



E-CONTENT

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Topic: Cultivation & Uses of SPICES-CUMIN & CINNAMON

Name: Prof. Ajai Kumar Singh, Department of Botany, Faculty of Science,
Mobile No. 9450538149, E-mail: ajaiupcollege@gmail.com

CUMIN-*Cuminum cyminum*-Fam-Apiaceae

Cumin also known as Zeera/Jeera, has been cultivated in India for thousands of years, and its origins traced back to ancient civilizations such as the Indus Valley civilization. Zeera is the second most popular spice in the world after black pepper. Though Cumin is a native of Egypt, it is mostly produced in India. India is the largest producer of cumin in the world. Apart from India it is also grown in North Africa, China, Syria, Iran, Turkey and America. In India, cumin seed is almost exclusively cultivated in Rajasthan and Gujarat.

Botany

Annual herb with a characteristic aroma. The plant has a slender, branched, and smooth stem that grows to a height of about 30-50 cm. The leaves are finely divided into linear segments, giving them a feathery appearance. The flowers are small and white/pink in colour, clustered in Umbels. Each umbel consists of several smaller umbellets, each containing numerous tiny flowers. The fruit of the cumin plant is a ridged and elongated, yellowish-brown seed. The seeds have a distinctive warm and slightly bitter flavour with a strong aroma.

Cultivation

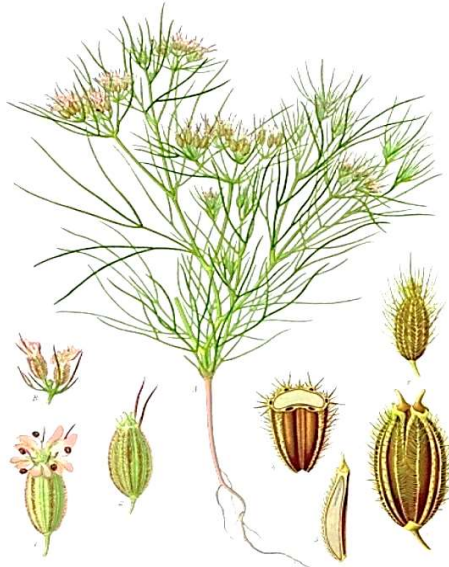
Cumin cultivation requires a warm, relatively dry climate with temperatures ranging between 25°C to 30°C during the growing season. The plant is sensitive to frost and cannot withstand waterlogging. Therefore, well-drained sandy loam or loamy soils are preferred for cumin cultivation.

Cultural Practices

Cultural practices for cumin cultivation include land preparation, seed sowing, irrigation, weeding, and pest management. The land is ploughed and levelled before sowing the seeds. Cumin seeds are sown directly into the soil at a specific depth and spacing. Irrigation is crucial during the initial growth stages but should be reduced as the plant matures to prevent waterlogging. Weeding is essential. Pest management is also important to protect the crop from insects and diseases.



Cumin-Fruits / Seeds



Mature plant and its parts

Cumin

Dried seed of the cuminum
cuminum plant

Warm, earthy flavor;
tangy, musky scent

Common in Latin/Central
American, Middle Eastern,
Indian cuisines

Ingredient in curry powder
and adobo blends

Harvesting and Processing

Cumin plants typically mature within 120-150 days after sowing. The seeds are harvested when they turn brown-yellow and start to crack open. Harvesting is done by hand or machine depending on the scale of cultivation. After harvesting, the seeds are dried in the sun and then processed to remove impurities.

Uses of Cumin

Cumin seed is very pungent and aromatic, and is used whole and/or ground. It is widely used in cooking due to its aromatic and savory characteristics. Cumin is a staple spice in Indian, Middle, and North African cuisines. The spice is often used in curry powders, chili powders, and as a seasoning for meats, stews, soups, and rice dishes. In Indian cuisine, cumin is a fundamental spice in tempering (tadka) for lentil dishes and vegetable curries. Additionally, it is a common ingredient in spice blends such as *garam masala* and taco seasoning.

CINNAMON (*Dalcheeni*)

Cinnamomu aromaticum, C. cassia, C. zeylanicum

Family: Lauraceae

Plant energetics: Stimulating, Warming, Drying, Pungent, Spicy and Sweet

Parts used: Bark (Prepared as sticks, chips, powder, or essential oil), twigs, dried flowers.

Plant properties: Aromatic stimulant, Warming, Demulcent, Sweet. Astringent, Anodyne, Hypoglycemic, Anti-oxidant, and Antimicrobial.

Used for: Toothache, Diarrhoea, Move blood, Infections, Arthritis, Insulin resistance, Colds/flu, Pain.

Cultivation

Cinnamon is obtained from the inner bark of several tree species belonging to the genus *Cinnamomum*. The most commonly used species for commercial cinnamon production are

- ✚ *Cinnamomum verum* (Ceylon cinnamon);
- ✚ *C. cassia* (Cassia cinnamon)

The cultivation of cinnamon involves specific environmental conditions and careful processing to obtain the desired flavour and aroma.

Cinnamon trees thrive in tropical climates with well-drained soil and regular rainfall. They are typically cultivated in regions such as Sri Lanka, Indonesia, China, Vietnam, and Madagascar. The trees require a warm and humid climate with ample sunlight for optimal growth. Cinnamon cultivation involves planting young tree saplings in prepared soil and providing appropriate care to ensure healthy growth.

The process of cultivating cinnamon begins with the careful selection of suitable land for planting. Once the land is prepared, young cinnamon tree saplings are planted at specific intervals to allow for proper growth and development. Regular watering, weeding, and protection from pests and diseases are essential during the initial stages of cultivation. As the trees mature, they are pruned to encourage lateral branching and facilitate the harvesting.

Harvesting & Processing

Cinnamon trees are typically ready for their first harvest after about two years of growth. The harvesting process involves carefully removing the outer bark from selected branches, as this is where the highest concentration of essential oils and aromatic compound is found. The harvested bark is then processed to obtain the familiar cinnamon sticks or ground cinnamon powder.

After harvesting, the outer bark is removed from the branches using specialized tools, revealing the smooth inner bark that contains the valuable cinnamon layers. This inner bark is then carefully peeled away in long strips curl into characteristic **quills** / **sticks** that are commonly associated with cinnamon.

Once dried, the cinnamon quills are graded based on their size, appearance, and quality. The highest quality quills are often reserved for whole cinnamon sticks, while smaller or broken pieces may be ground into cinnamon powder. The processed cinnamon products are then packaged for distribution and export to various markets around the world.

Uses of Cinnamon

Cinnamon has been used for centuries as a popular spice in cooking and baking due to its distinctive flavour and aroma.

It is commonly used in both sweet and savory dishes, adding warmth and depth to a wide ranges of recipes. Additionally, cinnamon is a key ingredient in many traditional cuisines, where it is used in curries, sews, desserts, and beverages.

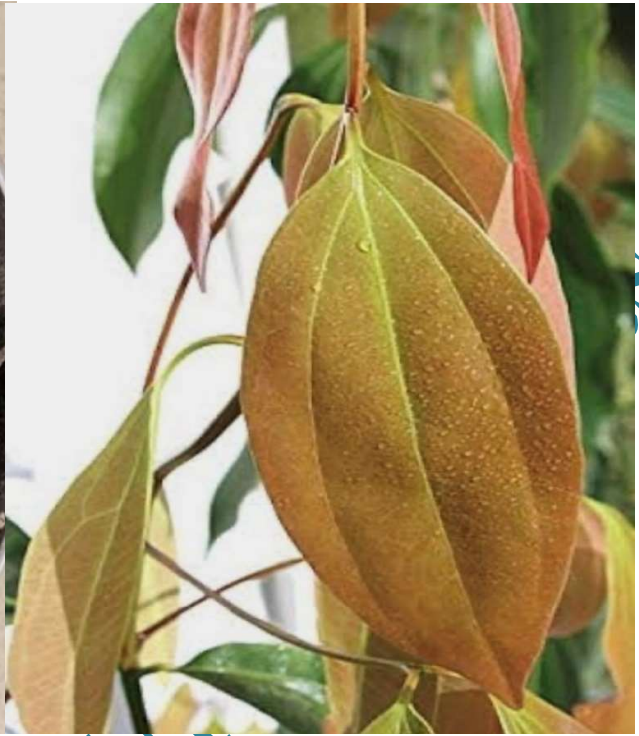


Young branches with Flower

Mature fruits (Berries)



Dried Fruits



Young & Mature leaves



Seedlings, Quills & Powder, Mature berries



Tree trunk showing removed inner bark



HARVESTING



Sticks & Quills



Prof. A.

Quills & Cinnamon powder ready for marketing

Declaration

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THANX

Prof Ajai K Singh, UPC, Varanasi