

Ethnobotany and the Sacred Divine Plant: Tulsi

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ABSTRACT

Ethno botany is the branch of Botany that studies the relationship of the plants with the people and the relevance of the plant in cultural practice, religious values and medicinal values for curing disease. Ocimum Sanctum is most sacred plant in India, commonly found in most of the Hindu household due to its religious profile. No plant in any part of the world commands such respect. Commonly known Tulsi, Ocimum Sanctum is a wondor herb due to its tremendous medicinal values. The chemical composition of Tulsi is highly complex and contains many nutrients and biological compound, makes it great medicinal herb used in India since time immemorial for curing and preventing disease.

1. Introduction

Ethno botany: Ethno botany is the scientific study of the relationship between people and plants. It is a branch of Botany concerned with the use of plants in folklore, religion, culture etc. The word ethno is derived from ethnic that refers to people, culture, beliefs, aesthetic, knowledge and practice. Botany is the study of plant kingdom, be it a tiniest fern or blade of grass or the tallest and greatest tree. Ethno botanical knowledge encompasses species and is rooted in observation, relationship, needs and traditional ways of knowing. Ethno botany is an integrative multidisciplinary field of learning. Therefore the tools of ethno botanical investigations are many, botany mycology, taxonomy, anthropology, ethnography, archaeology, comparative folklore, religious studies, chemistry, medicine, pharmacology and more.

The term 'ethno botany' was first applied by Harshberger in 1895 to the study of plants used by primitive and aboriginal people. Kirtikar and Basu (1935) stated, "The ancient Hindus should be given the credit for cultivating what is now called ethno botany". Jones (1941) defined it as the study of the inter-relationships of primitive man and plants. Schulte (1962) interpreted ethno botany as "usually the study of relationship which exists between people of a primitive society and their plant environment". Jain (2001) laid down that "ethno botany deals with the study of total natural and traditional inter relationships between man and plants and his domesticated animals". Ethno botany must have the first knowledge, which the early man had acquired by sheer necessity, intuition, observation and experimentation (Bedding, 1925; Apparathan and Chellandurai, 1986; Battacharyya, 1988 and Jain, 1997). Since Harseberger the definition of ethno botany has changed & evolved along with the formation & evolution of the field (Jain, 1996).

Ocimum sanctum (Holy basil) is an erect, many-branched sub-shrub, 30-60 cm (12-24 in) tall with hairy stems. Leaves are simple opposite green or purple, petioled, with an ovate, up to 5 cm (2.0 in)-long blade which usually has a slightly toothed margin; they are strongly scented. The purplish flowers are placed in close whorls on elongate racemes. Tulsi is native throughout the world tropics and widespread as a cultivated plant and an escaped weed. It is cultivated for religious and

medicinal purposes and for its essential oil. Tulsi is an important symbol in many Hindu religious traditions, which link the plant with Goddess figure. The name "Tulsi in Sanskrit means 'the incomparable one'. The presence of a Tulsi plant symbolizes the religious bend of a Hindu family.

Local names- Hindi: Kala Tulsi, English: Holy Basil, Malayalam: Trittavu, Marathi: Tulshi, Telugu: Tulsi.

Sacred Aspects and Religious Profile: "The Tulsi is most sacred plant in India. No Plant in the world commands such... universal respect, adoration and worship from the people as does Tulsi. It is the plant par excellence." [Indian Botanical Folklore] "A house with a Tulsi plant in front of it is a place of pilgrimage... The wind that carries the aroma of Tulsi spreads purity wherever it blows."

In India, many traditional Hindus grow Tulsi and have at least one living Tulsi plant. They use its leaves in routine worship; they feel protected by its sacred aura: and they use rosary beads for meditation made from its cut stems.

The origin of Tulsi is cited in Padma Purana. 4 'as the verse in Padma Purana Lord Brahma has Narrated the story of origin of Tulsi to sage Vasistha. As per the story there was a ruler of Mathura a demon named Kalnemi. Her daughter named Vrinda was very beautiful and Lot married with King Jalandhar, the demon of water. She was completely devoted to her husband and therefore created a shield around him that made him invincible. Jalandhar claimed himself the Lord of the oceans and when the ocean chummed in the search of immortal nectar numerous valuable things were obtained. He claimed all the things being supposed himself the Lord of ocean. This created the conflicts between him and god. But he was invincible as long as Vrinda stood beside him. To overcome his power Lord Vishnu charm Vrinda in form of Jalandhar and was successful to take her out of the grasp of the demon, which led to the defeat of Jalandhar. When Vrinda came to know about the trick, grieved by her husband death, she cursed Lord Vishnu to become a black stone called shaligram and also cursed him to lose her wife Lakshmi, Lord Vishnu blessed her to become Tulsi plant for her devotional nature and also promised her to marry her after year on the

day of Krishna ekadashi.

Srimad-Bhagavatam explains the special position of the Tulsi plant: "Although there are numerous flowering plants full of transcendental fragrance in the spiritual realm, they are aware that Tulsi is given special preference by the Lord, who garlands Himself with Tulsi leaves." Satyabhama once weighed Lord Krishna against all her legendary wealth. The scales did not balance until a last single tulsi leaf was placed along with the wealth on the scale by Rukmini with devotion. Thus, tulsi played the vital role of demonstrating that even a small object offered with devotion is of greater value than all the wealth in the world, Worship of Lord Vishnu and his one of the most famous incarnation Shri Krishna is incomplete without offering Tulsi leaves. Devotees of Lord Krishna chant on beads made from the wood of the Tulsi plant and wear Tulsi beads around their necks, There is a Sanskrit: "Tulanaanaastiathavatulsi" that which is incomparable in its qualities is the tulsi. It is the only poojasamagri which can be washed and reused. A traditional prayer tells that the creator-god Brahma resides in its branches, all Hindu pilgrimage centers reside in its roots, the Ganges flows through its roots, all deities in its stem and its leaves and the Hindu scriptures – the Vedas in the upper part of its branches. It is called as "the central sectarian symbol of Hinduism" and Vaishnavas consider it as "the manifestation of god in the vegetable kingdom". Garlands made of 10000 tulsi leaves, water mixed with tulsi, food items sprinkled with Tulsi are offered in veneration to Vishnu or Krishna.

A ceremony known as TulsiVivah is performed by the Hindus between PrabodhiniEkadashi (eleventh lunar day of the Waxing Moon of Kartika) to KartikPoornima (full moon in Kartika), usually on the eleventh or the twelfth lunar day. It is the ceremonial wedding of the Tulsi plant to Vishnu, in the form of his image, Shaligram or a Krishna or Rama image, Both the bride and the groom are ritually worshipped and then married as per traditional Hindu wedding rituals, It marks the end of the four-month Chaturmas period, which corresponds to the monsoon and is considered inauspicious for weddings and other rituals, so the day inaugurates the annual marriage season in India.

Phytochemistry of Tulsi: The leaves of Tulsi contain volatile oil comprising about methyl eugenol, eugenol, carvacrol and sesquiterpene hydrocarbon caryophyllene. The oils of *Ocimum sanctum* carries five fatty acid named – stearic, palmitic, oleic, linoleic and linolenic acids. It also contains a number of sesquiterpenes, monoterpenes, viz. bornyl acetate, elemene, neral and pinenes, camphene, camphor, cholesterol, stigmasterol and sitosterol. It is a good source of beta carotene, calcium and vitamin C. It

also contains tannins, camphor, flavanoid, triterpene, urolic acid, zinc, manganese, and sodium. Essential oils of Tulsi are antibacterial, antifungal and antiviral. The root contains beta-sitosterol and three triterpenes A, B and C.

Ayurveda and Tulsi: - Ayurveda is supposed to be a science of life and the world's oldest medical system. It has a holistic approach to health and disease that focuses on preserving and promoting good health and preventing disease through healthy lifestyle practices. These practices include consumption of fresh, minimally processed foods, the use of chemical formulas that eradicate ageing and disease, sophisticated detoxification practices and regular consumption of adaptogenic herbs that enhance the body's capacity to

maintain balance in the midst of a variety of stressors. Ayurveda's use of medicinal and culinary herbs draws upon India's incredible biodiversity with a variety that is unsurpassed by any medical system; yet, of all the herbs used, none has a status comparable to tulsi or holy basil (*Ocimum sanctum*). Very commonly found in India, Tulsi is recommended for hundreds of serious disorders and is actually highly recommended as daily prophylactic to prevent disease. Tulsi is pungent and bitter (rasa), pungent in post digestive effect (vipaka) and has hot potency (virya). It alleviates kapha and vatadosas, but slightly aggravates the pitta dosa. It possesses light and dry attributes. On the contrary the seeds are oily (snigdha) and slimy (picchila) in attributes and have a cold potency. Tulsi is a stimulant, aromatic herb and effectively reduces the fever. Ayurvedic wisdom, suggests that tulsi is a tonic for the body, mind and spirit that offers solutions to many modern day health problems. Tulsi is credited with giving luster to the complexion, sweetness to the voice and fostering beauty, intelligence, stamina and a calm emotional disposition.

Tulsi: Medicinal uses: - The seeds, leaves and roots of the Tulsi have great medicinal value. It is used both internally and externally. Some of the medicinal uses of Tulsi are as mentioned below:

Relieves Fever:- Highly potent anti bacterial, antibiotic, germicidal and fungicidal properties are present. The leaves of Tulsi is very helpful in alleviating or curing almost all types of fevers. Fever is mainly caused due to infections from protozoa (malaria), bacteria (typhoid), viruses (flu), and even allergic substances and fungus. The tremendous disinfectant, germicidal, and fungicidal properties of tulsi destroy all those pathogens discussed above and heal the resulting fever. It is an old practice in India to have a decoction of tulsi leaves and flowers in case anyone is suffering from a fever.

Dental Care: Holy basil destroys the bacteria that are responsible for dental cavities, plaque, tartar, and bad breath, while also protecting the teeth. It also has astringent properties which make the gums hold the teeth tighter, thereby keeping them from falling. However, tulsi also has certain compounds like mercury, which has rich germicidal properties that can be harmful to the teeth if kept in direct contact for too long. Therefore, the leaves when chewed mitigate the infections of gums.

Kidney stone: Being a great detoxifier, an effective pain-killer, and a mild diuretic, Tulsi is also very effective in easy dissolution of kidney stones, and expelling the same painlessly through the urinary tract. It also helps clean out the kidneys through increased frequency of urination. Acetic acid and certain components in Tulsi essential oil facilitate dissolution of the stones. Finally, it has pain-killer effects and helps bear the pain from kidney stones as they pass. To cure the kidney stone it is suggested to take a mixture of juice of Tulsi leaves and honey, everyday for approx six months regularly.

Skin Care: The presence of essential oils in Tulsi, which are highly antibiotic, disinfectant, antibacterial, and antifungal in nature a smooth paste of tulsi leaves on skin rashes, acne, pimples, wounds, etc., is immensely useful for curing the same. External application on the skin also removes extra oil from the surface of the skin. Camphene in it gives a soothing and a cooling effect. The message with the leaves juice improves the circulation beneath the skin augments the sensation in the skin.

Eye Care: Regular consumption of leaves of Tulsi can protect eyes from the damage done by free radicals, such as cataracts, macular degeneration, glaucoma, vision defects, and ophthalmia, due to the high antioxidant content of its essential oils, vitamin A, and vitamin C.

Insect bites and stings: The prophylactic properties of Tulsi leaves are very supportive for curing bites and stings of insects. For this purpose, the affected areas must be fed with a teaspoonful of juice taken from fresh leaves of Tulsi, regularly after few hours. A paste of the fresh roots of Tulsi may instead be applied on the affected areas.

Helps in treatment of Cough, Cold and Asthma: Tulsi has specified actions on the respiratory system - pranvahasrtosa. It effectively liquefies the phlegm due to its hot and sharp attributes. It gives excellent result in cough due to Kapha, allergic bronchitis, asthma and eosinophilia. Combined with honey, the juice works well to control the hiccup. In tubercular cough, tulsi is also beneficial. A tea prepared with the leaves of tulsi is a common domestic remedy for cold, cough, mild indigestion, diminished appetite and malaise.

Beats Stresses and Pains: Leaves of Tulsi do possess adaptogen (stress relieving) properties along with pain-killing properties. Hence, leaves or juice of Tulsi help(s) in soothing the nerves, lowering the blood pressure and in regulating blood circulation, in beating the damaging effects of free radicals, and thus, in reducing inflammation/pain and stresses in the body. For beating stresses of daily life, it is suggested that one should consume 10-12 leaves of Tulsi every day.

Prevents Lungs disorder:- The compounds like vitamin C, camphene, eugenol, and cineole present in the essential oils of tulsi not only provide relief from the infections in the lungs but also help clear the lung congestion. Furthermore, they are found to be effective in healing the damages caused to the lungs due to smoking etc.

Prevents Heart disease:- It is a good blood purifier and is helpful in heart disease. Vitamin C and other antioxidants such as eugenol protect the heart from the harmful effects of free radicals. Additionally, eugenols very beneficial in reducing cholesterol levels in the blood.

Chemo preventive properties: - Tulsi may inhibit the growth of various cancers including oral cancer due to the presence of phytochemicals like eugenol.

2. Materials and methods

Several research papers have been consulted.

3. Conclusion

Ocimum Sanctum is one of the holiest herbs found in India and posses high religious and immense medicinal value. Due to the presence complex chemicals and bioactive compound Tulsi (*Ocimum sanctum*) may be used in various diseases in raw form and valuable medicinal drugs may be prepared from the all parts of it.

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