

Monthly report for the Month of March 2020

Institute of Wood Science & Technology, Bengaluru

1. IMPORTANT RESEARCH FINDINGS:

- Organo-metallic complexes of *Eucalyptus* and *Lantana camara* species were evaluated as a potential wood preservative. Extractives from bark, wood and leaves were prepared using different solvents (viz, Hexane, acetone, alcohol and water) of varying polarity. Rubberwood samples were treated with extractives of the above species by pressure method and dipping method and were exposed to field test to study the toxicity of different extractives. Results of the initial experiment showed that alcohol and water extract after sequential extraction was performing better compared to other two solvents. This step was very important for selection of solvent extract for the preparation of organo metallic complexes with inorganic salts i.e., Sodium dichromate and Copper Sulphate. Of the two extractives i.e. alcohol and water; water extractive performed better and solubility of this extractive and mixing with the inorganic salt was very good compared to alcohol extract. Fixation property of both the extractives was almost same. Both the extractives (*Lantana* and *Eucalyptus*) in combination are performing good. *Eucalyptus* bark and wood extractives are performing better compared to leaf extract.

2. NEW PROJECTS SANCTIONED DURING THE MONTH: NIL

3. PROJECTS CONCLUDED DURING THE MONTH:

- Eco-friendly method of wood protection by hot oil treatment (ICFRE funded)
- Weathering of coatings on thermally modified wood (ICFRE funded)
- Thermal modification of bamboos for improving various properties and values added applications (KFD funded)
- Development of organo-metallic complex of *Eucalyptus* spp and *Lantana camara* extracts and its evaluation as semi bio preservative. (2017-2020) PI: Mrs. C.N. Vani (ICFRE Funded)

4. PARTICIPATION IN SEMINARS/WORKSHOPS (BOTH NATIONAL & INTERNATIONAL):

Sl. No	Topic	Duration	No. of participants	Beneficiaries
1	Two-day training workshop on “Awareness on ISO/IEC 17025:2017 ” related with switching over from ISO 2005 to ISO 2017 version of NABL	12 - 13 March, 2020	2	Deputy Quality Manager, all the Technical Managers, Deputy Technical Managers and technical staff.

5. MEETINGS ORGANIZED: NIL

Sl. No	Topic	Duration	No. of participants	Beneficiaries

6. MEETINGS ATTENDED:

Sl. No	Topic	Duration	No. of participants	Beneficiaries
01	Institute –Industry Meet organized by IPIRTI at Gandhidham, Gujarat	1 day	1	Wood Based Industries
2	Training on Environmental Impact Assessment at CSE, New Delhi	2-6 March 2020	2	Scientists

7. WORKSHOP ORGANIZED: NIL

Sl. No	Topic	Duration	No. of participants	Beneficiaries

8. TRAININGS ORGANIZED: NIL

Sl. No	Topic	Duration	No. of participants	Beneficiaries

9. TRAININGS ATTENDED: NIL

Sl.No	Topic	Duration	No. of participants	Beneficiaries

10. DEMONSTRATIONS:NIL

Sl. No	Topic	Duration	No. of participants	Beneficiaries

11. PARTICIPATION IN KISAN MELA/EXHIBITION/TRADE FAIR ETC.: NIL

Institute	Participated	Duration	Place

12. OTHER EXTENSION ACTIVITY: NIL

13. RESEARCH PAPERS:

- Sharma S.K., S.R. Shukla and A.K. Sethy (2020). Acoustical behaviour of natural fibres based composite boards as sound absorbing materials. **J. Indian Acad Wood Sci**, Vol. 17(1) – Published online.
- Arun Kumar AN and Shakti Chauhan Non destructive selection of genotypes with better wood properties from morphologically superior genotypes – a case study with *Eucalyptus pellita*. *Current Science*, Published online 04/03/2020 (accepted author version)
- J. Gunjal, P. Aggarwal and S Chauhan “Changes in colour and mechanical properties of wood polypropylene composites on natural weathering”, *Maderas. Ciencia y Tecnología* (Accepted)
- Raja Rishi, R and R.Sundararaj . (2020). Record of an epidemic outbreak of *Hyblaea puera* Cramer (Lepidoptera: Hyblaeidae) on *Avicennia marina* in the mangroves of Maharashtra, India. *Journal of Entomology and Zoology Studies*.8(2): 306-309.

14. VISIT OF DIGNITARIES: NIL

15. CONSULTANCIES: NIL

16. OTHER IMPORTANT ACTIVITIES:

- Dr. R. Sundararaj, Scientist-G attended (acted) as external examiner for Ph.D. public Viva Voce exam at Bharatiyar University Coimbatore on 13.3.2020

- Dr. A Muthukumar, Scientist-E submitted research outcome on “status of trans-plantation of trees” based on data generated by periodical surveillance to ADG (FC), MoEF on 6th March, 2020 .
- Dr. A Muthukumar, Scientist-E as a expert member in Tree Expert Committee (TEC) working under Gov.t of Karnataka, participated in a meeting under the chairmanship of TEC on 17/03/2020 followed by a field visit on 18/03/2020 for physical verification of trees at various project developmental sites of BMRCL viz., Jayanagar fire station, Vellora metro station, MG road station, Shivajinagar station, Cantonment station and Pottery town station and the report was submitted to BBMP.
- Mrs. C.N. Vani delivered a lecture on bamboo preservation for trainees to NBM sponsored training on Bamboo Nursery and Management at IFGTB Coimbatore on 6th March, 2020.
- Wood testing enquiries (6 samples for identification, 4 samples for moisture content were received and test reports of 5 samples for identification, 3 samples for moisture content, 3 sample for specific gravity tests and 2 samples for other tests were sent to the concerned department/parties.)