

Albizia lebbek (L.) Benth. : A Short Review

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Abstract- *Albizia lebbek* (L.) Benth. (Family- Fabacrae) are commonly known as shirisha, siris and shris in hindi [1]. It is a significant medicinal tree found in India and other countries [2] Folk medicine of the natures is the medicines of the local peoples. They are the resultant of the human close observation of the nature as well as their natural organisms. In this case they watch the plants and their products and the utilise them for the cure of the diseases. Magic and the witchcraft play a great role in it. In these days the diseases was supposed to be the factor for the resultant of the environment as well as the external factors are different from the chemical medicines; they are the part of their cultures. This information passes from the generation to the generation by the talking and by the other means. The main difference between modern chemical medicine and traditional folk medicine is the causal factors of the disease. While modern chemical medicine tries to explain the causes of disease by germ theory, traditional medicine, which also accepts the existence of germs, explains disease by magical and supernatural event. Here in this review articles we are presenting the general aspects of the *A. lebbek* as well as the there some applications which are used by the peoples. The plant is very valuable from the ethnobotanical point of view and there parts extracts are used in the Indian Ayurveda as well as in the homeopathy and the Arabic medicines.

Keywords- *Albizia lebbek* (L.) Benth., germ theory, traditional medicine, the Indian Ayurveda, Folk medicines', homeopathy and the Arabic medicines.

I. INTRODUCTION

Plant has played an important role in maintaining human health and improving the quality of human life for thousands of years [3]. Treating with the medicinal plants is as old as the human kind's cultures. The connection of the man with the drugs for the treatment of the diseases is the very old practices. The evidences of the medicines goes back to the very old literature they have been declared by the written literatures as well as the old testaments and preserved old monuments. The decreasing efficacy of synthetic drugs and the increasing contraindications of their usage make the usage of natural drugs topical again. The oldest written evidence of medicinal plants' usage for preparation of drugs has been found on a Sumerian clay slab from Nagpur, approximately 5000 years old. It comprised 12 recipes for drug preparation referring to over 250 various plants, some of them alkaloid such as poppy, henbane, and mandrake were found to be the best usable plants drugs in that era. The Indian holy books Vedas are the very good collection of the utilization of the trees and the herbs for the treatment of the diseases. In the Vedas there are mentions of the treatment with plants, which are abundant in that country in various cities. Numerous spice plants used even today which are used in India as well as in the other parts of the world,

originate from the India: nutmeg, pepper, clove, jeera, fenum graecum, haldi, etc. they are more safe and easy to use than the chemical drugs. Here in this review article we are presenting some of the aspect of the *Albbizia lebbek* (L) Benth [4, 5]. The genus *Albizia* comprises about 150 species. These are generally trees and shrubs native to tropical and subtropical regions of Asia and Africa country [6]. It is a fast-growing, medium-sized deciduous tree [7]. *Albizia lebbek* are used for centuries as remedies for human and animal diseases because of their therapeutic values and it is a fast growing tree with a spreading umbrella-shaped leaf and smooth grayish brown bark [8].

II. BOTANICAL CLASSIFICATION: [9]

Domain	Eukaryota
Kingdom	Plantae
Subkingdom	Tracheobionta
Superdivision	Spermatophyta
Division	Magnoliophyta
Class	Magnoliopsida
Subclass	Rosidae
Order	Fabales
Family	Fabaceae
Subfamily:	Mimosidae
Genus	<i>Albizia</i>

Species *Albizia lebbek*

Synonyms:

Albizia lebbek (L.) Benth. (Family – Fabaceae) is commonly known as Lebbek Tree, siris tree in English; shiris Tree, siris in Hindi, shirish tree in gujrati, siris tree in urdu, Bengali and marathi, bage mara ,bagey, hombage in kannad, sitapuspa, sukapriya tree, bhandi tree, mrdupuspa tree in sanskrit, nanmenivaka ,vaka in malyalam, sirisha in oriya, vakai in tamil, sareehn and sirish in Punjabi and dirisena in telgu.

Common names:

East Indian walnut, fry wood, koko, lebbek, lebbek tree, siris tree, women's tongue tree, lebbekboom, ebano oriental, coraçao de negro, lingua de mulher, lingua de sogra [10].

In India:

bage, begemara, bengha, beymada, bhandir, diriina, chinchola, darshana, dieng salvrin, dirasan, dirasanam, dirisana, doddabagi, gachoda, garso, goddahunse, harreri, hirih, kalbaghi, kalshish, karuvagei, katu vagai, katvaghe, kinhi, kokko, kona, kothia koro, lasrin, mathirsi, moroi, munipriva, nenmenivaka, salaunjai, samkesar sirisha, sarin, sarshio, seleyadamara sirsul, shrin, shirson, shirish, sirai, sirar, siras, sirin, siris, sirish, sirisah, tantia, tinia, vaga, vagai, vagei, vaka, vakai, vellavaka, velvgai, voghe [11].

Distribution:

The *A. lebbek* (L.) Benth. is native to India, Pakistan and Sri Lanka to Burma [12]. The tree has been introduced as an ornamental and plantation tree throughout the tropics and northern subtropics, including the Greater and Lesser Antilles, Colombia, Central America, Brazil and Venezuela, [13]. The Andaman Island, Myanmar, Asia, northern Australia, tropical Africa and also distributed in tropical and subtropical areas also found in dense deciduous forests in tropical and subtropical countries of Asia, as Laos, Malaysia, Cambodia, Vietnam, Indonesia, Australia, Africa, Thailand, China, Sri Lanka, Malaysia, the eastern islands of Indonesia.

Habit, Habitat and Ecology:

- *A. lebbek* is found in deciduous and semi-deciduous monsoon forests, and rainforests in its native habitat, and in a variety of situations in the humid and semi-arid tropics and subtropics.
- The tree is planted to check soil erosion, as shade tree in coffee and cardamom plantation and as green manure [14]. *A. lebbek* (L.) Benth. grows in a wide range of climates, covering an annual rainfall range of 600 - 2500 mm, and can also be grown successfully in areas with an annual rainfall as low as 400 mm.
- It grows in Himalayan valleys up to 1600 m. It can tolerate lower and more irregular rainfall conditions. Found from sea level up to 1800 m

altitude. The species shows high adaptation to a wide range of soil types, from acidic soils to alkaline and saline, eroded soils, laterites except heavy clays conditions. Older trees can withstand in heavy grazing and fire by utilizing the reserves in the root system and, young plants can also enable to survive in total defoliation from fire or grazing and night frosts of considerable intensity.

- Average day temperatures ranging from 19°C to 35°C is needed for optimal growth. The seedlings are unable to tolerate frost. The trees are leafless for only 4-6 weeks and their after new leaves are produced at the height of the dry season, followed in the tropics by a gregarious flowering [15]. The plant is also used as a windbreak crop [16].

Description of the tree:

- A large, erect, unarmed, deciduous, spreading tree. *A. lebbek* (L.) Benth.
- Tree growing to a height of 18–30 m tall with a trunk 50 cm to 1 m in diameter. The leaves are bipinnate, 7.5–15 cm long, with one to four pairs of pinnae, each pinna with 6–18 leaflets.
- The flowers are white, with numerous 2.5–3.8 cm long stamens, and very fragrant. The fruit is a pod 15–30 cm long and 2.5-5.0 cm broad, containing six to twelve seeds [17].
- Deciduous tree, growing to 30 m tall in native forests. In open situations, trees develop a spreading, sometimes multitemmed habit, to 25 m tall and 30 m across, with low branching. Can develop root suckers, and produces dense coppicing from cut stumps.
- Stems terete, punctate, green, puberulous or pubescent when young, rapidly becoming grey brown with time. Leaves bipinnate with (1 -) 2 - 4 (- 5) pairs of pinnae along a rachis 8 - 9 cm long. Pinnae comprise rachilla 5 - 10 cm long, bearing 3 - 11 pairs of asymmetric (midrib closer to the abaxial margin), oblong to elliptic-oblong leaflets 1.5 - 6.5 cm long and 0.5 - 3.5 cm wide, nyctinastic when young, fixed in older leaves.
- Inflorescence a terminal or axillary (often 2 or more per axil), 5 - 9 cm diameter semi-globular cluster of 15 - 40 flowers; peduncles 5 - 10 cm long. Pods flat, glabrous, coriaceous, indehiscent, 12 - 35 cm long, and 3 - 6 cm wide, undulating along the sutures, light yellowish-brown when mature, containing 3 - 12 seeds. Bark rough, grey, somewhat flaky; inner bark reddish.
- Flowers, fragrant, with pedicels 1.5 - 4.5 (- 7) mm long; calyx 80 puberulous, 3.5 - 5 mm long; corolla 5 - 11 mm long, terminating in 5 triangular lobes pubescent at the apex; filaments numerous, 1.5 - 3 cm long, fused at the base, predominantly white to cream in colour, tipped with pale green, and becoming dark yellow with age. Seeds brown

in colour, flattened ellipsoidal, 7 - 11 mm x 6 - 9 mm x 1 - 1.5 mm; (5,000 -) 7,000 - 11,000 (-16,000) per kg [18,19,20].

***Albizia Lebeck* (L.) Benth Uses:**

1. Bark

Mildly thermo genic, astringent, acrid, bitter, sweet, expectorant, aphrodisiac, depurative, ophthalmic, tonic, restorative [21] diseases of the gum and toothache [22] weakness, alexiteric, cures diseases of blood, anthelmintic, itching, leucoderma, excessive perspiration, skin disease, piles, deafness, scabies, syphilis and boils [23] helminthes infections, bronchitis, dental infections, leprosy, , anti-diarrheal activity and paralysis [24] pruritus, eczema, paralysis and worm infestation [25].

2. Flower

Asthma, tropical pulmonary eosinophilia [26] bronchitis and chronic cough [27] chronic catarrh, inflammation, poisoning, scrofula, seminal weakness, skin diseases, ophthalmopathy, leucoderma and leprosy [28].

3. Leaves

Antiseptic, anti-cancer activity, anti-tubercular, tuberculosis, antimicrobial, anti-ovulatory, reddishness of eyes, and trauma, anti- protozoal, anti-dysenteric and anti-fertility [29].

4. Seed

The seed oil is applied topically to cure leucoderma, scrofulous swellings and astringent, aphrodisiac [30] diarrhoea and piles [31].

5. Heartwood

Making cabinet timber and also in the doors of Chinese temples [32] veneer and furniture [33].

III. CONCLUSION

Overall this is the short review articles on the *Albizia lebeck* (L) Benth. The plants is very useful medically as well as the ethically, a lot of the work has been done on the phytochemistry well as the pharmacology of the tree and we found the tree as the very valuable.

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