Dr Bangali Baboo, Head, Agricultural Structures and Mechanical Engineering & Technology (ICAR), Ludhiana joined as Director of the Institute on 10.11.2003.


Dr Baboo started his career as Scientist in 1976 from Central Plantation Crops Research Institute, Kasaragod (Kerala). During more than 27 years of service he has held several positions as Scientist, Sr. Scientist, Principal Scientist, Head of Division and Project Coordinator of All India Coordinated Research Project. Prior to joining the post of Director, ILRI he has served at Central Institute of Post Harvest Engineering & Technology, Ludhiana (Punjab), Indian Institute of Sugarcane Research, Lucknow (UP) and Central Plantation Crops Research Institute, Kasaragod (Kerala). He has handled about 10 multidisciplinary and collaborative research projects funded by ICAR, Department of Sugar and Edible Oils (Min. of Food, Govt. of India), Central Warehousing Corporation, Food Corporation of India and World Bank. He established post harvest technology laboratories at Kasaragod, Lucknow and Ludhiana; workshop at Kasaragod and pilot plants for horticultural crops at Ludhiana.

A recipient of College Merit Certificate for achieving scholastic standards during his education, Dr Baboo was also awarded for development and fabrication of Coconut Buckling Preventing Device at the International Symposium on Coconut Research & Development. Having long experience in research and development, planning, coordination and management of agricultural research projects in post harvest engineering and technology, he has more than 100 publications in national and international journals including 10 technical bulletins and has developed several machines and structures for processing and storage of plantation crops like coconut, arecanut, cocoa; commercial crops like sugarcane, sugarbeet; food grains like rice and wheat and horticultural crops.

Dr Baboo has several professional recognitions. Important among them are Fellow of the Institution of Engineers (India); Fellow, Sugar Technologist’s Association of India; Life Member and Member; Sectional Committee of Engineering Sciences Section of Indian Science Congress Association besides Member/Life Member of other reputed professional societies. He has held several important positions in professional societies and important among them are Director (Process & Food Engineering), ISAE; Chairman, Agril. Engg. Division Committee, U.P. State Centre (IEI); Member, Bureau of Indian Standards Sugar Industry Sectional Committee.

We sincerely hope that under his dynamic leadership and with never say die approach, the Institute would progress leaps and bounds and scale greater heights.

We, all the members of the Institute, congratulate him on being selected as Director of the Institute and resolve to work zealously to achieve the high standard and goals, he has set for the Institute.
Studies on qualitative changes in lac with storage
Flow of both seedlac and shellac decreased markedly with storage showing degradation. Shellac and seedlac treated with an anti-oxidant registered higher flow values compared to the untreated ones, indicating that antioxidants check degradation of lac.

Syntheses of bioactive compounds from aleuritic acid
Hydrazide was synthesised for the first time from (E)-2-undecen-1,11-dioic acid, obtained from azelacic acid aldehyde (one of the periodate oxidation products of aleuritic acid) for possible antibacterial and antifungal activities. Thiadiazole was also synthesised from aleuritic acid for its possible antibacterial activity.

A new variant of palas
A new variant of palas (Butea monosperma) locally known as ‘swadi palas’ has been found to sustain kusmi lac insect during winter season (aghani) at village Putadag, Ranchi. A good crop of 18 kg sticklac was harvested from a single tree of palas during December from 4 kg of broodlac inoculated during the month of July. Since kusmi lac crop is not grown on palas due to very poor performance, 1:9 ratio of sticklac production on palas shows promise of increasing productivity of quality resin on this widely adopted host plant.

Survey of lac insect and its host-plants
An exhaustive survey of selected areas of Rajasthan (Jodhpur, Beawar, Ajmer and Udaipur) was undertaken during October 15 to 24, 2003. Mature yellow lac insects were collected from Jodhpur, Beawar, Pushkar, Ajmer and Udaipur and crimson lac insect from Jhalod (Udaipur). The lac insect was observed on Ber (Ziziphus mauritiana), Pipal (Ficus religiosa), Bargad (Ficus bengalensis) and Pakur (E. indica). Saplings of Palas (Butea monosperma) were also collected from two villages of Udaipur district. The collected material is being maintained at this Institute from for further studies.

Research papers
- Bhattacharya A, Jaiswal AK, Mishra YD and Chakrabarty PK.
## Training Activities

One-week training on lac cultivation, processing demonstration and utilization.

<table>
<thead>
<tr>
<th>Training</th>
<th>No. of farmers/students</th>
<th>Village/Place</th>
<th>Sponsoring agency</th>
<th>Period</th>
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<tbody>
<tr>
<td>One-week training on lac cultivation, processing and utilization</td>
<td>24</td>
<td>ILRI</td>
<td>DIP Vehugu (A.P.), Kargohora, (C.G.)</td>
<td>13-18.10.03</td>
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<tr>
<td></td>
<td>21</td>
<td>-do-</td>
<td>ATMA (Kolhan Mahila Sangathan), Goelkera;</td>
<td>20-24.10.03</td>
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<td>26</td>
<td>-do-</td>
<td>DIP Vehugu, AP</td>
<td>27.10-1.11.03</td>
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<td></td>
<td>4</td>
<td>-do-</td>
<td>Forest Range Officer Yawatmal, Maharashtra</td>
<td>27.10.11.03</td>
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<td></td>
<td>23</td>
<td>-do-</td>
<td>Forest Officer, Kanker &amp; Holi Cross, Hazaribagh</td>
<td>11-15.11.03</td>
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<tr>
<td></td>
<td>21</td>
<td>-do-</td>
<td>ATMA (ASRA), Kolhan Mahila, Charbasa, W. Singhbhum</td>
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<td>On-farm training on scientific method of lac cultivation</td>
<td>30</td>
<td>Rajasthan Bhavan, Khunti</td>
<td>NBJK, Khunti</td>
<td>16.10.03</td>
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<td>20</td>
<td>Gangpur village</td>
<td>KGVK, Usha Martin</td>
<td>19.10.03</td>
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<td>40</td>
<td>Rameshanand H.</td>
<td>PDSV, Gangaghat Angarba, Ranchi &amp; Sec. School, Hukedag, Silli</td>
<td>2.11.03</td>
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<td>25</td>
<td>Putidag</td>
<td>KK Mission, Ranchi</td>
<td>20.11.03</td>
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<td></td>
<td>10</td>
<td>Putidih, Jusuala, W.B.</td>
<td>Farmers</td>
<td>27.11.03</td>
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<td>One day orientation programme on lac</td>
<td>5</td>
<td>ILRI, Ranchi</td>
<td>SUPPORT, Hazaribagh</td>
<td>7.10.03-8.10.03</td>
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<td>12</td>
<td>-do-</td>
<td>PRADAN, Khunti</td>
<td>10.10.03</td>
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<td></td>
<td>60</td>
<td>-do-</td>
<td>KK Mission, Ranchi</td>
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<td></td>
<td>30</td>
<td>-do-</td>
<td>ICAR Res. Complex for Eastern Region, Parma</td>
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<td>25</td>
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<td>NBJK, Khunti</td>
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<td>40</td>
<td>-do-</td>
<td>Rural Tech. Park (SRI), Ranchi</td>
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<td>Ranchi University, M.Sc. (Botany) Students</td>
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<td></td>
<td>29</td>
<td>-do-</td>
<td>Farmers from Maharastra &amp; Sikkim</td>
<td>13.12.03</td>
</tr>
</tbody>
</table>


## Institute Publications

- *Paier Chaalit Lakk Cbihine ki Machine* (Hindi) a folder, 4 pp
- *Vidhyut Motor Chaalit Lakk Cbihine ki Machine* (Hindi) a folder, 4 pp
- CANLAC - a profile, 6 pp
- ILRI Lac Newsletter Vol 7 (2) and (3), 4pp each.

## Book Chapter


## Visitors

The lac museum attracts visitors from all walks of life. During the
period, 421 farmers, 221 students and 26 general public visited the museum. Besides, 6 VIPs including 2 from Ireland were among the visitors.

PERSONALIA

Promotion
Sri Krishna Nand Sinha was promoted to the post of Asstt. Administrative Officer w.e.f. 29.11.2003

Appointment
- Ashok Mullick, Administrative Officer joined on 8.10.2003

Retirement
Sri Kanhai Lal Choudhary retired from his post on 31.12.2003

MISCELLANEA

Seminars/workshops attended/visits undertaken
- Dr PC Sarkar attended the National Symposium on Instrumentation during 3rd-5th November 2003 at GB Pant University of Agriculture & Technology, Pantnagar, organised by GBPUDT and Instrument Society of India and presented a paper, “Fourier Transformed Transmittance and Reflectance Spectroscopy in Agriculture and Food Science”.
- Dr SK Yadav attended the International Conference on Ecostoration held at Dehradun and New Delhi from 14-21 Oct 2003 and presented a paper on “Sustainable agriculture through lac culture”.
- Dr SK Yadav attended a seminar on ‘Environment Friendly Industries-Today & Tomorrow (EFFITT-2003), held at Indian Institution of Plant Engineers, Ranchi from 8-9 Nov. 2003 and presented a paper entitled, “Lac ecosystem: Challenges and solutions.”
- Dr A Bhattacharya, Pr. Scientist and Dr KK Sharma, Sr. Scientist participated in the National Symposium on Frontier Areas of Entomological Research at Division of Entomology, IARI, New Delhi held w.e.f. 5-7 November, 2003.
- Dr A Bhattacharya, Pr. Scientist and Dr KK Sharma, Sr. Scientist attended the National Conference on Zoology at Vivekananda College, Kanyakumari held during 21-23 December, 2003.
- Dr A Bhattacharya and Dr AK Jaiswal visited PDBC, Bangalore during December, 2003 and held discussions with the Scientists for the project on biological control of insect pests.
- Sri G Singh, Sr. Scientist attended one day Seminar on plant Bio-Diversity and importance of Natural Resource Management conservation and General awareness programme at Asanwani on 17/11/03 organized by NBPGR Regional Station.
- Dr Bangali Baboo, Director and Dr N Prasad Pr. Sc. attended the 46th Annual General Meeting (2002-03) of Shellac Export Promotion council held at Kolkata on 20th Dec., 2003

Quality Testing Laboratory
The laboratory carried out 148 tests on 58 samples received from entrepreneurs/business houses/different Divisions of the Institute during the period under report. An amount of Rs 6900/- (Six thousand nine hundred only) was earned as testing charges.

Obituary
Sri Birsa Oraon (Lodha) Supporting grade - II on 28.10.2003