

## Medecinal Plant Gojihwa

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**Abstract: Aim:** To collect and comprehensively review information available regarding the medicinal use of *Gojihva*. **Background:** *Gojihva* is a very useful medicinal plant commonly used for fever, cough, bronchitis, rhinitis, stomatitis & weakness of cardiac muscles. This plant is used by *Unani*, *Ayurveda* and other traditional systems of medicine. A lot of research has also been conducted on this plant exploring its pharmacological utilization. Though there are few review articles available on this plant but no review has comprehensively covered all aspects of *Gojihva*. The herb *Gojihva* is enumerated in *Ayurveda* as a *Shaaka* and is also a medicine in the management of various diseases. The official source of *Gojihva* is as per *Ayurvedic Pharmacopeia of India* is *Onosmabracteatum* Wall. However, at present many botanical sources, *Cacciniaglauca* Savi., *Trichodesmaindicum* R.Br., *Elephantopus scaber* L., *Launaea* species., and *Launaea*. is also considered as botanical sources of *Gojihva* by many scholars. *Gojihva* is mentioned in major *Ayurveda* classics but a comprehensive data regarding its synonyms, properties, and uses are not framed in a systematic manner. Further, there are no published contemporary reviews for its one of the source plants *Launae nudicaulis*. Thus, a comprehensive review of *Gojihva* is done from various *Ayurveda* classics. The relevant information about L.N is collected from research articles published in various journals, floras, and books. The review revealed that various synonyms indicating morphology of plant are given to *Gojihva* in *Nighantus*. The pharmacodynamics attributes are *Tiktarasa*, *Laghuguna*, *Sheetaveerya*, *Katuvipaka*, and *Kaphapittaghna*. It is indicated for external and internal administration for various diseases such as *Raktapitta*, *Kushta*, *Prameha*, and *Vrana*. L.N is reported for anti-diabetic, antioxidant, and anti-microbial potential.

**Keywords-** Drug review *Onosmabracteatum*, *Gojihva*, *Trichodesmaindicum*.

**Introduction** - *Onosma bracteatum* Wall. belongs to the family *Boraginaceae* and is traditionally used for its mucilaginous and refrigerant actions. This herb is predominantly used in decoction form and included in several classical formulations for treating burning sensations, cough, fever, and haematuria. Its pleasant colour and therapeutic nature also make it an ingredient in oils and pastes for external application. Indigenous systems of medicine regard this herb as a natural coolant, especially effective during summer-related ailments and *Pitta* disorders. The herb acts as a natural blood purifier and is often included in formulations for cooling and soothing the body. It holds a significant place in traditional medicine due to its versatility and minimal side effects.

**Habit/Habitat** - The plant thrives in well-drained, light soils and is typically found on sun-facing slopes of the Western and Central Himalayas, ranging from Kashmir to Kumaon at altitudes between 3500 to 4500 meters. In Himachal Pradesh, it is commonly observed in the districts of Kangra, Chamba, Kinnaur, and Lahaul-Spiti.

**Classification** –

According to *Charaka Samhita* – *Shaka Varga*

According to *Vagbhata* – *Shaka Varga*

According to *Bhavaprakasha Nighantu* – *Guduchyadi Varga*

According to *Kaiyadeva Nighantu* – *Oushadhi Varga*

According to *Bhavprakash Nighantu* *Guduchyadivarga*

Kingdom – *Plantae*

Order – *Boraginales*

Family – *Boraginaceae*

Genus – *Onosma*

Species – *Onosma bracteatum* Wall.

गोजिह्वातलाशीताग्राहिणीकफपित्तनुत्॥

हृद्याप्रमेहकासास्त्रणज्वरहरीलघुः।

कोमलानुवरातिकास्वादुपाकरसास्मृता॥

According to the above shloka, *Gojihva* has bitter, astringent, and sweet taste, cold potency, light in nature, and balances *Kapha* and *Pitta* dosha. It is absorbent in nature. It is effective in the management of heart diseases, diabetes, cough, bleeding disorders, wound healing, and fever. It has a sweet post-digestion effect.

Name - Hindi – *Goaza*, *Ganjaba*, *Goziya*

English – *Cow's tongue*, *Lisanussoar*, *Sedge herb*

Arabic – *Taharatulsanulshur*, *Lasanulshur*

Bengali – Gaozaban, Dadishaka  
 Gujarati – Bhopathsri  
 Kannada – YettinaNalage  
 Marathi – Pathari  
 Parsi – Kalamarumi  
 Telugu – Yedunalakachattu  
 Urdu – Gaozaban  
 Sanskrit – Darvipatra, Gauajihva, Kharaparni, Gauji  
 Assamese – Lisanusaur  
 Malayalam – Kozhuppu  
 Odia – Kharsan, Kharaptra  
 Punjabi – Kazban  
 Tamil – Kharaptra, Dharviptra, Kozha



**Morphology** - *Onosma bracteatum* is a large, herbaceous perennial shrub that grows up to 40 cm in height. It has a simple, hairy stem arising from a cluster of radical leaves and a black woody rootstock, 2.5–5 cm in diameter, ending in a knotty head that gives rise to multiple erect or ascending stems. The stem is greenish-yellow, rough due to white, hispid hairs, and marked by longitudinal wrinkles and cicatrices. Its root is purplish-red internally, while the stem is rarely branched and covered with calcareous tubercles and bristles. The leaves are thick, petiolate, lanceolate to ovate-lanceolate, and measure 12-30 cm in length. Both surfaces of the leaves bear tubercle-based hispid hairs-greenish-yellow on top and white underneath. Lower leaves are stalked and bristly, while upper ones are smaller. The plant bears deep blue, trumpet-shaped flowers that later turn purplish, arranged in silky clusters, and densely covered with white bristles. The fruit consists of ovoid, rough nutlets.

**Properties** - Taste (Rasa) – Bitter (Tikta), Astringent (Kashaya), Sweet (Madhur)

Physical property (Guna) – Light (Laghu)

Potency (Veerya) – Cold (Sheet)

Post-digestion effect (Vipaka) – Sweet (Madhur)

Effect on Tridosha – Balances Pitta and Kapha

Cardiotonic	Antidiabetic	Antitussive
Antipyretic	Absorbent	Anti-asthmatic
Antitoxic	Dental health support	Anti-inflammatory
Wound healing	Blood purifier	Antileprotic
Diuretic	Hepatoprotective	Anticancer
Anxiolytic	Cardiac muscle relaxant	Anti-ageing

**Parts Used** –Leaves, Flowers.

#### Internal Uses

**Nervous System** – Strengthens the nervous system and is beneficial in managing mental health conditions

**Digestive System** – Useful in constipation and jaundice,

and aids in regulating Vata movement. It exhibits mild laxative properties

**Circulatory System** – Supportive in conditions like Amavata and cardiac debility

**Respiratory System** – Balances Kapha dosha and is helpful in cough, asthma, dyspnea, and nasal discharge. Decoction with licorice is useful for cold and congestion

**Excretory System** – Acts as a diuretic and is indicated in painful urination, pus in urine, and urinary tract discomfort

**Satmikanara (Rejuvenation)** – Enhances overall vitality and is effective in general weakness and debility

**Tapakrama (Fever Management)** – Reduces fever, quenches excessive thirst, and soothes burning sensations

**Morphology** - *Onosma bracteatum* Wall a revered herb in Unani and Ayurvedic systems, exhibits significant cardioprotective and anti-inflammatory potential owing to its diverse phytoconstituents. Shikonin and its derivatives, a group of naphthoquinones, possess potent antioxidant properties that help reduce oxidative stress in myocardial tissue and inhibit inflammatory mediators like NF-KB and COX-2. The presence of phenolic acids and flavonoids such as kaempferol, rutin, and catechin further enhances its ability to neutralize free radicals, improve endothelial function, and prevent lipid peroxidation. Triterpenoids and selective pyrrolizidine alkaloids contribute mild anti-inflammatory and tissue-protective actions, supporting vascular and hepatic health. Pharmacological investigations also confirm its hepatoprotective, anti-asthmatic, and smooth muscle relaxant activities, suggesting a multifaceted role in managing cardiovascular, hepatic, and systemic inflammatory disorders.

**Cardio Protective Activity** - *Onosma bracteatum* Wall., a revered herb in Unani and Ayurvedic systems, exhibits significant cardioprotective and anti-inflammatory potential owing to its diverse phytoconstituents. Shikonin and its derivatives, a group of naphthoquinones, possess potent antioxidant properties that help reduce oxidative stress in myocardial tissue and inhibit inflammatory mediators like NF-KB and COX-2. The presence of phenolic acids and flavonoids such as kaempferol, rutin, and catechin further enhances its ability to neutralize free radicals, improve endothelial function, and prevent lipid peroxidation. Triterpenoids and selective pyrrolizidine alkaloids contribute mild anti-inflammatory and tissue-protective actions, supporting vascular and hepatic health. Pharmacological investigations also confirm its hepatoprotective, anti-asthmatic, and smooth muscle relaxant activities, suggesting a multifaceted role in managing cardiovascular, hepatic, and systemic inflammatory disorders.

**Diuretic Activity**- The methanolic extract of *Onosma bracteatum* has demonstrated significant diuretic activity in experimental studies, which is attributed to the synergistic action of its bioactive phytoconstituents. Phenolic compounds such as caffeic acid, rosmarinic acid, and p-hydroxybenzoic acid are known to enhance renal blood flow

and promote natriuresis (Increased sodium excretion in urine), thereby increasing urine output. Coumarins and salvianolic acid exert mild vasodilatory effects on renal vasculature, improving glomerular filtration. Artitrchin, another compound present in the extract, may further facilitate water and electrolyte excretion. Moreover, the aqueous fraction of the plant contains appreciable levels of potassium salts, which can act as mild diuretics by reducing sodium reabsorption in renal tubules and enhancing the osmotic gradient. Collectively, these compounds contribute to the plant's overall ability to support renal excretory function and fluid balance.

**Practical Uses** - Leaf ash of *Onosma bracteatum* is applied topically for managing stomatitis and to promote wound healing.

**Syrup: Jawarish Gojihva - Indications:** Used to treat fevers, urinary problems, and heat-related disorders.

**Additional Indications:** Promotes digestion and acts as a liver tonic.

**Gojihva Ark (Distillate) - Indications:** Effective in managing urinary infections and detoxifying the body.

**Additional Indications:** Acts as a cooling agent for Pitta-related disorders.

**Sharbat Gojihva - Indications:** Used for heatstroke, burning sensations, and skin disorders.

**Additional Indications:** Hydrates the body and soothes inflammation.

**GojihvaChurn (Powder) - Indications:** Treats respiratory ailments, indigestion, and hyperacidity.

**Additional Indications:** Enhances immunity and supports overall health.

**External Uses** - Helps relieve pain and burning sensations and promotes faster wound healing.

A decoction made from the leaves is traditionally used

for treating jaundice and relieving constipation.

Cold infusion of the leaves is administered in psychiatric disorders and epilepsy to calm the nervous system.

Cold infusion prepared from the flowers and fruits, when combined with *Glycyrrhiza glabra* (licorice) powder, is given in a dose of 50–60 ml to alleviate rhinitis and cough.

Leaf cold infusion also serves as a tonic, diuretic, and demulcent, widely prescribed in conditions like rheumatism, syphilis, leprosy, melancholic states, and renal ailments.

A 30–40 ml dose of leaf decoction is recommended to reduce fever and ease painful or difficult urination.

Decoction of the entire plant helps soothe functional heart palpitations and irritation in the stomach and urinary bladder.

Root powder is applied externally to treat various skin eruptions and dermal conditions.

**Dosage** –

Leaf powder – 4–6 gm with milk

Flower powder – 3–6 gm

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