

Lab 4

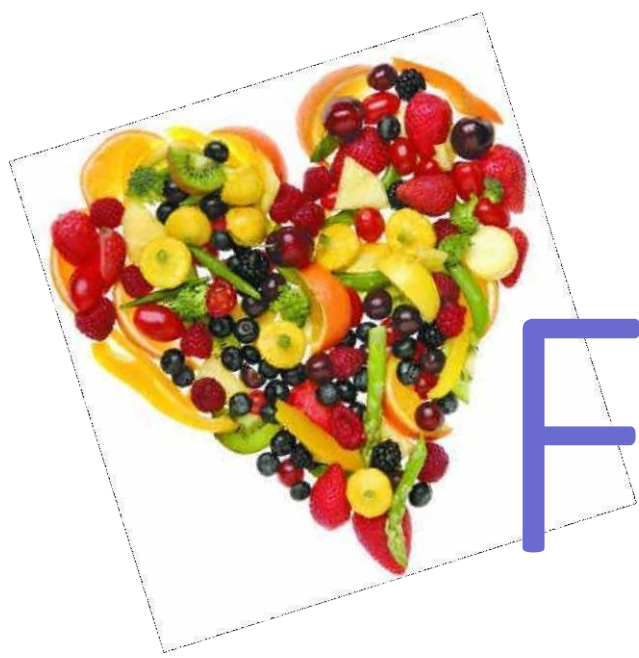
Pharmacognosy

PHG112



The background is a dark blue gradient. On the left side, there are several overlapping, curved bands of varying shades of green, creating a sense of depth and movement. On the right side, there is a stylized, light-colored outline of a leafy branch, with several leaves of varying sizes and shapes extending upwards and to the right.

Faculty of **Pharmacy**



Fruits



Anise

- **Origin:**

-It is the dried fruits of *Pimpinella anisum* Family Apiaceae

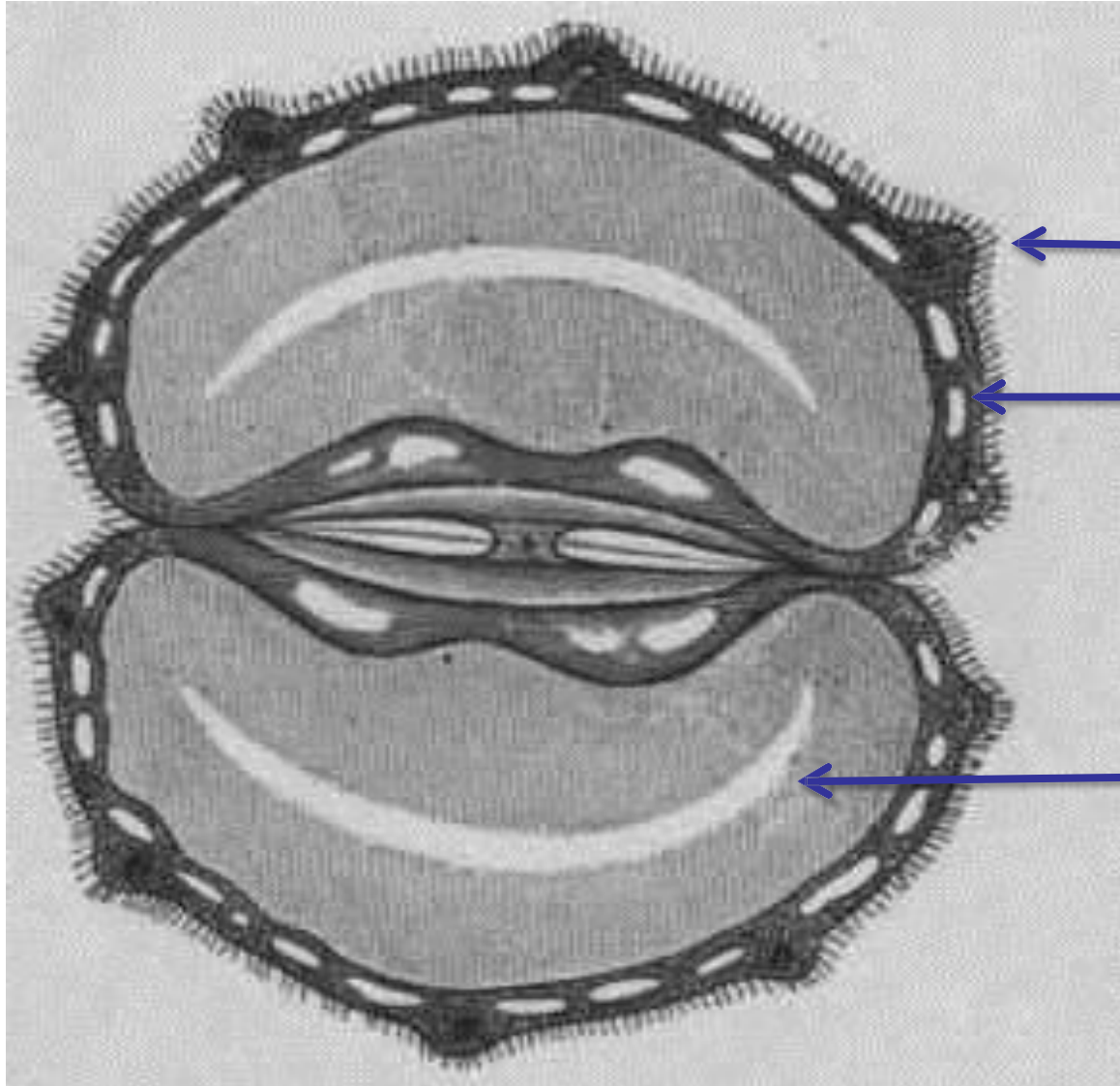


- **Morphology:**

- **Shape:** Pear shaped, large base and tapered ends
- **Size:** Small
- **Colour:** Greenish grey
- **Odour:** Aromatic agreeable
- **Surface:** Hairy on dorsal side



• T.S.



Hairy pericarp

Branched vittae

Endosperm

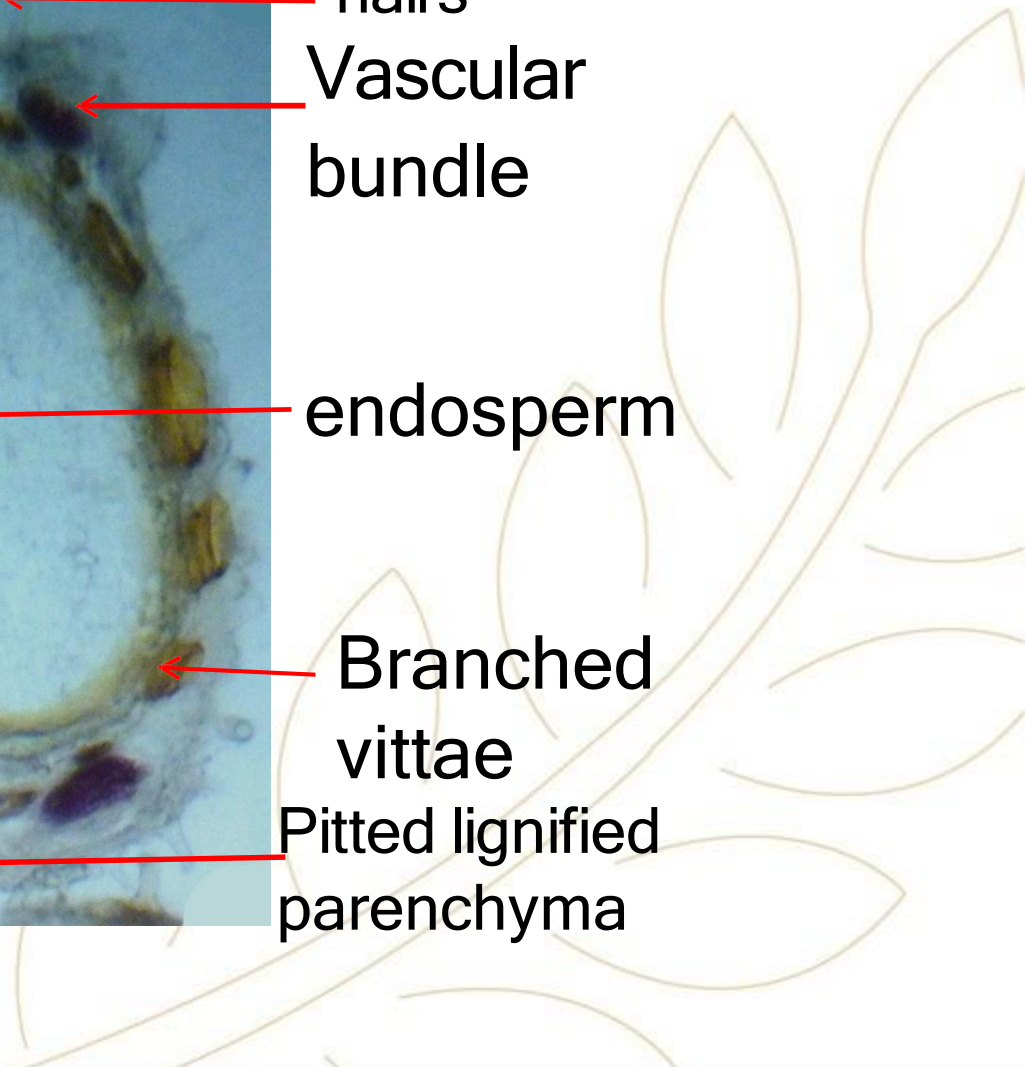
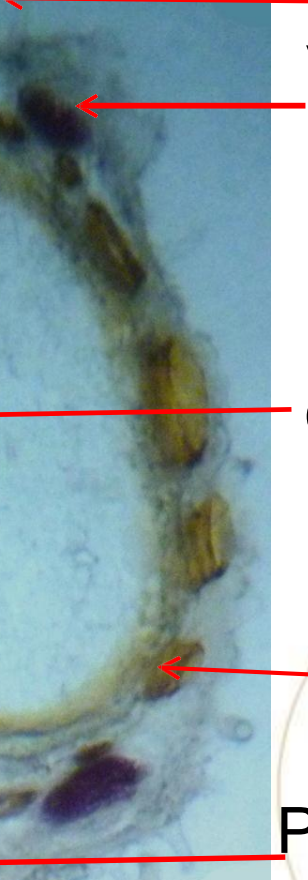


hairs
Vascular
bundle

endosperm

Branched
vittae

Pitted lignified
parenchyma



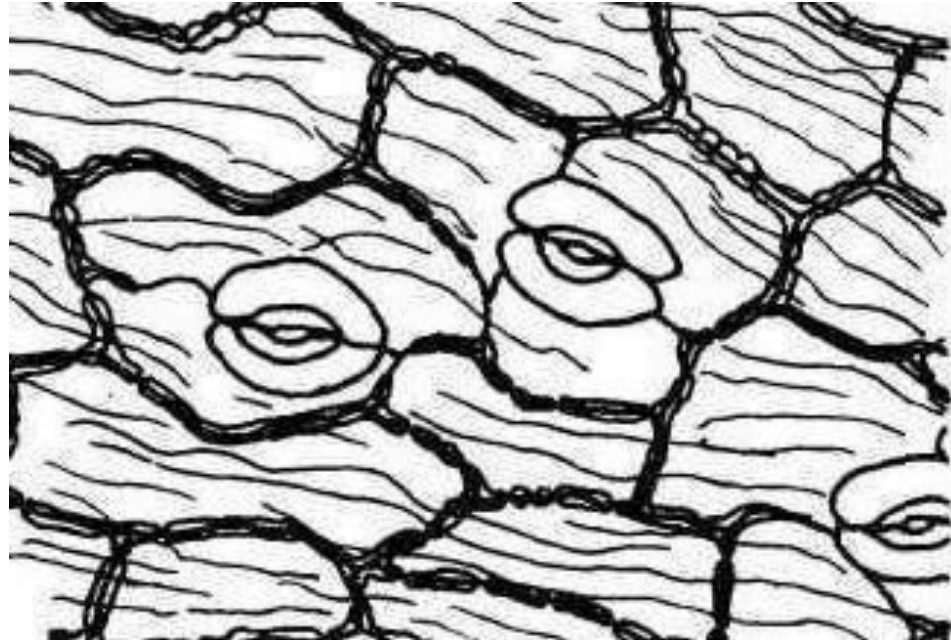
• Physical characters:

- **Condition:** Fine powder
- **Color:** Yellowish green
- **Odour:** Aromatic odour
- **Taste:** Sweet aromatic taste

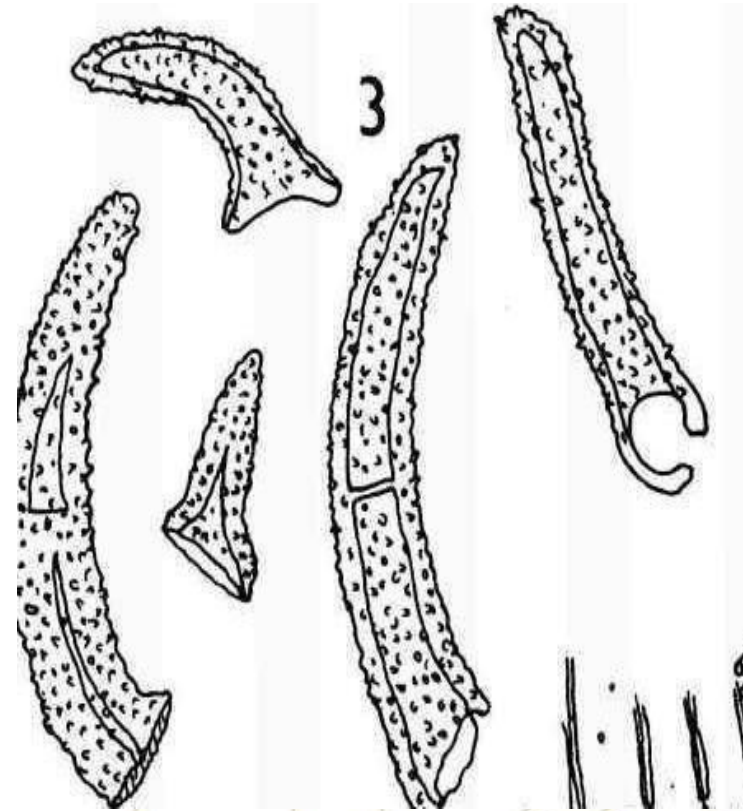


Key elements: 1- Epicarp

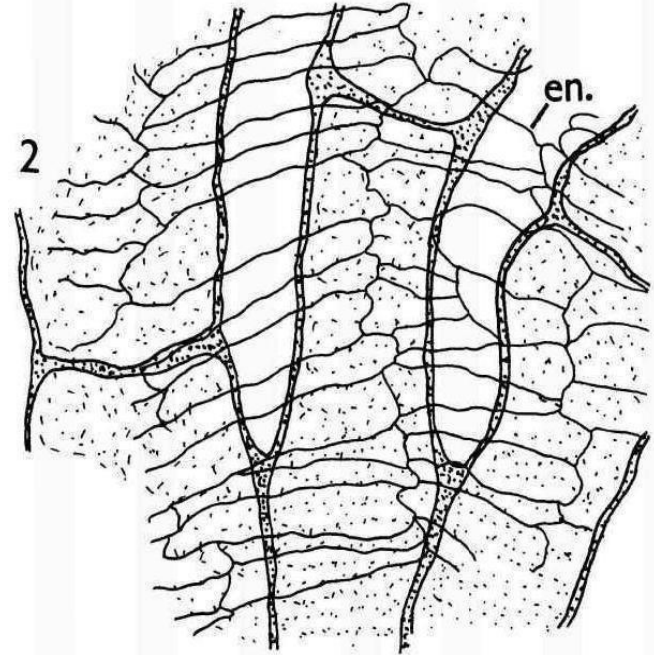
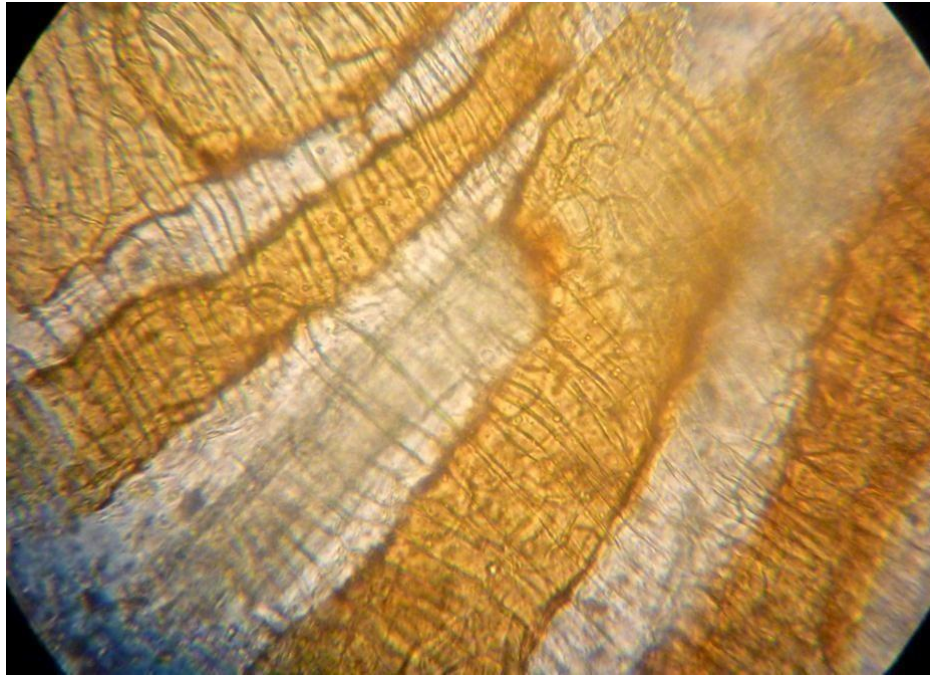
Slightly wavy wall, striated cuticle, anomocytic stomata.



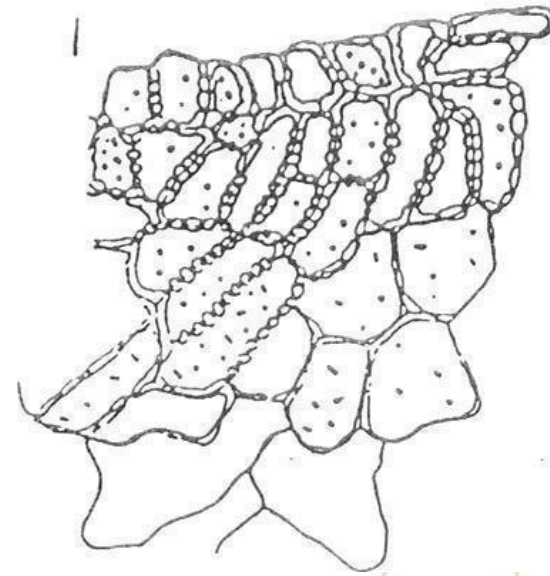
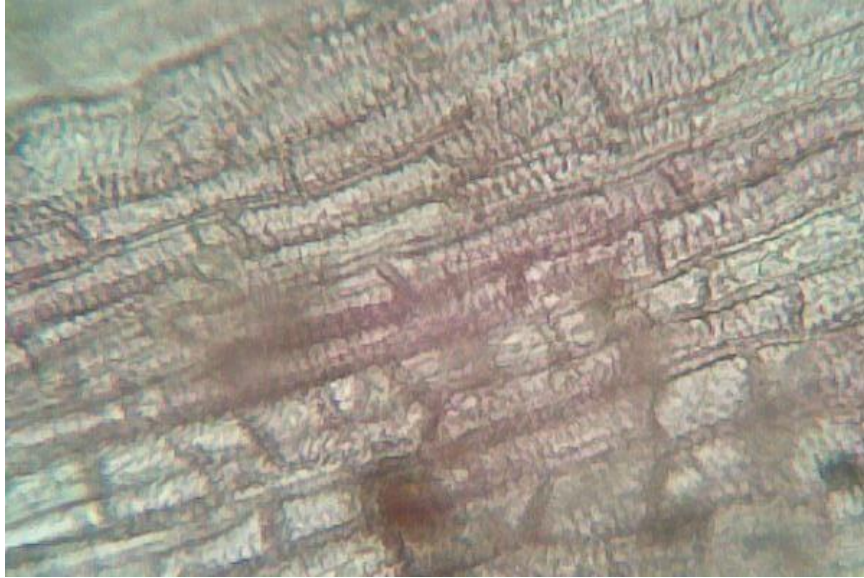
- **Unicellular (occasionally bicellular)
non glandular hair with warty
cuticle**



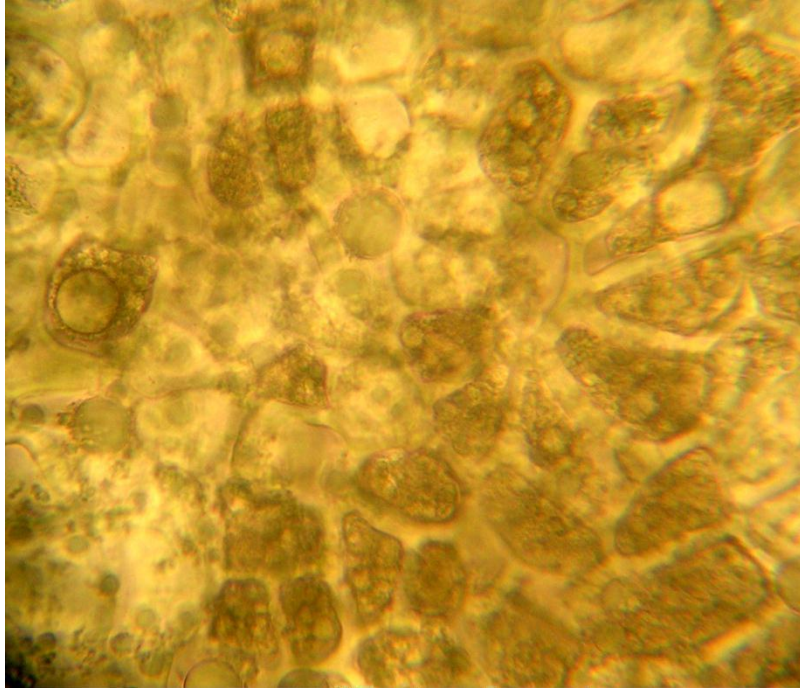
Branched vittae overlapped by non-parquetory endocarp



Lignified pitted parenchyma



Numerous fragments of endosperm.

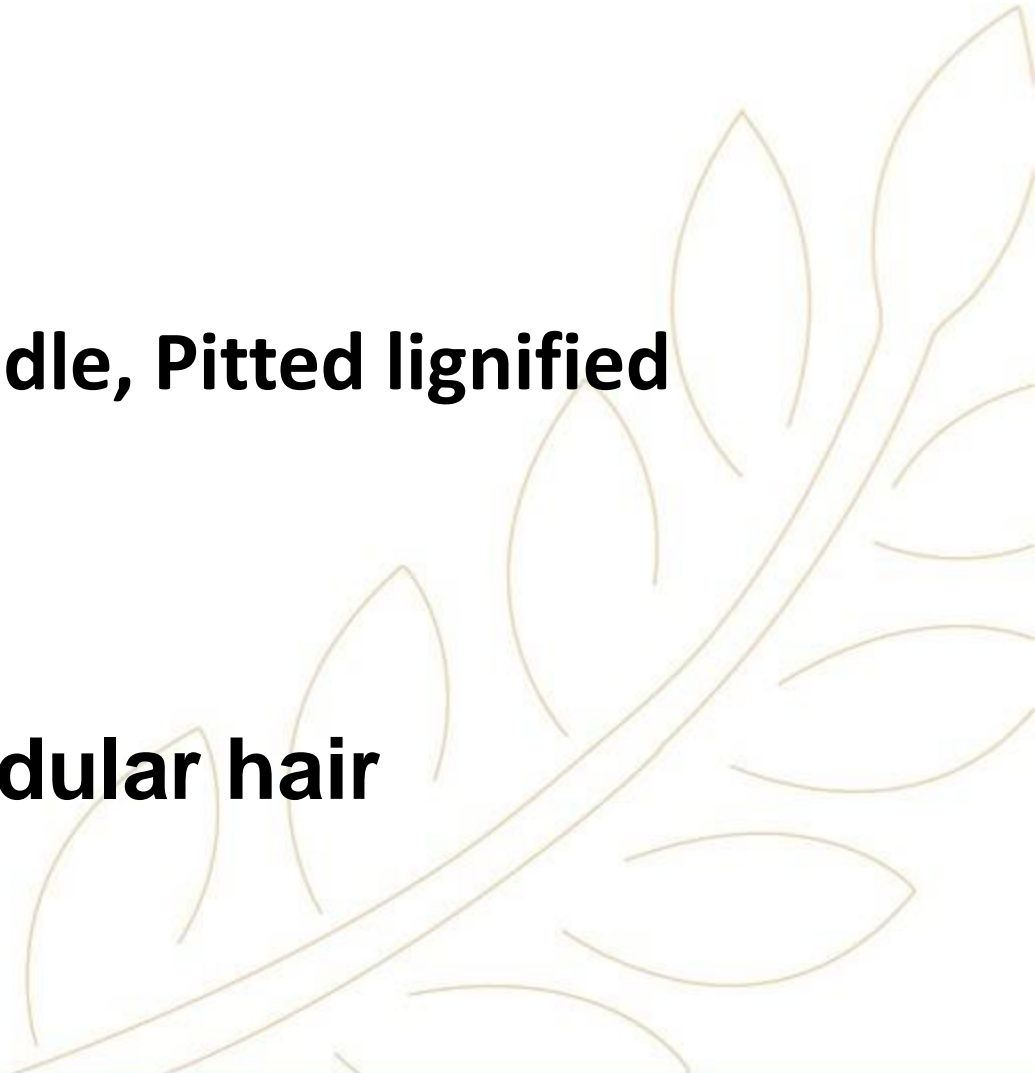


Microscopical Character:

Mount in KOH: All key elements

Mount in phloroglucinol : Vascular bundle, Pitted lignified
parenchyma

Mount in Water: Unicellular non glandular hair



Uses

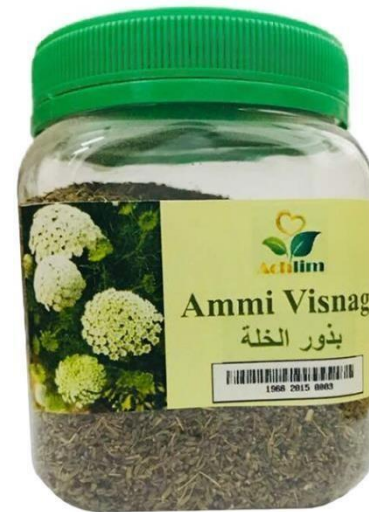
1. **Treat respiratory tract infections as cough and bronchitis**
2. **Carminative and Relieving colic in children.**
3. **Lactagogue**
4. **Has a sedative action.**
5. **Oil is also employed in food & drink industry as flavoring agent**



Ammi visnaga

Origin:

It is the dried ripe fruit of
Ammi visnaga family Apiaceae



Morphology:

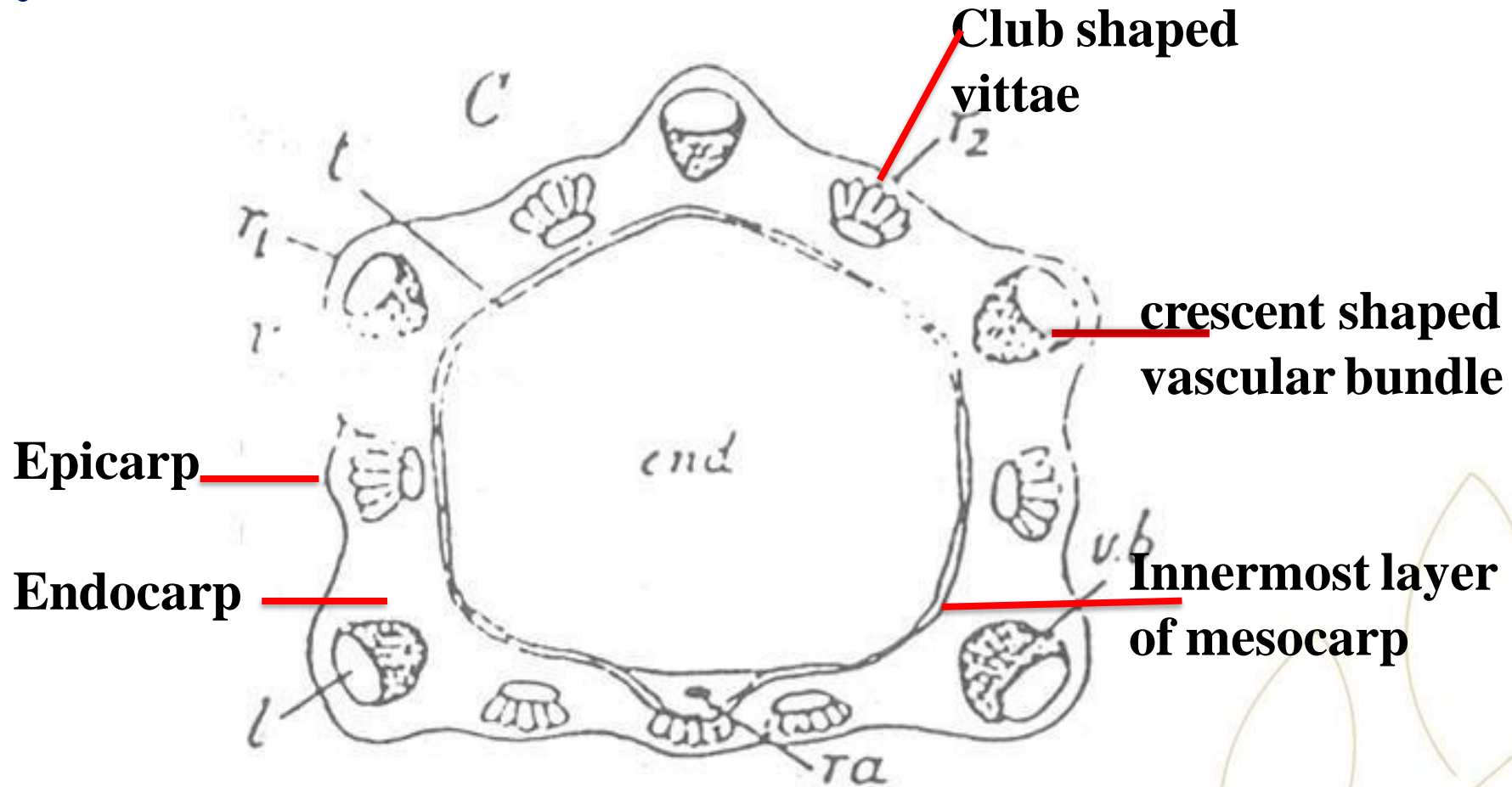
- **Shape:** Small ovoid
- **Colour:** Brownish green with violet tinge
- **Odour:** Slightly aromatic
- **Taste:** Bitter
- **Surface:** Primary ridge
Secondary ridge



T.S.



T.S.



T. S. of Ammi visnaga mericarp (diagram)

Powder:

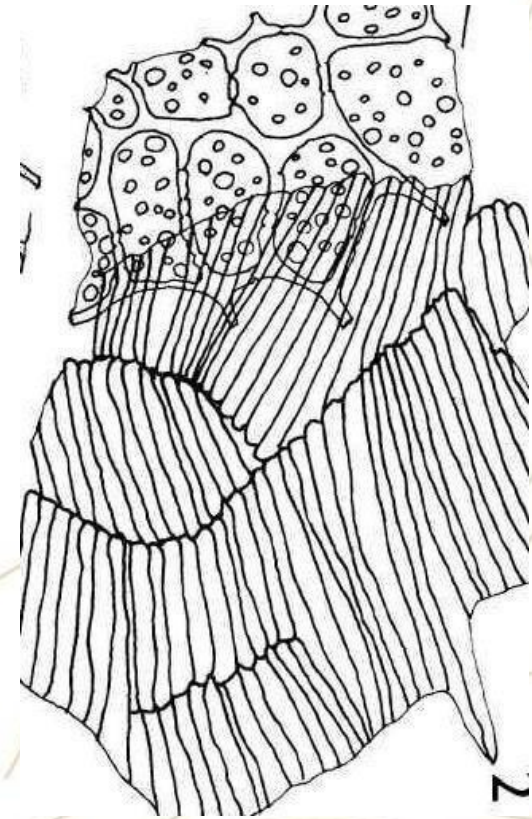
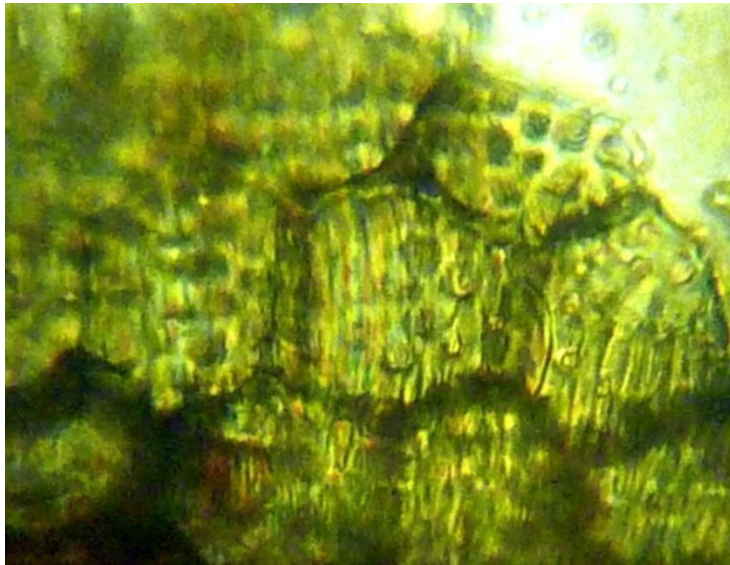
- **Condition: Fine powder**
- **Colour: Brownish green**
- **Odour: Slightly aromatic**
- **Taste: Bitter**



Powder:

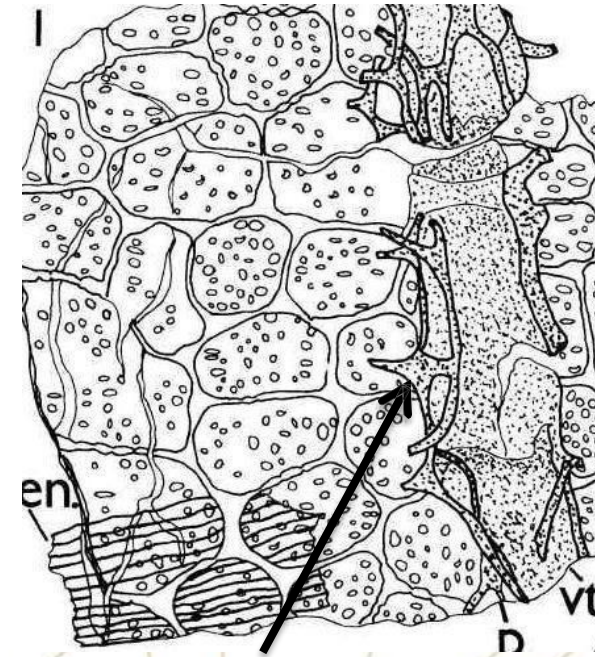
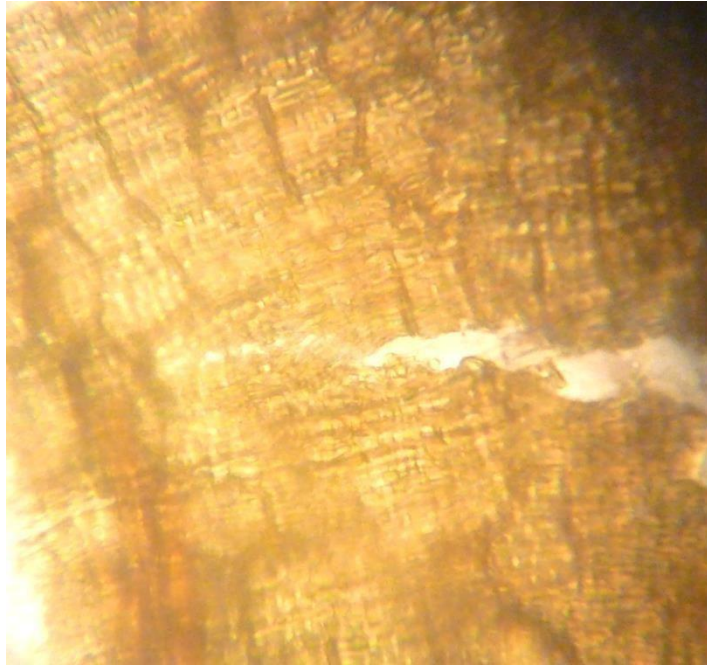
1- Fragments showing innermost layer of mesocarp
(porous layer) accompanied by parquetry endocarp

- Inner most layer of mesocarp
- Parquetry endocarp



Powder:

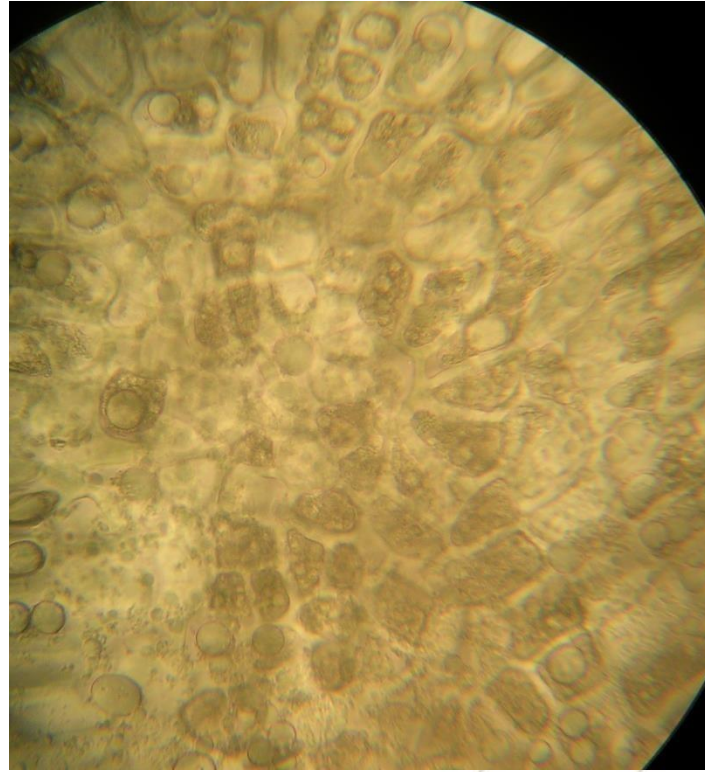
2- Fragments showing innermost layer of mesocarp (porous layer) accompanied by parquetry endocarp and club shaped vittae



Club shaped vittae
with radiating cells

Powder:

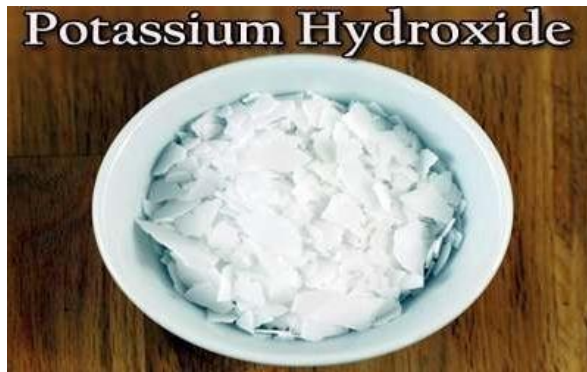
3- Numerous fragments of endosperm showing aleurone grains, containing micro-rosette crystals of calcium oxalate.



Chemical test:

Khellin test:

Put the *ammi visnaga* powder in a filter paper and add few specks of KOH solid (pellets)



after 1-2 mins

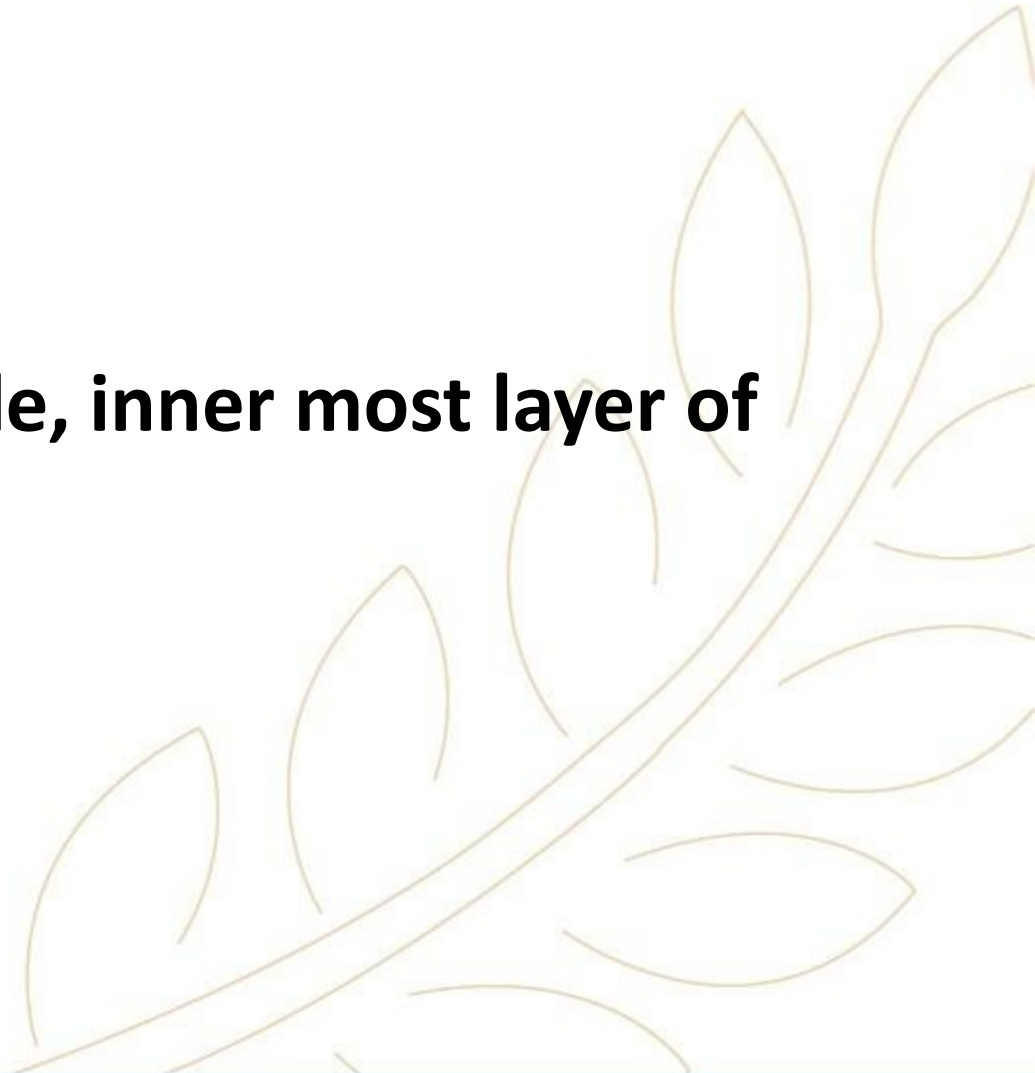


Microscopical Character:

Mount in KOH: All key elements

Mount in phloroglucinol : Vascular bundle, inner most layer of mesocarp

Mount in Water: Negative



Uses

- 1. Spasmolytic** (especially on the muscles of the bronchi, GIT, biliary tract, urogenital system and the coronary vessels)
- 2. Whooping cough** (use for ttt bronchial asthma)
- 3. Cramp-like conditions of GIT, biliary colic, and painful menstruation.**





Established by Dr.Nawal El Degwi
October Univeristy for Modern Sciences and Arts
جامعة أكتوبر للعلوم الحديثة والآداب

Thank You!

THE FIRST BRITISH HIGHER EDUCATION IN EGYPT

26th July Mehwar Road Intersection with Wahat Road, 6th of October City, Egypt

Tel: 00238371113 Postal code: 12451 Email: info@msa.edu.eg

Hotline: 16672 Website: www.msa.edu.eg