

SIRISHA (ALBIZZIA LEBBECK (LINN.) BENTH.): AN UPDATED REVIEW ON CLASSICAL EVIDENCE, PHYTOCHEMISTRY, AND THERAPEUTIC POTENTIAL

¹*Dr. Rinkal Kushwah, ²Dr. Kamal Charan Garg, ³Dr. Mamuni Sethy, ⁴Dr. Shweta Singh, ⁵Dr. Shruti Tomar, ⁶Dr. Urvashi Parte

^{1,3,4,5,6}MD Scholar, Department of Dravyaguna, Pt. Khushilal Sharma Govt (Auto.) Bhopal, Madhya Pradesh.

²Professor (In charge) and HOD Department of Dravyaguna Pt. Khushilal Sharma Govt. (Autonomous) Ayurveda College and Institute, Bhopal, M.P.

Article Received on 03 July 2026,
Article Revised on 24 July 2026,
Article Published on 01 Aug. 2026,
<https://doi.org/10.5281/zenodo.21696481>

*Corresponding Author

Dr. Rinkal Kushwah

MD Scholar, Department of
Dravyaguna, Pt. Khushilal Sharma
Govt (Auto.) Bhopal, Madhya
Pradesh.



How to cite this Article: ¹*Dr. Rinkal Kushwah, ²Dr. Kamal Charan Garg, ³Dr. Mamuni Sethy, ⁴Dr. Shweta Singh, ⁵Dr. Shruti Tomar, ⁶Dr. Urvashi Parte. (2026). फलसवा: WSR To Kajavasava In Kaphaja Kasa Phalasava: Wsr To Kajavasava In Kaphaja Kasa. World Journal of Pharmaceutical Research, 15(15), 767–776.

This work is licensed under Creative Commons Attribution 4.0 International license.

ABSTRACT

Sirisha (*Albizia lebeck* (L.) Benth.) is a renowned Ayurvedic medicinal plant valued for its potent *Viśaghna* (antitoxic) activity and broad therapeutic potential. Revered in classical Ayurvedic literature, it has been traditionally prescribed for the management of *Viṣa*, *Shwasa*, *Kasa*, *Kuṣṭha*, *Kṛmi*, *Sotha*, and other Kapha–Pitta predominant disorders. Contemporary research has identified diverse bioactive phytoconstituents, including flavonoids, saponins, tannins, alkaloids, and phenolic compounds, which are associated with its antioxidant, anti-inflammatory, antimicrobial, antiallergic, hepatoprotective, immunomodulatory, and antivenom properties. The convergence of classical Ayurvedic knowledge and modern scientific evidence underscores the therapeutic relevance of *Sirisha* as a promising medicinal resource. Nevertheless, robust experimental and clinical studies are needed to further validate its traditional claims and support its evidence-based integration

into contemporary Ayurvedic healthcare.

KEYWORDS: *Albizia lebeck*, *Kapha - Pitta* disorders, *Viśaghna*.

Albizia lebbek (L.) Benth., commonly known as *Sirisha*, is a medicinally important deciduous tree belonging to the Fabaceae family and is widely found across the tropical and subtropical regions of India. In Ayurveda, *Sirisha* is recognized as a highly valued medicinal plant, particularly for its *Vishaghna* (anti-toxic) properties, and has been traditionally prescribed for the treatment of *Visha* (poisoning), *Shwasa* (respiratory disorders), *Kasa* (cough), *Kustha* (skin diseases), *Krimi* (parasitic infestations), *Shopha* (inflammatory conditions), *visarpa* (erysipelas) and other disorders involving *Kapha* and *Pitta* Doshas. The growing interest in evidence-based herbal medicine has led to extensive scientific investigations on *Sirisha*, revealing the presence of numerous phytoconstituents such as flavonoids, saponins, tannins, alkaloids, and phenolic compounds that contribute to its wide range of biological activities. Experimental and pharmacological studies have demonstrated its antioxidant, anti-inflammatory, anti-allergic, antimicrobial, hepatoprotective, immunomodulatory, and antivenom potential, supporting many of its traditional therapeutic claims. The present review systematically compiles the synonyms, Rasapanchaka, and Karma of *Sirisha* described in various Ayurvedic Nighantus with authentic classical references and critically integrates these traditional concepts with contemporary scientific evidence to provide a comprehensive overview of its therapeutic importance and future research opportunities.

- , ,

- *Sirisha* (*Albizzia libbac* Linn.) is not described in the major *Ayurvedic Samhitas* (*Brihatrayi*)
- The earliest reference to this plant is available in *Bhavaprakasha Nighantu* and *Madanpal Nighantu* under *Vatadi Varga*.
- In *Shodala Nighantu*, it is included in *AmradiVarga*.
- *Raj Nighantu* classifies *Sirisha* under *Prabhadradi Varga*.
- According to the *Kaiadev Nighantu* it classified in *Aushadhi Varga*.

References in various *Nighantus* reflect its increasing recognition and therapeutic importance in later *Ayurvedic literature*.

VARIETIES^[10,12]

1. Black (*Albizzia lebback*)
2. White (*Albizzia Procera*)

Raj nighantu – 1. *Sirisha*

2. *Kantaki sirisha*

Table 1: VERNACULAR NAMES.^[12]

Language/ Region	Vernacular name
Hindi	<i>Siris</i>
English	<i>Siris Tree, Lebback Tree</i>
Telgu	<i>Dirisena Chettu</i>
Tamil	<i>Vegai</i>
Kannada	<i>Bagemara Bagey</i>
Malayalam	<i>Vaga</i>
Punjabi	<i>Sareehn</i>
Gujrati	<i>Sarsado</i>
Bangali	<i>Sirosh</i>
Marathi	<i>Sirasi</i>
Oriya	<i>Sersuan</i>

Table 2: SYNONYMS.^[1,2,4,6,11]

Synonyms	<i>Bha.Ni.</i>	<i>D. Ni.</i>	<i>API</i>	<i>Ni. A.</i>	<i>Sho. Ni.</i>	<i>Ka. Ni.</i>
<i>Kapitana</i>	+	+		+	+	+
<i>Mradu Puspa</i>	+	+	+		+	+
<i>Bhandi</i>	+	+	+		+	+
<i>Bhandilo</i>	+				+	
<i>Bhandir</i>	+					
<i>Bhandik</i>		+				
<i>Sukataru</i>	+	+			+	+
<i>Suka priya</i>	+		+		+	+
<i>Sukapuspa</i>	+					
<i>Kalimo</i>						
<i>Vipra</i>						
<i>Mandil</i>				+		+
<i>Sikhiniphla</i>						+
<i>Shyamvarna</i>						+
<i>Sitapuspa</i>			+			
<i>Plavang</i>						+

Table 3: Ayurvedic Properties.^[1,4,6,10]

	<i>Rasa</i>	<i>Guna</i>	<i>Veerya</i>	<i>Vipaka</i>	<i>Dosha effect</i>
--	-------------	-------------	---------------	---------------	---------------------

<i>Bhavprakash Nighantu</i>	<i>Tikta, Kasaya,</i>	<i>Ushan</i>			<i>Tridosahara</i>
<i>Nighantu Aadarsh</i>	<i>Tikta, Kasaya, Madhura,</i>		<i>Sheeta</i>	<i>Katu</i>	<i>Tridosahara</i>
<i>P.V.Sharma</i>	<i>Tikta, Kasaya, Katu</i>	<i>Laghu, Ruksha, Tikshna</i>	<i>Isad usna</i>	<i>Katu</i>	<i>Tridosahara</i>
<i>API</i>	<i>Tikta, Kasaya, Madhura, Katu</i>	<i>Laghu</i>	<i>Anushna</i>	<i>Katu</i>	<i>Tridosahara</i>
<i>Kaiyadev Nighantu</i>	<i>Tikta Madhura</i>		<i>Anushna</i>		

Table 4: Karma.^[3,4,11]

Karma	D.N.	P.V.Sharma	API
<i>Tridosahara</i>	+		+
<i>Varnya</i>	+	+	+
<i>Vishaghana</i>	+	+	+
<i>Sothahara</i>		+	+
<i>Vednastapana</i>		+	
<i>Sirovirechan</i>		+	
<i>Chakshusya</i>			
<i>Tvagdosha</i>			+

Table 5: Rogaghnata.^[1,4,6,11]

	Bha. Ni.	Dha.Ni.	API	Kai. Ni.
<i>Kusta</i>		+	+	
<i>Kandu</i>		+	+	
<i>Visarpa</i>	+		+	+
<i>Kasa</i>	+	+	+	+
<i>Vrana</i>	+		+	
<i>Swasa</i>		+	+	
<i>Sotha</i>	+		+	+

Table 6: Classical Formulations and Preparations of Sirisha.^[3,5]

<i>Panchsirisa agad, Sirisharista, Panch sirisha Ghrta</i>	A Text Book of <i>Dravyaguna Vijnana</i> by Dr.J.L.N Sastry & Dr. Tanuja M.Nesari
<i>Mhasirisha agad</i>	P.V. Sharma

THERAPEUTIC USES^[10]

1. Wound -Fruits (seeds) of *Sirisha* and *karanja* and powders of inorganic substances depress the excessive granulation in wounds.
2. Headache-In *suryavarta* and hemicrania pressed snuff of the seeds of *Sirisha* and *mulak* is efficacious.
3. Difficult labour-As post-operative measure in case of conjoined foetus, water processed with *Sirisha* and *arjuna* should be used as intake.

4. Poisoning
 - a. *Sirisha* is the best drug for poisoning.
 - b. Application of the paste of *Sirisha* and *sinduvava* counteracts poison.
 - c. White *marica* soaked in the juice of *Sirisha* flowers for a week acts as a good remedy for snake-bite used as snuff, intake and collyrium.
 - d. Seeds and heart-wood of *Sirisha* should be used as snuff for head-evacuation.
 - e. Insect-bite - Decoction of *Sirisha* (root, flowers, sprouts, bark and seeds) mixed with *trikaṭu*, salt and honey should be taken. It destroys insect-poisoning.
 - f. In predominance of *kapha*, the person should be vomited by giving *Sirisha* (leave, bark, root and fruits) alone or mixed with *ankola* root with rice-water
 - g. In dusivish alkali obtained from *Sirisha* and *himsra* should be applied locally.
5. Erysipelas-In erysipelas caused by *kapha*, flowers of *Sirisha* mixed with a little ghee should be applied as anointment.
6. Eye disease-The juice of *Sirisha* mixed with honey should be used as collyrium. It alleviates acute conjunctivitis.
7. Malarial fever-Paste of *Sirisha* flowers mixed with *haridra*, *daruharidra* and is used as snuff in quantum fever.
8. Hiccough and asthma-Juice of the flowers of *Sirisha* or *saptaparna* should be taken with *pippali* and honey. It is efficacious in predominance of *kapha* and *pitta*.
9. Intake of the flowers of *Sirisha kadali* and *kunda* with *pippali* followed by rice-water alleviates all types of asthma.
10. *Kuṣṭha*-Paste of the bark of *Sirisha*, flowers of *karpasa*, leaves of *aragavadha* and *kakmachi*(whole plant) separately alleviate *kustha*.
11. Worms-Juice of *Sirisha* and *kinhi* mixed with honey should be taken
12. Obesity-Rubbing with the powder of *Sirisha*, *lamajjaka*, *nagakesara* and *lodhra* removes impurities of skin and excessive perspiration
13. Eruptive boils- *Sirisha*, *udumbara*, and *jambu* are useful as sprinkling and paste.

PART USED^[4]: Stem, Bark, Seed, Flowers, Leaves.

DOSE^[4]: Powder 3-6gm, Decoction 25-50ml; Fresh juice 10-20ml.

Table 7: Taxonomical Classification.^[14]

Kingdom	Plantae
subkingdom	Tracheobionata

Superdivision	Spermatophyta (seed plants)
Division	Magnoliophyta
class	Magnoliosida
Subclass	Rosidae
Order	Fables
Family	Fabaceae
Subfamily	Mimosoideae
Genus	<i>Albizzia Durazz</i>
Species	<i>Albizzia lebbeck (L.)</i>

Morphological description of *Albizzia lebbeck*^[5,10, 12]

Habit: *Sirisha* is a medium to large deciduous tree that becomes leafless during winter.

Leaves: Leaves are alternate and bipinnate with 6–18 pairs of obliquely oblong, obtuse leaflets and small glands between the upper pinnae.

Inflorescence: In globus heads of greenish yellow flowers.

Flowers: Flowers are white, mildly fragrant, with long greenish stamens.

Fruits: Fruits are smooth, thin, straw-coloured pods (20–30.5 × 2.5–5 cm) that dehisce late and partially.

Seeds: Each pod contains 6–12 flat seeds.

Flowering and Fruiting: Flowering occurs from April to June, while fruits mature during winter and remain on the tree until summer

DISTRIBUTION^[5,10,12]

The plant is extensively distributed across India and grows in the Himalayan region up to an elevation of about 1,400 m (4,000 ft). It is commonly found in states such as Andhra Pradesh, Gujarat, Jammu & Kashmir, Maharashtra, Tamil Nadu, and Uttar Pradesh.

PHARMACOGNOSY^[4]

Macroscopic

The stem bark of *Sirisha* is about 1.5–2.5 cm thick. Its outer surface is dark brown, rough, and marked with longitudinal fissures and transverse cracks. The bark is largely covered by rhytidoma, which exfoliates in flakes to reveal a buff-coloured surface beneath. The middle bark is brown, while the inner bark ranges from light yellow to grey. The fracture is laminated in the outer portion and fibrous in the inner portion, and the bark possesses a strongly astringent taste.

Powder: The powder is greyish-brown in appearance and contains abundant stone cells, prismatic calcium oxalate crystals, crystal fibres, and phloem fibres.

TRADE AND COMMERCE

Reatail market price of bark 150/- to 400/- per 500gm (2026)

CULTIVATION AND PROPOGATION^[14]**CULTIVATION**

- Grows well in tropical and subtropical climates.
- Prefers well-drained sandy loam soil and tolerates poor soils.
- Nursery-raised seedlings are planted during the rainy season.
- Young plants need regular watering; mature trees require minimal irrigation.
- Organic manure and regular weeding support healthy growth.

PROPOGATION

- Mainly propagated through seeds.
- Seeds are treated by hot water soaking or scarification before sowing.
- Germination occurs within 1–2 weeks under favourable conditions.
- Stem cuttings or grafting may also be used for vegetative propagation.

PHYSICAL CONSTANTS^[4]

- Foreign matter: Not more than 1%
- Total ash: Not more than 8%
- Acid-insoluble ash: Not more than 1%
- Alcohol-soluble extractive: Not less than 12%
- Water-soluble extractive: Not less than 6%

CHEMICAL CONSTITUENTS^[5]

Bark: The bark is rich in condensed tannins, including D-catechin, lebbecacidin, and melacacidin, along with friedelin and β -sitosterol.

Heartwood: The heartwood contains lebbecacidin, leucopelargonidin, melacacidin, melanoxetin, okanin, and (+)-pinitol.

Seeds: The seeds mainly consist of proteins and amino acids.

Flowers: The flowers contain benzyl alcohol, benzoic acid, and p-nitrobenzoate as their major chemical constituents.

Leaves: The leaves are a good source of caffeic acid, kaempferol, myricitrin, and reynoutrin.

PHARMACOLOGICAL ACTIVITIES^[16]

Hepatoprotective activity, Anti allergic activity, Anti asthamatic activity, Analgesic, Anti inflammatory, Anticonculsant, Antifretility, Anti diarrhoeal, Antioxidant.

Table 8: Nutritional Value of Seeds (% dry matter).^[15]

Nutrient	Composition
Moisture	3.10
Crude protein	27.30
Ether extract	7.50
Crude Fibre	38.50
Carbohydrate	19.40
Mg	7.47
Mn	0.31
Cu	1.83
Fe	2.80
Se	4.87
Cd	0.15

RESEARCH PROFILE^[16,17]

- The alcoholic extract of Sirisha roots exhibited significant anti-cancer activity against Sarcoma-180 in mice. The pods also showed anti-cancer activity against human epidermal carcinoma of the nasopharynx in tissue culture.
- The stem bark demonstrated hypoglycaemic activity by lowering blood glucose levels in albino rats. Similar hypoglycaemic effects were also observed with the pods in albino rats.
- The pods exhibited significant anti-protozoal activity against *Entamoeba histolytica*, indicating their potential therapeutic role in protozoal infection
- The saponin fraction and seed extract of *Sirisha* significantly inhibited mast cell rupture in the mesentery and peritoneal fluid of sensitized rats. Similar protective effects were observed in both active and passive systemic anaphylaxis, indicating the plant's potent anti-allergic and mast cell-stabilizing activity.

DISCUSSION

Sirisha (*Albizia lebbek* Linn.) is an important medicinal plant in Ayurveda, widely recognized for its *Vishaghna* (anti-toxic) and *Shwasahara* (respiratory) properties. It is described in classical *Ayurvedic* texts for its synonyms, pharmacological properties, therapeutic actions, and clinical uses. According to *Ayurveda*, it possesses *Kashaya-Tikta*

Rasa, Laghu-Ruksha Guna, Sheeta Veerya, and Katu Vipaka, making it beneficial in managing *Kapha-Pitta* disorders, poisoning, respiratory diseases, skin disorders, and inflammation.

Modern studies have identified several bioactive compounds, including saponins, flavonoids, tannins, alkaloids, glycosides, and phenolic compounds, which contribute to its antioxidant, anti-inflammatory, anti-allergic, antimicrobial, immunomodulatory, hepatoprotective, and antivenom activities. These findings support its traditional Ayurvedic uses. However, further standardized clinical studies are needed to confirm its safety, efficacy, and evidence-based therapeutic applications.

CONCLUSION

Sirisha (Albizia lebbeck Linn.) is a well-known medicinal plant in *Ayurveda* with considerable therapeutic value. Both traditional *Ayurvedic* texts and modern scientific evidence support its use in the treatment of poisoning, allergic disorders, respiratory ailments, skin diseases, and inflammatory conditions. Its rich phytochemical profile and broad spectrum of pharmacological activities highlight its potential for therapeutic and pharmaceutical applications. However, further well-planned clinical studies are necessary to validate its efficacy, ensure safety, and establish standardized guidelines for its use in contemporary healthcare.

REFERENCES

1. *Bhavaprakasa Nighantu of Bhavmishra* Commentary by Prof. K.C. Chuneekar, Edited by Dr.G.S. Pandey, Revised edition- 2010, Varanasi, Chaukhambha Bharati Academy, 506.
2. *Acharya Shodhala, Shodhala Nighantu*, Edited by Prof. P.V. Sharma, Oriental Institute Baroda, 1978; 79: 116.
3. *Sharma Priya Vrat, Dravyaguna Vijnana*, Volume II, Re-print 2017, Varanasi, Chaukhambha Bharati Academy, 773,774,775.
4. *Ayurvedic Pharmacopiea of India*, 1st edition, Part 1, Volume 3, Government of India, Ministry of Health & Family Welfare, Department of ISM & H, Delhi, 201,202.
5. *A Text Book of Dravyaguna Vijnana* by Dr.J.L.N Sastry & Dr. Tanuja M.Nesari, Foreword by Prof. Mita Kotecha, Edition- 2018 Volume 2, Chaukhamba Orientalia, Varanasi, 274,275, 277,
6. Sharma PV, Sharma GP, editors. *Kaiyadeva Nighantu (Pathyapathya Vibodhaka)*. Varanasi: Chaukhambha Orientalia, 1979; 180.

7. Narhari P. Raj Nighantu. Sankhyadhar SC, translator and commentator; Sankhyadhar D, compiled and completed. 1st ed. Varanasi: Chaukhambha Orientalia, 2012; 432, 433.
8. Sastry JLN. Illustrated *Madanapala Nighantu (Madanapala Nighantu)*. 1st ed. Varanasi: Chaukhambha Orientalia, 2010; 503, 504.
9. Deshpande MM, Deshpande AP. *Dravyagunavigyan. Dwitiya Khand (Aushadhi Vigyan)*. 42nd ed. New Delhi: Chaukhamba Sanskrit Pratishthan, 2017; 142.
10. Sharma PV. Classical Uses of Medicinal Plants. Haridas *Ayurveda* Series. Vol. 4. Varanasi: Chaukhambha Visvabharati, 1996; 374, 375.
11. Ojha J, Mishra U, editors. *Dhanvantari Nighantu (Hindi Gunakarmatmak Tippani Sahit)*. Varanasi: Chaukhamba Surbharati Prakashan, 2018; 227.
12. Pandey G. *Dravyaguna Vijnana: Materia Medica–Vegetable Drugs (English–Sanskrit)*. Part III (P–Y). Varanasi: Chowkhamba Krishnadas Academy, 1998; 481, 482, 485.
13. <https://www.ijpsjournal.com/article/a-review-on-parts-of-shirish-albizia-lebbeck-l-benth-used-as-ayurvedic-drugs>
14. https://www.researchgate.net/publication/237100081_Nutrients_and_Antinutrients_Analysis_of_Albizia_lebbeck_Seed
15. <https://jaims.in/jaims/article/download/1804/2087?inline=1>
16. Dhar ML, Dhar MM, Dhawan BN, Mehrotra BN, Ray C. Screening of Indian plants for biological activity: I. Indian J Exp Biol., Oct. 1968; 6(4): 232-247.
17. Johri RK, Zutshi U, Kameshwaran L, Atal CK. Effect of quercetin and Albizzia saponins on rat mast cell. Indian J Physiol Pharmacol, Jan-Mar. 1985; 29(1): 43-46.
18. Vaidya Bapalal. G., Nighantu Adarsha, Volume I, Reprint 2007, Varanasi, Choukhambha Bharati Academy, 515, 516.