



A PHYTOMEDICINE- CINNAMON

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ABSTRACT

The cinnamon is the medicinal plant which is great medicinal value. Above 350,000 species of plants found in the earth and every plant have a great therapeutic value. The plant cinnamon is also known as Cinnamon bark ,Kalmi-Dalchini, Ceylon cinnamon and which is belong to the family of Lauraceae. It's bark outer surface is dull yellowish-brown and the inner surface is dark yellowish-brown in colour. It is mainly used in aromatic spices and flavoring agent in a broad variety of cooking, sweet and savoury dishes, breakfast, snacks foods ,tea and traditional foods.

KEYWORDS

Introduction, Biological source, Geographical source, Botanical classification, Organoleptic character ,Microscopic character, Cultivation, Collection, Chemical constituents, Therapeutic value

INTRODUCTION

Cinnamon is an important medicinal plant which is belong to the family of Lauraceae. Cinnamon is used as spice which is obtained from the inner bark of several tree species from the genus Cinnamomum. It is mainly used as an aromatic spices and flavoring agent in a broad variety of cooking, sweet and savoury dishes , breakfast, snacks foods , tea and traditional foods.[1] It is commonly known as Cinnamon bark, Kalmi-Dalchini , Ceylon cinnamon. Although to be useful as a medicinal herb Ayurveda. [2]

SYNONYMS [2]

- Cinnamon bark
- Kalmi – Dalchini
- Ceylon cinnamon

FAMILY

It belonging of the family of Lauraceae.

BIOLOGICAL SOURCE

The biological source of cinnamon is the dried inner bark of the shoots of compiled trees of *Cinnamomum zeylanicum* Nees (*Cinnamomum verum* J.S. Presl).[3]

GEOGRAPHICAL SOURCE

Cinnamon is the evergreen tree of tropical region, it is the indigenous tree of Sri Lanka and Malabar Coast of India. We are also found in Jamaica and Brazil. Sri Lanka cinnamon is the true cinnamon. [3]

BOTANICAL CLASSIFICATION [4]

Kingdom : Plantae

Division: Tracheophyta

Class: Magnoliopsida

Order: Laurales

Family: Laurales

Genus: *Cinnamomum*

Species: *Cinnamomum verum* J.Presl

ORGANOLEPTIC CHARACTER

Colour : It's outer surface is dull yellowish-brown , and it's inner surface is dark yellowish-brown.

Odour : Fragrant

Taste : Aromatic and sweet

Size: Approximate 1m in length and 1cm in diameter. It's bark thickness is about 0.5mm.

Shape: It is found in the form of compound quills.

Fracture: Splintery

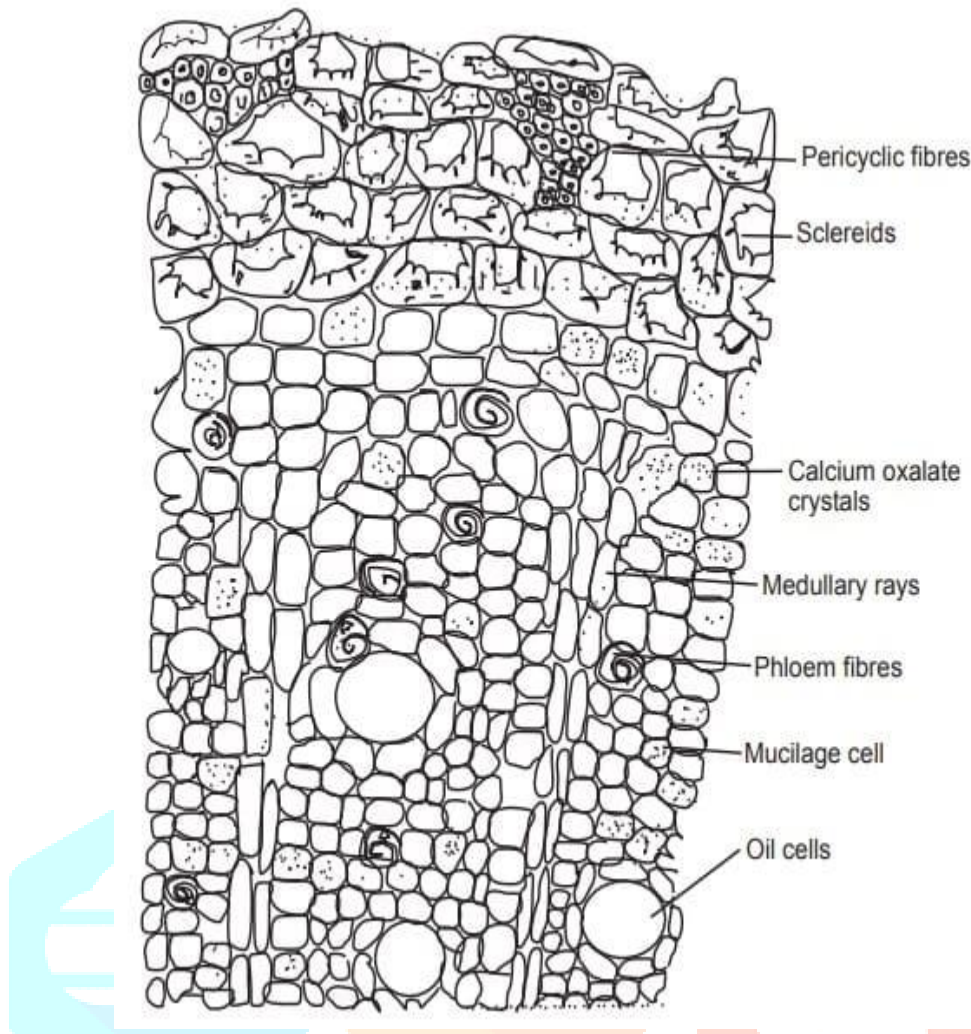


Cinnamon (*Cinnamomum zeylanicum*)

- The bark outer surface sign by wavy longitudinal striations with small holes of scars left by the branches. Longitudinal striations show in inner surfaces. It's bark is free of cork.[5]

MICROSCOPIC CHARACTER

The transverse section of cinnamon bark is consist of 3- 4 layers of sclereids, it consisting of starch grains which is horse shoe shaped. Outer margin is containing pericyclic fibers (6-15). It is contain 7 tubes they are completely collapsed and it's arranged tangentially, lignified phloem fibers, arranged as tangential rows of 4-5 cells, biseriate medullary rays with needle-shaped calcium oxalate crystals, volatile oil contain longitudinally elongated idioblast, starch grains and calcium oxalate crystals with sub- rectangular parenchyma cells.



T.S of cinnamon bark

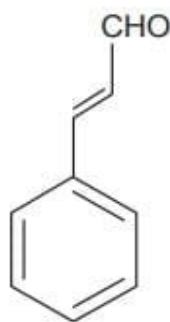
CULTIVATION

- It is cultivated by the vegetative propagation and seed growing method.
- It is required to siliconous soils with an admixture of human.
- It's height upto 800-1000 meters.
- It's need rainfall 200 -250cm .
- Seed sown at a 10 cm distance, plant germinated within 20 days , grown for 10 -12 months and it is transplanted is done keeping at least 2mtr on between.
- Used 100gm ammonium sulphate and super phosphate during manure. [2]

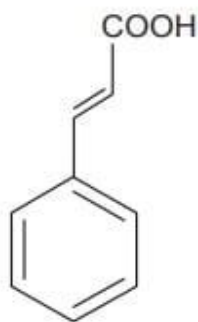
COLLECTION

- It is harvested in rainy season, the bark is peel off easily from shoots.
- Collected the round bark strips, it is consist of bundles , wrapped in coir matting, it is fermented within 24hrs.
- Cortex and cork is dried and converted to quills, the quills is arranged end to end with length of 90cm.
- The quills is collected, packed into bundles of different size and sold.[2]

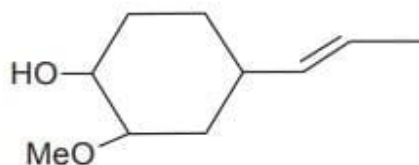
CHEMICAL CONSTITUENTS



Cinnamaldehyde



Cinnamic acid



Eugenol

- It contains Calcium oxalate, Mucilage, 1.2% of Tannins, 0.5-1.0% of volatile oil (active constituent, light yellow in fresh, changes to red on storage.), Starch and Mannitol.
- The Cinnamon oil contains 5-10% eugenol, benzaldehyde, cuminaldehyde, 60-70% of cinnamaldehyde and other terpenes such as pinene, Cyrene, caryophyllene.[2]

THERAPEUTIC VALUE

- It is used as anti-viral, anti-bacterial and anti-fungal agent.
- It produces antioxidant and anti-inflammatory action.
- It shows prebiotic property that promotes the growth of beneficial bacteria and suppresses the growth of pathogenic bacteria.
- It reduces blood pressure.
- Decreases blood sugar.
- It relieves digestive discomfort.[6]

SIDE EFFECTS

- Liver Damage
- Increase of risk of cancer
- Cause mouth sores
- Causes low blood sugar
- Causes breathing problems
- May interact with certain medication[7]

CONCLUSION

In this review paper we are discussed about the Cinnamon. It is broadly used in medicinal field. It consists of various types of chemical constituents each constituent plays an important therapeutic value.

ACKNOWLEDGEMENT

I have expressed my special thanks to my respected professor who provided a golden chance at each and every step. I have thanks to all of those who are involved directly and indirectly for completing this review paper. I am thankful to my respected parents who always support us.

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