

Exotic Culinary and Medicinal Herbs

*Shalini R. M. and Hima Bindu K.

Ph.D. Scholar, College of Horticulture, Bengaluru-560065, Karnataka, India

*Corresponding Author's email: shalnishaiva12@gmail.com

Herbs have long been used for both food and medicinal purposes in different world civilizations. Globally, the use of herbs as natural ingredients to enhance the taste of food with flavor, color, aroma and as preservatives has been increasing in recent years. Besides being culinary, a range of bioactive compounds present in these herbs have been associated with multiple beneficial health properties. In this article, we documented 10 most commonly used exotic herbs in Indian kitchen.



1. SAGE (*Salvia officinalis* L.)

Sage, commonly known as garden sage, golden sage, kitchen sage, is the largest member of Lamiaceae. Many species of *Salvia* are native to the Mediterranean region and some of the *Salvia* species have been used worldwide as flavoring spices as well as traditional herbal medicine. Sage tea has been traditionally used for the treatment of digestive and circulation disturbances, bronchitis, cough, asthma, angina, mouth and throat inflammations, depression, excessive sweating and skin disease. *Salvia* essential oils have been used in the treatment of nervous system, heart and blood circulation, respiratory system. The principal components in the sage oil were 1,8-cineole, camphor, α -thujone, β -thujone, borneol and viridiflorol which has been shown to have carminative, antispasmodic, antiseptic, and astringent properties.

2. THYME (*Thymus vulgaris* L.)

Thyme a perennial evergreen wild shrub from the Lamiaceae family, native to the Mediterranean region, is considered an important wild edible plant studied for centuries for its unique importance in the food, pharmaceutical and cosmetic industry. Thyme is loaded with phytonutrients, minerals and vitamins. It is pungent in taste, yet rich in moisture, proteins, crude fiber, minerals and vitamins. Thyme has long been known for its antiviral, antibacterial, antifungal and antiseptic activities, besides remarkable disruption of microbial biofilms. The essential oil contains thymol (37-55%) responsible for its antioxidant activity. Thyme is rich in many flavonoids and phenolic antioxidants like zeaxanthin, lutein, pigenin, naringenin, luteolin and thymonin. Fresh thyme has one of the highest antioxidant levels being rich in vitamin A, vitamin C others including vitamin B₆ (pyridoxine), Vitamin K, vitamin E and folic acid and minerals such as Potassium, iron, calcium, manganese, magnesium and selenium.

3. PARSLEY (*Petroselinum crispum* Mill.)

Parsley belongs to the family Apiaceae, native to the central Mediterranean region. Parsley is a bright green plant that grows well in temperate climates and it is an annual herb in tropical and subtropical areas. It has been used for thousands of years and has become an essential

ingredient in cooking. Parsley can be a key ingredient in vinegars, jams, tea drinks and cheeses. Small leaves are good to be added to vegetarian dishes, salads, pasta and rice. Soft woody stems and branches can be used to add flavor in drinks, soups and steamed meat and seafood. For maximum flavor parsley is added at the end of cooking. The distinctiveness of fragrance and aroma in many parsley cultivars is due to the flavonoids- apio and myristicin present in leaves, stem, root and seed. It possess antibacterial, antifungal, antioxidant, anti-diabetic, hypotensive, hepato-protective, neuroprotective, analgesic, spasmolytic, immunosuppressant, anti-coagulant, anti-ulcer and estrogenic properties. Parsley is also known for good source of vitamin C and minerals. Fresh parsley (100 g) has 36 kcal, 133 mg of vitamin C, 554 mg of Potassium, 138 mg of Calcium and smaller amount of vitamin E and others vitamins, minerals, protein and fiber.

4. OREGANO (*Origanum vulgare* L.)

Oregano is a culinary and medicinal herb, belongs to Lamiaceae family. It is a temperate plant, found in the Mediterranean region and tropical regions of Asia. Oregano is cultivated in many areas of tropical to temperate climates of Europe, Asia, North Africa and America. The leaves have a very good fragrance and act as digestive enhancer. Oregano is also known as Pizza herb. It is used to enhance the taste of Italian, Greek, Mexican and Spanish cuisines. Leaves are used as seasonings mainly to enhance the taste of pizza, pasta, meat and sauces etc. Oregano has got anti-microbial, anti-oxidant, anti-cancerous, antibacterial and anti inflammatory properties. The essential oil contains carvacrol, thymol, γ -terpinene, *p*-cymene and pinene.

5. CULANTRO (*Eryngium foetidum* L.)

Culantro is a tropical perennial herb native to amazon region belong to Apiaceae family. Culantro is an unconventional seasoning vegetable and has wide versatility and growing popularity. The peculiar flavor and aroma of culantro are due to a chemical constituent present in the essential oil of the leaves, mostly found as an aliphatic aldehyde called eryngial present throughout the plant which add economic value in the perfumery and pharmaceutical industries in international trade. The leaves are widely appreciated as a condiment and used to season everyday foods such as beans, salads, meat and fish. *E. foetidum* is known for its medicinal and culinary uses. The plant is used to treat diseases and ailments related to the digestive tract such as flatulence, diarrhea, indigestion, stomach pain. The tea of the plant is recommended to treat gynecological problems, promote menstruation, relieve cramps, treat infertility and facilitate labor.

6. SWEET BASIL (*Ocimum basilicum* L.)

Sweet basil belong to the *Lamiaceae* family is a perennial herb often grown as an annual. It is native to Tropical Asia and is distributed throughout subtropic and tropical regions. Among the species of the genus *Ocimum*, sweet basil is the one most commercially cultivated for its green and aromatic leaves, which are used dry or fresh as a condiment or for the production of essential oil which contain 1.8-cineole (22%), linalool (49.7%), methyl chavicol (47%) and methyl cinnamate (65.5%). It is an aromatic plant directly used for spice, medicine, feed of honeybee, ornamental purpose and also used as raw material for different industries. The leaves and flowering parts are traditionally used as antispasmodic, aromatic, carminative, and digestive remedies, and to treat abdominal cramps, gastroenteritis, fever, poor digestion, nausea, migraines, insomnia, depression and dysentery. They have been applied externally to treat acne, insect stings, snake bites and skin infections.

7. ROSEMARY

Rosemary (*Rosemarinus officinalis* L.) is a perennial evergreen shrub in the Lamiaceae family native to Mediterranean region. The leaves are commonly used culinary herb for flavoring and naturally occurring antioxidant, however entire plant, excluding woody portions may be used. Its wide applications in the food industry as a spice herb found in most cuisines and in many spice blends. It deserves special attention for its unique taste and smell due to the

presence of active ingredient 1,8-cineole (15–55%), camphor (5.0–21%), α -pinene (9.0–26%), borneol (1.5–5.0%). Traditionally, it is used as food flavoring agent but later it found its way into alternative medicine and aromatherapy as a mental and as neuromuscular tonic. Rosemary essential oil is an important antimicrobial and antioxidant agent and has a great potential to be used as a natural food additive. Besides its preservative and flavoring action, it confers several health benefits. Rosemary was used as a tonic (prevents baldness), stimulant, carminative for dyspepsia, headache and nervous tension. It has positive effects on the metabolism of carbohydrates and lipids and the function of the nervous system, as well as hepatoprotective properties.

8. LEMON BALM

Lemon balm (*Melissa officinalis* L.) belongs to the Lamiaceae family and it is indigenous of Southern Europe, Mediterranean region, Western Asia and North Africa. Currently in India lemon balm is cultivated in Kashmir, Uttrakhand and some part of South India. Lemon balm is a versatile culinary herb which can be used to flavor for different types of dishes from beverages to appetizers, desserts. Lemon balm possess carminative, digestive, diaphoretic antioxidant, antimicrobial, antiviral, antidepressant and stimulant activity. Externally, it is used to treat herpes, sores, gout, insect bites and other skin disease. Lemon balm is also used as an insect repellent. It has been used to treat irritability and nervousness in young girls and women, boost a lack of interest and energy. Essential oil (0.02-0.3%) of lemon balm which is used in aromatherapy contains volatile compounds (geranal, neral, citronellal), triterpenes (ursolic acid and oleanolic acid) and phenolic compounds (rosmarinic acid and caffeic acid) has been considered to contribute to the therapeutic potential of *M. officinalis*.

9. MINT

Mentha piperita L. (Pepper mint) is a well-known perennial aromatic herb belong to family Lamiaceae, is indigenous to Europe and Middle East. Mint is famous as “herb of hospitality” in Greek mythology. It is used worldwide for culinary purposes. Either fresh or dried leafs of mint can be used for culinary purpose. Most often fresh mint is chosen over dry mint. It is used in drinks, teas, jellies, toffees, syrups and in ice-creams. Mint leaves possess a deep, fresh and aromatic flavor with a cool smack. In Middle Eastern cookery, mint is used in lamb food. In Indian cuisine, mint is staple and used for flavoring curries and other dishes. Mint tea is a soothing drink and a coolant during summers. Mint is largely used as a medicinal herb to treat gastrointestinal pain and chest pains. Essential oils have strong aroma as it contains menthol (46.3%), menthofurone (13.1%), menthone (7.4%). Mint essential oil has a variety of therapeutic properties and is used in aromatherapy, bath preparations, mouthwashes, toothpastes, and topical preparations. Topical preparations of peppermint oil have been used to calm pruritus and relieve irritation and inflammation.

10. SWEET MARJORAM

Origanum majorana L., formerly known as *Majorana hortensis* is a tender perennial herb of ‘*Origanum*’ genus. It is commonly known as sweet marjoram and native to Turkey and naturalised in parts of Mediterranean region especially Egypt. It is cultivated all over the world in different parts of India, France, Hungry and United States as culinary herb for its flavour and fragrance. Its fresh or dried leaves and flowering tops are used to season many foods, imparting a warm, aromatic and bitterish flavour. Marjoram is particularly appreciated for the taste it lends to sausages, meats, poultry, stuffings, fish, stews, eggs, vegetables and salads. The most prominent components of *O. majorana* were carvacrol (65 %) and thymol (4 %). Beta Sitosterol is reported in the aerial parts of the plant. Linolenic, linoleic and oleic acid are the fatty acids present in its leaves. Vitamin A and C are reported in the leaves and floral parts of marjoram herb. It is a well-liked home remedy for chest infection, cough, sore throat, rheumatic pain, nervous disorders, cardiovascular diseases, epilepsy, insomnia, skin care, flatulence and stomach disorders.

				
Sage	Thyme	Parsley	Oregano	Culantro
				
Sweet basil	Rosemary	Lemonbalm	Mint	Marjoram

The importance of exotic herbs in the Indian culinary market is multifaceted, encompassing flavor innovation, health benefits and evolving consumer preferences. As the food industry continues to adapt to changing demands, the role of exotic herbs is likely to grow even further. Globalization and increased travel have exposed consumers to diverse culinary traditions, leading to a higher demand for exotic herbs and spices in various cuisines.