

Pharmacognosy

PHG112

Lab

6



The background is a dark blue gradient. On the left side, there are several overlapping, curved green shapes that create a sense of depth and movement. On the right side, there is a faint, golden-brown outline of a leafy branch, extending from the bottom right towards the center.

Faculty of **Pharmacy**

HERBS

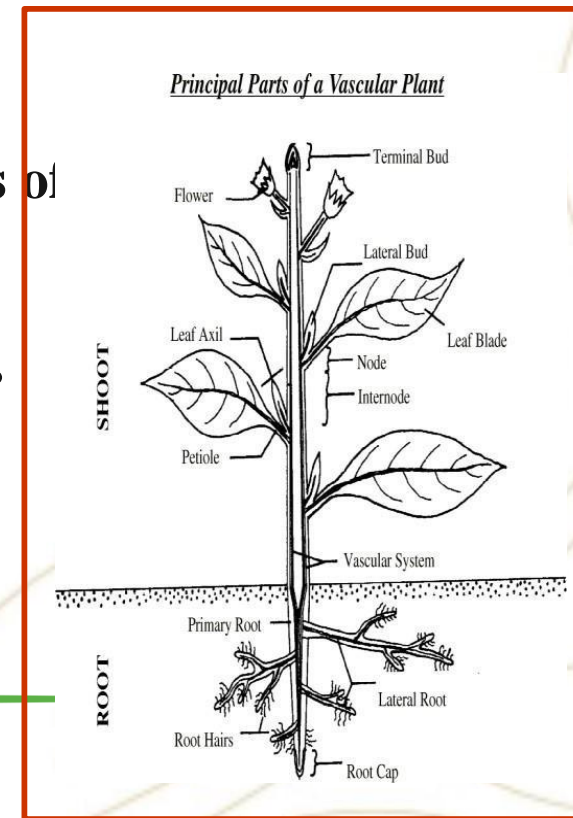


HERBS(Herba)

What is Herb?

In Pharmacognosy

Herb is a drug composed usually of the tender parts of
(the stem + leaves + flowers + fruits).



Peppermint

عشب النعناع الفلفلى



Origin:

**Dried leaves and
flowering tops**

of *Mentha piperita*, F.

Labiatae (Lamiaceae)



Morphology:

1- Stem

Quadrangular 1-3 mm thick

Green to dark purple tinge

Why???



Morphology:

2- Leaves

Ovate, lanceolate, petiolate , opposite decussate with dark green, nearly glabrous upper surface and light green hairy lower surface



Morphology:

3- Flowers

Small

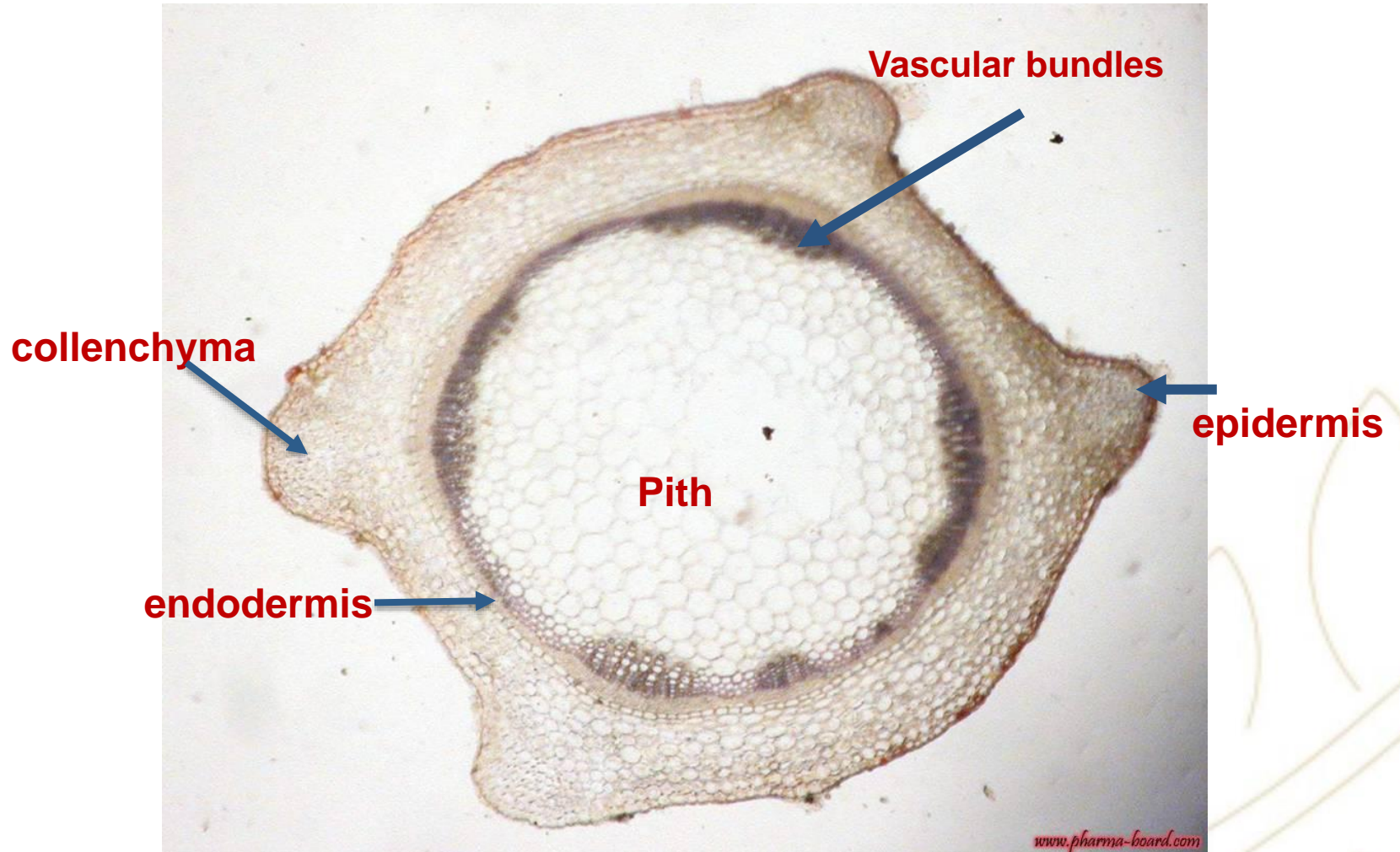
Purple

Zygomorphic

Bilabiate



T.S in stem:



Physical characters:

Condition: Fine powder.

Colour: Olive Green.

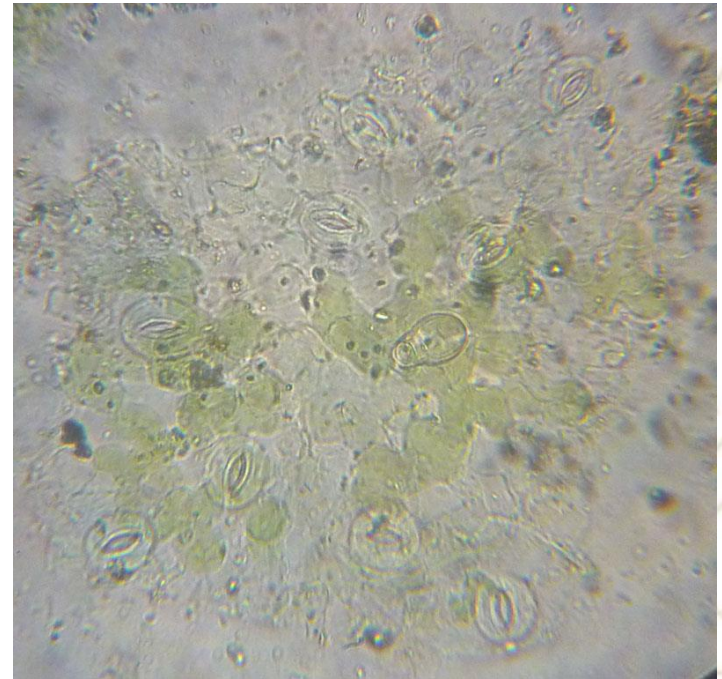
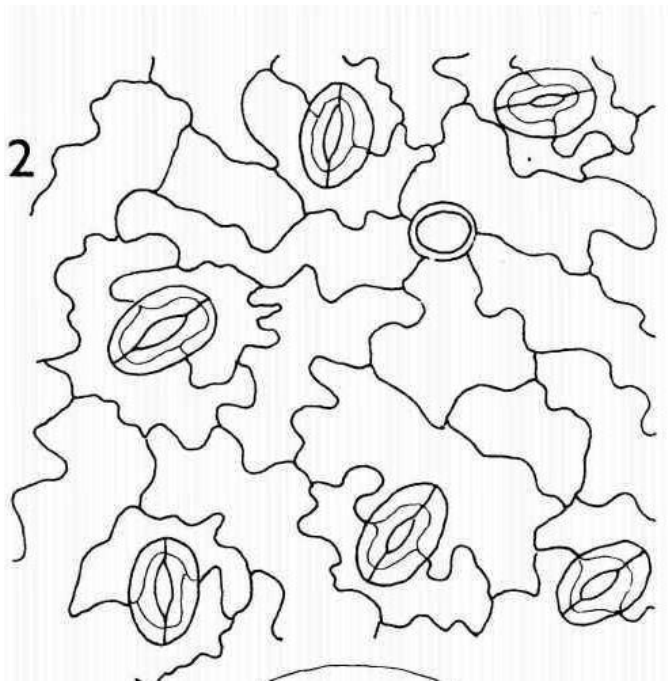
Odor: Aromatic.

Taste: Aromatic followed by
cold sensation



Key Elements

1- Epidermal cell: Wavy wall, diacytic stomata

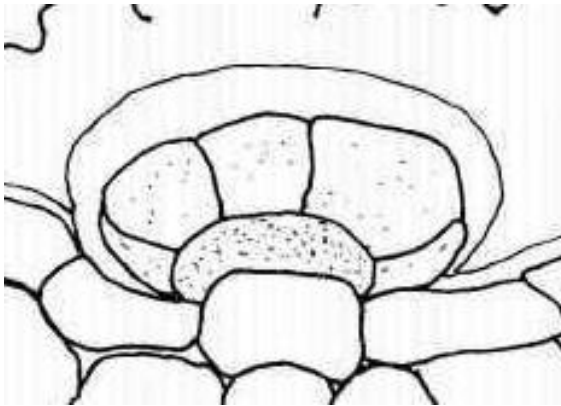
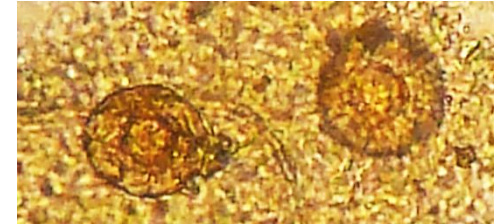


Key Elements

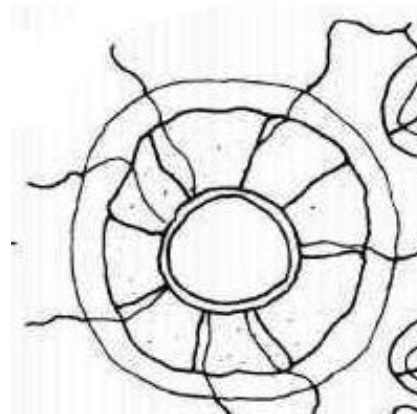
2- hairs:

a- Glandular Hairs:

Labiaceus glandular hair.



Side view

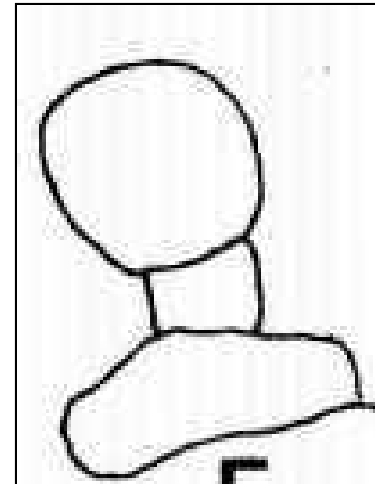


Top view

Key Elements

2- hairs:

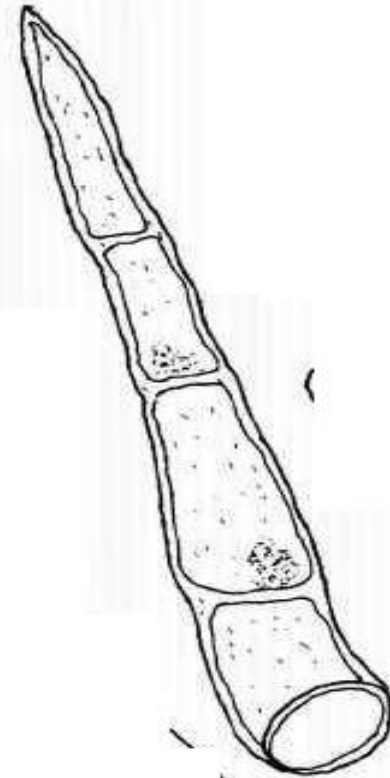
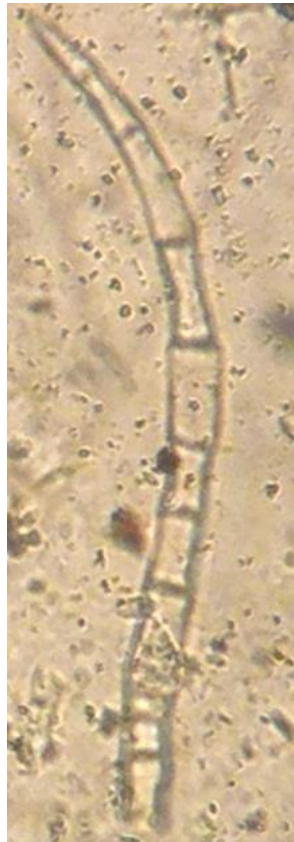
a- Glangular Hairs: Capitate hair



Key Elements

2- hairs:

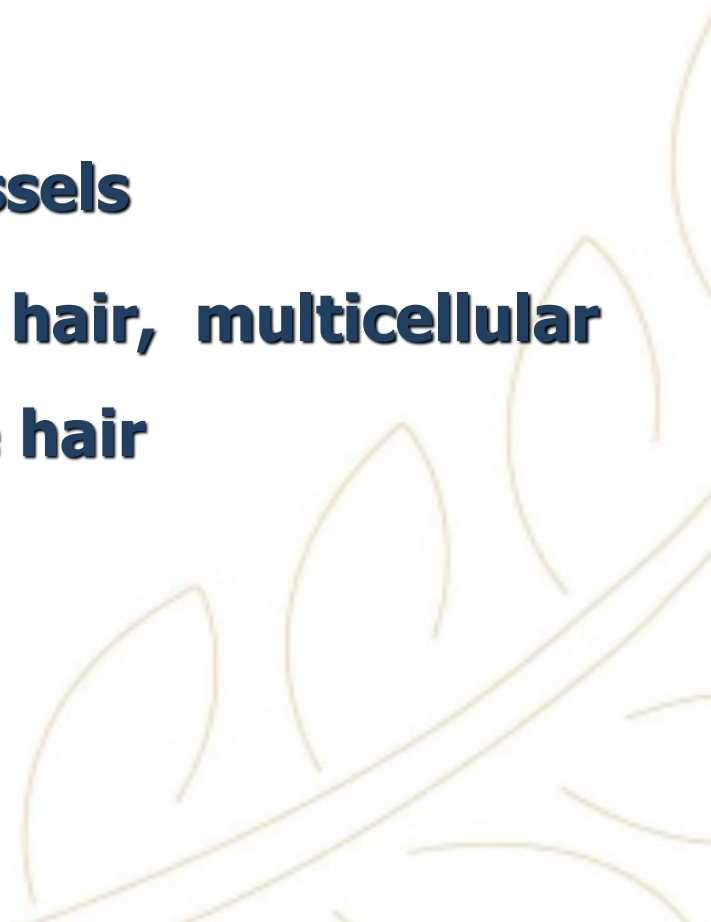
b- Non- glandular hair



Microscopical Characters:

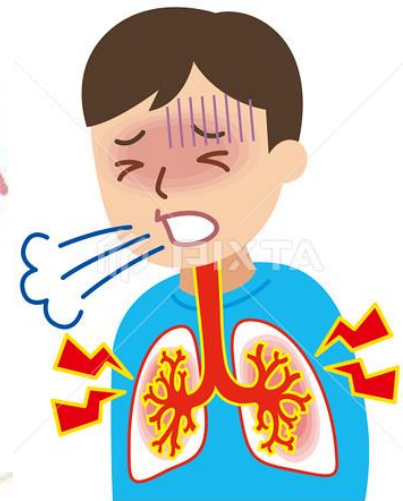
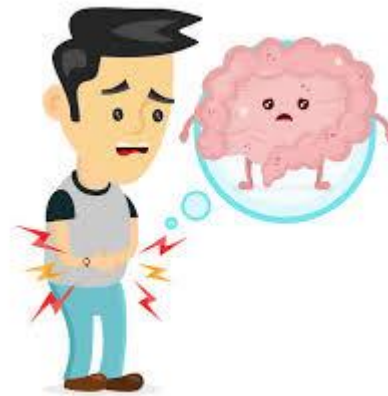
- **Mount in KOH: All key elements**
- **Mount in phloroglucinol: Xylem vessels**

Mount in water: Labiaceous glandular hair, multicellular
Non- glandular hair and capitate hair



Uses

- 1- Used for bronchitis, whooping cough and upper respiratory tract infections.
- 2- The oil is used as carminative, antispasmodic
- 3- Flavouring agent and antiseptic in mouth washes, toothpaste and creams
- 4- Antifungal for skin infection



Herbs

2-Lobelia "Indian tobacco"

Origin:

The dried aerial parts

of *Lobelia inflata*

Family:

Campanulaceae



Herb Specialists Since 1972

Respiratory System Support

RECOMMENDATION
Add to herbs, including peppermint, or other essential preparations.

This herb is not suitable for pregnant women. Do not use if you are allergic to belladonna or related plants. Always consult your health care provider before using any natural product.

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POSOLOGIE:

17. HOURS/ONS: 1 ampoule
18. ADULTES: 2 ampoules
19. ENFANTS: 1 ampoule

SANDOZ S. A.,
BÂLE (Suisse)

Morphology of stem:

Shape: Winged, hairy

Color: Pale green-light green



Physical characters:

Condition: Fine powder.

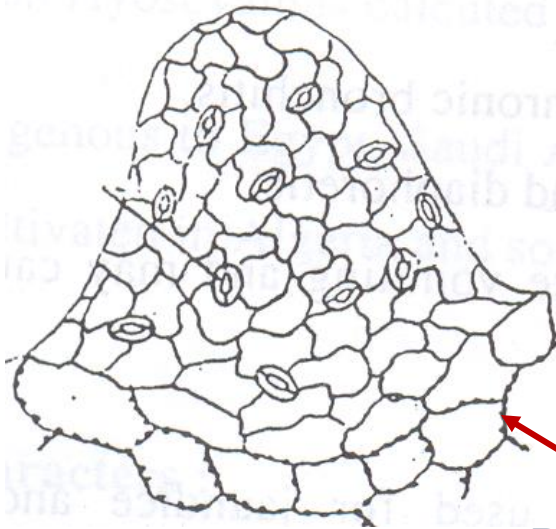
Colour: light Green.

Odor: Irritant odor.

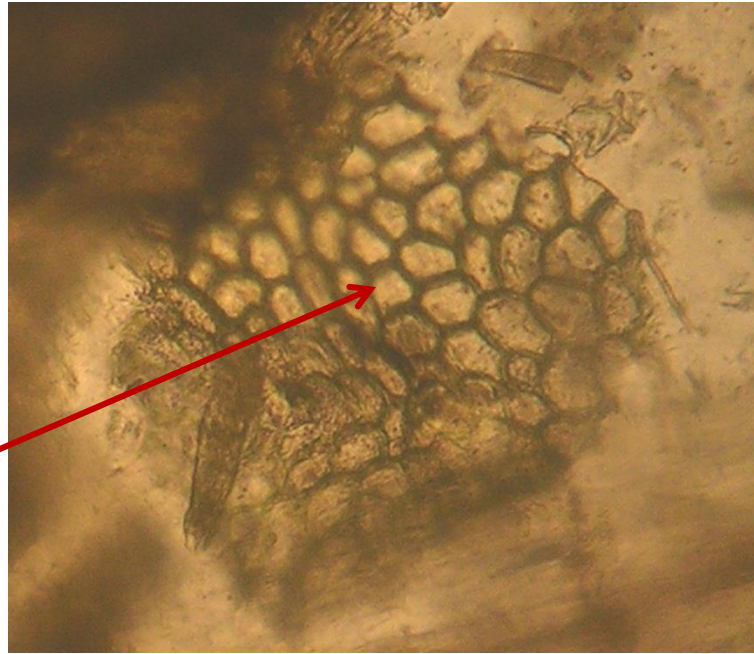
Taste: Burning acrid



Key Elements

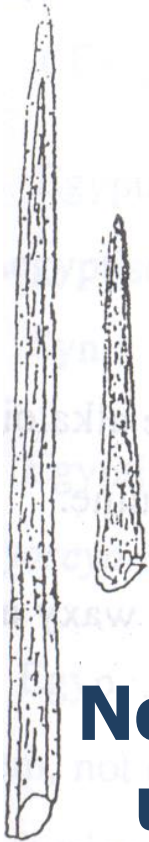


**Papillosed
cells**

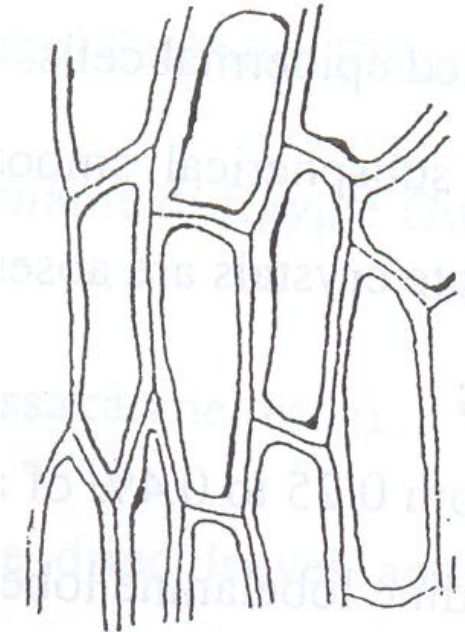


**Epidermal cells of leaf with anomocytic stomata
and beaded anticlinal walls**

Key Elements

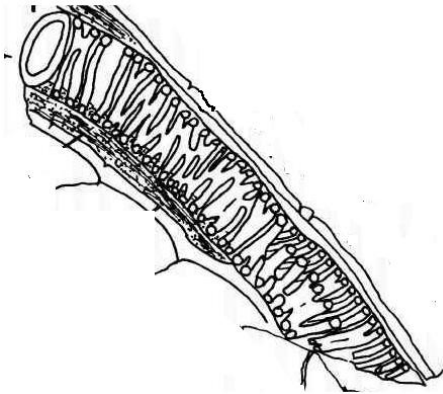


**Non glandular hair
unicellular with
streaked cuticle**

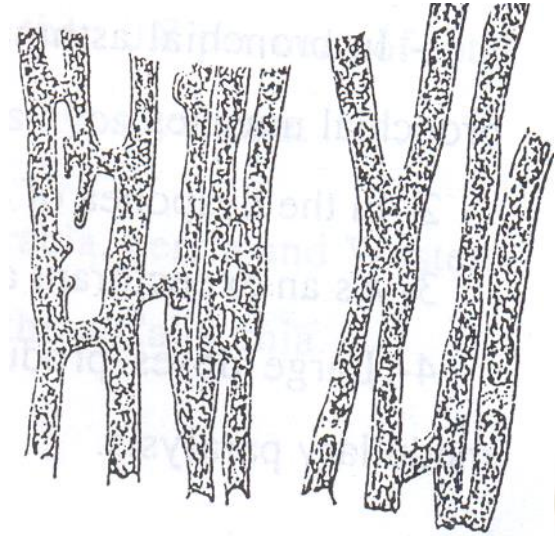


Seed coat

Key Elements



Xylem vessels



**Laticiferous vessels
contain latex**

Microscopical Characters:

- **Mount in KOH: All key elements**
- **Mount in phloroglucinol: Xylem vessels**
- **Mount in water: Non glandular hair unicellular with streaked cuticle**



Uses

1-Expectorant.

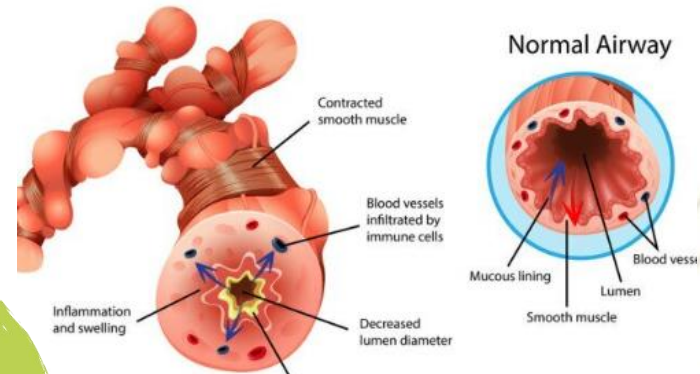


2-An injection of lobeline HCl is used for resuscitation in new born babies.

3-In bronchitis & bronchial asthma as it dilates the bronchioles.

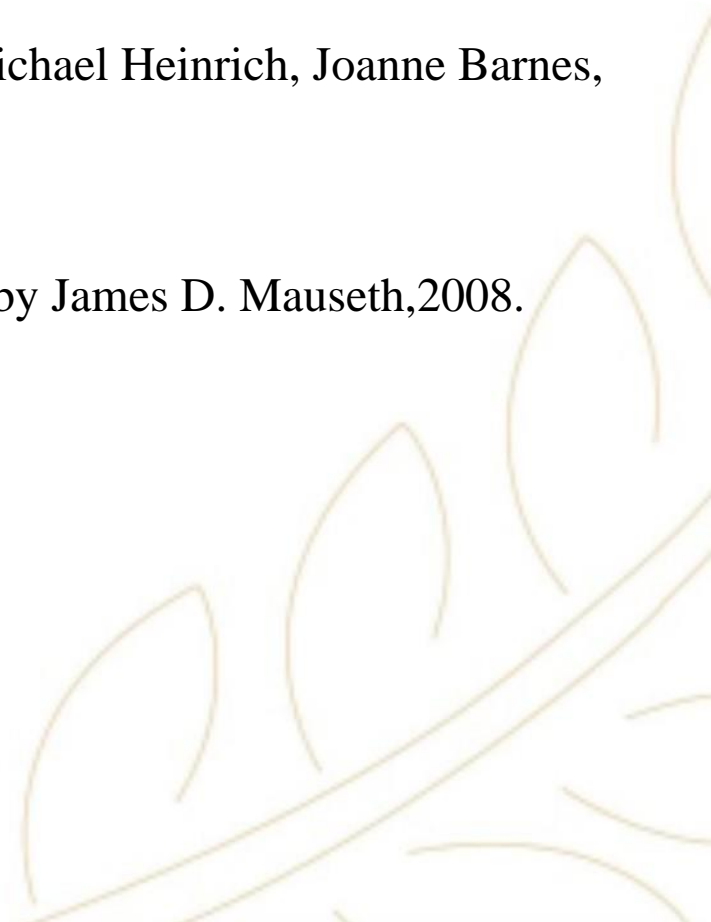
4-Breaking of smoking habit.

Bronchial Asthma



References:

1. Trease & Evans' Pharmacognosy by William Charles Evans, 2002.
2. Fundamentals of Pharmacognosy and Phytotherapy by Michael Heinrich, Joanne Barnes, Simon Gibbons, and Elizabeth M. Williamson, 2004.
3. Botany : An introduction to Plant Biology, Third edition by James D. Mauseth, 2008.



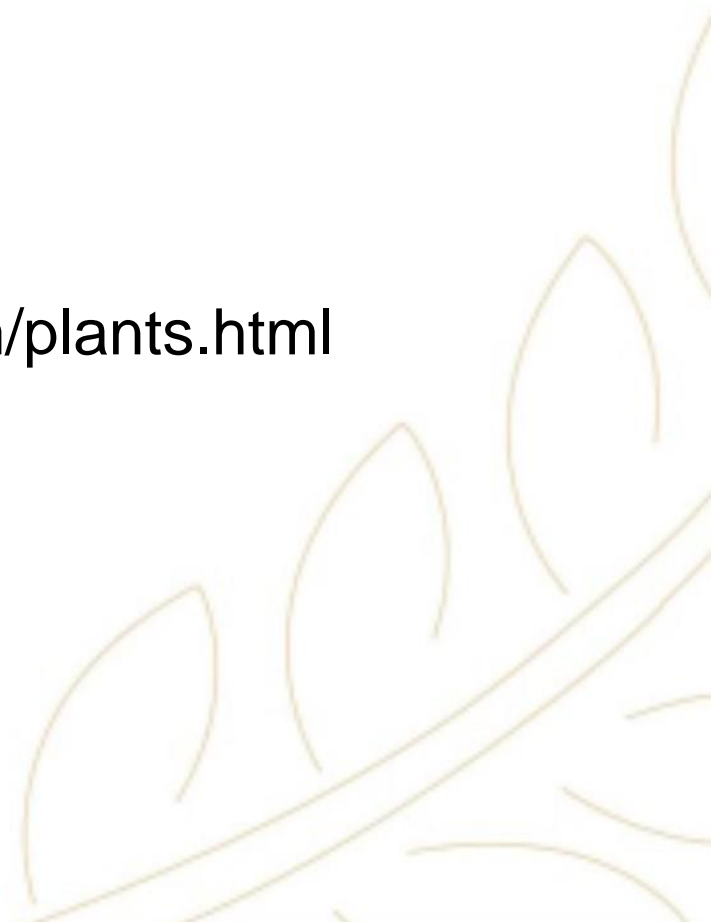
Useful links:

<http://www.hort.purdue.edu/newcrop/med-aro/default.html>

<http://www.herbmed.org/>

<http://www.danish-schnapps-recipes.com/plants.html>

<http://www.botanical.com/>





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