School of Medical and Allied Sciences

Course Code: BPHT5004 Course Name: Pharmacognosy and Phytochemistry II



GALGOTIAS UNIVERSITY **DISC**LAIMER

ALL THE CONTENT MATERIAL PROVIDED HERE IS ONLY FOR TEACHING PURPOSE.

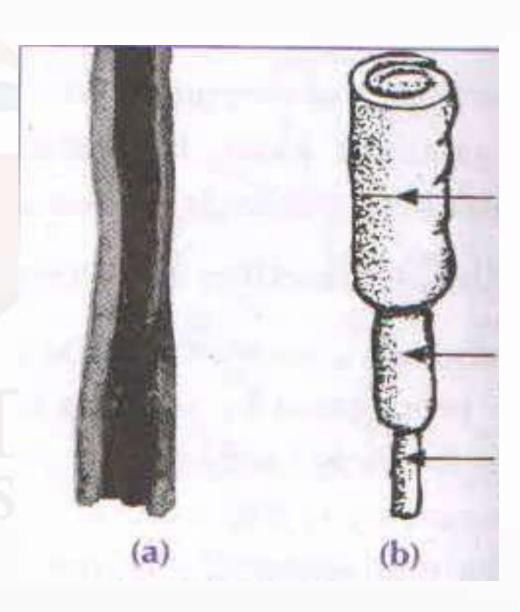
Synonyms –
 Cinnamon bark, Kalmi-Dalchini, Ceylon cinnamon

Biological source –
 Dried inner bark of the shoots of coppiced trees of Cinnamomum zeylanicum (Cinnamomum verum)

 Family - Lauraceae

Macroscopic characters

- Colour Outer surface is dull yellowish brown, inner surface is dark yellowishbrown.
- Odour Fragrant
- Shape compound quills
- Size 1m in length and 1 cm in diameter
- Taste Aromatic and sweet followed by warm sensation
- Fracture splintery



Microscopic characters

- Cork and primary cortex absent
- Prominent sclerenchymatous pericycle
- Stelar part phloem, phloem fibres, biseriate medullary rays and secretory cavities containing volatile oil
- Cortical parenchyma starch grains
- Medullary rays, calcium oxalate crystals and parenchymatous cells

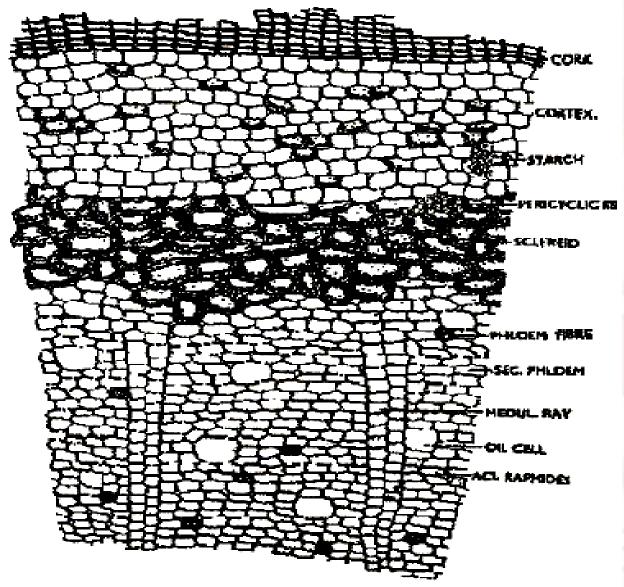
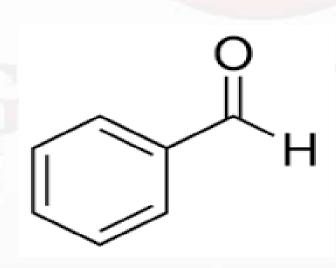


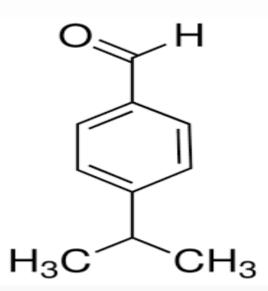
Fig. 4: T. S. of cinnamon



Chemical constituents

- 0.5-1% volatile oils, 1.2% tannins (phlobatannin), mucilage, calcium oxalate, starch and mannitol
- Cinnamon oil Eugenol, benzaldehyde, cuminaldehyde and other terpenes.





Uses

- Carminative, stomachic and mild astringent
- Flavouring agent, stimulant, aromatic and antiseptic
- Spice and condiment





- CASSIA BARK COMPRISES SEVERAL LAYERS IN BETWEEN
 THE ROUGH OUTER AND INNERMOST SMOOTH LAYERS
- CINNAMON BARK IS THIN AND CAN BE ROLLED AROUND A PEN OR PENCII
- IT HAS AN INTENSE AROMA
- IT HAS A DELICATE FLAVOUR
- CASSIA POWDER IS REDDISH BROWN AND COARSE
- ITS POWDER IS TAN AND SMOOTH

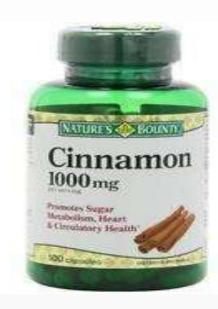


Marketed preparations of Ceylon cinnamon

- It is used to flavour cookies, cakes, stewed fruits, puddings and breads
 - as well as curries, sauces and vegetable dishes.

 Cinnamon capsules – promote sugar metabolism, heart and circulatory health,





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References:

- 1. Evans, W. C. Trease and Evans Pharmacognosy, 16th ed.; Elsevier: New York, 2009, page no- 315-380
- 2. Varro E. Tyler, Lynn R. Brady & J..E.Robbers Pharmacognosy, 9th ed; U.S.A, 1988, page no- 235-267
- 3. www.webcrawler.com
- Rosa L.A., Alvarez-Parrilla E., Gonzàlez-Aguilar G.A. Fruit and vegetable phytochemicals: chemistry, nutritional value, and stability. 1st Edition. Wiley J. & Sons, Inc., Publication, 2010.
- 5. B.Winkel-Shirley, Flavonoid biosynthesis. A colorful model for genetics, biochemistry, cell biology, and biotechnology, Plant Physiology 126 (2001) 485-493.
- 6. Winkel-Shirley, B. (2006). "The biosynthesis of flavonoids," in The Science of