्दी अन्ताक्षरी प्रतियोगिता का आयोजन किया गया जिसमें केन्द्रीय सरकार के 20 विभिन्न कार्यालयों के 47 प्रतिभागियों को पुरस्कृत किया गया। संस्थान के वरिष्ठ लिपिक श्री प्रह्लाद सिंह को द्वितीय पुरस्कार मिला।

Obituary

Mr NK Dey, T-5 on 24.9.99
Mr RC Sanga, SG-I on 4.11.99
Mr Sukra Oraon, SG-IV on 4.11.99
Mr Philmon Tirkey, SG-II on 15.12.99

The Director and the staff of the institute deeply condole the demise of these members and extend their heartfelt condolences to the bereaved families.