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Bamboo Info

A quarterly newsletter of Bamboo Technical Support Group (BTSG) - KFRI

Mealybugs infesting bamboo: Diversity, impact, and management

Mealybug infestations lead to significant losses in bamboo nurseries and commercial plantations by sapling damage, delayed growth cycle, reduced biomass production, and indirect costs due to control efforts and reduced market value.

Bamboo salt: The future of mineral-rich natural remedies

Bamboo salt is a traditionally used synthetic salt in Korea for over 1300 years. It is a combination of minerals from the bamboo culms and salt.

Linking bamboo products with stakeholders – Odisha Bamboo Development Agency (OBDA)

OBDA highlighted potential bamboo applications such as bio-char, cosmetics, and jewellary. The forum emphasised the pressing need for dedicated bamboo policy.

Oodapoov

Oodapoovu is one of the famous ritual bamboo products traditionally crafted in Kerala, especially associated with temple ceremonies. It is symbolic of the offerings of the famous Kottiyoor temple at Peravoor in Kannur district, Kerala. This craft is made from the culm cuttings of *Ochlandra scriptoria* (Dennst.) C.E.C.Fisch., a native bamboo species. The crafting process involves beating the culm pieces with sticks to produce fine, fibre-sized, white hair-like strands. These bamboo fibres are then shaped into an ornamental artwork. Due to its cultural importance and high demand, this species is now facing overexploitation.

Editor's Desk

Dear readers,

Welcome to the third issue of Bamboo Info, your source for all things that are bamboo-related!

In this edition, we primarily focus on infestation studies concerning bamboo cultivation. Bamboo, being an economically and ecologically significant plant, is increasingly threatened by various pests and diseases that can severely impact its growth and yield. To better understand and address these challenges, a series of scientific studies are being carried out to identify common infestations, analyze their causes, and develop sustainable methods of control.

This issue also features an article on bamboo salt, a unique product made by roasting sea salt inside bamboo. It is known for its health benefits and is made using traditional methods that are both natural and eco-friendly. The article explains how bamboo salt is prepared, its uses, and how it is becoming popular again. Bamboo salt is also helping small communities by creating jobs and supporting local economies. This shows how bamboo can be used in many ways, even in food and health products.

At BTSG, we believe that through comprehensive training programmes, community engagement and hands-on projects, we can transform landscapes and improve livelihood by bringing farms to homes, creating sustainable solutions for a brighter tomorrow. By prompting local self-government institutions to cultivate bamboo, we aim to cultivate change, improve livelihood, and foster sustainable development. We invite you to join us as we navigate the intersection of tradition and technology, seamlessly blending ancient wisdom with modern technologies.

As we launch this edition of Bamboo Info, we invite you to become an integral part of this interactive space. Use this platform to stay connected, share your stories, and be inspired by the groups' efforts that amplify the impact of bamboo and contribute to a more sustainable, inclusive and resilient world.

Thank you for joining us on this exciting journey!

Editorial team
Bamboo Info

Bamboo – nature's answer to climate crisis

"More than just a fast-growing plant, bamboo gets more attention for its capability of resistance to climate challenges. In India, bamboo cultivation is common and much more cost-effective than other plantations. With its deep and intricate root system, bamboo can resist landslides and soil erosion. Nowadays, India is facing many climate challenges like landslides, soil erosion. To mitigate the effects of these natural calamities, bamboo is an effective tool for large-scale restoration activities due to its fast-growing nature and ability to restore ecological balance. Therefore, to protect our environment and build climate resilience, we need to encourage more bamboo plantations by local communities and in forest areas."

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Spotlight

Mealybugs infesting bamboo: Diversity, impact, and management

Bamboo represents one of the most diverse and ecologically significant groups of grasses found across the globe. With its remarkable adaptability and widespread presence, bamboo plays a vital role in various ecosystems and cultural landscapes, particularly in tropical and subtropical regions (Wang & Shen, 1987; Yi *et al*., 2008). However, its cultivation is increasingly threatened by sap-sucking pests, notably mealybugs (*Pseudococcidae*). Mealybugs infest various parts of the bamboo plant, leading to severe physiological damage, reduced growth, and sometimes mortality, especially in nurseries and young plantations. Mealybugs are serious insect pest that are known to break quarantine, and pose invasive threat. This chapter provides a comprehensive overview of the diversity of mealybug species associated with bamboo, their biology, infestation symptoms, economic impact, and available management strategies.

Mealybugs

Mealybugs are small soft-bodied, sap-sucking insects that belong to the family Pseudococcidae within the insect order Hemiptera. They are known for their waxy, powdery coating and are serious pests of many agricultural, horticultural, ornamental, and forest plants. Key identification features of mealybugs are their oval body shape, segmented body withwhite waxy filaments, presence of ovisacs in mature females, crawlers (nymphs) which are highly mobile and spread rapidly (Li *et al*., 2014; Wu *et al*., 2020). Ant associations are commonly observed as many of the species rewards the ants with honey dew secretion. Cognition of some selected ant species that prefer provisioning of sugar in the form of honey dew (*via* mutualism) over immediate source of protein and fat by predating these bugs is still pending to explore (Krishnan *et al*., 2016a, 2021).

The affected bamboo parts are underground shoots and nodes, rhizomes, emerging culms, culm sheaths, leaf sheaths, and leaf-buds. The symptoms include yellowing and stunted growth, sooty mold development due to honeydew excretion, leaf wilting and premature drying, root rot in case of rhizome infestation and culm malformation and structural weakening. The pest is dispersed usually through passive transport by wind or via hairy animals including rodents, active crawling of nymphs and ant-assisted dispersal for honeydew harvesting is the major means of transport. Mealybug infestations lead to significant losses in bamboo nurseries and commercial plantations by sapling damage, delayed growth cycle, reduced biomass production, and indirect costs due to control efforts and reduced market value. The factors favouring their outbreaks are lack of quarantine and screening measures in nurseries, humid condition, monoculture plantations, lack of natural predators, ant presence promoting mealybug colonization, and excessive use of nitrogen fertilizers.

Fig 1: *Ferrisia virgata* assisted by the invasive ant *Anoplolepis gracilipes* infesting on *Dendrocalamus stocksii*. Red circles pointing the nodes of infestation and stunted growth an observation from KFRI campus.

Bamboo mealybugs

The major genus reported infesting bamboo in India include: *Planococcus, Phenacoccus, Dysmicoccus, Pseudococcus, Ferrisia*. A few representative species from each of the above genus that are a threat to bamboo farming and propagation especially in forest nurseries are mentioned below:

Planococcus citri, is a polyphagous pest known to infest a wide variety of host plants, including economically important crops and ornamentals. While it is primarily associated with citrus, grapes, coffee, cotton, and ornamentals. Krishnan *et al*. (2025) observed mass infestation of bamboo, particularly in nursery and plantations at Thrissur district, Kerala.

Adult female measures approximately 3 to 4 mm in length. Eggs are laid in cottony ovisacs, which the female produces beneath her body. Each ovisac may contain 300 to 600 eggs. Eggs are orange to yellowish initially and turn pink before hatching. They develop through three (female) or four (male) instars and life cycle is completed in about 35 to 45 days. Though not a traditional host, bamboo has been reported as a secondary or occasional host for *P. citri*, especially in warm and humid regions conducive to mealybug proliferation (Golberg, 1982). The mealybugs colonize nodes, leaf sheaths, and young shoots, often under protective coverings or near crevices. The symptoms of infestation include, presence of white cottony masses on shoots, nodes, and leaf sheaths, sooty mold development due to honeydew excretion, stunted growth and yellowing of young bamboo shoots. In severe infestations, the plant vigour is reduced, and secondary infections may also occur.

Phenacoccus solenopsis, commonly known as the cotton mealybug or Solenopsis mealybug is a sap-sucking pest within *Pseudococcidae*, originally from North America that has become invasive globally. It is highly polyphagous attacking over 300 plant species and primarily feeding on young shoots, stems, leaves, and sometimes roots (Nagrare *et al*., 2009). While it affects cotton severely, it is also found on ornamentals, weeds, and woody plants worldwide. Their infestation on bamboo is usually observed mostly in nurseries and plantations and its presence often correlates with ant activity.

Females are typically 2 to 5 mm long and 2 to 4 mm wide. Life span completes in 30 to 45 days and they can lay up to 500 to 600 eggs. Ants transport nymphs and provide protection by aiding spread. Some bamboo ant species (*Tetraponera* spp.) are known to carry mealybugs into new bamboo internodes for this reason. In Bamboo, it generally causes low damage, but infestation can cause sooty mold growth on honeydew. This will lead to yellowing, stunted new shoots, or reduced aesthetics.

Dysmicoccus brevipes, commonly known as the pink pineapple mealybug, is a true bug (mealybug) in the family Pseudococcidae

Fig 2: *Planococcus citri*

Fig 3: *Phenacoccus solenopsis*

Fig 4: *Dysmicoccus brevipes*

Fig 5: *Pseudococcus jackbeardsley*

that can infest bamboo though it is far more severe on pineapple and other crops.

Adult females are small (around 2.5 to 3 mm long, and 1 mm wide), oval-shaped, covered in white wax but pink-orange beneath, with 17 pairs of short wax filaments around the body edges. Females reproduce *via* parthenogenesis (asexually), give birth to live young (~250 offspring), live about 70 to 90 days, and pass through three nymphal instars. Pineapple is its primary host, where it transmits mealybug wilt-associated virus (Sether *et al*., 1998). It also infests crops like citrus, coffee, banana, cotton, hibiscus, and many grass species, infesting over 60 plant families (Krishnan *et al.,* 2020). They infest on bamboo as well, when ants or wind carry crawlers. Though not a major bamboo pest, its presence is marked, especially in tropical/subtropical regions (India, Africa, Australia). Crawlers can settle on bamboo stems or roots, feeding on plant sap. Ants (especially Pheidole, Iridomyrmex, Solenopsis) may protect and carry mealybugs between bamboo.

Pseudococcus jackbeardsleyi, infest a wide range of host plants, including various horticultural crops and particularly, bromeliads and other monocots.

Their biology is characterized by multiple generations per year with short life cycle, wax-covered bodies, and often cryptic behaviour that enables them to persist across various climates and host plants. Adult female typically ranges in size from 3 to 6 mm in length. Egg count per female varies from 100 to over 600. In bamboo plantations and nurseries, *Pseudococcus jackbeardsleyi* infest culm sheaths, shoot bases, and leaf axils and rhizome zones (especially in nurseries). The attack can lead to yellowing, stunted growth, and wilting.

Ferrisia virgata, commonly known as the striped mealybug – is a polyphagous pest, notorious for infesting a wide range of host plants, including agricultural, ornamental, and forest species.

Adult females are elongate-oval, soft-bodied, and about 4 to 5 mm long. They are distinguished by two prominent white waxy longitudinal stripes on the dorsum and long posterior wax filaments, which give the species its common name. It has

been sporadically reported on bamboo, having the potential of being a primary or widespread pest of bamboo like *Planococcus citri* or *Phenacoccus solenopsis*. However, in nursery or plantation conditions, especially under warm, humid, and shaded environments, this species may infest bamboo and cause potential damage.

Management strategies

Effective management of mealybug infestations in bamboo requires an integrated pest management (IPM) approach involving preventive, cultural, biological, mechanical, and chemical methods. Below is a detailed overview of management strategies:

Preventive and cultural practices

Use of pest-free planting material: Always source bamboo propagules (culms, rhizomes) from certified pest-free nurseries.

Sanitation and hygiene: Regularly remove and destroy infested culms, leaves, and debris to reduce pest reservoirs.

Optimal spacing: Ensure proper plant spacing to avoid overcrowding, which favours mealybug build up.

Balanced fertilization: Avoid excessive nitrogen application, which can lead to tender plant growth favoured by mealybugs.

Water management: Avoid water stress and maintain adequate soil moisture, as healthy plants are more resistant.

Mechanical and physical control

Manual removal: Light infestations can be managed by handpicking or washing off mealybugs with a strong jet of water.

Pruning: Remove and destroy infested plant parts to contain the spread of the pest.

Sticky traps: Use yellow sticky traps to monitor and partially control flying stages of mealy bug males and associated ants or other pests.

Biological Control

Conservation of natural enemies: Encourage and conserve natural predators and parasitoids such as *Cryptolaemus monotrouzieri* (predatory beetle), *Anagyrus* spp. and *Leptomastix dactylopii* (parasitoid wasps)

Augmentative release: In commercial bamboo plantations or nurseries, mass release of predators like *Cryptolaemus* can be practiced.

Control of ants: Ants protect mealybugs from natural enemies in exchange for honeydew. Manage ant populations to enhance biological control.

Botanical and organic methods

Neem-based products: Spraying neem oil (Azadirachtin-based formulations) can reduce mealybug populations by acting as anti-feedant and repellent. (ICAR-CTCRI developed *Shreya* is a potential pesticide under this category effective in controlling mealy bug) (Jayaprakas & Harish, 2022; Krishnan *et al*., 2016b). *Datura metel* based botanicals are also found to be effective against mealy bug management (Krishnan *et al*., 2017a, b).

Soap solutions: Insecticidal soaps (Pottassium salts of fatty acids) can be effective against soft-bodied insects like mealybugs.

Horticultural oils: Spraying mineral oils or vegetable oils helps suffocate mealybugs and can suppress their population.

Table 1: List of reported and potential polyphagous bamboo mealybugs from India.

Scientific Name	Potential Host	Region / State	References
Antonina pretiosa Ferris	*Bambusa bambos*	Assam	Mehmud *et al.* (2024)
Brevennia bambusae Tang	*Bambusa* spp.	North-East India	Tang (1992)
Chaetococcus Maskell	*Bambusa* spp.	India-main land	Williams (2004)
Coccidohystrix insolita (Green)	*Bambusa* spp.	Kerala	Mohan *et al.* (2016)
Dysmicoccus brevipes (Cockerell)	*Bambusa balcooa*	Tripura	Ali (1970); Joshi *et al.* (2008)
Dysmicoccus cucurbitae Avasthi & Shafee	*Ochlandra* spp. and *Bambusa* spp.	Kerala	Krishnan *et al.* (2025)
Erium bambusae Lindinger	*Bambusa* spp.	North-East India	Lindinger (1935)
Ferrisia virgata (Cockerell)	*Bambusa bambos*	Kerala, Tamil Nadu	Sundararaj & Muralikrishna (1998)
Heterococcus bambusae Ali	*Bambusa* spp.	Central India	Ali (1970)
Kermicus wroughtoni Newstead	*Bambusa* spp.	India-main land	Williams (2004)
Nipaecoccus viridis (Newstead)	*Bambusa* spp.	Kerala	Krishnan *et al.* (2025)
Phenacoccus solenopsis Tinsley	*Bambusa nutans*	Punjab, Delhi, Goa	Nagrare *et al.* (2009); Jhala *et al.* (2010); Ramasamy & Singh (2015)
Planococcus citri (Risso)	*Bambusa* spp.	Kerala	Krishnan *et al.* (2025)
Planococcus indicus Avasthi & Shafee	*Bambusa* spp.	Kerala	Krishnan *et al.* (2025)
Planococcus lilacinus (Cockerell)	*Bambusa vulgaris*	Tamil Nadu	Ananthakrishnan (1973)
Pseudococcus detorquens Ramakrishna	*Ochlandra* and *Bambusa* spp.	South India	Ramakrishnan (1924)
Pseudococcus jackbeardsleyi Gimpel & Miller	*Bambusa* spp.	Assam, Kerala	Bindu & Varma (2006); Krishnan *et al.* (2025)
Pseudococcus pulverarius subsp. *bambusae* Green	*Bambusa* spp.	North-East India	Green (1922)
Rastrococcus iceryoides (Green)	*Bambusa* spp.	Karnataka, Andhra Pradesh	Halder *et al.* (2018)
Trionymus bambusae (Green)	*Bambusa* spp.	North-East India	Green (1937); Yang (1982)
Trionymus pulverarius Goux	*Bambusa* spp.	India-main land	Takahashi (1928)

Chemical control

Use of synthetic insecticides should be a last resort and integrated carefully to avoid resistance development and disruption of natural enemies. At the same time as part of the quarantine regulations use of botanical and chemical fumigants such as Cassava biofumigant, and phosphine could potentially avoid these insect invasions (George *et al*., 2018, 2024, 2025).

Contact insecticides: Acephate, chlorpyrifos, or malathion may be used for severe infestations, with attention to label instructions and environmental safety.
Systemic insecticides: Application of imidacloprid or thiamethoxam (*via* root drenching or foliar spray) can effectively control sap-sucking insects including mealybugs.

Conclusion

Mealybugs represent a growing threat to bamboo cultivation, particularly under intensive production, nursery conditions, and in the growing global trade and transportation scenarios. Sustainable management measures *via* early detection, integration of biological controls, and good cultural practices is warranted. As climate variability alters pest dynamics, continued research and monitoring are vital to protect this critical plant resource.

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Conflict of interest

The authors declare no conflict of interest.

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Bamboo plantation: Revised guidelines from National Bamboo Mission

➢Financial assistance for bamboo plantation **up to 10 hectare**s will be provided to individual farmers as well as to each member of Farmer Producer Organisations (FPOs), Farmer Producer Companies (FPCs), Cooperatives, Village Producers' Organizations (VPOs), and Self Help Groups (SHGs).

➢Certified planting material must be used, along with proper agronomic practices to ensure good yield.

➢Maintenance support in the following years will be provided only if at least 80% of the saplings survive, with deceased saplings replaced, to be eligible for full subsidy.

➢Assistance for micro-irrigation and fertigation in bamboo plantations under NBM can be availed through the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) – Per Drop More Crop scheme.

➢**Plantation (Using planting material from the accredited/approved nurseries):** Indicative cost/units: Rs.1.20 lakh per ha (min 400 plants/ha) or Rs. 300/- per plant (for boundary plantation with nominal spacing of 5m). 50% subsidy for private sector upto 10 ha over 2 years (60:40).

➢No subsidy will be provided for private plantations above 10 ha per individual. Maintanence fund will be linked to performance survival.
For more details visit www.bambooinfo.in/noticeboard/noticeboard.asp

Ochlandra setigera Gamble

" If it can't be done with bamboo, it probably shouldn't be done. "

Fred Hornaday

Bamboo salt: The future of mineral-rich natural remedies

In the human body, minerals are the most essential ones for maintaining metabolism and physiological activities. Mainly, the Minerals have two divisions i.e., major and trace minerals. Major minerals are those require large amounts in daily diet, which includes calcium, phosphorus, magnesium, sulphur, potassium, sodium, and chloride, whereas trace minerals are those require small quantities in the human body, which include iron, iodine, zinc, fluoride, copper, manganese, and molybdenum.

Salt is an integral part of our daily diet, which is very important for metabolic balance and physiological activities. The normal solar salt contains the essential major minerals like sodium, potassium, calcium, iodine, and magnesium (Dawa, 2020). Despite the importance of salt in human life, the quality of the commonly used salts is neglected in most cases. In this context, the importance of "Bamboo Salt" has become of greater attention in the world.

Bamboo salt is a traditionally used synthetic salt in Korea for over 1300 years. It is a combination of minerals from the bamboo culms and salt. Bamboo salt is highly valued for its medicinal importance and its high mineral value (Zhao *et al.*, 2018). There are numerous methods available for bamboo salt production. While, the nine-times baking method is the most commonly used method in Korean industries. In this method, three-year-old bamboo collected during late fall or winter is cut into appropriate lengths. Each bamboo culms are filled with sea salt and sealed using red clay. These sealed bamboo culms with sea salt are heated from 1000 - 1500°C in an iron kiln with pine tree wood fire. In the early times, this baking process was completed one to three times. According to Zhao *et al.* (2018), the nine times baking process significantly increases the mineral contents. After the first burning, the bamboo is completely burned into ashes, and a white salt pillar remains. These are ground into powder and again refilled into the new bamboo culms, then subjected to the baking process repeatedly 8 times, and in the ninth time baking the bamboo tubes are heated into liquid at 1300°C with resin as a fire source. When the liquid cools, the salt becomes harder like a rock. This bamboo can be used after being broken and ground into fine grains.

Besides the mineral values of bamboo salt there are several ongoing research is examining its anti-cancer, antiviral properties. In Korea, bamboo salt is a valuable source for several cosmetics, and is also used to improve skin health and manage skin conditions. Several analyses showed that the mineral contents, like potassium, phosphorus, and iron, are multiplied compared with the solar salt. In the context of rising lifestyle diseases like blood pressure, diabetes, etc., this mineral enriched salt is relevant in the daily diet and for the better health. Moreover, the bamboo

salt has other applications, like used in nasal rinsing, eye washing, mouth gargling and treating certain skin disorders.

Even though bamboo salts provide numerous health benefits, they also have certain limitations. One of the major drawbacks is the high production cost, which results in a high retail price it leading to a low level of public interest and demand. If the public demand grows, a mass production technique could be developed at a lower cost. Another limitation is that the baking procedure requires significant labour, time and resources. Additionally, there is limited scientific research on bamboo salt, especially outside Korea. However, these limitations can be overcome through raising more awareness about the health benefits and investment opportunities in the bamboo salt sector. In India, bamboo salt production presents a valuable opportunity.India can adopt and localise bamboo salt production and thereby contribute a positive impact to the overall national economic growth, as India has abundant bamboo resources. However, more scientific research on placebo-controlled human clinical trails, its mechanismof action, standardization of production methods and robust evidences on its dietary and therapeautic values needs to be addressed.

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Bamboo Beats

Collection of news and activies from the bamboo sector

Linking bamboo products with stakeholders - Odisha Bamboo Development Agency (OBDA)

The stakeholder workshop for bamboo stakeholders/entrepreneurs/beneficiaries was held at Aranya Bhawan, Odisha on 16.07.2025. Sri Suresh Pant, IFS, PCCF & HoFF, Odisha, inaugurated the workshop in the presence of Sri G. Rajesh, IFS, CEO, CAMPA, and Sri Swayam Mallik, IFS, State Silviculturist, Joint Project Director, Odisha Forestry Sector Development Project .

Sri Karthick V, IFS, State Mission Director, OBDA, welcomed the Chairperson, delegates, and all participants to the workshop and about the value of bamboo and how it can influence the livelihood of farmers. He also elaborately explained the expansion of the bamboo sector, market linkage, and its value addition. Commercially viable bamboo species cultivation is highly required to set up the bamboo industries by the entrepreneurs in this sector.

Fifteen participants made presentations on bamboo cultivation, marketing, bamboo bazaar, etc., related to bamboo. All concerned stakeholders expressed their views in their respective domains regarding Green Gold (Bamboo) and focused on the fact that it can also serve as a sustainable livelihood for the communities.

Sri Karthick V, IFS, highlighted on the forum about the steps taken by OBDA till date and he briefed for future planning and welfare of the bamboo stakeholders directly and indirectly to create an online platform for bamboo products advertisement to have an outlet in Bhubaneswar for sale, baseline survey of artisans, issuance of I-card to artisans, making of clusters, policy making with other departments, demonstration of certified bamboo nurseries.

Further discussions during the workshop brought together key organisations such as the Council on Energy, Environment and Water (CEEW), Cluster Development Initiative, Organization Sansthapan, Socio Cultural Development Centre, and others, who shared valuable insights into the bamboo value chain. They highlighted its potential in industrial applications, sustainable livelihoods, eco-friendly design, and product innovations such as bamboo bio-char, cosmetics, jewellery, and green boards. The forum emphasised the pressing need for a dedicated bamboo policy, data-driven planning, and enhanced skill development for artisans to unlock the full potential of the sector.

Among the major challenges highlighted were the absence of a state-level bamboo policy, lack of reliable data on bamboo resources, shortage of processing and storage units, and the need for standardised rates and stronger market linkages. Stakeholders urged the government to prioritise artisan mapping, species-specific research, capacity building, and the formation of bamboo-based industrial clusters. The workshop concluded with a vote of thanks from the State Mission Director, OBDA.

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Submit your articles to Bamboo info

We at Bamboo Info are excited to invite you to contribute full-length articles, news snippets, reports, and announcements of bamboo-related events for our upcoming issues. We welcome submissions on a wide range of topics, including but not limited to:

Spotlight: share your knowledge and expertise on any aspect of bamboo you're passionate about. You may introduce readers to a topical issue in the bamboo sector that deserves more attention.

Out of the Box: Have you stumbled upon a design concept, product novelty, or innovation that uses bamboo in a unique and creative way? We want to hear about it! Please submit an illustrated note describing the species used, dimensions, and other relevant details. The design should be original.

Species in Focus: Do you have a particular species of bamboo that you find fascinating? Share your insights on its distribution, ecology, salient features, specific uses, cultivation, and economic potential.

Roots: Bamboo has a rich cultural history and is still used in many traditional ways today. We would love to showcase time-tested bamboo products, cultural uses of bamboo, and traditional technologies from far and wide.

Chronicles: We are interested in hearing stories from the field about bamboo resource development, technology adoption, training, and other related topics.

Bamboo Quill: This section will highlight relevant books or publications about an emergent aspect of bamboo.

To submit your notes and articles, please send them to *btsg@kfri.res.in* or *btsgkfri@gmail.com.*

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Cover Image

Oodapoovu from Kottiyoor temple – Photograph by Vinayaraj V. R.

About Bamboo Info

Bamboo Info is a quarterly newsletter from the Bamboo Technical Support Group (BTSG)-KFRI. Contents do not necessarily reflect the views or policies of BTSG-KFRI. Articles may be reprinted without charge, provided BTSG-KFRI and the author are credited. All photos should be credited to BTSG-KFRI.

About BTSG-KFRI

The Bamboo Technical Support Group is hosted at KFRI and supported by the National Bamboo Mission of the Ministry of Agriculture and Farmers Welfare to serve as a unit providing support to the National Bamboo Cell in technical and research matters.

KFRI BTSG team has expertise in various areas relating to bamboo which includes taxonomy, propagation, germplasm conservation, plantation technology, preservative treatments, harvesting techniques, pest and disease management, Value addition and marketing of bamboo products, inventory of bamboo stocking using Remote Sensing and GIS, socio-economic and livelihood potential, training programmes, cluster development and livelihood improvement of artisans and farmers, etc.

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