

Tree Leaves: Religious and Culturally Valuable Commercial NTFPS

Hanumantha M.¹, Karthik H. N.¹, Girish B. Shahapurmath² and Roopa S. Patil³

¹Assistant Professor, Dept. of FPU, College of Forestry, Sirsi 581401 (Uttara Kannada)

²Assistant Professor, Dept. of FRM, College of Forestry, Sirsi 581401 (Uttara Kannada)

³Assistant Professor, Krishi Vigyan Kendra, Sirsi 581401 (Uttara Kannada)

Corresponding Author: hanumantha1975@gmail.com / hanumantham@uasd.in

Introduction

Leaves of various forest tree species have been employed for different purposes since ancient times. Several tree species leaves help to earn forest revenue apart from providing food, fodder, medicine, *etc.* Leaves of few trees and shrubs are put to a variety of uses such as beedi making, containers, ivory polishing, plate making, umbrella making, thatching, *etc.* The disposable plates made up of plastics such as polythene, polypropylene, polystyrene, polycarbonate, polyvinyl chloride, *etc.* pose health risks due to the release of toxic chemicals; bisphenol A, melamine, vinyl chloride, and phthalates. The usage of disposable plastic ware not only depletes fossil fuels but also causes micro-plastics pollution. Thus, thrust has been shifted to utilization of disposable plates made from plant leaves, which are renewable, biodegradable and enriched with antioxidants and medicinal values. Products made from leaves are cheap, disposable, bio-degradable, ecological substitute for thermocol and plastic plates. Use of plant leaves as dining plates and food wraps, a traditional practice in India. The plates and cups made out of leaves are known as *patravali*, *pattal*, *vistari*, *vistaraku*; and *done*, *dona*, respectively. They are widely used in local shops, petty hotels, temples, marriages and festivals (plates). Hence these products are increasingly used by eco-conscious people; hence there is a great domestic as well as global demand. Value addition through mechanized pressing will promote considerable employment and income opportunities. Confluence of traditional knowledge and modern technology will not only improve livelihoods, but also help in checking migration to urban areas and socio-economic development of the ethnic people.

In India, serving food on leaf dining plates is a long-standing tradition with its own cultural, religious, medicinal, and socioeconomic significance. The leaf plate stitching is a livelihood activity for tribal people in Odisha, Madhya Pradesh, Chhattisgarh, Andhra Pradesh, and Telangana states of India. The

leaves and leaf plates are used for offering *naivedyam* to god during worship and distribution of *prasadam* to devotees. They are extensively used for serving food during marriages, religious festivals, community feasts, *etc.* The leaves from a vast variety of plants are used as dining plates, food wraps during steam cooking, grilling and frying of various dishes, and food packing material in India. Hence, the biodegradable leaf plates have vast potential in international market, which should meet in terms of quality and design. To sustain the practice of using leaf plates and discourage plastic plates; necessary regulations should be imposed by the government and monitored through local governing bodies. In addition, school children and college students should be educated and motivated to realize the importance.



Fig. 1. Variety of plates and cups produced from tree leaves

Advantages of products made from tree leaves (mainly plates and cups)

- ❖ They are environment friendly and biodegradable
- ❖ They amenable for longer duration storage
- ❖ They can be easily disposed off
- ❖ They are economical

- ❖ They do not require cleaning with phosphate-rich soaps and detergents (which causes eutrophication – kills the aquatic organisms)
- ❖ Leaves of tree species exhibit significant antibacterial and antifungal properties against various bacteria and fungi, thus protect us from the environmental and food borne pathogens.
- ❖ The tree leaves have abundance of polyphenols, which could probably be leached into the food make them as ideal natural antioxidants

Cultural and religious significance of leaf products

- Naivedyam is offered to the god either on a single broad leaf or plate made up of leaves
- In many temples prasadam is offered in leaf bowls
- The custom of serving meal on leaves and leaf plates is considered as pure and good practice during various occasions such as marriages and birth day; and free food offered during community feasts and religious festivals
- The Dham is a popular, traditional feast prepared during marriages and local festivals in Himachal Pradesh – food is served in leaf plates
- In the month of Karthika and during Ayyappa deeksha, it is customary to use leaves and leaf plates for serving food.
- During deeksha period, the devotees offer naivedyam to god Ayyappa in leaf plates, take satvika (non-stimulating, energy providing) food served on leaf platters and distribute prasadam in leaf plates and cups.

1. *Butea monosperma*: Fabaceae

Commonly known as Flame of the forest/Moduga/Palasa/Palash/Muttuga; leaves are used for making plates and cups. In Odisha, Maharashtra, Andhra Pradesh, and Telangana, the plates (vistari) and cups (dona) made of dried leaves are widely used for serving food and meals for people during rural feasts and also offering naivedyam to various gods and distribution of prasadam to deities during festival and religious ceremonies. Eating the food served on moduga leaves keeps the person away from liver disorders, skin diseases and cancer. In Adilabad district of Telangana, they prepare the

handmade, wheat dough rotis on these leaf surfaces and offer in as naivedyam in moduga leaves to the worshipping god Bheemanna, a principal deity of the tribe. The leaves also serve as a packing material for closing the side of bamboo stick during the grilling of bongu chicken, a cholesterol-free chicken dish prepared by the tribes of Visakhapatnam district of Andhra Pradesh state.



Fig. 2. *Butea monosperma* tree and its leaves



Fig. 3. *Shorea robusta* tree and its leaves



Fig. 4. *Bauhinia vahlii* climber and its leaves

2. *Shorea robusta*: Dipterocarpaceae

Sal leaves are widely used for making plates, cups and variety of other gift items. Most important Sal plates are cheap, disposable, biodegradable ecological substitute for thermocol and plastic plates. They widely used locally in shops, petty hotels, temples, marriages and festivals. Now a day the products made from sal leaves are increasingly used by eco-conscious people; hence there is a great domestic as well as global demand. In Jharkhand, these products are prepared by ethnic communities Munda, Oraon and Lohara. Value addition through mechanized pressing will promote considerable employment and income opportunities. Confluence of

traditional knowledge and modern technology will not only improve livelihoods, but also help in checking migration to urban areas and socio-economic development of the ethnic people.

**3. *Bauhinia vahlii* (Syn: *Phanera vahlii*):
Caesalpinaceae**

It is commonly known as Chambolli (K), Mahul (H), Siali, Camel's Foot Climber; it is a Giant climber/largest creeper in India. Distributed in Sub-Himalayan region up to 3000 m above sea level; it is also found in Assam, Central India, Bihar, Eastern and Western Ghats; also found in the forests of Odisha, and parts of Andhra Pradesh, Chattisgarh and Jharkhand. Siali is a creeper with large leaves that typically grows around sal trees. On account of its size, texture and durability, siali leaves make for a very good source of raw material for the production of disposable plates and bowls. Tribal women travel deep into the forests to collect these leaves, which are then stitched together with bamboo splits to make disposable plates. These products are a familiar sight as the bowls on which temple *prasad* or *pani puri* is served. While they are typically used to serve food at community gatherings such as temple festivals, marriages, and in snack shops, there is immense scope to propagate its usage in higher value markets and bulk users like multiplex concessions and airlines as well, which typically using disposable plastic ware.

Conclusion

Leaves of various forest tree species have been employed for different purposes since ancient times. Several tree species leaves help to earn forest revenue apart from providing food, fodder, medicine, etc. Leaf plates and cups offer many advantages such as

renewability, biodegradability, non-toxicity and antioxidant abundance; in addition to their religious, medicinal, socio-economic importance in Indian culture. Presently huge demand exists at national and international market for disposable, biodegradable leaf plates. To sustain the practice of using leaf plates in our daily routine and discourage plastic plate usage; necessary regulations should be imposed by the government bodies including the state pollution control boards, local municipal corporations and gram panchayats. It should be made obligatory to use disposable leaf plates at restaurants, hotels, roadside eateries, canteens, street food stalls, temples, traditional feasts, religious feasts, wedding ceremonies, official meetings, gatherings, parties and railway catering for popularizing these biodegradable products and also for enhancement of livelihood of local/tribal people.

References

Islam M A, Quli S M S, Rai R and Singh P K, 2015, Livelihood promotion through value addition to traditional Sal (*Shorea robusta* Gaertn) leaf plate making in Jharkhand, India. *Indian Journal of Natural Products and Resources*, 6(4): 320-325.

Neelu Singh, Rajesh Kumar Mishra and Roychoudhury N, 2017, Mahul leaves collection as livelihood option of tribal people in Achanakmar-Amarkantak biosphere reserve. *Van Sangyan*, 4(5): 51-52.

Kora A J, 2019, Leaves as dining plates, food wraps and food packing material: Importance of renewable resources in Indian culture. *Bulletin of the National Research Centre*, 43: 205.
