



# RRL JORHAT NEWS



क्षेत्रीय अनुसंधान प्रयोगशाला, जोरहाट, असम  
REGIONAL RESEARCH LABORATORY, JORHAT

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## NATIONAL TECHNOLOGY CELEBRATED



*(From right) Chief Guest Prof Kalyan Kumar, Director, NERIST, Nirjuli, Arunachal Pradesh and Dr P G Rao, Director, RRL Jorhat*

The National Technology Day was observed at RRL-Jorhat along with the rests of the country on 11 May with a well charted out programme amidst much enthusiasm and gaiety Held at RRL auditorium, the National Technology Day function was largely attended by distinguished guests, invitees, students and teachers from the neighboring schools and colleges besides the scientific community of RRL. The function was presided over by Dr P G Rao, Director, RRL-Jorhat in which Professor Kalyan Kumar, Director, North Eastern Regional Institute of Science and Technology (NERIST), Nirjuli, Arunachal Pradesh took part as the Chief Guest and delivered the National Technology Day lecture on the topic 'Research Trends in Developing Technology'. Delivering his lecture, Prof Kumar mentioned that innovation is the key word for development of technology. Innovation

ensures speedy progress and all-round growth of the society towards achieving its goal. Prof Kumar elaborately spoke about the various finer aspects that have to be taken into consideration for a successful technological innovation. Innovational sentiment, as he mentioned, originates with the individual investors or users who create solution to their own need or problems. He attributed the present trends of technological developments mainly to the collaborative efforts or the network activities of various organisations particularly in the high technology sectors. Referring to a number of burning problems of the state or the region that requires technological innovation Prof Kumar said that power crisis is one such problem which has been going on in the state for past couple of years with virtually no solution seemed to be forthcoming. We have to look for a pertinent solution to the problem with suitable technology, he commented. The technology might have become old or there is inefficiency in its operability. Selection of technology is an another important aspect which is considered to be very much crucial. We have to select technologies which are innovative. There are, of course, several other factors which too effect the innovation. He appreciated the good work done by RRL-Jorhat in the field of medicinal and aromatic herbs, drug development, waste utilization and isolation of new molecules, etc. and suggested that RRL and NERIST together can have collaborative programmes in these areas for successful technological innovation. Earlier, Dr P G Rao, Director, RRL-Jorhat in his welcome address spoke briefly about the imporantnce of the day and also mentioned about the contributions made by CSIR and its laboratories for technological self-reliance of the country The Chief Guest released a booklet titled `Citronella` which contained details about the citronella cultivation in the region with the RRL's efforts. In this connection, a quiz competition was also organised among the school children of Jorhat in association with the Jorhat branch of Assam Science Society. The winners were suitably awarded.

### **MONITORING COMMITTEE ON COAL**



*The Monitoring Committee Meeting on coal in progress*

The 3rd Monitoring Committee meeting of the CSIR multilaboratory project on Coal Characterization and Resource Quality Assessment for specific end uses was held on

23rd June, 2006 under the Chairmanship of Prof R Natarajan. Besides the members of the Committee and the Directors of RRL-Jorhat and CFRI Dhanbad namely Dr P G Rao and Dr S C Roy who also happens to be the Chairman of the Task Force, the meeting was attended by the representative scientists from CFRI, Dhanbad, RRL-Jorhat and NML, Jamshedpur. The meeting reviewed the progress made and suggested to fix the goal to achieve the objectives for the composite technology from mining to product state, utilization aspect of N E coals should be assured and sulphur mapping needs to be linked with the utilization and to link the output of the project towards exploitation, exploration, economics and environmental aspects.

### **FINER-RRL-CFTRI SEMINAR ON FOOD PROCESSING INDUSTRY**

The Federation of Industries & Commerce of North Eastern Region (FINER), Guwahati in association with the Regional Research Laboratory (RRL), Jorhat and Central Food Technological Research Institute (CFTRI), Mysore organised a seminar on food processing titled, 'Food Processing Industries - prospect unexplored' for the benefit of the entrepreneurs of the region on 27 May, 2006 at Hotel Landmark in Guwahati. The participants of the seminar were ranging from various entrepreneurs from across the North Eastern Region, NGOs, Government organisations like Coffee Board, NSIC, Food and Nutrition Body, NEDFi, and NERAMAC, etc. apart from the member participants of FINER. Dr P G Rao, Director, RRL-Jorhat and Dr R K Sarma, Scientist F attended the same from RRL's side. The objective of the seminar was to groom a few entrepreneurs in the food processing sector with the ultimate aim to set-up food processing industries in the region leading to employment generation.

### **RRL SIGNED MoU WITH ASSAM UNIVERSITY**

Regional Research Laboratory Jorhat and the Assam University (AU), Silchar recently signed a Memorandum of Understanding for being mutually supportive to each other and for being beneficial to the Science & Technological programme of the North Eastern region. Assam University is a young and progressive university with a rich resource base in scientific manpower. RRL Jorhat provides fair scopes for collaboration in diversified areas of science and technology for development of the region in particular and the country as a whole. The objectives included among other the framework for collaboration with the aim of achieving specific goals such as to establish a close linkage and functional coordination between AU and RRL, to recognise RRL as accredited research centre for research and directed study by AU, to facilitate RRL professionals to pursue higher studies, research and need-based training programmes in AU, to facilitate AU faculty and Research students to pursue their R&D programmes in RRL under the guidance of RRL scientists at PG and PG level like M Phil and Ph D, to assess and accredit the skill based training/professional programmes offered by RRL leading ultimately to acquiring degrees and diplomas in AU, to consider the qualified RRL professionals as accredited instructors/guides for AU's teaching and research programmes, to facilitate joint seeking of funds and conduct research training and consultancy with industries/institutions in India/abroad, to facilitate creation/development of new experimental/computational facilities through mutual co-operation and exchange of experts, and Intellectual Property Rights.

### **Projects undertaken**

#### **Grants-in-Aid**

Reclamation of drill site through application of bioformulation undertaken on behalf of Oil Industries Development Board, Ministry of Petroleum & Natural Gas, New Delhi.

Kinetics and adsorption of small organic acids/anions at the iron oxide and aluminium oxide-water interface; influence functionality undertaken on behalf of Department of Science & Technology, New Delhi.

Drug discovery from Actinomycetes of North Eastern India against neglected bacterial and fungal diseases undertaken on behalf of Department of Science & Technology, New Delhi.

Bioassay guided phytochemical investigation of *Stemona tuberosa* var *minor* Fischer in search of antimalarial ingredient undertaken on behalf of Defence Research Laboratory, Ministry of Defence, Tezpur (Assam).

### **Consultancy**

Development of aromatic oil processing industry in rural areas at different villages of Mizoram and providing technical services, training, etc. undertaken on behalf of Directorate of Industries, Govt. of Mizoram, Aizawl.

### **Seminars/Symposia/Meetings attended**

Dr P G Rao, Director, RRL-Jorhat attended the following :

- (i) Coordination Committee meeting on Agro and Rural Based Industries of FINER at Guwahati during 6-7 May, 2006.
- (ii) Had discussions with the Vice- Chancellor of Assam Agriculture University, Silchar during 27-28 May, 2006.
- (iii) Attended the meeting of FINER at Guwahati on 2nd June, 2006.
- (iv) National level workshop on Computer Chemistry held at Cotton College, Guwahati on 7 June, 2006.

Dr B G Unni, Scientist attended the Fulbright Alumni Association North-East Chapter Meeting organized at Springdales School, Jorhat on 26 June, Tea Research Association, Tocklai and J B College, Jorhat on 27 June, 2006.

Dr Dileep Kumar, B S, Scientist, attended the national symposium on 'Biological Control of Sucking Pests' held on 26 May, 2006 at the Institution of Agricultural Technologists, Bangalore.

Dr Paran Barua, Scientist attended the

- (i) Second Meeting of Expert Committee of the Department of Science & Technology on Shallow Sub-Surface project at Gauhati University during 20-21 April, 2006.
- (ii) Invited to inaugurate the Tulip Nursery established by a local entrepreneur near Tilikiam, West Jorhat on 23 April, 2006.

### **Honours /Nomination/ Recognition**

Dr Dileep Kumar, B S, Scientist, Biotechnology division was admitted as the Fellow of the Society for Biological Advancement on recommendation of the screening committee of the society. The certificate to this effect was formally awarded to Dr Dileep Kumar at the inaugural session of the National Symposium on 'Biological Control of Sucking Pests' held on 26 May, 2006 at the Institution of Agricultural Technologists, Bangalore.

Dr B G Unni, Scientist was nominated for the following -

- (i) to be one of the member the Advisory Board of J B College Career Counselling Centre, Jorhat.

(ii) nominated by the Director, ASTEC, Assam as a reviewer the project proposals of Assam Science , Technology & Environment Council.

(iii) nominated as a member Planning Committee of USEFI (United States Education Foundation Centre) from Eastern region by the Executive Director, USEFI-New Delhi.

Dr Paran Barua, Scientist was conferred with the 'Scroll of Honour' by the Indian Phytopathological Society, New Delhi for his significant contributions and dedicated services to the society.

### **Training imparted**

Three students namely Mr Jojo Joseph, Ajit Das and Anmol Elias Burh ( B.Tech) 8th semester (Biotechnology) from Allahabad Agricultural Institute/Deemed University were imparted training in the areas of immunology/biochemistry and biomolecules separation techniques under the guidance of Dr B G Unni, Scientist, Biotechnology Division during 20th March to 18 May, 2006. This programme was a part of the arrangement under the MoU signed between RRL-Jorhat and Allahabad Agricultural Institute (Deemed University ) Allahabad.

They also delivered talks on -

'DNA Chip/Gene Chip Technology application' by Mr Jojo Joseph on 5 May, 2006.

'Gene Bank and Gene Therapy - Its application' by Sri Ajit Das on 9 May, 2006.

'Molecular Biosynthesis of DNA Vaccine/Edible Vaccine and application' by Mr Anmol Elias Burh on 12 May, 2006.

### **Talks delivered**

Dr B G Unni, Scientist delivered a talk on "Production of biomolecules from silk worms - A biotechnological and molecular biological approach" at the National Seminar on 'Value addition to bioresources of N E India post harvest technology and cold chain' organized by Department of Botany, Gauhati University & ASTEC, Govt of Assam on 19-21, May, 2006.

Dr B N Saha, Scientist and In-charge, RRL Branch, Itanagar delivered a talk on the 'Role of RRL Branch, Itanagar in promotion of medicinal and aromatic plants in Arunachal Pradesh' in the training-workshop on cluster based action on micro finance based Income Generation Activities (IGAS) including value addition of NTFP under the NAP scheme held at State Forest Research Institute, Itanagar on 4 June, 2006.

Dr H B Singh, Scientist In-charge, RRL Sub-station, Imphal, Manipur delivered an invited talk on 'Medicinal plants and its development' in the seminar organised by MNMPCR, Imphal held on 24May, 2006 under the sponsorship of Indian Council of Medical Research, New Delhi.

### **Papers published**

BARUAH A, NATH S C : Leaf essential oil of *Cinnamomum glanduliferum* (Wall) Meissn. and *C. glaucescens* (Nees) Meissn., J Essential Oil Research, 2006, 18(2), p-200-202.

PURKAYASTHA J, NATH S C, KLINKHY N : Essential oil of rhizome of *Curcuma zedoaria* (Christm) Rosc. native to North East India, J Essential Oil Research, 2006, 18(2), p-154-55.

NATH S C, BARUAH A, KANJILAL P B: Chemical composition of the leaf essential oil of *Cinnamomum pauciflorum* Nees., Flavour Fragrance Journal, 2006, 21(2), p-531-33.

PURKAYASTHA J, NATH S C: Composition of the camphor-rich essential oil of *Ocimum basilicum* L. rich in camphor - that is native to North East India, J Essential Oil Research, 2006, 18(3), p-332-34.

SAIKIA N, NATH S C: Seed germination and seedling growth of *Abrus precatorius* Linn., J Economic Taxonomic Botany, 2005, 29(2), p-352-55.

SHARMA R K, KOTOKY R, BHATTACHARYYA P R : Volatile oil from the leaves of *Callistemon lanceolatus* D.C. grown in North Eastern India, Flavour Fragrance Journal, 2006, 21(2), p-239-240.

SINGH SHANTIKUMAR, BARUAH INDIRA, BORA T C : Actinomycetes of Loktak habitat :isolation and screening for anti-microbial activities, Biotechnology, 2006, 5(2), p-217-21.

GOGOI NAMINITA, BORUWA J, BARUA N C : A concise total synthesis of anti-fungal antibiotic (+)- Preussin, European J Organic Chemistry, 2006, 2006, (7), p-1722-25.

BORUWA J, BARUA N C: Stereo-selective total synthesis of (+)- boronolide, Tetrahedron, 2006, 62(6), p-1193-98.

BORAH J C, BORUWA J, BORUWA J, BARUA N C: Stereoselective total synthesis of (+)- sedamine, Letters in Organic Chemistry, 2006, 3, p-140-42

DEY N C, BORAH L : Estimation of diosgenin by a direct titration method, J Indian Chemical Society, 2006, 83(4), p-397-99.

## Colloquium

Dr (Mrs) Rita Kumar, Scientist, Institute of Genomics & Integrated Biology Delhi on topic 'The perspective of Biotechnology to manage the environmental pollution' on 10 May, 2006.

## Welcome

Sri J Shankar Rao took over charge as the Administrative Officer w.e.f. 05.06.2006 (FN). Sri Rao is on transfer from NAL, Bangalore.

Sri Parag Patar took over charge as the Finance & Accounce Officer w.e.f 29.05.2006 (FN) on tranfer from CSIR, New Delhi.

Sri Niru Kumar Saho joined as the Stores & Purchase Office w.e.f 07.06.2006.on promotion transfer from CMRI, Dhanbad.

## Farewell

The following members of staff have retired from the Council's service either on attaining the age of superannuation or taking voluntery retirement with the effective dates shown against them :

Dr Archana Sharma, Scientist Gr IV(4) (VR) w.e.f 01.05.2006(AN)

Sri Pradip Saikia, Scientist Gr IV(4)(VR) w.e.f.30.06.2006

Sri Rupam Gowami, Gr II(5) w.e.f 31.05.2006

Sri Ganesh Sarmah, Assistant w.e.f. 30.06.2006.

## **Condolence**

The Director and members of the staff of RRL at two separate condolence meetings held on 09.06.2006 and 15.06.2006 in front of the Administrative Block deeply condoled the sad demise of the following ex-employees of RRL Jorhat -

1. Mrs Laxmi Balmiki
2. Sri Jibeswar Saikia