

### From the Director's Desk

#### Seasons greetings and best wishes for 2011.

The International year of Biodiversity has just concluded and we are into the International Year of Forestry, when bigger responsibilities are called for on forest managers and scientists to confront the multifarious challenges confronting forestry. We, in the Institute are carrying out focussed research providing quality education, capacity building support and training to strengthen the field of forest science. The Institute of Forest Genetics and Tree Breeding is today handling nearly 75 projects, all of which have been identified by interaction with our stakeholders. The research taken up is very selective, need based and best fits into the mandate of the Institute. The Institute has always stood responsive to the needs of the stakeholders and continues to provide solutions to their demands in every way possible through results of various projects completed and currently ongoing. This quarter has seen significant achievements. The national seminar on Tropical ecosystems was a big success. We will be organising two workshops in the first quarter of the International year of forestry.

This Institute has been identified as a Nodal agency for management of forest genetic resources. Forest genetic resource management network is to be established this year by soliciting the views of all the stakeholders in the business; the valuable forestry germplasm available with various stakeholders, agencies, institutes, industries have to be assessed, monitored and policies and strategy drawn for their effective utilisation and conservation in addition to the Institute's wide range of genetic resources. We need to prioritize forestry species of ecological and economical importance that have to be managed and conserved. With this in mind, we are organising a consultative workshop on "Forest Genetics Resource Management" on 09<sup>th</sup> and 10<sup>th</sup> March, 2011. A workshop on casuarinas will also be held on 3<sup>rd</sup> and 4<sup>th</sup> March, 2011. I request you all to kindly participate and offer your valuable suggestions.

Director, IFGTB

### NATIONAL SEMINAR ON TROPICAL ECOSYSTEMS – STRUCTURE, FUNCTIONS & SERVICES (TESFS 2010)

The Institute of Forest Genetics and Tree Breeding, Coimbatore organized a National Seminar on Tropical Ecosystems: Structure 29 December 2010.



The Seminar was started with the Inauguration of Functional Genetics Experimental Facility and Ceremonial Planting and release of Abstracts by Dr. P.J Dilip Kumar, Director General of Forests and Special Secretary, Ministry of Environment and Forests, Dr. G.S. Rawat, Director General, ICFRE, Dr. N Krishnakumar Director, IFGTB, Shri T.P.Raghunath GCR, IFGTB and Organising Secretary Dr. B.Nagarajan IFGTB.



A total of 300 participants from various Colleges, Universities, Government Departments, Research Organizations, NGOs

and R&D Organizations participated in the said seminar besides invited delegates, dignitaries and guests from various national level organizations of repute.



The Seminar was conducted in 8 parallel sessions of Oral Presentations, Posters Presentation and a cultural programme. Each session of the seminar was initiated with the lead talk and was chaired and co-chaired by Senior Scientists and forest officials.



The Seminar closed with the discussion and feedback from all the Chaired and co-chaired persons and distribution of best poster awards.

**Dr. Kannan Warriar was awarded the Rolla S. Rao Award for the Best Paper for Biodiversity Conservation in the International Symposium on Taxonomy, Plant Diversity and Conservation sponsored by IAAT (Indian Association of Angiosperm Taxonomists).**

### **Interactive meetings**

An interactive meeting was held between IFGTB and Indian Paper Mill Association (IPMA) at SPB office at Chennai on 4.10.2010. Dr. N. Krishnakumar, Director, Dr. B. Gurudev Singh, Scientist F, Dr. Prashant Jacob, Scientist E, Dr. A. Nicodemus Scientist E, Dr. Kannan C.S. Warriar, Scientist D and Dr. Maheshwar Hegde, Scientist D represented the institute. Dr. Kannan C.S. Warriar presented the project entitled "Rapid improvement of *Casuarina* and *Leucaena* to enhance productivity in Farm Forestry Plantations" for funding support from IPMA. IPMA suggested submitting the project as a collaborative project between IFGTB-IPMA by including all other paper mills using these species in the project for laying out trials, etc. It has been decided to have the interactive meeting between IFGTB and IPMA on annual basis henceforth. The improvement programme on Acacias undertaken by the institute was also discussed.



An interactive meeting was held with the Chief Secretary, Puducherry Administration on 5<sup>th</sup> October, 2010 and the Institute activities were highlighted to the Chief Secretary by the Director, IFGTB. Also, requested the Puducherry

administration to provide 10 ha of land to establish VVK, seed orchards, establishment of Clonal banks and multiplication centre for the benefit of farmers of Puducherry. Capacity building of farmers will be taken up by the centre through training and demonstration.

### **RAG meeting**

The Research Advisory Group Meeting was held at IFGTB on 12<sup>th</sup> and 13<sup>th</sup> October, 2010. Shri. A. S. Balanathan, PCCF, Tamil Nadu Forest Department was the Chairman. A Hand Book on Insect pests of Forest Tree Species, A brochure on Gass forest museum and posters on nutrient deficiencies and pest calendar were released. Twenty three projects were presented and twenty two approved.



The list of projects approved in RAG is listed below.

1. Selection and Screening of Germplasm of *Thespesia populnea* for Improving Productivity
2. Genetic Improvement of *Gmelina arborea* Roxb. through selection and clonal evaluation
3. Selection and Evaluation of *Grevillea robusta* Cunn. for Large-scale plantation Programme in Tamil Nadu
4. Adaptive variations for CO<sub>2</sub> induced physiological forcing in Eucalyptus
5. Development of Pedigreed Eucalypt Potted Seed Orchards (PEPSO) and Testing of Bio-regulators for improved flowering and Seed Production
6. Genetic Diversity, Population Structure and Species Recovery in *Canarium strictum* Roxb.-A Medicinally Important Red listed Taxon.
7. Restoration ecology and species recovery studies in Tsunami impacted mangrove areas of Andamans
8. Development of models for conversion of plantations into secondary forests in Andaman and Nicobar islands
9. Studies on productivity and value addition in selected bamboo species of Tamil Nadu
10. Evaluation of Seed Source Variations and Germplasm Assemblage of *Macaranga peltata* (Roxb.) Mueller
11. Selection and Evaluation of High yielding clones of *Pongamia pinnata*
12. Study on physiological and biochemical characteristics of different seed sources of *Gmelina arborea* Roxb in India.
13. Evaluation of seed orchards of Eucalyptus and Casuarina for fertility, qualitative characteristics of seeds
14. Assessment of disease problems of selected fast growing indigenous tree species in Tamil Nadu and Kerala
15. Response of mycorrhizae and microbial symbionts to elevated CO<sub>2</sub> in commercially important tree species
16. The study of bioecology and conservation management of endemic plants of Kalakadu Mundanthurai Tiger Reserve, Tamil Nadu
17. Population structure, regeneration status and pollination ecology of *Dalbergia latifolia* and *D. sissooides*
18. Impact of weed management options on biodiversity conservation in dry deciduous and thorn forest of Tamil Nadu
19. Anti-insect secondary metabolites from fungal endophytes of selected tree species.
20. Risk Assessment for Invasive Alien Insect, Papaya Mealybug, *Paracoccus marginatus* and its Proliferation Prevention Measures
21. An improved holistic approach for development of database on fast growing tree species targeting stakeholders in Tamilnadu and Kerala
22. A New paradigm: A study to evaluate different innovative and successful marketing strategies and its suitability for forestry products

### **Training programmes**

A two day Training Workshop on Management of Forest Genetic Resources" for Indian Forest Service officers on 18th & 19th October 2010 at IFGTB, Coimbatore.



A Five day refresher training programme for Indian Forest Service officers on Research methods in Forestry was organised from 22.11.2010 to 26.11.2010. A total of 13 officers participated in the training programme. The topics included Methods in vegetation surveys and sampling strategy, Vegetation monitoring, Recording and storing of data, Tree Improvement and Plus Tree Selection, Progeny testing, Clonal Testing: Designing, Establishment and Analysis, Designing of Seed Orchards, Research Methods in Seed Science and Technology, Entomology, Pathology and Forestry & Climate Change. In addition, field trips were also organized to SACON, Parambikulam Tiger Reserve and the field research stations of the Institute.



The Institute of Forest Genetics and Tree Breeding, Coimbatore organized a one day Training Programme on Clonal Forestry to Thirty eight forest officials of Tamil Nadu Forest Department on 21<sup>st</sup> December 2010. Various aspects of Clonal forestry on important forestry species were explained to the trainees by the IFGTB scientists. The disease and pest problems in clonal forestry were also discussed.

Demonstration was made for cutting collection, hormone treatment, maintenance of cuttings in the mist chamber, grafting, establishment of vegetative multiplication garden (VMG), hedging of VMG and mass multiplication of clones from VMG.



A two days training programme on Quality planting stock production of industrially important tree species was imparted to 25 farmers from the districts of Coimbatore, Tiruppur, Karur, Krishnagiri and Villupuram on 8 and 9 December 2010. Training was imparted on Tree Improvement and its importance, Vegetative propagation of Eucalyptus, Casuarina, Bamboos, Tissue culture, Production of quality planting stock using improved seeds, Clonal seed orchards, Pest and Diseases problems faced in the nurseries.



Shri S. Saravanan, Sc-D, Dr. A. Karthikeyan, Sc-D, Dr. J.P. Jacob, Sc-D and Dr. A.Nicodemus, Sc-E participated in a training programme for farmers at Puducherry organized by the Department of Forests and Wildlife, Puducherry, and imparted training on casuarina cultivation and pest control.



### **Workshops**

Two workshops one on Role, Overload, Distance and Stagnation (RODS) and the second on team building was held for the scientists, officers and staff as part of strategic planning exercise at the institute from 25-29 October, 2010 and 8-12 November, 2010 respectively. The participants were exposed to concepts like Role behaviour, conflicts, stress and overload, Team building, Team Roles and goal setting.



This was followed by a rigorous exercise of chalking out all the divisions' strategic plans over the next three plan periods, over a period of two weeks from 12-24 December, 2010. A plenary session consolidated the work.

An orientation workshop on "Methodologies for QTL and Association Mapping" was conducted to provide an insight into the recently initiated project titled "Genetic improvement of Eucalyptus through mapping and tagging of QTLs/ Genes" funded by Department of Biotechnology. The project partners TAF CORN, TNPL and MPM also attended the workshop. Talks on Marker Assisted Breeding for Genetic Improvement, QTL mapping, role of phenotyping in QTL mapping and use of Near Infra-Red Spectroscopy (NIRS) for high throughput phenotyping were elaborated by Dr. K.V. Bhat, NBPGR, New Delhi, Prof. M. Maheswaran, and Dr. M. Raveendran, from TNAU, Coimbatore and Dr.Vimal Kothiyal, Scientist, FRI, Dehradun.



A Workshop was organized at IFGTB on 30 December 2010 to sensitize foresters and farmers on (*Paracoccus marginatus*) infesting Tree Crops. Dr. G Kumaravelu, IFS, Member, TNSPC released Brochure on Papaya Mealy Bug, and inaugurated the Workshop. Dr. R. J. Rabindra, Director, National Bureau of Agriculturally Important Insects (NBAIL), Bangalore elaborated on the Biological Control of the papaya mealy bug. Dr. P.Karuppuchamy, Head, Department of Agricultural Entomology, TNAU, Coimbatore gave a detailed account of Papaya mealy bug in Agriculture. Dr. A. Balu, Head, Forest Protection Division, IFGTB highlighted on the Papaya mealy bug problem in Forestry crops. Later, the participants were exposed to the lab culture and maintenance of biocontrol agents of papaya mealy bug at the Entomology Lab, TNAU, Coimbatore. As a follow up of the awareness Workshop a comprehensive plan to release the biological control agents through Van Vigyan and Krishi Vigyan Kendras among tree growers at the village block level in selected villages of Coimbatore and Salem districts, coordinated by IFGTB and with support from NBAIL, Bangalore and TNAU has been identified. The Action Plan has been submitted to Tamil Nadu State Planning Commission.



#### **Van Vigyan Activities**

Shri S.D. Sharma, ADG (Statistics) reviewed the works of Van Vigyan Kendras and demo Village of IFGTB from 20-12-2010 to 23-12-2010. The Director, GCR, HoD, FLUCC, Extension Officer and the extension team of IFGTB took part in the review. A presentation on the various activities carried out in IFGTB

under extension was detailed by the Extension Officer.



Later the field related activities were inspected by the ADG both in the extension centre and at the Demo village at Kandiyur. He also interacted with the farmers.



Shri Maria Dominic Savio, Scientist-D attended the Kerala Bamboo Fest 2010 organised by the Department of Industries and Commerce, Kerala Bureau of Industrial Promotion and Kerala State Bamboo Mission, at Ernakulam and explained the activities of ICFRE in bamboo research. A total of 99 stalls have been set up for exhibiting and selling products made of Bamboo, and machinery from all over the country. Industries Minister Elamaram Karim visited the stall.



#### **Awareness Programmes**

Vigilance Awareness period 2010 was observed at the Institute from 25th to 29th October, 2010. The week started with the administration of the pledge by the Vigilance officer, followed by a talk on Integrity in research. A lecture on RTI Act was delivered by the Public Information Officer. Essay competitions in Tamil and English were held and prizes were distributed to the winners. The concluding function was held on 1.11.2010.



An awareness programme was convened by the Internal Complaints Committee on Sexual harassment of women at workplace - IFGTB on 19 November 2010. The meeting was attended by all the staffs of the Institute. A presentation on "Conduct rules" was made by Shri. T.P. Raghunath, Group Coordinator Research, IFGTB. Subsequently, a session "Stress Management" was conducted by Dr P.V.Veera raghavan, Deputy Director (Rtd.), SITRA, Coimbatore.



Prof. K.C. Leelavathy, Co Chairperson and Director, Centre for Women's Studies, Avinashilingam University, Coimbatore emphasized on the importance of 'proper planning' to avoid stress.

#### **Forthcoming Events:**

- Farmers Mela at IFGTB, Coimbatore 24-25 February, 2011.
- National Seminar on Casuarinas 3-4, March 2011
- Consultative workshop on "Forest Genetics Resource Management 9- 10 March, 2011.

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