

Pharmacognosy

PHG112

Lab

8



The background is a dark blue gradient. On the left side, there are several overlapping, curved bands of varying shades of green, ranging from light to dark. On the right side, there is a faint, golden-brown outline of a leafy branch, with several leaves of varying sizes and shapes.

Faculty of **Pharmacy**

Pharmacognosy II

Scheme



Practical exam II

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graph TD; A[Practical exam II] --> B[Powder identification]; A --> C[Spots]; B --> D[Origin.]; B --> E[Physical characters.]; B --> F["Diagnostic element (3 key elements at least)."]; C --> G[Name.]; C --> H[Origin.]
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Powder identification

Origin.

Physical characters.

Diagnostic element (3 key elements at least).

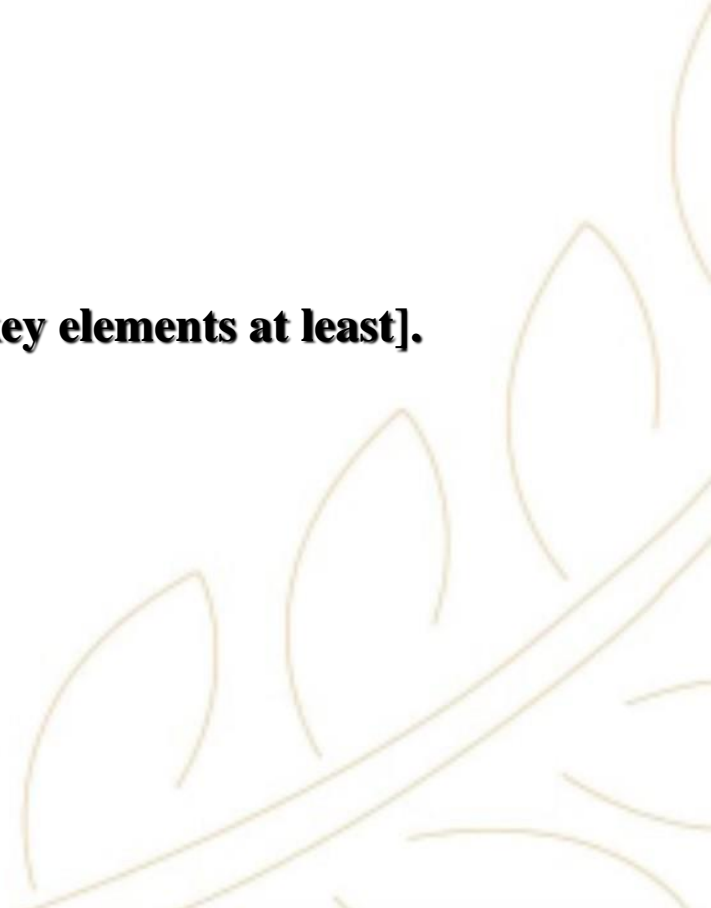
Spots

Name.

Origin.

Exam requirements

A. Exam sheet:

- **Physical characters.**
 - **Origin.**
 - **Microscopical characters [Diagnostic element (3 key elements at least)].**
 - **Uses**
- 
- A decorative graphic in the bottom right corner of the slide, consisting of several stylized, light brown leaf outlines arranged along a diagonal stem.

Exam requirements

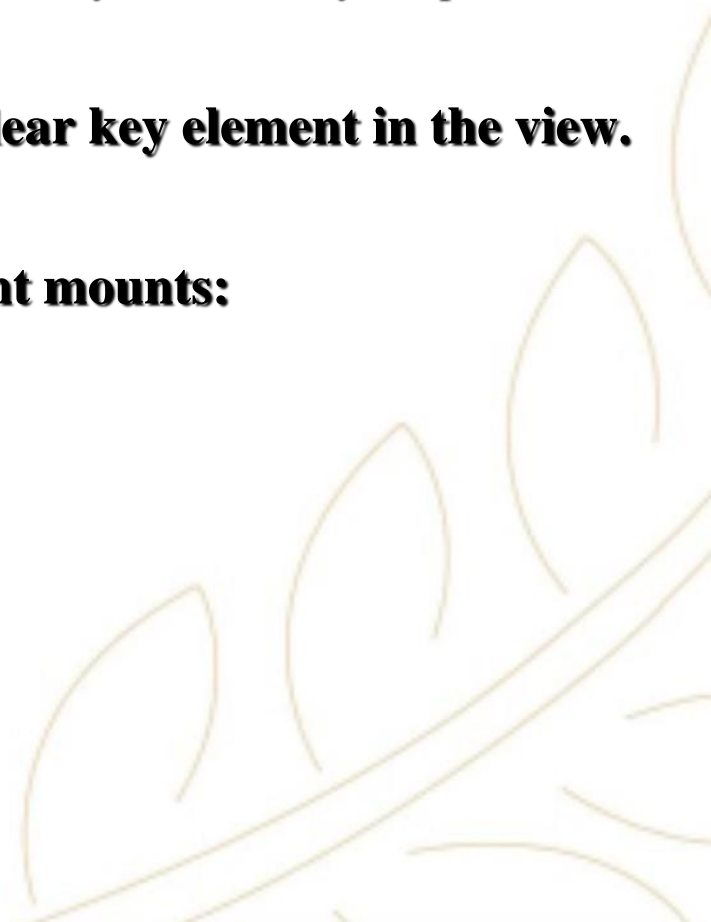
B. Microscope:

You have to fix your microscope on a view showing the Main key element of your plant.

The slide have to be clean and not crowded with clear key element in the view.

Write down the key elements shown in the different mounts:

Water- Phloroglucinol -KOH

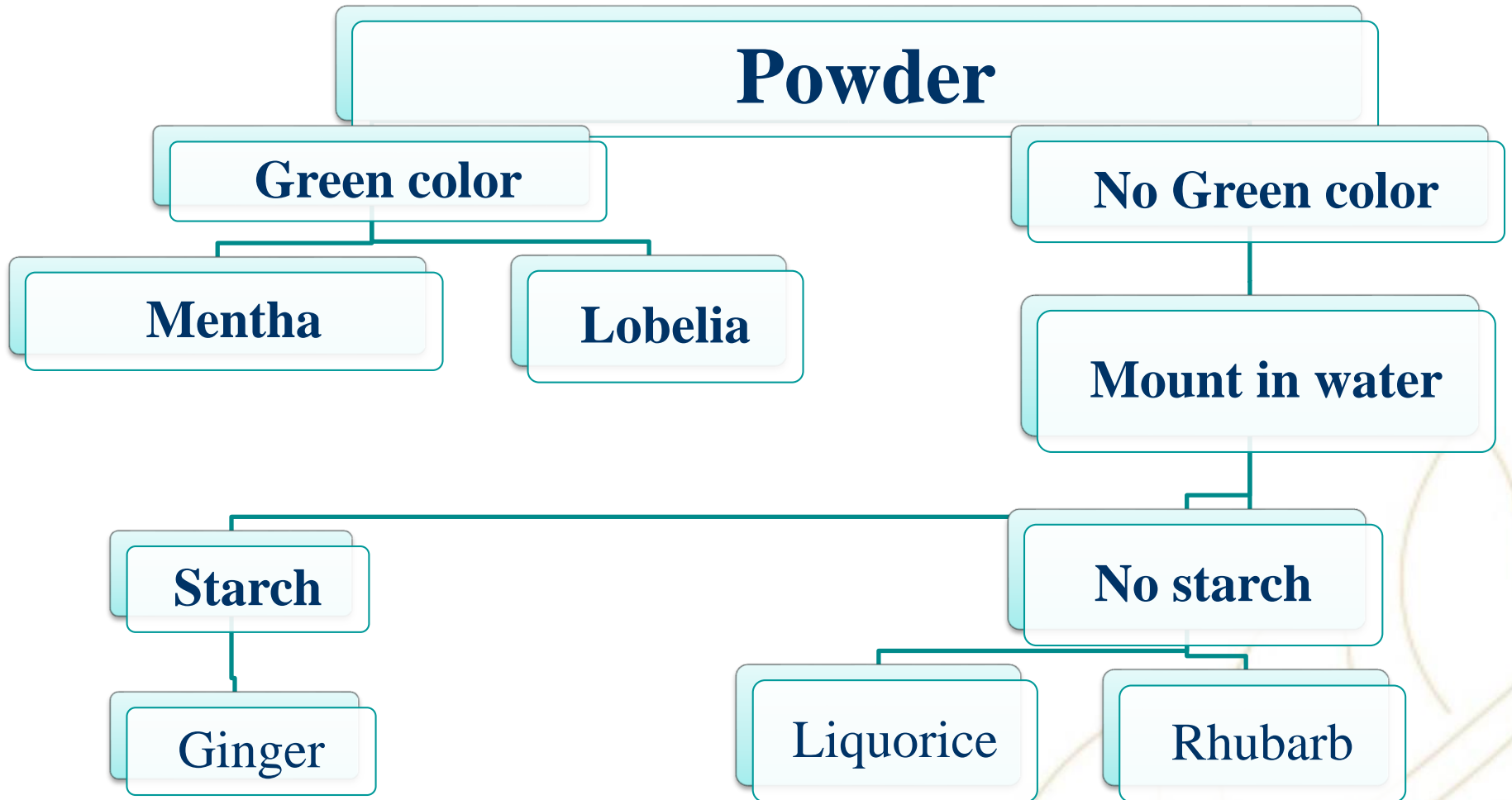


Powder

Herbs
Mentha
Lobelia

Subterranean
Liquorice
Rhubarb
Ginger

I. SCHEME FOR POWDER



Green Powder

Mentha



Condition: Fine powder.

Colour: Olive Green.

Odor: Aromatic.

Taste: Aromatic followed by cold sensation

Lobelia



Condition: Fine powder.

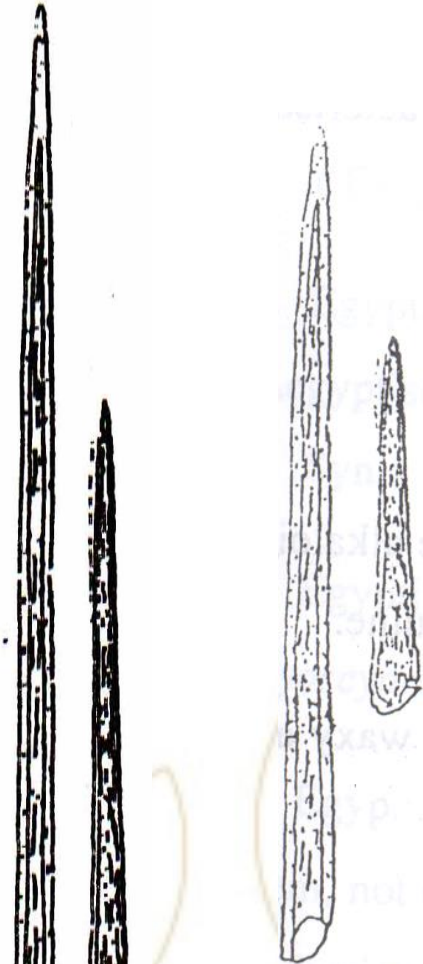
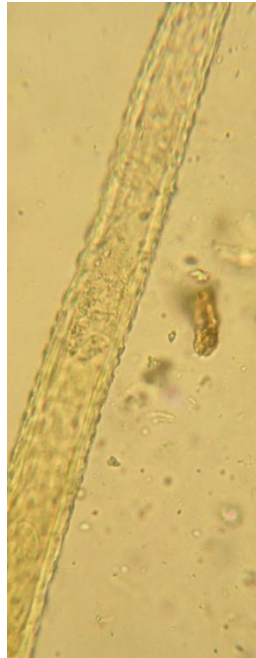
Colour: light Green.

Odor: Irritant odor.

Taste: Burning acrid.

If lobelia you will see under the microscope:

- **Non glandular trichome**

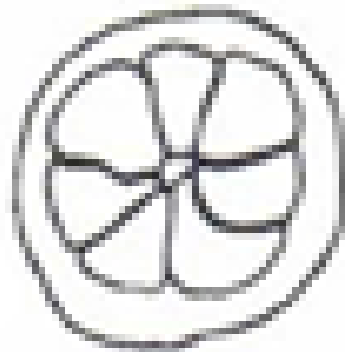


Powder + KOH (boil)

Mentha

If Mentha you will see under the microscope:

- **Labiaceous hair**



Red color with KOH solution

Rhubarb

Condition: Powder

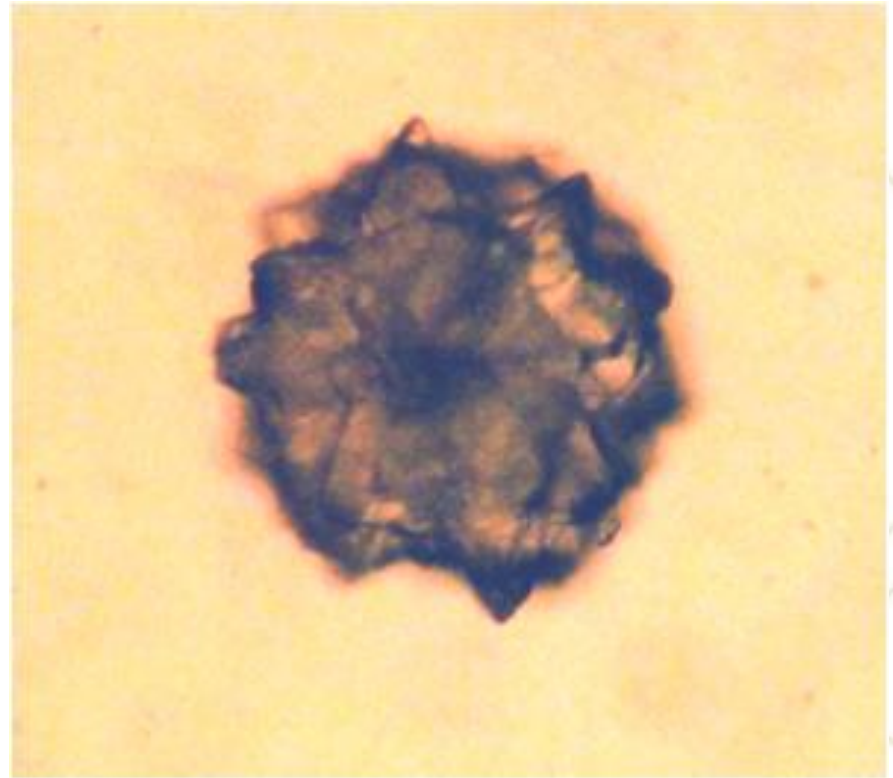
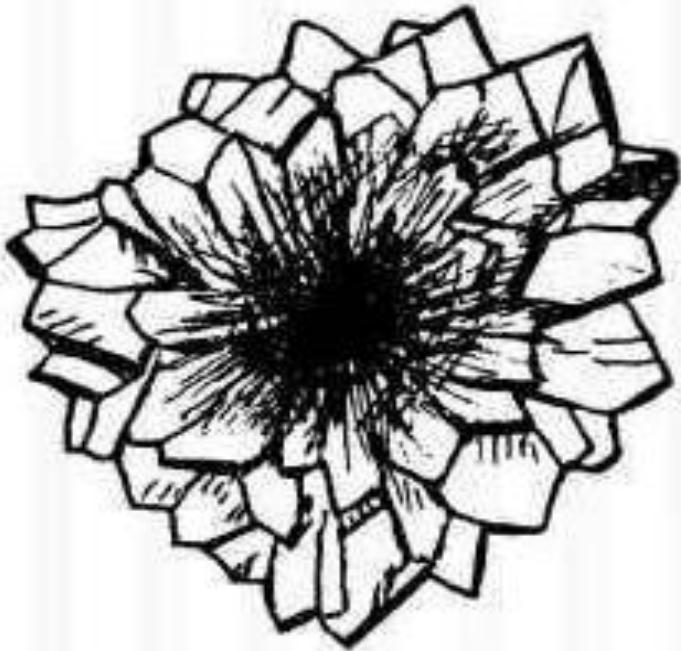
Colour: Reddish brown

Odour: Aromatic odour

Taste: Bitter astringent with gritty taste.

If Rhubarb you will see under the microscope:

- Cluster crystals of CaOX



Powder with mount in water

Starch of Ginger

Condition: Powder

Colour: Yellowish brown

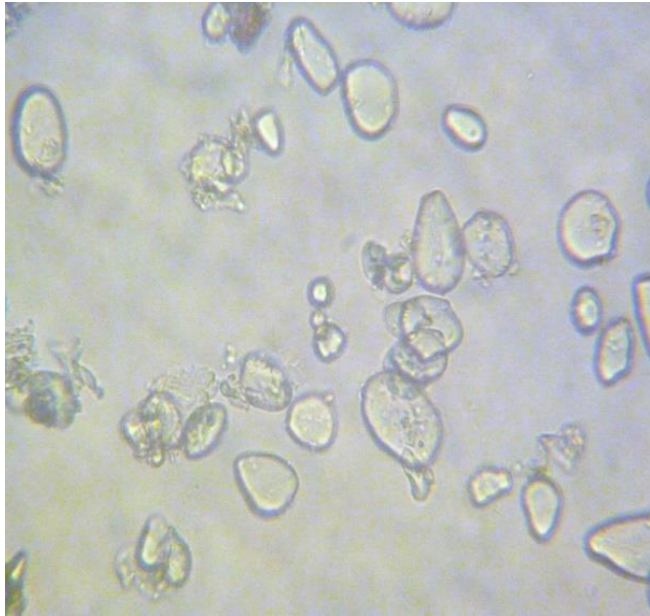
Taste: Pungent taste

Odour: Aromatic

If Ginger you will see under the microscope:

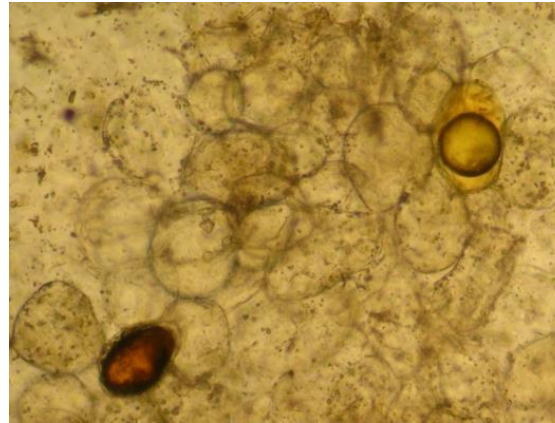
Water mount

- Staminecious starch

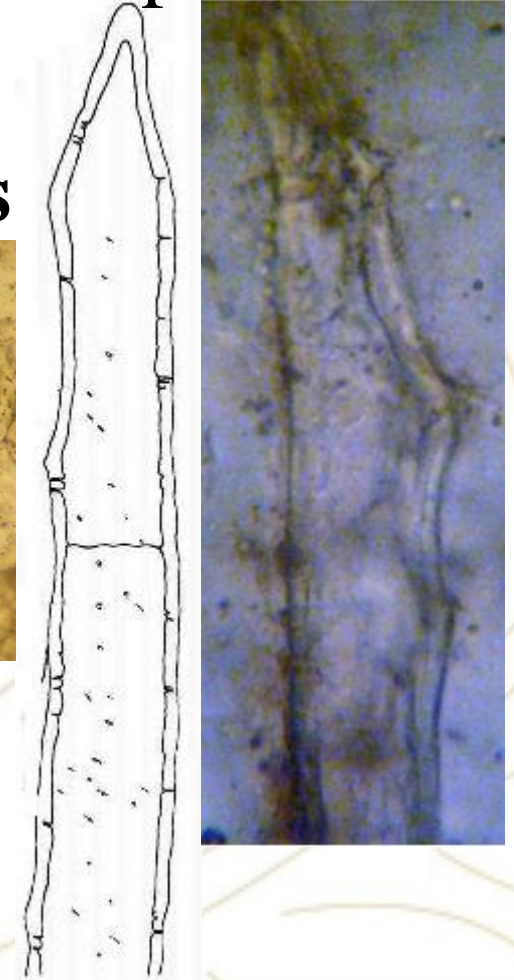


KOH mount

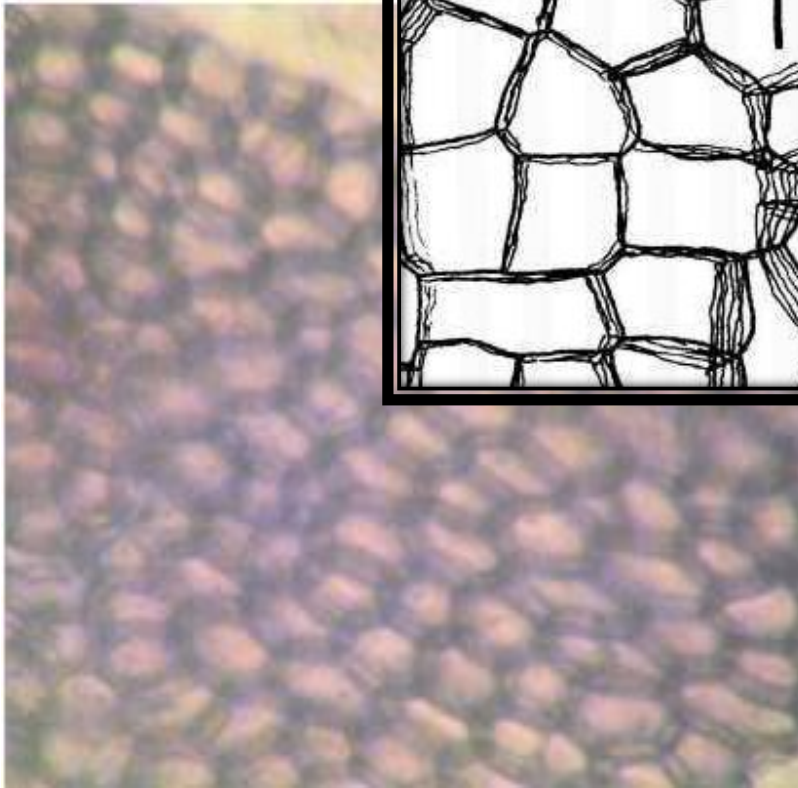
Oleo-resin cells



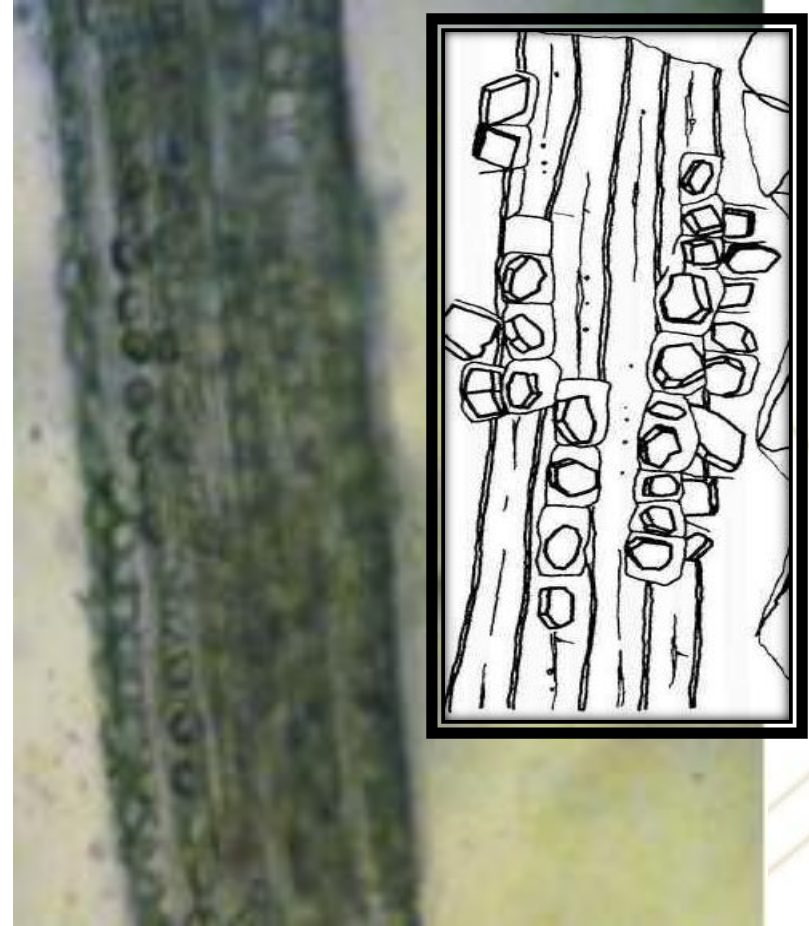
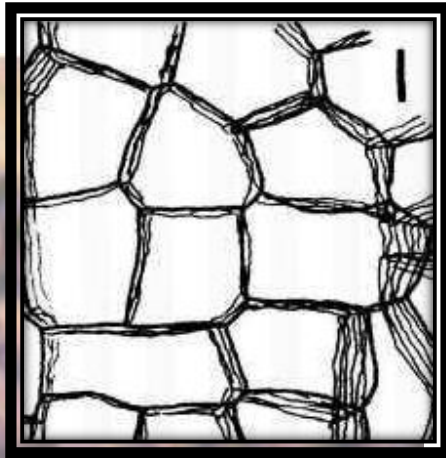
Septate fibers



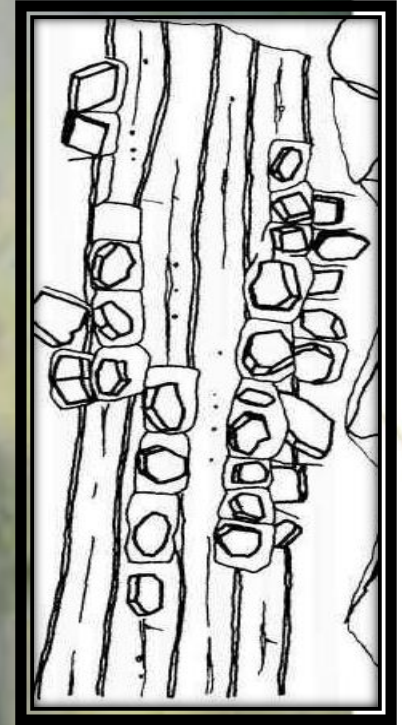
If Liquorice you will see under the microscope: KOH mount



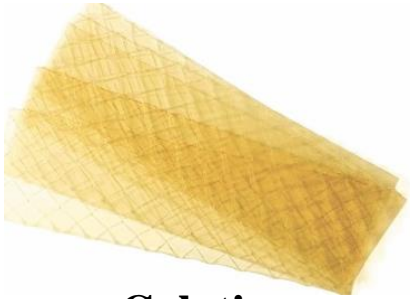
Cork cells



Crystal sheath



C. Spots exam:



Gelatin



Liquorice



Aloe



Ginger



Lobelia



Myrrh



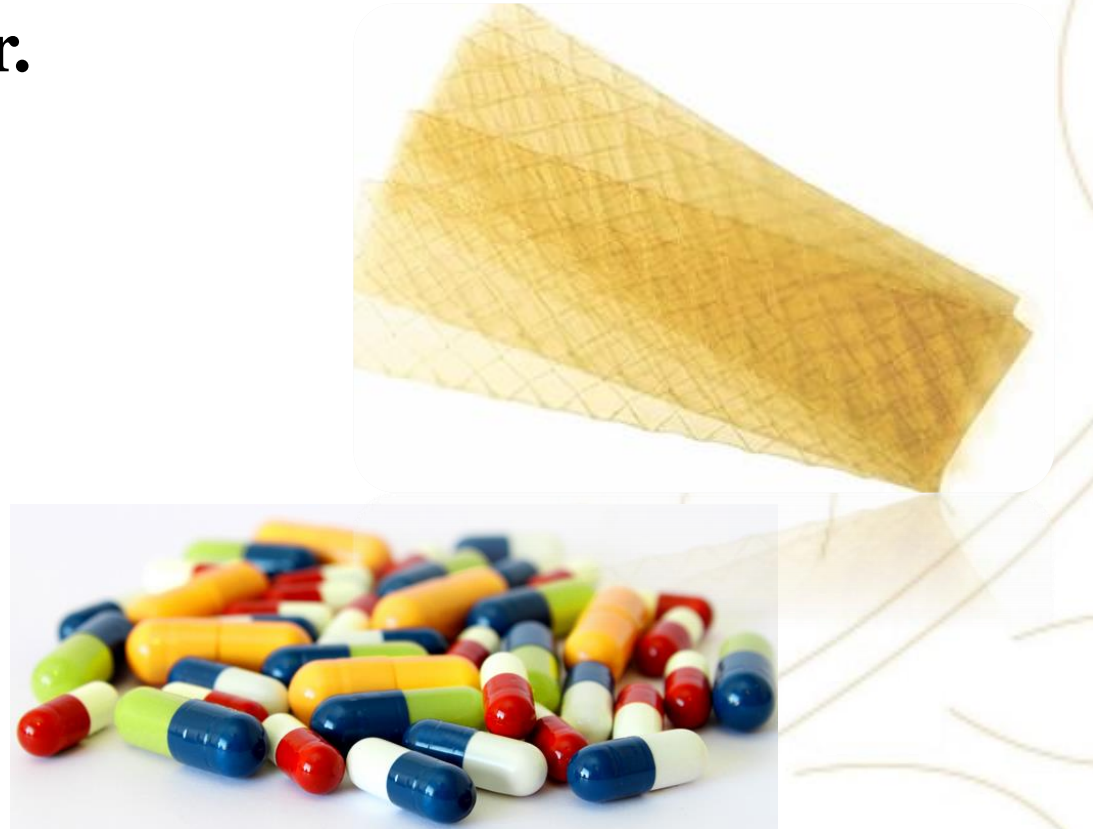
Mentha



Rhubarb

Gelatin

It is the protein obtained by boiling the collagenous tissues of animals such as skin, tendons, ligaments and bones with water, evaporating the aqueous extract and drying the residue in air.



Dried juice

Aloe



It is the solid residue obtained by evaporating the liquid, which drains from the cut leaves of *Aloe vera* Fam. Liliaceae.



Myrrh

It is an oleo-gum-resin obtained from the stems and branches of *Commiphora myrrha*, *C. molmol* and other species of *Commiphora*, Fam. Burseraceae

