



Review Article On Peelu : *Salvadora Persica*

Author's name

Dr. Arun Jharwal¹, Dr. Manisha Pundir¹, Dr. Chandan Singh¹, Dr. Rajendra Prasad Purvia¹,

1. Department of Dravyaguna Vigyan, Dr. Sarvepalli Radhakrishnan Ayurved University, Jodhpur

Abstract

Peelu, scientifically known as *Salvadora persica*, is a small, evergreen tree native to arid regions of India, Africa, the Middle East, and South Asia. It holds immense cultural, medicinal, and ecological significance, especially in Ayurveda, the traditional system of medicine in India. Revered for its therapeutic properties, *Salvadora persica* is particularly famous as the source of the "miswak," a natural toothbrush used for centuries for oral hygiene. Rich in bioactive compounds such as alkaloids, flavonoids, saponins, and essential oils, Peelu has been shown to exhibit antimicrobial, anti-inflammatory, and antioxidant properties, making it effective against a variety of oral and systemic health conditions.

Keywords - Peelu, *Salvadora Persica*, Miswak, Tooth Brush Tree

Introduction

In Ayurveda, Peelu is classified as having properties that balance the *doshas*—Vata, Pitta, and Kapha—by promoting digestive health, detoxification, and immunity. Its bark, leaves, fruits, and seeds are used in formulations to address ailments like dental caries, gum disease, respiratory issues, and skin disorders. Modern scientific studies corroborate many traditional claims, with evidence supporting Peelu's role in preventing dental plaque, reducing bacterial growth, and aiding in wound healing.

Despite its rich heritage and pharmacological potential, Peelu remains underexplored in mainstream medicine. Integrating traditional Ayurvedic knowledge with contemporary research offers a promising pathway to unlock its full therapeutic potential. This holistic approach could contribute significantly to global health challenges, particularly in the domains of oral health, infectious diseases, and natural product-based therapeutics.

Synonyms

| | |
|-------------|--|
| Common Name | Peelu, Miswak, Toothbrush tree |
| Hindi | Jhak, Kharjal |
| Telugu | Ghuma, Varagogu |
| Karnataka | Goni-Mara |
| Tamil | Kalawa, Karkol, Perungoli, Ughaiputtai |

Taxonomic Classification of Peelu

| | |
|----------|--------------------------|
| Kingdom | Plantae |
| Division | Magnoliophyta |
| Class | Magnoliopsida |
| Order | Brassicales |
| Family | Salvadoraceae |
| Genus | Salvadora |
| Species | S. Persica |
| | S. wightiana Planchon ex |
| | S. indica Wight Thwaites |
| | S. Koenigii Am |

Etymological Derivation

- **Salvadora** – In honor of J. Salvador was a Spanish botanist.
- **Persica** – Belonging to Persia.
- पिलु पिलुपिलुपिलुपिलु | (It does purgation by removing or relieving pratisthambhana (constipation). The fruits of pilu are purgative.



Botanical Description

Peelu (*Salvadora persica*), commonly called the toothbrush tree, thrives in arid and semi-arid regions, displaying remarkable adaptations to harsh environments. Its stem has rough, rugose bark on older parts, providing protection and aiding water conservation. Numerous drooping branches give the tree a bushy appearance and minimize water loss by reducing direct sunlight exposure. The soft, light wood, whitish-yellow in color, is valued for tools, fuel, and medicinal miswak sticks.

The tree's fleshy, glaucous leaves, elliptic-lanceolate in shape with a rounded tip, measure 4-6 cm in length and 2-3 cm in width. They feature a waxy coating to reduce water loss and prominent veins to optimize resource transport. The short petioles (1-2 cm) enhance the plant's compact structure, minimizing exposure to environmental stressors.

Peelu produces axillary or terminal panicles, clusters of greenish-yellow flowers suited to attracting pollinators in challenging habitats. Its fruits are small, round drupes, 3 mm in diameter, that transition from green to red when ripe. These edible fruits play a role in seed dispersal and traditional medicine. Together, Peelu's morphological features exemplify its ability to endure and thrive in water-scarce, high-temperature regions while offering ecological and medicinal benefits.

Description in Ayurvedic Literature

Charak Samhita

- Virechanopaga Mahakashaya
- Jwarhar Mahakashaya
- Shiro Virechana Dravya
- Katu Skandh
- Asthapana (Niruha) Vasti
- पीलुकल्कोपसिद्धं वा घृतमानाहभेदनम् ||145|| (C. Chi. 13/145)
- ऽऽध्माने मातुलुङ्गाम्लवेतसैः ।
हिङ्गुपीलुबिडैश्चात्रं युक्तं स्यादनुलोमनम् ||87|| (C. Chi. 17/87)
- काकाण्डरससंयुक्तो विषाणां तण्डुलीयकः ।
प्रधानो बर्हिपित्तेन तद्वद्वायसपीलुकः ||217|| (C. Chi. 23/217)
- तृष्णा येनोपशाम्येत मदं येन च नाप्नुयात् ।
परूषकाणां पीलूनां रसं शीतमथापि वा ||149|| (C. Chi. 28/149)
- बलाशतावलीरास्त्रादशमूलैः सपीलुभिः ।
श्यामैरण्डस्थिराभिश्च वातार्तिघ्नं भृतं पयः ||81|| (C. Chi. 29/81)
- स्थिरापयस्याजीवन्तीवीरर्षभकजीवकैः । श्रावणीपिप्पलीमुद्गपीलुमाषाख्यपर्णिभिः ||50||
(C. Chi. 30/50)
- कुडवांशान् रसानिक्षुद्राक्षापीलुपरूषकात् ।
सितोपलापलं क्षौद्रात् कुडवार्थं च साधयेत् ||२६|| (C. Kalp. 7/26)
- प्रियालपीलुकर्कन्धुकोलाम्रातकदाडिमैः ।
द्राक्षापनसखर्जूरबदराम्लपरूषकैः ||७|| (C. Kalp. 11/7)
- दधितक्रसुरामण्डैः पिण्डमक्षसमं तयोः ।

प्रियालकोलबदरपीलुशीधुभिरेव च ॥७॥ (C. Kalp. 12/7)

• बिल्वादिना निरूहः स्यात् पीलुसर्षपमूत्रवान्।

सरलामरदारुभ्यां सिद्धं चैवानुवासनम् ॥२६॥ (C. Si. 7/26)

• तीक्ष्णत्वं मूत्रपील्वग्निलवणक्षारसर्षपैः।

प्राप्तकालं विधातव्यं क्षीराद्यैर्मर्दवं तथा ॥ ६३॥ (C. Si. 7/63)

• खरोष्ट्योः पीलुकरीरखादिराः शम्याकबिल्वादिगणस्य च च्छदाः।

अजाविकानां त्रिफलापरूषकं कपित्थककन्धु सविल्वकोलजम् ॥२६॥
(C. Si. 11/26)

Sushruta Samhita

Shiro Virechana Dravya (Errhines Drugs) -

• Peelu is categorized as a Shiro Virechana dravya.

...विडङ्गखरमञ्जरीमधुशिग्रुसूर्यवल्लीपीलुसिद्धार्थकज्योतिष्मतीस्नेहाः शिरो विरेचयन्ति,....
(S. Chi. 31/5)

• अथ बालं क्षौमपरिवृतं क्षौमवस्त्रास्तृतायां शय्यायां शाययेत्, पीलु - बदरी - निम्ब - परूषक शाखाभिश्चैनं परिवीजयेत्, व्रणितोपासनीयं चावेक्षेत् ॥ २६ ॥
(S. Sha. 10/26)

• तिल्वकारिष्टपीलूनां पत्राण्यारग्वधस्य च ॥ बीजं विडङ्गाश्वहन्तोर्हरिद्रे बृहतीद्वयम् । आभ्यां श्वित्राणि योगाभ्यां लेपात्रशयन्त्र्यशेषतः ॥ २८॥ (S. Chi. 9/28)

• Mahaneel ghrita -

तद्बद्धतस्य तत्साध्यं भूनिम्बव्योषचित्रकैः ।

करञ्जफलनीलिकाश्यामावल्गुजपीलुभिः ॥ ३७

नीलिनीनिम्बकुसुमैः सिद्धं कुष्ठापहं घृतम् ।

म्रक्षणादङ्गसावर्यं श्वित्रिणां जनयेत्प्रणाम् ।

भगन्दरं कृमीनों महानीलं नियच्छति ॥ ३८ ॥ (S. Chi. 9/38)

• Kaphaj Nadi Vrana Chikitsa -

प्रक्षालने चापि करञ्जनिम्बजात्यक्षपीलुस्वरसाः प्रयोज्याः ॥ २४॥

(S. Chi. 17/24)

• करीराक्षिकपीलूनि तृणशून्यफलानि च।

स्वादुतिक्तकटूष्णानि कफवातहराणि च ॥१९३॥ (S. Su. 46/193)

Ashtanga Hridya

• ध्यानोदावर्ततमके मातुलुङ्गाम्लवेतसैः ॥६॥

हिङ्गुपीलुबिडैर्युक्तमत्रं स्यादनुलोमनम्।

ससैन्धवं फालाम्लं वा कोष्णं दद्याद्विरेचनम् ॥७॥

(A. H. Chi. 4/7)

• द्रोणं पीलुरसस्य वस्त्रगलितं न्यस्तं हविर्भाजने युञ्जीत द्विपलैर्मदा मधुफलाखर्जूरधात्रीफलैः ।
पाठामाद्रिदुरालभाम्लविदुलव्योषत्वगेलोल्लकैः स्पृक्काकोललवङ्गवेल्लचपलामूलाग्रिकैः पालिकैः ।
गुडपलशतरोजितं निवाते निहितमिदं प्रपिबंश्च पक्षमात्रात् । निशमयति गुदाकुरान् सुगुल्मा- ननलबलं प्रबलं करोति
चाशु ॥ १५० ॥ (A. H. Chi. 8/149)

• युक्तं बिल्वकपित्थाभ्यां महौषधबिडेन वा । अरुष्करैर्यवान्या वा प्रदद्यात्तक्रतर्पणम् ॥३५॥ दद्याद्वा हपुषाहिङ्
गुचित्रकं तक्रसंयुतम् । मासं तक्रानुपानानि खादेत्पीलुफलानि वा ॥३६॥

(A. H. Chi. 8/36)

• कफामये पीलुरसमूत्रमद्याम्लकाञ्जिकैः ॥८॥

पञ्चकोलादिचूर्णैश्च युक्त्या युक्तं कफापहैः ॥९॥ (A. H. K. 2/9)

• पीलुकल्कोपसिद्धं वा घृतमानाहभेदनम् ।

तैल्वकं नीलिनीसर्पिः स्नेहं वा मिश्रकं पिबेत् ॥३८॥ (A. H. Chi. 15/38)

Description in Ayurvedic Nighantu

DHANVANTRI NIGHANTU

रक्तपित्तहरं पीलुः फलं कटुविपाकि च ।

अशोघ्नं बस्तिशमनं सस्नेहं कफवातजित् ॥

पीलुजं च रसे स्वादु गुल्मार्शोघ्नं तु तीक्ष्णकम् ॥

MADANPAL NIGHANTU

पीलूष्णं दीपनं भेदी रक्तपित्तकरं लघुः ।

गुल्मार्शः प्लीहवातश्मकफहारि रसायनम् ॥

KAIDEV NIGHANTU

पीलूष्णमुषणं पाकरसयोर्भेदि दीपनम् ।

तीक्ष्णं विदाहि पित्तास्रजननं सन्नियच्छति ।

गुल्मार्शः कफवातास्रप्लीहानाहगरोदरम् ।

तत् स्वादु तिक्तं दोषघ्नं सोष्णं रूक्षं रसायनम् ॥

BHAVPRAKASH NIGHANTU

पीलु श्लेष्मसमीरघ्नं पित्तलं भेदी गुल्मनुत् ।

स्वादु तिक्तञ्च यत्पीलु तत्रात्युष्णं त्रिदोषहत् ॥

RAJ NIGHANTU

अंकाहः कटुकः पीलुः कषायो मधुराम्लकः ।

सरः स्वादुश्च गुल्मार्शःशमनो दीपनः परः ॥

SHALIGRAM NIGHANTU

पीलू शीतसहः स्त्रंसीधानीगुडऽफलस्तथा ।

विरेचनफलः शाखीश्यामः करभवल्लभः ॥

PRIYA NIGHANTU

पीलूष्णमस्ति कटुकं रसतः सुतीक्ष्णं ।

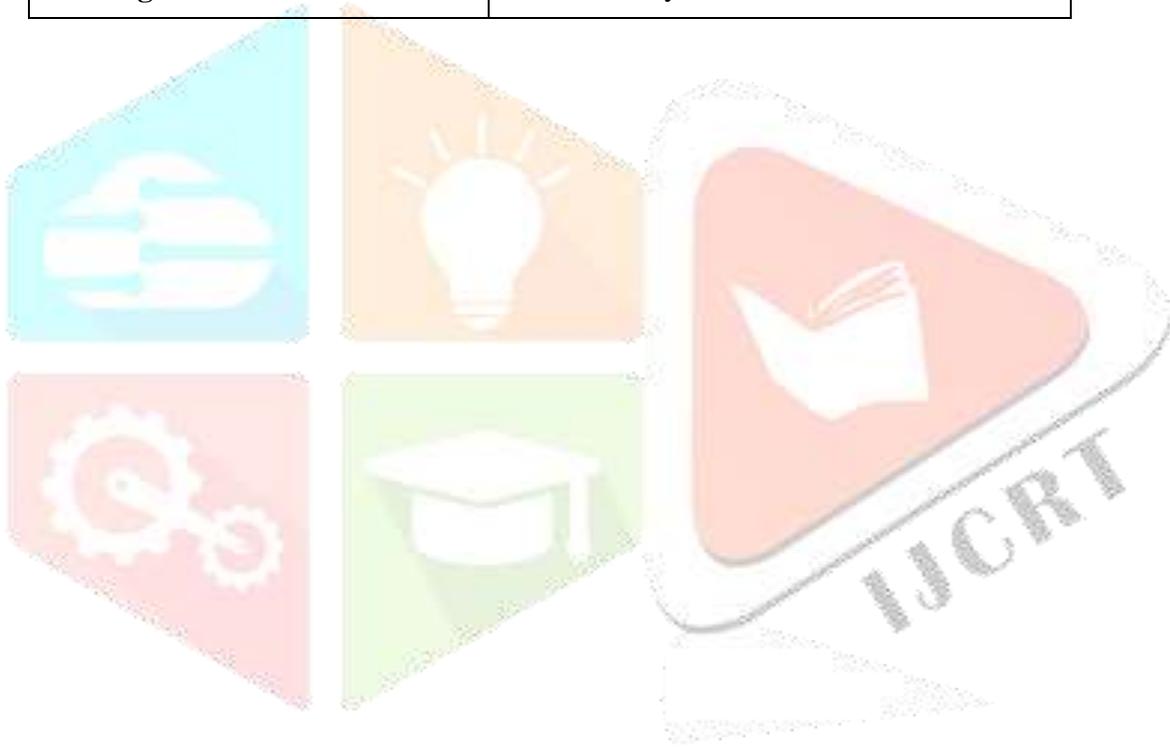
भेदि प्रकोपयति पित्तमथो विदाहि ॥

वातं कफं भामयति प्रततं प्रषस्तं ॥

गुल्मे गरेऽर्शसि गदे जठरोद्भवे च ॥

Flowering and Fruiting

| | |
|------------------|--------------|
| Flowering | March to may |
| Fruiting | March to may |



| | |
|-------------------------------|--|
| Charaka | Virechana, Virechanopaga, Shiro Virechana, Jwarhar, Katu Skandha |
| Sushruta | Shiro Virechana |
| Bhavprakash Nighantu | Aamraphaladi Varga |
| Dhanvantri Nighantu | Aamradi Varga/00000 |
| Kaidev Nighantu | Aushadhi Varga |
| Raj Nighantu | Karveeradi Varga |
| Sodhal Nighantu | Aamradi Varga |
| Ashtanga Nighantu | Shyamadi Gana |
| Shadhrasa Nighantu | 5 Skandh |
| Madanpal Nighantu | Vatadi Varga |
| Shaligram Nighantu | Phala Varga |
| Nighantu shesh | Vriksha Kaand |
| Hriday Deepak Nighantu | Ekpaad Varga |
| Sidh Mantra prakash | Doshaghna Varga |
| Yogratnakar | Dhanyadiphalakandaguna |

Description of *Salvadora Persica* in Different Gana

Rasa Panchaka

| | Priya Vrat Sharma | Bhav P. Ni. | Kaidev Nighantu |
|------------------|---------------------------|--------------------|------------------------|
| Ras | Tikta, Madhur | Tikta | Katu |
| Guna | Laghu, Snigdha, Teekshana | - | Theekshana, Vidahi |
| Veerya | Ushna | Natyushna | Ushna |
| Vipak | Katu | - | Katu |
| Prabhav | Virechanopag | Gulma-nashak | Malabhedak |
| Doshkarma | Kapha-vata shamak | Tridosh nashak | Rakta Pitta vardhak |

Chemical Constituents in Useful Parts

| | |
|------------------|--|
| Root-bark | Salvadorine, Tri-methyl-amine, Chlorides |
| Fruit | Sugar, Fat |
| Leaves | Volatile oil |

| | |
|-------|---|
| Seeds | Lauric acid, Capric acid, Myristic acid |
|-------|---|

Dose

Extract 5-10 ml, Powder 1-3 gm

Karma (Action)

Bhedan, Gulmanashak, Arsoghana, Dipana, Rasayan, Arsha, Gulma, Agnimandya

Pharmacological Actions

Aphrodisiac, Stomachic, Appetizer

Formulations

| S. No. | Name | Indications |
|--------|-----------------------|-------------|
| 1 | Kusth Nashak prelepa | Kustha |
| 2 | Visarpa Shodhana yoga | Visarpa |
| 3 | Haritakyadi churna | Udavarta |

Action and Disease Indication

| Useful Part | Properties | Indications |
|-------------|---|---|
| Leaves | Anthelmintic, Antiscorbutic, Deobstruant, Diuretic, Astringent, Expectorant, Tonic | Cough, Asthma, Bronchitis, Strangury, Painful tumor, Scurvy, Constipation, Verminosis, Piles |
| Flower | Stimulate, Laxative | Rheumatic condition |
| Fruits | Thermogenic, Aphrodisiac, Emollient, Alexeteric, Stomachic, Purgative, Carminative, Deobstruent, Diuretic, Lithontriptic, Digestive | Seminal-weakness, Flatulence, Rheumatism, Tumors, Splenomegaly, Constipation, Gastropathy, Bilioussness |
| Root bark | Stimulant, Emmenagogue, Tonic | Splenalgia, Gastropathy |
| Seeds | Diuretic, Purgative | |
| Stem bark | Emmenagogue, Ascarifuge, Febrifuge, Spasmolytic, Hypo-glycaemic, Anti-inflammatory, Anti-bacterial | Inflammations, Fevers, Diabetes |

Discussion

From the above review it is evident that the plant *Salvadora Persica* is a significant plant species in terms of its ethnobotanical relevance. It is commonly used in the conventional health care system. This plant is incredibly promising since, in addition to its stem bark and root bark, it also produces a range of components in its leaves and seeds.

REFERENCE –

1. Ronse De Craene L, Wanntorp L. Floral development and anatomy of Salvadoraceae. Ann Bot. 2009;104:913–23. [PMC free article] [PubMed].
2. Sadhan AL, Almas Miswak (chewing stick) - A cultural and scientific heritage. Saudi Dent J. 1999;11:81.
3. K.Niteshwar & K.hemadri , Dravyguna vijnana chaukhamba publications 2013 page no -274 .
4. Sanjeev kumar laale , 2003 Aushadnaamrupvigyanam chaukhamba publications 2015 first edition page no – 254
5. Prakash L.hegde , A text book of dravyaguna vijnana chaukhamba publications reprint 2018 volume 3 page no-608.
6. P.V Sharma A text book of dravya guna vijnana chaukhamba bharati academy reprint 2012 page no 450.
7. Prof, J.K ojha A handbook of dravya guna vijnana chaukhamba publications 2004 ,page no 265.
8. K.Niteshwar & K.hemadri , Dravyguna vijnana chaukhamba publications 2013 page no -274 .
9. P.V Sharma A text book of dravya guna vijnana chaukhamba bharati academy reprint 2012 page no 450.
10. Prof, J.K ojha A handbook of dravya guna vijnana chaukhamba publications 2004 ,page no 265.
11. K.Niteshwar & K.hemadri , Dravyguna vijnana chaukhamba publications 2013 page no -275 .
12. Prakash L.hegde , A text book of dravyaguna vijnana chaukhamba publications reprint 2018 volume 3 page no-608.
13. P.V Sharma A text book of dravya guna vijnana chaukhamba bharati academy reprint 2012 page no 450
14. Prakash L.hegde , A text book of dravyaguna vijnana chaukhamba publications reprint 2018 volume 3 page no-608
15. Sanjeev kumar laale , 2003 Aushadnaamrupvigyanam chaukhamba publications 2015 first edition page no – 254 .
16. Sanjeev kumar laale , 2003 Aushadnaamrupvigyanam chaukhamba publications 2015 first edition page no – 254.
17. Prakash L.hegde , A text book of dravyaguna vijnana chaukhamba publications reprint 2018 volume 3 page no-608 .
18. P.V Sharma A text book of dravya guna vijnana chaukhamba bharati academy reprint 2012 page no 450.
19. Sri Bhavamisra, Bhavaprakasha Nighantu, Commentary by Prof. K.C. Chunekar, Edited by Dr. G.S. Pandeya, Chaukhamba Bharti Academy, 2015 page no – 579.
20. Acharya kaideva , kaideva nighantu (pathyapathya) vibhodhaka , edited by prof. priyavart Sharma , dr guru Prasad Sharma first edition 1979 varanasi , chaukhamba publications page no – 83.
21. Ramesh kumar bhutya , ausadh dravyo ka tridoshguna vivechana edition 2016 scientific publishers page no – 2111.