



Ethnobotanical importance of some plants for a special herbal dish in Kerala: "Karkida Kanji"

¹Pramod Kumar, N.*,²Niya, ¹Ranjusha, A.P. &²Aishwarya, K.

¹Department of Botany, N.S.S., College, Ottapalam- 679 103, Kerala, India.

¹DAkay Natural Ingredients Pvt. Ltd., Malaiyidamthuruth, Aluva- 683 561, Kerala, India.

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Abstract

The climate of Kerala is monsoon fed, receives two monsoons in a year. The south-west monsoon during the month of June-August called as "Kalavarsham" and north-east monsoon during the month of September-october called as "Thulavarsham". Kerala is bounded by Western Ghats in the eastern side together with the monsoon makes the month of July and August, very difficult for daily labours to get their bread and also is the time of several body ailments like indigestion, Constipation, rheumatic problems. This season is during the month of Karkidakam in "Kollavarsham". Associated with this here there are certain special ethnobotanical practices are practiced by the people and is time-tested. These practices are deeprooted in the biodiversity also. Here we are trying to highlight the Taxonomical and ethnobotanical importance of these healing practices.

1. Introduction

Kerala is blessed with biodiversity and associated traditional knowledge. The culture of an area has deep roots on the plant wealth and climate. Kerala has a long stretch of mountains, the Western Ghats in the eastern side and receives two monsoons in a year (Jain, 1994). So the climate is moderate and rainfed, especially during the month of July-August experiences severe rainfall and in earlier days the sunny days in these months are also very rare. Another highlight of the season is that during this time the sun changes from summer solstice to winter solstice, i.e., from utharayanam to dakshinayanam (Martin, 1995). This will cause several ailments like indigestion, constipation, rheumatic problems, joint pain, cold etc. (Velappan, 1994). This may be the reason for practicing medicated rice

soup, medicated bath, use of locally available leafy vegetables for preparing dishes etc. which is needed to overcome the health problems (Nayar, 2006). This knowledge is associated with the elder generation. They were familiar with the medicinal plants and their uses, the young generation is not aware of these practices, which are associated with our rich biodiversity (Pushpangadan, 1994). These practices are ecofriendly and has less side effects compare to modern medicine. In modern times we are consuming junk foods and unhealthy food habits leading to several lifestyle diseases. The present study is an attempt to document such practices associated with the traditional people in Kerala with their correct botanical identity, useful part, the mode of use and preparation

(Sivarajan & Indira Balachandran, 2002),

2. Methodology

Ethnobotanical data is collected by direct interview with traditional physicians called *vaidyans* and common people who are practicing the tradition. The authenticity of the data is verified with other related references and experience of the authors (Sasidharan, 2004; Mohanan & Daniel, 2005).

Karkidakam is a month in the Indian solar calendar which corresponds to the zodiacal sign of cancer, and overlaps approximately with half of July and early half of August in the Gregorian calendar. The wisdom of '*Karkidaka kanji*' tradition is strictly bound with the traditional system of herbal medicine in Kerala. The exact reference of '*Karkidaka kanji*' is not recorded in any of the Ayurvedic classics. However, it can be co-related with the *pravrttrthucharya* (Regimens should be observed before monsoon) mentioned in *Susruthasamhitha*. There are 6 rthus explained *Susruthasamhitha*. They are *Vasantha* (spring), *Greeshma* (summer), *Pravrt* (Pre-rainy), *Varsha* (rainy), *Sarath* (autumn) and *Hemantha* (winter). *Varsha* and *Pravrt* explain different ranges of rainfall. *Pravrt* is the beginning of *Dakshinayana* in which the sun will be moving towards the southern direction. According to Ayurveda, during rainy season, the climate is too cold compared to summer season. Along with this, the sky will be covered with clouds and continuous rainfall will increase the watery ingredients, moistness, fluidity and strength in plants and human beings. The strongwinds in the

atmosphere will cause a dryness also. So, in monsoon season, the dryness along with the predominant coldness in the atmosphere will become the strong aggravating factor for *vata* (One among the tridosha in Ayurveda). If it is not controlled with proper food regimens and activities, it may cause *vata* disorders. During this season, sour (Amla), salt (Lavana) and sweet (Madhura) tastes are predominant in water, plant, food and medicine. These three tastes are antagonistic to *vata*. So, these tastes will be helpful to pacify the aggravated *vata* and it will keep the body hydrated.

3. Results & Discussion

In Kerala, Karkidakam is considered as the month of rains and poverty. People faced difficulties to go to their work due to heavy rains which in turn lead to famine and diseases. During this hard time, they mostly depended on the local flora to pacify their hunger. They collected the green leaves that has grown gregariously due to the adequate rain and made different nutritional preparations like '*Karkidaka kanji*' which gives the benefits of the food and medicine. It can be considered as the primitive idea of nutraceuticals.

'*Karkidaka kanji*' is a medicated gruel preparation in which rice is cooked in various herbal decoctions. Even though the medicated rice gruel has a general formula, the combinations can be changed according to the person's body conditions. The commonly used herbal rice gruel can be prepared by taking fresh extracts of *Dasapushpas* (A group of 10 medicinal herbs including *Cynodon dactylon*, *Aerolana*, *Ipomoea obscura*, *Emileasonchifolia*,

Curciligoorchiodes, *Evolvulusalsinoides*, *Eclipta alba*, *Biophytumsensitivum*, *Vernonia cinera* and *Cardiospermumhelicacabum*).

Njavara rice and fenugreek seeds (*Trigonellafoenum-graceum*) are boiled in a mixture of water and fresh juices of the above-mentioned plants along with cumin seeds and green gram. It should be consumed by adding required salt. Some people are adding grinded coconut after boiling the rice.

'Dasapushpa' is a group of ten medicinal herbs which has reference in various traditional treatises of Kerala like 'Arogyakalpadruma'. It is considered as a vishahara (anti-poisonous) combination. The concept of Visha is broad in Ayurveda which includes any harmful foreign materials that enters into the body. Hence vishahara is literally parlance with improving the natural host defense mechanism of a human body.

The botanical name and family of the plants or plant parts used are:

1. *Cynodon dactylon* (Poaceae)

Sanskrit name : Durva

Malayalam name : Karukapullu

English name : Bermuda Grass

Durva is having synonym like *satavirya* which implies that the plant is useful is a number of ailments. It is having Kashaya (astringent) and Madhura (sweet) rasa, light (laghu) in nature, cold in potency. It pacifies kapha, pitta and useful in haemorrhagic diseases. It is also indicated in various skin diseases, central nervous system disorders etc.

2. *Aerva lanata* (Amaranthaceae)

Sanskrit name : Bhadra

Malayalam name: Cherula

English name: Mountain knotgrass

Bhadra is common herb which is using as a diuretic agent. The whole plant is considered as the useful part. The plant is astringent, bitter and cooling in nature. It is useful as emollient, vermifuge and lithotriptic.

3. *Ipomoea obscura* (Convolvulaceae)

Sanskrit name: Lakshamana

Malayalam name: Thiruthaali

English name: Obscure morning glory

Lakshamana is considered as a rasayana herb. Whole plant is considered as medicinal. Most common indication is in infertility. In the classical treatises it is recorded that the juice of the herb is used as a nasal instillation for having desired progeny.

4. *Emilia sonchifolia* (Asteraceae)

Sanskrit name : Shashasruthi

Malayalam name: Mualcheviyan

English name: Liliactassel flower

The plant is astringent and sweet in nature. It is thermogenic in potency and good for healing ulcers. Due to Madhura rasa and ushnaveerya (hot potency), it is widely used for vataja disorders. The juice applied externally over the throat and taken internally to pacify pain and inflammation in tonsillitis.

**5. *Curcilio orchiodes*
(Amaryllidaceae)**

Sanskrit name : Taalamooli

Malayalam name : Nilapana

English name : Black musli

The root stocks are sweet in nature with slight bitter taste and cold in potency. Most common use is as an aphrodisiac and rejuvenating herb. It is also helpful in mitigating leucorrhoea in females.

**6. *Evolvulus alsinoides*
(Convolvulaceae)**

Sanskrit name : Vishnukraanthi

Malayalam name : Vishnukraanthi

English name: Dwarf morning glory

The plant is bitter (Thiktha) and acrid (Katu) in taste. It is useful in bronchitis, asthma and vitiated conditions of pitta. It is considered as a good hair tonic and beneficial in preventing hair fall and greying of hairs.

7. *Eclipta alba* (Asteraceae)

Sanskrit name : Bhrngaraja

Malayalam name : Kaiyyunyam

English name : False daisy

The plant is bitter (Tiktha) and acrid (Katu) in taste. It is thermogenic in nature and useful in the vitiated condition of Vata. Being a famous hair tonic, it is a major ingredient in traditional hair oil formulations. It is also considered as a hepatoprotective agent.

**8. *Biophytum sensitivum*
(Oxalidaceae)**

Sanskrit name : Alambusha

Malayalam name : Mukkootti

English name : Little tree plant

The plant is bitter and thermogenic in nature. It is having diuretic property and considered as a lithotriptic agent. It is a very good remedy for wound healing and hemorrhoids.

**9. *Cardiospermum helicacabum*
(Sapindaceae)**

Sanskrit name : Indra basthi

Malayalam name : Vaaliuzhinja

English name : Balloon vine

The roots are diuretic in nature. It is also a good hair tonic and useful in making hair oils. The leaves are rubefacient and good for pacifying the pain and inflammation in arthritis. It is reported that the plant has a sedative action on central nervous system.

10. *Vernonia cinera* (Asteraceae)

Sanskrit name: Sahadevi

Malayalam name: Poovamkurunthal

English name: Little ironweed.

The plant is mentioned as a single drug remedy for intermittent fever. Tying it in the hair itself relieves the fever, reported in Ashtanga hrdaya. In certain countries, the plant is used for de-addiction from smoking and common cold.



**10. *Oryza sativa* var. *navara*
(Poaceae)**

Sanskrit name : Shashtika

Malayalam name : Njavaraari

English name : Red rice

It is sweet in nature and easy to digest in gruel form. It will increase the appetite and soothes the metabolism. It is very much nourishing and mitigate the *vata* (disorders of Vata)

**11. *Trigonella foenum-graceum*
(Fabaceae)**

Sanskrit name : Methika

Malayalam name : Uluva

English name : Fenugreek

The seeds are good for mitigating diseases arises from Kapha and medas. It is also a hair tonic and useful in diabetes. Commonly people are using it as a single drug remedy for controlling high blood sugar. The seeds are fried and boiled in water is used to mitigate the menstrual pain. It is a galactagogue and helpful in the hormonal imbalance in females.

12. *Cuminum cyminum* (Apiaceae)

Sanskrit name : Jeeraka

Malayalam name : Jeerakam

English name : Cumin seeds

Cumin seeds are inevitable part of Indian cuisine from ages. It is a good appetizer and digestant. It relieves the vitiated vata and bring ease to the digestive system. It is also helpful in

correcting the hormonal imbalance in the females.

14. *Vigna radiata* (Fabaceae)

Sanskrit name : Mudga

Malayalam name : Cherupayar

English name : Green gram

Green gram is light to digest and it is very much nourishing in nature. It acts as a tissue growth enhancer and a *pathya* (compatible) food according to Ayurveda.

There is another mode of herbal rice soup preparation in Kerala called 'Jeeraka kanji' means Rice soup with cumin seeds. The ingredients are 1. Cumin seeds (Jeeraka), 2. Fenugreek-*Trigonella foenum-graceum* (Uluva), 3. *Lepidium sativum* (Asali), *Oryza sativa* (Plain Rice), *Cocos nucifera* (Nalikeram), *Turmeric-Curcuma longa* (Manjal), common salt.

Mode of Preparation

Rice is boiled with the first three ingredients and add Paste of Coconut, a pinch of Turmeric Powder and salt.

Ten herbal Leaves

The leaves of ten plants which are commonly seen growing in homesteads are used for making dishes in the month of Karkidaka.

**1. *Cucurbita maxima* (Mathan):
Cucurbitaceae**

It is a Cucurbitaceous vegetable, commonly seen growing along open places and also cultivated. The leaves

are rich source of vitamin-A and C. It has health benefits like improving vision, good for skin problems. It is rich source of calcium, so improves health of bones and teeth

2. *Colocasia esculenta* (Thalu): Araceae

The common name is Taro, belongs to the family Araceae, commonly seen growing in homesteads as cultivated and escape. The leaves are rich source of Vitamin-A, C, D and thiamin, riboflavin, manganese, copper, potassium and iron. It is also rich in dietary fiber and low calorie and low-fat content

3. *Benincasahispida* (Kumkalam): Cucurbitaceae

It is also a Cucurbitaceous vegetable seen growing in open places and also cultivated. The leaves are rich in calcium, vitamin-c, protein, carbohydrates and also dietary fiber. It has low calorie and low-fat content, so advisable for obese persons.

4. *Vigna unguicularia* (Payar): Fabaceae

It is a legume crop, commonly cultivated along with tapioca and the leaves of which is used as a vegetable and is rich source of protein, vitamins and dietary fibre. Good for improving vision and digestion and also for liver ailments.

5. *Boerhaavia diffusa* (Thazhuthama): Nyctaginaceae

Belongs to the family Nyctaginaceae, Sanskrit name of the plant is Punarnava, means rejuvenating. The tender leaves are used as vegetable. It is a rich source of Iron and calcium. It

is anti-inflammatory, diuretic and can be used for urinary problems.

6. *Cassia tora* (Thakara): Caesapiniaceae

It is also a leguminous plant, belongs to subfamily Caesapiniaceae. The plant is commonly seen along open sunny places and grows as a weed. It is a rich source of Iron and Vitamin-A. It is good for improving vision and skin problems.

7. *Laportea interrupta* (Choriyanam): Urticaceae

It is a member of the family Urticaceae. It is irritating, commonly seen growing among homesteads as a weed during rainy season. The leaves and tender stem used as vegetable. It is a good remedy for eradicating toxins from the body. Rich in anti-oxidants, vitamins and iron.

8. *Amaranthus spinosus* (Mullancheera): Amaranthaceae

The plant belongs to the family Amaranthaceae. The leaves along with tender stem is used as a vegetable. It is a good remedy for anemia and kidney disorders.

9. *Diplocyclos palmatus* (Neyyuni): Cucurbitaceae

The plant belongs to the family Cucurbitaceae, not common. The leaves are digitately lobed, similar to human palm. Tender leaves and stem can be used as vegetable. It is good for cleaning the stomach.

10. *Amorphophalus paenoniifolius* (Chena): Araceae



The elephant foot yam belongs to the family Araceae. The leaves and tender stem can be used as a vegetable. It is a rich source of calcium and vitamins. Good for improving the health of teeth and bone.

The ten leaves can be used as combination or individually and the combination given here may be different from locality to locality. Anyway, it is a good nutraceutical and has less side effects as it is used as a food. The leaves are cut into small pieces and cooked then add grinded coconut, salt, turmeric powder and chilly in required quantity.

4. Conclusion

Traditional knowledge is developed by the interaction of man with nature. The ethnobotanical knowledge is associated with the elder peoples or traditional healers in the society. The young generation is not interested to follow this because it requires patience and time consuming, for collecting these plants from the field requires knowledge about the identity of the plants. So knowingly or unknowingly the incumbent will develop knowledge about these plants and the need of conserving our rich biodiversity. Moreover, these are nutraceuticals which can be consumed as a food at the same time have health benefits, remedy for rheumatoid

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