

Hadga (*Sesbania Grandiflora* Linn.) –A Unique Ayurvedic Remedy

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Introduction

Ayurvedic medicine also known as Ayurveda, originated in India several thousand years ago. The term "Ayurveda" combines the Sanskrit words *ayur*

(life) and *Veda* (science or knowledge) thus; Ayurveda means "the science of life. *Sesbania grandiflora* (also known as agati, syn. *Aeschynomene grandiflora*) or hummingbird tree / scarlet wisteria is a small tree in the genus *Sesbania*. commonly it is known as caturay, katurai(Chamorro), corkwood tree, scarlet wisteria, sesban, vegetable hummingbird(English), agati a grandes fleurs (French), katurai(Palauan), agathi, agati (Tamil), hadga (hindi, marathi). *Sesbania grandiflora* (Linn) belonging to family *Leguminosae* contains plenty of sterols, saponins and tannins which are responsible for its various pharmacological properties and has been widely used in Ayurveda for processing of various formulations in Rasashastra¹. Parts used are Root, Bark, Leaf, Flower and fruit. *Sesbania grandiflora* is a loosely branching tree up to 15 m tall. Its leaves are pinnately compound up to 30 cm long with 20-50 leaflets in pairs, dimensions 12-44 x 5-15 mm, oblong to elliptical in shape. Flowers are large, white, yellowish, rose pink or red with a calyx 15-22 mm. Pods are long (20-60 cm) and thin (6-9 mm) with broad sutures containing 15-50 seeds. The active ingredients of *Sesbania grandiflora* are leucocyanidin and cyanidin present in seeds, oleanolic acid and its methyl ester and kaemferol-3-rutinoside which are present in flower. The bark contains tannins and gum. Saponin and Sesbanimide isolated from seeds. Ayurvedic Medicinal Properties are Rasa (taste) : Tikta, Guna (property) : Lakhu, Rooksha, Virya (Potency) : Seeta.

According to Ayurvedic literature, the plant pacifies vitiated vata, rheumatism, arthritis and scabies. Hadga is used as an ayurvedic remedy for treating fever, sinus, bruises, and venereal diseases etc. It is one of the richest natural sources of vitamin A. Fruits are used for anemia, bronchitis, fever, tumors. They are laxative, and possess intellectually stimulating properties. It is also prescribed for the pain and thirst. In Ayurvedic medicine, the leaves are utilized for the treatment of epileptic fits. The juice of the leaves is considered to be anthelmintic and tonic and

is used to treat worm infections, biliousness, fever, itchiness and nyctalopia.

Traditionally, in folk medicine Hadga is used as an aperient, diuretic, emetic, emmenagogue, febrifuge, laxative, and tonic.² and as a remedy for bruises, catarrh, dysentery, eye infections, headaches, smallpox, sores, sore throat, and stomatitis, it is also used in the treatment of anemia, bronchitis, headache, nasal inflammation, leprosy, gout and rheumatism.

Table 1: Pharmacological activity of various parts of *Sesbania grandiflora*(Linn.)

Scientific Name	Common Name	Family	Parts used	Pharmacological activity.
Sesbania grandiflora	Agati Sennabeen Drummond Sesbania	Leguminosae	Bark	Anti ulcerogenic activity. Anticonvulsant
			Leaf	Anxiolytic, Hepatoprotective, antioxidant and Antiurolithiatic activity.
			Flower	Anti cancer, Anti microbial Analgesic and Anti pyretic activity.
			Fruit	Used for Anaemia, fever and Bronchitis.
			Root	Anti inflammatory and Anti pyretic.

I have read a published manuscript titled Anti bacterial activities of *Sesbania grandiflora* extracts with a great interest. In that study, Siriporn Okonogi³ concluded that *Sesbania grandiflora* leaf extract does not show significant zone of inhibition against *E. coli* and *Staphylococcus aureus*. but a study conducted by us revealed that *Sesbania grandiflora* ethanolic and aqueous extract showed the significant zone of inhibition against *E. coli* and *Staphylococcus aureus*. the ethanolic leaf extract is found to be more active than the aqueous extract⁴. Hence, I conclude that *Sesbania grandiflora* leaf extract possess good antibacterial activity against the organisms tested. moreover, the result may be positive to us because it is a refined extract

.not a crude extract. since, crude extract may contain few ingredients in it which may be responsible for showing absence of zone of inhibition when tested against *E. coli* and *Staphylococcus aureus*.

Hence, with all this evidenced based diverse pharmacological actions and scientific studies, Hadga (*Sesbania grandiflora*) is proved to be a good Ayurvedic plant to treat various infections and further studies are also hoped to be conducted in root extract of *Sesbania grandiflora* to prove its Antibacterial, Antimycotic and Antioxidant activity.

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