

Ayurvedic Plant- Piper betle Linn. (Tambuli)

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Piper betle Linn. which is commonly called Tambuli, enjoys an important place in Āyurveda because of its invasive medicinal potential. It belongs to family Piperaceae. Medicinal properties of this plant are well versed in Āyurveda. This paper highlights the synonyms, uses, medicinal properties of tambuli in classical Ayurvedic literature, its nutritional value. The foremost objective of the paper is to revisit the ancient Ayurvedic plant and to make people aware about its medicinal value along with nutritional value.

Key Words : Āyurveda, Piper betle, Medicinal value, Nutritional value.

Introduction:

Sanskrit is ancient and classical language. Ancient Sanskrit literature includes Āyurveda, Astronomy, Archaeology, Astrology, Chemistry, Botany, *Shilpa Shastra* etc. Ancient sages had deep knowledge of environment in relation with human being. Āyurveda is mainly based on medicinal plants. It is ancient Indian medicine system. Earliest mention of medicinal plant is found in *R̥gveda*. *Atharvaveda*, *Varahanihira's Brhadsamhitā*, *Vṛkṣa -Āyurveda*, *Kauṭilya's Arthaśāstra* also enlists medicinal plants¹.

Piper betle is important medicinal plant in Āyurveda. Betle leaves are considered auspicious and hence extensively used in Indian religious customs and traditions. Betle leaf is mostly consumed as pan or betle quid.

The foremost objective of the paper is to revisit the ancient Ayurvedic plant and to make people aware about its nutritional value along with medicinal value.
Taxonomic Profile.

Taxonomic Profile-

Classification according to Bentham and Hooker

Class- Docotyledoneae

Sub-ciass-Monochlamydae

Series-Microembryae

Family-Piperaceae

Genus- *Piper*

Species-*betle*



Fig. 1 *Piper betle* plant

Distribution :

Tambuli is probably the native of Malaysia² and also cultivated in India, Indonesia, Philippines, Shri-lanka^{2,3}.

Synonyms :

Synonym of *Piper betle* in Sanskrit –

*Bhaksyapatra, Bhujangalatā, Bhujangavallī, Divabhiṣṭa, Kalasakāṇḍa*³, *Mukhbhūṣaṇ*⁴, *Nāgavallī, Nāgavallikā, Nāginī, Parṇa, Parṇaguhasya, Parṇalatā, Phaṇivallī, Saptalatā, Saptasira, Tambulavallarī, Tāmbuli, Tambulivalli, Vitikā*³, *Varnalatā*⁴

Synonym of *Piper betle* in regional languages of India –

Sr. No.	Name of regional language	Synonyms
1.	Bengali	Pan
2.	Canarese	Ambadiyele, Chigurele, Ele, Eleballi, Nagavali, Nagawalli, Panu, Pattivilye, Tambula, Vile, Vileya, Viliya, Viliyadaballi, Villedelehambu, Vilye, Vite ³
3.	Gujarati	Nagurvel, Pan ³
4.	Hindi	Pan, Tambuli ³
5.	Konkani	Pan ³
6.	Malayalam	Gryashya, Nagavalli, Tambulam, Vettila, Vettilamtippu, Vitika ³
7.	Marathi	Pan, Vidyechapana ³ , Nagbael ⁴
8.	Tamil	Ilaikkodi, Mellilai, Nirvalli, Pachadam, Sivanagini, Sukkuli, Sulini, Tambulam, Vellilai, Vettilai, Vettilaichurul ³
9.	Telgu	Akumadupa, Kammeraku, Nagavali, Nagavalli, Phaniraja – valli, Tamalapaku, Tamulapataku, Vitika ³
10.	Tulu	Bachire ³
11.	Urdu	Pan ³

Synonym of *Piper betle* in different foreign countries/foreign languages-

Sr. No.	Name of Foreign country/foreign language	Synonyms
1.	Arabic	Tanbol ³
2.	Bicol	Manin ³
3.	Burma	Kun, Kunyoe, Kwan, Kwanynet, Kwonrwet ³
4.	Cambodia	Mluv ³
5.	Chinese	Chu chiang ³
6.	English	Betle leaf vine, Betle pepper ³ , Betle vine ⁴
7.	French	Betle, Betre ³
8.	Java	Siri utan ³
9.	Malay	Sirih, Sirih china, Sirihhudang, Sirih Malaya ³ , Daun sirih ⁵
10.	Pampangan	Samat ³
11.	Persian	Bargethanbol, Tambol ³
12.	Phillipines	Hojas de buyo, Paro ³
13.	Portuguese	Betle ³
14.	Sinhalese	Balat, Bulatwel ³ , Bulath ⁵
15.	Spanish	Betle, Betle de la India,, Buyo de Filipinas ³
16.	Tagalog	Buyo, Itmo, Manin ³
17.	Visayan	Buyo, Canisi, Itmo, Mamon ³
18.	Mon	Plu ⁵
19.	Tetum	Malus ⁵
20.	Thai	Plu ⁵
21.	Tokodede	Malu
22.	Divehi	Bileiy ⁵
23.	Bahasa Indonesia	Daun, Sirih/suruh ⁵
24.	Chamorro	Papulu ⁵
25.	Lao	Pu ⁵
26.	Vietnamese	Taru ⁵
27.	Semang	Serasa, Cabe ⁴
28.	Jakun	Kerekap, Kenayek ⁴
29.	Sakai	Jerak ⁴
30.	German	Betelpfeffer ⁶

Piper betle in Classical Ayurvedic Script:

ताम्बूलवल्लीताम्बूलीभूलतानागवल्लिका
 फणिवल्लीपर्णलताभक्ष्यपत्री च नागिनी ।।
 आमोदजननी तीक्ष्ण-मञ्जरीश्रममञ्जनी ।।५१

Tāmbūavallī, Tāmbūlī, Bhūlatā, Nāgavallikā, Phaṇivallī, Parnalta, Bhkṣyapatrī, Nāginī, Amaodajanānī, Tīkṣṇa-Mañjari and *Srammañajari* are different names of *Piper betle*.

ताम्बूलविशदं रुच्यं तीक्ष्णोष्णं तुवरंसरम्
 बल्यंतिक्तकटु क्षारंरक्तपित्तकरंलघु ।
 वश्यं श्लेष्मास्यदौर्गन्ध्य-मलवातश्रमापहम् ।। ५२

This verse in *Mahaśadhanighantu* explains medicinal properties of betle leaves. It improves taste, strength. It is pungent, hot, astringent, bitter, alkaline, *raktapittakara*(increases raktapitta), *laghu* (light to digest), *vaśya* (hypnotize). It alleviates cough. It reduces foul mouth odour, *vāta* diseases, weakness and clears the digestive system.

ताम्बूलीसंगताचूर्णखादिरक्रमूकादिना ।
 ताम्बूलंवीटिकावीटीवीटिस्ताम्बूलवीटिका ।। ५३

This verse describes the process of making betle quid or pan. It is also known as *tāmbul*, *vītikā*, *vīti* or *tāmbūlavītikā*.

वीटिकाकफवातघ्नी कृमिदौर्गन्धनाशिनी ।।
 दशनारक्षिणी वक्त्र – भूषणी धृतिकारिणी ।। ५४

Above verse in *Mahaśadhanighantu* is about medicinal properties of betle quid. It alleviates *kapha*(cough) and *vātadoṣa*, destroys dental infection and foul mouth odour, improves dental health, enhances facial beauty and enhances strongness.

साश्रीवाट्यम्लादिवाटादिनानाग्रामस्तोमस्थानभेदाद्विभिन्ना ।
 एकाऽप्येषादेशमृत्स्नाविशेषान्नाकारं यातिकायेगुणे च ।। ४

According to above verse in *Rājajñighantu*, there are two types of Nagwalliviz. *Shriwati* and *Amladivati*. These types on the basis of characteristics of region where they grow.

शिरापर्णस्य शैथिल्यं कुर्यात्तस्यास्त्र ह्रद्रसः ।
 शीर्णत्वग्दोषदंतस्य भक्षिते च शितंसदा ।। १

This verse is about the adverse effects of consuming leaf petiole and rotten leaves of *Piper betle*.

नागवल्लीकटुस्तीक्ष्णा तिक्तापीनसवातजित् ।
कफकासहरा रुच्या दाहकृद्दीपनीपरा ।^१

Above verse in *Rājñighantu* also depicts medicinal properties of betle leaves.

Medicinal Value -

Piper betle has invasive medicinal potential. The plant is traditionally known to be useful for treatment of various diseases. Betle leaves are considered aphrodisiac, diuretic. It promotes healthy skin and teeth. Leaves are useful in pulmonary infection, arthritis⁹. A mixture of betel leaf juice and honey can be used as a tonic. Leaves are tonic to brain, heart and liver. Leaves clear the throat. It helps secretion of milk during lactation⁵.

Nutritional Value-

Piper betle leaves are nutritive. They contain considerable quantity of vitamins, minerals⁹.

Thus *Piper betle* is widely accepted medicinal plant in Āyurveda with good nutritional value. Hence it has good nutraceutical value and a promising source for nutraceutical industry.

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References :

1. *Sanskrit Vangmay me Vidhyan Ka Itihaas* – Text book of XII, NCERT Delhi, 2003.
2. The Wealth of India: A dictionary of Indian raw materials and Industrial Products. Vol. III, Publications and Information Directorate, CSIR, New Delhi, 1989, p.84.
3. Kirtikar K. R., Basu B. D., Indian Medicinal Plants Vol-III International Book Distributors, Dehradun, 2005 (Second Edition), p. 2123-2133.

4. Pradhan D., Suri K. A., Pradhan D. K., Biswasroy P. Golden Heart of the Nature: *Piper betle L.*, Journal of Pharmacognosy and Phytochemistry, Vol. I No. 6, 2013, p. 147-166.

5. Roy U. B., Vijayalaxmi K. K. Health Benefits of Betle Leaves and the Health Effects of Betle quid, Everyman's Science, Vol-XLVIII No. 2, June 13- July 13, p. 122-126.

6. Shah S. K., Garg G., Jhade D., Patel N. *Piper betle*– Phytochemical, Pharmacological and nutritional value in health management, Int. J. Pharm. Sci. Rev. Res. 38(2), 2016, p. 181-189.

7. *Mahaushadhanighantu*, Aryadas Kumarsinh,Chaukhambha Bharati Academy, Varanasi,2006, p. 198-199.

8. *Rajanighantu* of Pandit Narahari,ed. with Dravyagunaprakasika(Hindi commentary)byTripathi Indradeo, KrishnadasAcademy,Varanasi, 1982, p391-393

9. Chauhan E. S., Aishwarya J. Singh A., Tiwari A. A Review: Nutraceutical properties of *Piper betle*(Paan), American Journal of Phytomedicine and Clinical Therapeutics, 4(2) 2016 p.2321-2748.

