

LEGACY OF TRADITIONAL BEVERAGES WITH THE CHAKPA COMMUNITY OF MANIPUR, NORTHEAST INDIA

Botany

**Somananda
Thokchom**

CSIR- Northeast Institute Of Science & Technology, Branch Laboratory, Lamphelpat, Imphal-795004, Manipur, India.

**Dr. Deshworjit
Singh
Ningombam***

Department Of Botany, Jadonang Memorial College, Noney, Manipur, India.
* Corresponding Author

**Dr. Huidrom
Birkumar Singh**

CSIR-Northeast Institute Of Science & Technology, Branch Laboratory. Lamphelpat, Imphal- 795004, Manipur, India.

ABSTRACT

The Chakpa community of Manipur used traditional beverages as an integral part of life from birth to death in cultural rites & rituals of the community. *Albizia myriophylla* Benth bark is used in making of *Hamei*, a starrer which is added to produce better quality alcohol. The plant is continuously declining due overexploitation, forest fires and loss of habitat. It is also assessed that on account of the population reduction the species can be assigned as vulnerable. Information presented in this paper was gathered from informants using semi structure questionnaires on utilization, cultural importance, medicinal uses and economical aspects of the traditional beverages. More than 50 % of the total households practiced making traditional beverages in their homes particularly by the women folks. There are five types of traditional beverages prepared by the community namely *Atingba*, *Waiyu*, *Pukyu*, *Kallei* and *Khachi*. They were used in several sociocultural activities and rituals. Moreover, it is also used in treatment of arthritis, urinary troubles, gynecological and dermatological problems.

KEYWORDS

Atingba, Chakpa, Hamei, Pukyu, Kallei, Waiyu.

INTRODUCTION

The Loi villages of Manipur namely Andro, Sekmai, Phayeng, Leimaram, Thangjao and Koutruk belong to the Sak ethnic group which belongs to the scheduled caste community. These villages' community peoples constitute a group called Chakpa which means Chak or Sak people. Since time immemorial the Chakpa community's main source of economic resource is brewing traditional alcohol and fermented beverages. Though Manipur is a dry state the government prohibition is exempted in scheduled castes and tribal populated areas in Manipur as it is traditional and cultural accepted by the community. The traditional beverages are not only used as for pleasure but also as cultural, religious rituals and medicine purposes. Earlier works of "Yu" or "Kallei" traditional beverages of Manipur was done by [1, 2, 3 & 4].

The Chakpa community people with their indigenous knowledge prepared traditional alcoholic beverages by using rice and seasonal fruits as an integral part of life. Traditional beverages are not only popular drink of Chakpa caste but also for the majority Meitei community residing in the valley. Moreover, these beverages are used for offering to god, cultural, religious, social gathering from birth to death of the Chakpa community. As respect to a visiting guest or relatives, a glass of *Kallei* is generally offered as a customary practice [5]. Some beverages are primarily in high demand and are also used by different communities all over the state.

Albizia myriophylla Benth bark is used as fermenting starter locally known as *Hamei* for making traditionally fermented and distilled alcoholic beverages. It is the only plant species used as fermenting starter, which is added to produce better quality alcohol and beverages in Manipur. Several works on *A. myriophylla* using biotechnological and chemical works were done by [6, 7, 8 & 9]. The plant species is locally known as *yanglee* whereas the Myanmar is known as *New-cho*. Interestingly, the plant material is overexploited from wild and it is imported from Myanmar especially for the preparation of local traditional beverages. The species has not yet been assessed for the IUCN Red list and the latest taxonomic revision was done by Govaerts 2014 [10].

Considering the above aspects, the present study aims at survey and assessment of the plant distribution, threats, present status and conservation steps. Secondly, to explore the traditional fermentation methods, types of beverages, alcoholic percentage and its association with socio-cultural, rituals, religious and medicinal importance with the Chakpa community.

MATERIALS AND METHODS

The study was conducted in Chakpa residing in Andro, Sekmai, Phayeng, Leimaram, Thangjao and Koutruk villages situated in Manipur. Ethno-botanical survey was conducted during 2015-2018 of the Chakpa caste for better understanding of traditional knowledge on various aspect of topic such a preparation of starter culture, fermentation process, local beliefs, cultural importance and economic aspects uses of the traditional beverages. Different age categories of informants like womenfolk, village headman, healers and knowledgeable informants were repeatedly interviewed to share information regarding the traditional beverages (Taste, Shelf life, Storage, Grade) and ethnobotanical aspects (utilization, medicinal, cultural importance) and implications on the socio-economic culture of Chakpa caste. Moreover personal observation enquires and participation in ceremonies was also done. Interviews were conducted in the local language manipuri which is the dialect of community. Survey and documentation of *Albizia myriophylla* Benth, regarding its occurrence, distribution and source were also analyzed. The present status was assessed using IUCN Red List Categories and Criteria: Version 3.1 [11]. The specimen collected will be deposited in the herbarium of NEIST, Branch laboratory, Lamphelpat, Imphal.

RESULTS & DISCUSSIONS PLANT SOURCE & STATUS

Albizia myriophylla Benth, is a liana or strangling shrub with stem armed, by a single recurved prickles from the base of the leaf scar on branches. Leaves arranged spirally, stipulate, bi-pinnate. Leaflets small, opposite, 30-55 pairs per pinna, margin entire. Inflorescence consisting of pedunculate glomerules arranged into a terminal panicle. Flowers sessile, bisexual but the central flower in a glomerule male and enlarged, 5-merous. Calyx funnel-shaped to campanulate; corolla funnel-shaped, 3.5-5.5 mm long. Stamens numerous, united into a tube, white; ovary superior, stipitate. Fruit an oblong, flat pod, c. 12 cm × 2.3 cm. Seeds orbicular to obovoid.

Habitat: Found growing in forest margin at an elevation between 500 - 980 m above sea level.

DISTRIBUTION:

Found distributed in very few pockets of Phayeng, Senapati, Kamjong, Churchandpur, Chandel and Tengnoupal areas in Manipur. Globally, it occurs from the Northeast India, Myanmar, Cambodia, Laos, Vietnam, Malaysia and Thailand.

MEDICINAL USES:

Bark is used for treatment of muscular pains, cough & cold and stomach complaints.

THREATS & STATUS:

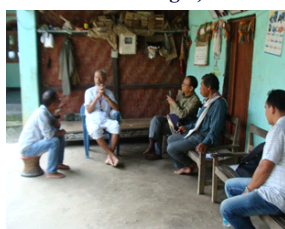
The population of this species is continuously declining in its natural habitat due to various factors such as overexploitation, improper collection methods for local trade, forest fires and loss of habitat. On account of the population reduction estimated at 30% - < 50 % over the 10 years, this species has been assigned as vulnerable for Manipur state.

Conservation aspects. Habitat management actions primarily intended to enhance the species habitat at specific sites for in-situ conservation where there is high presence of habitat and low human pressure. Since, the species is traded locally, regionally and nationally its mass cultivation on commercial basis is encouraged.

Figure 1: Photo plate showing the plant habit, documentation works and Hamei (traditional starter for local beverages)



Albizia myriophylla Benth, in wild



Interaction with village head man of Phayeng



Documentation of elderly informants



Hamei (a starter) for Traditional beverages

CHAKPA AND TRADITIONAL BEVERAGES

About 50% households of the Chakpa communities which are residing in various parts of Manipur practiced preparation of traditional beverages which are non-commercial and commercial for consumption and other socio-cultural uses. It was observed that womenfolk's practised the preparation of traditional beverages but during menstruation period they avoid as there is a strong belief that it spoils the fermentation process.

PREPARATION OF HAMEI (STARTER CULTURE)

Allbizia myriophylla is a natural starter where the bark powder is used in the preparation of *Hamei*, a starter for the fermentation of rice slurry generally added in order to get good quality alcohol of traditional beverages. Finely chopped or powdered dried barks are mixed with water and the filtrate is used is added to rice flour and is made into plates known as *Hamei*. The quality of alcohol directly depends on quality of *Hamei* upto a certain limit.

TYPES OF TRADITIONAL BEVERAGES:

The Chakpa women folks had the wealth of traditional skills in the production of a range of different types of traditional beverages and liquor. There are five (5) types of traditional beverages commonly used by the Chakpa caste for their commercial, cultural and sociological importance namely *Kallei*, *Atingba*, *Waiyu*, *Pukyu* and *Khachi*. The two major types *Kallei* and *Atingba* forms commercial alcoholic beverages as well as an integral part of socio-economic life of Chakpa caste. The concentrate form of *Kallei* which is mostly used for medicinal value and religious value is known as *Machin* which is distilled liquor that contains highest concentration of alcohol.

Waiyu and *Pukyu* prepared from rice contain low concentration of alcohol is used for cultural and rituals of the community. The last type *Khachi* is traditional alcoholic cake prepared using rice or black rice is

used as energy booster. The five traditional beverages with their preparation and ethno-botanical uses are discussed in details below.

PREPARATION OF WAI-YU

Finely clean rice grains with Paddy grain husk (*Wai*) in equal proportion and kept overnight in water in an earthen pot. Then it is boiled and later spread out to cool. The starter material *Hamei* powdered is applied thoroughly and the whole thing is put into a clay pot and covered tightly. The anaerobic condition is kept for 5-6 days and the end product is known as *Waiyu*.

Waiyu is a very special beer prepared for special rituals of the community on a special auspicious day. It is a collective work of the whole community where every hold contributes their part of material required for the preparation of *Waiyu*. The ritual is performed on the first Sunday of the first week of *Langban tha* (during september-october). It is traditional known as *Langban lam haiba*. It is normally performed to expel away evil spirits and bad omens of the coming year to the community by offering the *Waiyu* and Bamboo shoot *Ushoi kansu* to god. *Waiyu* also taste best within 1-2 days and shelf life is 4-5 days and is use only for cultural.

Interestingly, if it is kept in earthen pot airtight it can be stores for upto three years where its coloration will change into reddish. It is also used in rituals and ceremonies of birth and deaths.

PREPARATION OF ATINGBA

Atingba is a local beverage prepared by fermentation of rice or any available seasonal fruits which is mixed with traditionally prepared starter culture called *Hamei*. *Atingba* is prepared by fermentation of boiled rice, seasonal fruits like Banana, pineapple, passion fruit, etc which is mixed thoroughly with starter culture (*Hamei*) with it and this mixture was transferred to an earthen pot are left for 2 to 3 days accordingly to the season. The ferment is filtered is called *Atingba*.

Atingba is found in different flavour accordingly to the base compound used such as rice, seasonal fruits etc. It was assessed that *Atingba* taste best within 12 hrs and shelf life is 4-5 days. Interestingly *Atingba* prepared from fruits have longer shelf life and better taste for 2- 3 days. It is also a popular drinks but because of its short shelf life *Atingba* has less commercial value as most of the customer are from urban area.

Medicinal uses: It is also recorded that it is used treatment of urinary bladder problems. It is also used for irregular menstrual flow of women.

PREPARATION OF KALLEI (DISTILLED LIQUOR)

Kallei is distilled beverage prepared by fermentation of boiled rice grains and later distillation of the ferment product. The rice seeds are soaked in water or boiled and allow to settle at moderate cool. Later, the cooled seeds are mixed thoroughly with starter culture (*Hamei*) mixed with starter in appropriate proportion and transferred pot or container and made air tight and left in dark for 5 to 7 days according to season for fermentation. The ferment is then transferred to a distillation earthen pot for distillation. Then the pot is kept in fire for distillation. Through a pipe the vapour is allowed to pass through cold water where it is collected in a bottle. The strength of *Kallei* depends on the quantity of the vapour collected and vice versa.

Kallei is a good economical resource for the Chakpa caste as there is high demand by the people of the state because of its significant quality and cheap price. It is cheaper because such beverages avoid taxation and are normally manufactured with low-cost ingredients, unchecked by official quality controls

MEDICINAL USES:

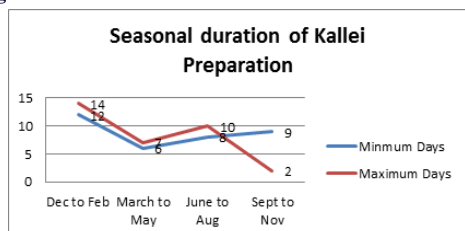
Kallei is use traditional for the treatment of arthritis, joints pains, muscle cramps, urinary troubles and dermatological problems. *Machin Kallei* is the concentrated first grade alcohol collected from the process. It is used for treatment of used for arthritis along with garlic by massaging the affected area. It is also used for dermatological problems.

A good quality alcohol is used as to cure poor women health due to irregular menstrual flow and infertility factors. The local traditional healer and village head prescribes these *Kallei (Yu)* to treatment of obesity, loss of appetite and low nourishment of food which is similar with the report by Singh & Singh [1].

Table 1: *Kallei* can be divided into 3 grades based on commercial view

Grade	Alcohol content	Shelf life	Amount collected in process	Total expenses (readymade hamei/ prepared hamei)	Rate	Total profit (if readymade hamei)	Total profit (if prepared hamei)
1st Machin	70-80	Unlimited	2 litres from 8 kg of rice and 1 cake of hamei	Rs 290/ Rs 260	Rs 325	650-290 = 360	650- 260 = 390
2nd	40-45	Unlimited	8 litres from 8 kg of rice and 1 cake of hamei	Rs 290/ Rs 260	Rs 80	640-290 = 350	640-260 = 380
3rd	25-30	6 month	16 litres from 8 kg of rice and 1 cake of hamei	Rs 290/ Rs 260	Rs 40	600-290 = 310	600-260 = 340

1kg rice = Rs 30, 1 Hamei = Rs 20 (if prepared & take 6-8days)
= Rs 50 (purchase readymade)

Table 2: Table showing the time taken for *Kallei* preparation during the seasons.

The above table shows the seasonal variability of the *Kallei* preparation throughout the year. It was found that March to May is most favourable time for preparation of *Kallei*.

PREPARATION OF PUKYU

Properly dry and clean rice grains are deep in water for three (3) days and after removing the water it is let dried and warmed for 2 to 3 days. The dried rice grains are pounded and put into warm water to ferment. The decant liquid is locally known as called *Pukyu*. It is specially made during *Lai haraoba* a rituals of local deity or forest god of the community. It has no commercial value and had very less alcohol percentage.

PREPARATION OF KHACHI

Interestingly, another type of traditional alcoholic cake namely *Khachi* was also prepared by using rice or black rice. Here, rice or black rice is put into a new earthen pot where the *Hamei* was added and kept for 2-3 years. The fermented cake is eaten by the menfolk's after heavy laborious work at paddy fields. The cake is just deep in water and consumed. It also contains alcoholic some percentage in it. Since, it is non-commercial and took very long time people hardly used this alcoholic cake.

CONCLUSION

The traditional system of local beverages preparation was generally practiced women folks of Chakpa community family. The traditional beverages forms an integral part from birth to death of cultural, rites and rituals this community. Moreover, it is also used for treatment of muscular pains, cough and cold and stomach ailments. The, economical and commercial aspects give support to significant number of families depending on it. *Albizia myriophylla* Benth. is assigned in a vulnerable state due to the several threats cause by overexploited, habitat destruction, forest fires and it need immediate conservation measures.

ACKNOWLEDGEMENTS

Authors thank Director, CSIR – North East Institute of Science & Technology, Jorhat for providing facilities and permission to publish this work. The Healers, women folks and knowledgeable person of Chakpa communities who have provided the vital information are duly acknowledged.

REFERENCES

1. P K Singh & K I Singh "Traditional alcoholic beverage, Yu of Meitei communities of Manipur". Indian Journal of Traditional Knowledge, 2006, 5(2) pp. 184-190
2. Chamgongliu Panmei , P. K. Singh , Satyendra Gautam , Prasad S. Variyar , G. A. Shantibala Devi & Arun Sharma. "Phenolic acids in ALBIZIA bark used as a starter for rice fermentation in Zou preparation" Food, Agriculture and Environment (JFAE), 2007, 3(4): pp. 147-150.
3. Helen Soibam & Victor Singh Ayam. The traditional fermented foods of Meities of Manipur, India: A case study. Journal of Pharmacognosy and Phytochemistry, 2018; 7 (4): 535-539
4. Thangjam Anand Singh, Prakash K. Sarangi and Ng. Joykumar Singh "Traditional Process Foods of the Ethnic Tribes of Western Hills of Manipur", India, Int.J.Curr.Microbiol.App.Sci, 2018, 7(10), pp: 1100-1110
5. S. Thokchom , D.S. Ningombam, Ch. Chanchal and H. Birkumar Singh, "Folk-

Medicare system of Chakpa Community of Andro Village of Manipur in Northeast India". American Journal of Ethnomedicine, 2015, 2(4) pp. 239-263

6. Shrivastava Karuna, Greeshma AG & Srivastava B. "Biotechnoly in Tradition- methods of starter preparation for alcoholic beverages employed by different tribal communities of Arunachal Pradesh". Indian Journal of Traditional Knowledge .2012, 11(1) pp. 194-201.
7. Butkhup L & Samappito S. "In vitro free Radicals scavenging and antimicrobial activity of selected Thai Medicinal plants" Research Journal of Medicinal Plant .2011, 5 (3), pp. 254-265
8. Azmah Saat, Nurmawati Syakronib, Rozita Roslib, C "Potential hypoglycemic property of Albizia myriophylla in treptozotocinnicotinamide induced diabetic rats". International Journal of Pharmacy and Pharmaceutical Sciences, 2012, 5(4) pp. 199-202
9. Ayam VS, Ayam S Ch, Soibam H. "Ancient art of alcoholic fermentation, its importance at present and future prospects – a review". JPhytol. Res. 2012; 25(1) pp.15-22
10. Govaerts R: WCSP: World Checklist of selected Plant Families (evrsion Sep 2014). In: Species 2000 & ITIS Catalogue of Life, 26th August 2016. Edited by Roskov Y, Abucay L, Orrell T, Nicolson D, Kunze T, Flann C, Bailly N, Kirk P, Bourgoin T, Dewalt RE etal. Leiden, the Netherlands: Naturalist; 2016.
11. IUCN Red List Categories and Criteria: Version 3.1. IUCN Species Survival Commission. IUCN, Gland, Switzerland and Cambridge, UK. (2001) ii + 30 pp. ISBN: 2-8317-0633-5