

Tulsi (Holy Basil) Health and Beauty Benefits

Ocimum tenuiflorum, commonly known as holy basil, *tulsi* or *tulasi*, is an aromatic perennial plant in the family *Lamiaceae*. It is native to the Indian subcontinent and widespread as a cultivated plant throughout the Southeast Asian tropics.

Holy basil is an erect, many-branched subshrub, 30–60 cm (12–24 in) tall with hairy stems. Leaves are green or purple; they are simple, *petioled*, with an ovate blade up to 5 cm (2 in) long, which usually has a slightly toothed margin; they are strongly scented and have a *decussate phyllotaxy*. The purplish flowers are placed in close whorls on elongated *racemes* (shoots).

Tulsi is cultivated for religious and traditional medicinal purposes, and also for its essential oil. It is widely used as an herbal tea, commonly used in Ayurveda, and has a place within the Vaishnava (one of the denominations) tradition of Hinduism (Indian religion and dharma, or way of life), in which devotees perform worship involving tulsi plants or leaves. Tulsi is an essential component of many curries and stews.

The three main morphotypes (varietals) cultivated in India and Nepal are *Rama tulsi* (the most common type, with broad bright green leaves that are slightly sweet), the less common purplish green-leaved (Krishna or *Shyam tulsi*, named after the Hindu deity) and the common wild *Vana tulsi* (e.g., *Ocimum gratissimum*).

The variety of *Ocimum tenuiflorum* used in Thai cuisine is referred to as Thai holy basil (Thai: กะเพรา *kaphrao*) and is the key herb in phat kaphrao, a stir-fry dish; it is not the same as Thai basil, which is a variety of *Ocimum basilicum* (Sweet basil). In Cambodia, it is known as *mreah-prov* (Khmer: ម្រះព្រូក).

DNA barcodes of various biogeographical isolates of tulsi from the Indian subcontinent are now available. In a large-scale phylogeographical study of this species conducted using chloroplast genome sequences, a group of researchers from [Central University of Punjab](#), Bathinda, have found that this plant originates from North-Central India. This basil has now escaped from cultivation and has naturalized into a cosmopolitan distribution.

Some of the phytochemical constituents of tulsi are *oleanolic acid*, *ursolic acid*, *rosmarinic acid*, *eugenol*, *carvacrol*, *linalool*, and β -*caryophyllene* (about 8%). Tulsi essential oil consists mostly of *eugenol* (~70%) β -*elemene* (~11.0%), β -*caryophyllene* (~8%), and *germacrene* (~2%), with the balance being made up of various trace compounds, mostly *terpenes*.

The genome of the tulsi plant has been sequenced and reported as a draft, estimated to be 612 mega bases, with results showing genes for biosynthesis of anthocyanins in *Shyama tulsi*, ursolic acid and eugenol in *Rama tulsi*. The [predicted proteins and other annotations](#) are available.

THE HISTORY OF TULSI AND ITS SIGNIFICANCE IN HINDUISM

Tulsi is a sacred plant for Hindus, particularly the Vaishnavite sect. It is worshipped as the “avatar” (the material appearance or incarnation of a deity) of god Vishnu’s wife *Lakshmi* (or *Shri*, the goddess of wealth, fortune, power, beauty, fertility and prosperity), and may be planted in front yards of Hindu houses or Hanuman temples.

In the past, women would wear tulsi leaves in their hair to attract potential suitors. The ritual lighting of lamps each evening during *Kartik* (in the lunisolar Hindu calendar this month typically overlaps October and November) includes the worship of the tulsi plant. Vaishnavas (followers of Vishnu) are known as “those who bear tulsi around the neck”.

Tulsi Vivah is a ceremonial festival performed between Prabodhini Ekadashi, the 11th or 12th lunar day of the bright fortnight of the Hindu month of Kartik, and Kartik Pournima (the full moon of the month).

THERAPEUTIC USES OF TULSI (HOLY BASIL)

Tulsi (Sanskrit: “*Surasa*”) is used for its medicinal properties in fresh, dried powder, herbal tea, and essential oil forms. In fact, it has been widely used in India, especially in Ayurvedic and Siddha practices to treat myriad ailments. In India, tulsi is prized for its potent medicinal and therapeutic benefits.

Basil plants can be seen outside many Indian and Hindu households. Some claim that it is forbidden to even chew tulsi leaves; they must be swallowed whole.

1. Prevent Vomiting

Tulsi (*Ocimum sanctum*) has been used [traditionally in Ayurveda](#) to prevent vomiting caused by a variety of factors, but particularly nausea caused by motion sickness.

2. Insect Repellent

For centuries, the dried leaves of tulsi have been [mixed in with stored grains to repel insects](#).

3. Nematicidal

The essential oil of tulsi may have [nematicidal properties](#) against *Tylenchulus semipenetrans*, *Meloidogyne javanica*, *Anguina tritici*, and *Heterodera cajani*.

4. Disinfection

Water disinfection using *O. tenuiflorum* extracts was tested [in 2009, 2012 and 2013 studies](#). All found an alcoholic extract (tincture) to be more effective than aqueous extract or leaf juice. The 2012 study found the result to be safe to drink, and additionally to be antimicrobial. A constituent analysis in the 2009 study found alkaloids, steroids, and tannins (a class of astringent, polyphenolic biomolecules) in the aqueous, and alkaloids and steroids only in the alcoholic extract.

DIFFERENT VARIETIES OF BASIL

RAMA TULSI

Rama tulsi has bright green leaves. It is the most commonly planted tulsi in India and Hindu households. It is a very low-maintenance herb and is easy to grow even in high UV sunlight or low temperatures. Rama tulsi has a much milder flavor profile than Krishna tulsi.

KRISHNA TULSI

Krishna tulsi has purplish leaves with strong aromatic scent. The flavor profile of Krishna tulsi is often thought to be too spicy and pungent for culinary applications. But it is believed to have more medicinal properties than Rama tulsi. Growing both Rama and Krishna tulsi at home is commonplace in India and Hindu households.

VANA TULSI

Vana tulsi is also known as African tulsi. “Vana” is a Hindi word that translates to “forest”. Vana tulsi is a perennial basil. It is of the *Ocimum gratissimum* species, which is different from Rama and Krishna tulsi.

AMRITA TULSI

Amrita tulsi is a unique perennial variety. The name “Amrita” means “immortality”. This name might be a reference to its hardiness. Amrita tulsi has an uncanny ability to survive adverse growing conditions, it can tolerate cold, heat, drought, flooding and winds. The purple stems produce long green leaves.

SWEET BASIL

Sweet basil is one of the most commonly used in culinary dishes. Due to its spicy–aromatic flavor profile, it is used as a key ingredient in most Italian soups, sauces and pesto. The leaves range in color from green to purple and the plant can grow up to 12–18 in. tall. Sweet basil grows best in sunny, arid conditions in moist soil, and cannot survive in temperatures below 50°F (10°C).

DARK OPAL BASIL

Dark opal basil is a cultivar of Sweet basil, developed by John Scarchuk and Joseph Lent at the [University of Connecticut](#) in the 1950s. With deep purple, sometimes mottled leaves, it is grown as much for its decorative appeal as for its culinary value. Dark opal basil was a [1962 winner of the All-American Selection](#) award.

Red rubin basil is an improved variety of Dark opal basil. Like many culinary basil, it is a cultivar of Sweet basil. This basil variety has unusual reddish–purple leaves, and a stronger flavor than Sweet basil, making it most appealing for salads and garnishes. It is a fast–growing annual herb that reaches a height of approximately 70 cm (2.3 ft.).

SPICY GLOBE BASIL

Spicy globe basil is a cultivar of Sweet basil. Unlike some better known basil, it grows in the form of a tidy, compact bush, more suitable for gardens, raised beds and small pots than most varieties. The small, densely growing leaves are used in the same way as the leaves of other Sweet basil varieties.

LIME AND LEMON BASIL

Lemon basil, *hoary* basil, Thai lemon basil, or *Lao* basil, is a hybrid between Sweet basil and American basil. This herb is grown primarily in Northeastern Africa and Southern Asia for culinary uses and its fragrant lemon scent.

Lime and Lemon basil, both have citrus flavored leaves. They are often used to garnish iced tea and added to salads. The dried leaves can be used to brew tea or as a room freshener. This type of basil loves sun and grows well in open gardens, raised beds and in containers.

MRS. BURNS' LEMON BASIL

Mrs. Burns' Lemon basil is an heirloom cultivar of Sweet basil from New Mexico in the United States. Compared to Lemon basil, which is a different species of basil, in Mrs. Burns' Lemon basil the lemon flavor is more intense, the leaves are larger, and the plant itself is more robust.

LETTUCE LEAF BASIL

Lettuce leaf basil is a large–leaf variety of Sweet basil. The large, crinkled leaves, which resemble lettuce grow on the short, wide plant, are sweet, but not as strong as Sweet basil. This makes them particularly suitable for tossing into salads or wrapping fish and chicken, or a rice stuffing for grilling. Lettuce leaf basil can be used to infuse oils and the oils as a dip for bread.

CINNAMON BASIL OR MEXICAN BASIL

Cinnamon basil, also known as the Mexican basil, has a similar flavor profile to Sweet basil, with added notes of cinnamon. The leaves of Cinnamon basil are smaller compared to those of Sweet basil. Cinnamon basil has a purple stem with fragrant green leaves. The plant can grow to 12–18 inches tall.

NAPOLETANO BASIL

Napoletano basil is so named because it originated in Naples, Italy. Its light-green leaves are large and crinkled. Its flavor is milder than Sweet basil, but can be spicier. The leaves are large enough to wrap fish, veggies and cheese. This plant grows to about 2 feet high.

GENOVESE BASIL

Genovese basil is a variety of Sweet basil. It can be identified from its flat and pointy leaves. Its sweet and spicy flavor is ideal for making pesto, salads, sauces and dips. It can be grown in a container, raised bed or out in the open so long as it is grown in appropriate climate conditions.

THAI BASIL

Thai basil called *káu-chàn-thah* in Taiwan, is a type of basil from the Mint family native to Southeast Asia that has been cultivated to provide distinctive traits. It is widely used throughout Southeast Asia in Thai and Vietnamese cuisines. Its flavor has been described as anise- and licorice-like and slightly spicy, is more stable under high or extended cooking temperatures than that of Sweet basil. It is used in dishes like Pho, Vietnamese noodles, soups and broths. Thai basil is a perennial that can grow up to 18 inches tall has 1–2 in. small, narrow, green leaves, purple stems, and pink-purple flowers.

CHRISTMAS BASIL

Christmas basil is a hybrid cross between Genovese and Thai basil. Christmas basil has a fruity flavor profile, which is great for adding to drinks and salads. Its red-purple flowers make it a favorite as an ornamental container plant.

ARARAT BASIL

Ararat basil has a dark purple stem that extends into the leaves. The purple tinge of the stem in the leaf fades into an outer green leaf. This basil can grow up to 18 inches tall. The taste of Ararat basil has the same anise aroma of Thai basil but with an added hint of licorice. Ararat basil is native to Israel and is grown year-round, with peak production taking place during summer.

CARDINAL BASIL

Cardinal basil is easily distinguishable from other basil varieties due to its very large red flowers that extend from the top. It is one of the top choices for ornamental gardens. Although it is not just a favorite for its looks, it can also be used in culinary applications just like other basil variety.

GREEK “LITTLE LEAF” BASIL

Greek basil is native to Southeast Asia, is also referred to as little leaf, because it has diminutive leaves and the plant itself only grows to a height of under 8 inches. It is grown for culinary and also for ornamental reasons. The flavor profile of its tiny leaves is close to that of Sweet basil.

SUMMERLONG BASIL

Summerlong basil falls in the *Dwarf* plant category. Due to its diminutive size, Summerlong basil matures quite fast. It begins to produce leaves generally within 30–60 days of sowing. It is fully matured within 60–90 days. This small and bushy basil is a great option for any container garden.

AFRICAN BLUE BASIL

African blue basil is a hybrid basil variety, a cross between camphor basil and dark opal basil. It is one of a few types of basil that are perennial. African blue basil plants are sterile, unable to produce seeds of their own, and can only be propagated by cuttings.