

# CULTURALAND MEDICINAL PROPERTIES OF TELANGANA STATE TREE JAMMI CHETTU (SHAMI TREE) (PROSOPIS CINERARIA LINN.)

#### P. Saritha\* and U. Anitha Devi1

\*Department of Botany, Government Degree College For Women, Karimnagar-505001 (Telangana) India.

¹Department of Botany, Government Degree College For Women, Karimnagar.

#### **Abstract**

*Prosopis cineraria* Linn. Commonly known as Jammi Chettu, Shami Chettu and Spunge tree is the State Tree for both Telangana and Rajasthan states of India. It is also considered as the National tree for the United Arab Emirates. This tree has various medicinal properties to cure many diseases. It has been used as a folk remedy for various ailments like skin diseases, blood purifier, leprosy, dysentery, bronchitis, asthma, diabetes, anaemia, kidney & liver disorders and the leaf has antibacterial, antihyperglycemic, antihyperlipidemic, and antioxidant properties. Review of the present study aims to compile medicinal and cultural values of Jammi Chettu.

Key words: Jammi Chettu, Telangana, National Tree, Folk, Cultural Value

#### Introduction

Prosopis cineraria Linn. is a small to moderate sized tree found in the regions of Arabia and various parts of India such as Telangana, Andhra Pradesh, Rajasthan, Gujarat, Haryana, Uttar Pradesh and Tamilnadu. Prosopis cineraria spices have also been used in indigenous system of medicine as a folk medicine for various ailments as mentioned in ancient literature. It is used traditionally for treatment of various ailments like leprosy, muscular tremors, dysentery, asthma, leukoderma, bronchitis, dyspepsia, rheumatism, gastrointestinal, respiratory, cardiovascular disorders, piles and earache etc. Bark is used as a tonic, blood purifier and for the treatment of skin diseases.

The trees not only boost the growth and productivity of companion plants, but also provide fuel, fodder, food, small timber, medicines, gum and tannin.

Telangana State in India is known for its rich heritage in biological diversity. It has been distributed in to nine agro climatic regions. Among the flora, the state harbours a total of 2,800 taxa belonging to 1,051 genera under 185 families. This accounts for 16% of the Angiosperms known from India. Of these, 2,071 species belonging to 150 families and 796 genera are Dicotyledons and 729 species belonging to 255 genera and 35 families are

\*Author for correspondence: E-mail: saritha.perkari@gmail.com

## Monocotyledons.

Prosopis cineraria Linn. is the State Tree of Telangana which belongs to the family of Leguminosae, and sub family of Mimosaceae. The common name in India is Sami and the local names called in Telangana state are Jammi chettu or Shami Tree.

This tree also has a mythological importance in local communities This tree is a highly-revered tree of Hindu religion and is worshipped during the tenth day celebrations of Dussehra festival. During this time people distribute leaves of this tree to their elders to get their blessings and to relatives and friends to share mutual love and respect and to forget past bitterness. Because of its auspiciousness, this tree has been given synonyms like Lakshmi, Shiva, Sita etc.,

It is believed that if worshipped this tree cleanses sins and helps to defeat enemies. Lord Rama worshipped this plant before going to battle with Ravana. In Maha Bharath also pandavas hid their arms under this three. Now people worship the tree as follows, O Shami, Lord Rama has worshipped you. I now embark upon my journey to victory. May you make it pleasant and free from obstacles!

#### Habitant

In general, the tree grows on a variety of soils, but grows well on alluvial soils consisting of various mixtures of sand and clay. It is commonly seen on moderately saline soils, but quickly dries out where the soil is very saline.

Description of plant Structure is that it a is a small tree, ranging in height from 3–5 m (9.8–16.4 ft). Its roots have been found at a depth of 36 m in an alkali soil with 9.8 pH. Leaves are bipinnate, with seven to fourteen leaflets on each of one to three pinnae. Branches are thorned along the internodes. Flowers are small and creamy-yellow, it occurs during the driest months (March-June) and followed by seeds in pods. The tree yields a pale yellow to amber colored gum with properties similar to that of gum acacias.

The tree is found in extremely arid conditions, with rainfall as low as 15 cm (5.9 in) annually; but is indicative of the presence of a deep water table.

## Mythological importance

As mentioned before, this tree has a significant mythological value in the Hindu religion epics of Mahabharata and Ramayana. Long ago the pandavas ended their 'Agnatavasa' during their 13th year of exile in the forest, after Arjuna brought down the 'Gandeeva' from above the 'Shami' tree where they were hidden bundle of weapons looked like a corpse and was guarded by a snake and defeating the Kauravas during 'Vijayadasami'. Hence the 'Sami' tree has a special importance during this festive season. It has come as a tradition that kings used to perform pujas to their weapons and chariots under this tree. On this day Ayudha puja (a prayer to tools or weapons) is performed. In addition, tools, books, vehicles and appliances etc. also are worshipped. People go to Jammi tree on this day and recite the following sloka and also write it on a piece of paper and attach it to the tree:

Samee samayate paapam

Samee satruvinasanam

Arjunasya dhanurdhari

Ramasya priyadarsini

During dussehra people perform prayer with respect to this tree to celebrate the Pandavas Victory.

### Materials and methods

In the present study, detailed survey has been made on this plant with respect to its usage as a medicine to cure several diseases. Information was gathered and documented from all the districts of Telangana state. This plant was identified by using standard monographs and flora (Bhandari, 1990; Sharma, 1993). Further, Ethnomedicinal information was collected on this plant by conducting frequent interviews with local physicians who has been practicing indigenous system of medicine for the past many years. Furthermore, interviewed villagers, priests and tribal folks to gather more information about the medicinal values and mythological believes of this plant.

#### Results and discussion

The present study focused about the *Prosopis cineraria* Linn. for its medicinal values and mythological believes. During the survey, it was noticed that the tribal people of Karimnagar district totally depend on this plant for various diseases like asthma, dysentery, leucoderma, bronchitis, dyspepsia, rheumatism, gastrointestinal, respiratory, cardiovascular disorders, piles and earache etc.

In addition to providing medicinal properties, it is also supporting economically to the farmers in a form of fuel, firewood, and as a livestock.

#### Medicinal uses of Jammi chettu

#### Leaves:

Usually, farmers collect leaves and compost to fertilise their agricultural fields. The leaves also have some fungicidal and insecticidal properties which can control fungi and insects attacking plants. Humans use the extract of leaves to kill intestinal parasitic worms. Smoke which comes when burned the leaves can cure eye problems. The leaves are palatable and nutritious feed for livestock in desert.

#### Bark:

The Bark of the *Prosopis* is used as a source of tannin, dye and fibres. It is used for the preparation of medicines to cure for Stomach, Skin and Eye problems, and to cure Rheumatism, Leprosy, Dysentery, Bronchitis, Asthma, Leucoderma and Piles. Water-soluble extract of the residue from methanal extract of the stem bark exhibits Anti-inflammatory properties. The bark is a prescribed medicine for Scorpion sting. The gum of the tree is nutritive and good in taste. It is used by pregnant woman at the time of delivery.

#### Flower:

*Prosopis* flower is pounded, mixed with sugar and used during pregnancy as safeguard against miscarriage.

#### **Pods And Seeds:**

The pods are used in the treatment of Urino-genital diseases. The seeds are reported to have a hypoglycaemic effect. Hormonal imbalance is the major cause of facial hair. Paste of Shami seeds prevents the growth of arm pit hair follicles permanently. The pods are with rich source



Figs:-1, 2& 3: Jammi Puja during Dussera festival, (2) Jammi Chettu and (3) Leaves





Fig. 4 & 5: (4) Jammi Flower (5) POD

of protein and carbohydrate and eaten by animals as fodder. It is also considered as dry fruit of desert and eaten as main ingredients of vegetable and pickle of main dish by local people.

This plant is recommended for the treatment of Snake bite. *Prosopis cineraria* pods possess nutrient values like protein, iron, vitamins A, C and other micro minerals.

#### **Traditional use of Prosopis:**

It has been used for centuries as a human diet in the Rajasthan state Region. The dry pods of the *Prosopis cineraria* is known as "Marwari Mewa", which reduces the craving of water in the summer. Because of this reason farmers use this during lean periods. Pods of the *Prosopis* increase milk production in animals.

#### **Environmental conservation:**

Prosopis cineraria can be used to fix nitrogen, it improves fertility and physical characteristic of the soil. It has a very deep tap root system and hence it does not generally compete with other associated crops. The improved physical soil conditions compared with higher availability of nutrients under the Khejri canopy explain the better growth of the crops associated with it. Due to its extensive root system, it stabilizes shifting sand dunes. It is useful as a windbreak shelterbelt in afforestation of dry areas. Since in arid regions, this is the only commonly growing tree species, it provides much needed shade and

shelter to the farmers working in the fields as well as to the cattle and wildlife during the summer months. Pods of Khejari are eaten by cattle, sheep, horses, mules, donkeys, goats, camel and other wildlife in desert. Especially black buck and chinkara in western Rajasthan have survived by eating pods and leaves of this tree.

## Conclusion

The unique feature of Shami is that it can grow in very harsh climatic conditions, and in poor or degraded soil and has many medicinal properties used in different ailments. *Prosopis cineraria* is a divine medical herb with several medicinal properties. Shami plant is used as a great remedy for pediatric disorders in ancient Ayurveda. The bark of shami is used in treating arthritis. The leaves of this herbal plant can be applied to the eyes which relieves from irritation. The paste of its leaves and barks is used as a medicine for treating scorpion sting. The tree of Shami plant is often used for afforestation to prevent from soil erosion. Its leaves have an auspicious use, it can be soaked in water for bathing which helps in removing sins and negative energy. This plant is also considered as lucky according to vastu shastra.

## Acknowledgements

Author is grateful to Dr. S. Vasantha Pillay, Rtd. Prof. of Plant Physiology Laboratory, Department of Botany,

University College of Science, Saifabad, Osmania University, Hyderabad.500004, Telangana, India.

#### References

- Bhandari, M.M. (1978). Flora of the Indian Desert, Scientific Publishers, Jodhpur, India.
- Burkart, A. (1976). A monograph of the genus *Prosopis Leguminosae*, subfam. Mimosoideae), *Journal of the Arnold Arboretum*, **57:** 219–249.
- Gangal, S., S. Sharma, and A. Rauf (2009). Fattyacid composition of Prosopiscineraria seeds. *Chemistry of Natural Compounds*, **45(5)**: 705–707.
- Khan, S.T., N. Riaz, N. Afza et al. (2006). Studies on the chemical constituents of *Prosopis cineraria*. Journal of the Chemical Society of Pakistan, **28(6)**: 619–622.
- Khare, C. P. (2007). Indian Medicinal Plants, Springer, Berlin, Germany.
- Kirtikar, K.R. and B.D. Basu (1984). Indian Medicinal Plants, vol. 2, International Book Distributors, Dehradun, India,
- Kumar, A., S.K. Yadav, S. Singh, and S.N. Pandeya (2011).

- Analgesic activity of ethanolic extract of roots of *Prosopis* cineraria (L.) Druce, *Journal of Applied Pharmaceutical Science*, **1(8)**: 158–160.
- Mali, A. and S.Kalidhar (2007). Phytochemical examination of *Prosopiscineraria* L.(druce) leaves, *Indian Journal of Pharmaceutical Sciences*, **69(4)**:576–578.
- Nandkarni, K.M. (2000). Indian Materia Medica, vol. 1, Popular Prakashan, Mumbai, India.
- Robertson, S., N. Narayanan and B. R. Kapoor (2011). Antitumour activity of *Prosopis cineraria* (L.) Druce against Ehrlich ascites carcinoma-induced mice. *Natural Product Research*, **25(8)**: 857–862.
- Sharma, S. and P.L. Soni (1994). Structural investigation of *Prosopis cineraria* (Kherzi) seed galactomannan. *Indian Journal of Chemistry*, Section B, **33**: 355–361.
- Velmurugan, V., G. Arunachalam and V. Ravichandran (2010). Antibacterial activity of stem bark of *Prosopis cineraria* (Linn.) Druce. *Archives of Applied Science Research*, **2(4)**: 147–150.