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# Spices and Condiments

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- Introduction
- Full description of some important spices and condiments with their Botanical name, Common name, Family, Distribution, Plant characteristics, their specialties and economic importance.

- The spices can not be grouped as foods, for they contain less nutritive value. However, they give a good flavour and aroma to food, and add pleasure of eating. They stimulate the appetite and increase the secretion and flow of gastric juices. They are commonly known as **food adjuncts**. The aroma is due to the presence of essential oils. In general, all aromatic vegetable products that are used for flavouring foods and drinks are known as **spices**. **Condiments are spices** which possess a sharp taste, and are commonly added to food after it has been cooked.
- The majority of spices originated in the Asiatic tropics and were among the first objects of commerce between the East and West. In India spices are mostly grown in Kerela, Karnataka, Tamilnadu and Assam. India is the largest suppliers of spices and condiments. India alone contribute 25-30 per cent of total world trade.
- In India the major spices are—Blackpepper, chillies, cardamom, ginger, turmeric, cinnamon, clove, coriander etc.
- some minor spices are- Ajwain, cumin, fenugreek, garlic, onion, mustard, bay leaf, saffron, vanilla etc.

# Black pepper plant with fruits 3





# Black pepper

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- Botanical name- **Piper nigrum**, Family – Piperaceae, common name- Golmirch, Golki.
- India, Indonesia, Ceylon, Cambodia, Brazil and Malagasy are main producers of pepper. In India Kerala alone produces 95% of total output. Rest are produced in Tamilnadu, Mysore and Assam. This is also known as **king of spices**.
- Plant is found growing upto an altitude of 1500m, but thrives best at about 500m. It requires a warm and humid climate having annual rainfall is well over 200 cm.
- Plant is a branched, climbing perennial shrub or flowering vine, continue to be productive upto 60 or even 100 years. Cultivated for its **fruits**, which is dried and **used as spice**.
- Fruits contain the alkaloid **piperin** with antioxidant properties, which contributes to their pungency, improves brain function, controls blood sugar, lower cholesterol levels, may have cancer- fighting properties etc.

# Cardamom plants, flowers and fruits.

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Cardamom flowered plant



Cardamom capsules

# Cardamom-two types-Green& Black 6

- Botanical name- Elattaria cardamomum, - Chhoti illaichi (green). Amomum subulatum Bari illaichi (black) Family-Zingiberaceae.
- It is native of Indian subcontinent and Indonesia. The principal cardamom producing countries are India, Ceylon and Indo-China. In India it is cultivated in Kerala, Karnataka and Tamilnadu. Green cardamom is also called as **Queen of spices**.
- Plant is a tall herbaceous perennial, with branching subterranean rootstock, from which arise a number of upright leafy shoots, 5-8 feet high, bearing 1-3 feet long, alternate, elliptical or lanceolate leaves. Flowers born in pendent panicles of 2-4 feet long, each flower about 1.5 inches long, white streaked with violet. **Fruits** trilocular capsules, green to pale yellow, containing 15 – 20 hard black **seeds, used as spices**. The seeds possess a pleasant aroma due to volatile oil 8.3% and pungent taste due to cineol, terpineol, terpinene, limolene and subinene.
- Also used in masala tea, as medicine in gastrointestinal health, prevention from cancer, tonic, for a healthy heart, good oral care, urinary tract health, fair skin, to cure Asthama etc.



# Clove twig with flower and dried flower buds. 7





# Clove

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- Botanical name- Syzygium aromaticum. Family- Myrtaceae .  
Common name- Laung.
- Native to Moluccas, the so called spice island. In India it is mainly cultivated in Tamilnadu and Kerela.
- It is a evergreen tree of 10 to 12 meters height. The **flower buds** are greenish when fresh and are borne on ends, which are picked green and **dried** in the sun till they become dark brown, used as **spices**. The buds have slightly cylindrical base and are surmounted by plump ball like unopened corolla which is surmounted by the four toothed calyx.
- Leaves and flower buds are aromatic and pungent due to the presence of volatile oil- **eugenol**. Clove oil is effective for toothache pain. It is also used as mosquito repellent, fever reductant, reduces blood sugar, analgesic etc.

# Cinnamon tree and bark

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# Cinnamon

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- Botanical name- Cinnamomum zeylanicum, Family- Lauraceae, Common name- Dalchini.
- It is native of Sri-Lanka. In India Kerela is the largest producer.
- It is an evergreen tree 8-12 mts height with oval-shaped leaves, thick bark and berry fruits. Its processed stem inner **Bark** is used as **spices** in different food ingredients.. Its pungent taste and scent come from cinnamaldehyde and eugenol (90-95%) essential oil.
- It is also used as antioxidants, insulin resistance, blood sugar lowering property, reduces cholesterol level and blood pressure , may protect against cancer, helps fight bacterial and fungal infections.

# Ginger plant and rhizome(underground stem) 11





# Ginger

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- Botanical name- Zingiber officinale. Family- Zingiberaceae. Common name- Adrakh.
- Mostly produced in India, Jamaica and Sierra Leone worldwide while Kerela and Malbar in India.
- It is a perennial plant, yet is cultivated as an annual crop. It takes 9-10 months to mature. The plant is vegetatively propagated by means of small portions of rhizome. The plant is 2 feet in height, with underground roots and **rhizome**( stem)and aerial shoot with leaves.
- Rhizome is used as **spices**. The pungency and aroma is due to volatile oil which consists zingerone, shogaols and gingerols. These are of carminative and digestive stimulants. Ginger is also used in tea, different food items and medicines.

# Capsicum plant and fruits

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# Capsicum/Red pepper/Chillies 14

- Botanical name- Capsicum annum Family- Solanaceae, Common name- Chillis or Red pepper.
- They are indigenous to South America, and said to have been introduced into India by the Portuguese during 16<sup>th</sup> Century. In India it is grown in almost all the states but mostly in Karnataka, Himachal Pradesh, Haryana and Jharkhand.
- Plant is an annual herb, 2 or 3 feet in height, with entire ovate leaves, white flowers and many seeded fruits(berries). Fruits are green in colour in the beginning, becomes red colour on maturity. **Fruit with seeds** used as **spices**.
- Presence of **capsaicin** in the fruits and seeds is responsible for strong burning sensation(pungency or spiciness). Used as spices in daily use, vegetables, pickles, in sauces, chutney etc.

Indian Bay leaves( Tejpatta)

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Cinnamomum tamala,  
family- Lauraceae.

