OCTOBER UNIVERISTY
FOR MODERN SCIENCES AND ARTS
جامعة أكتوبر للعلوم الحديثة والآداب

Pharmacognosy

PHG112

Lab 10



Faculty of
Pharmacy

Pharmacognosy II
Scheme

Practical exam II

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**

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:

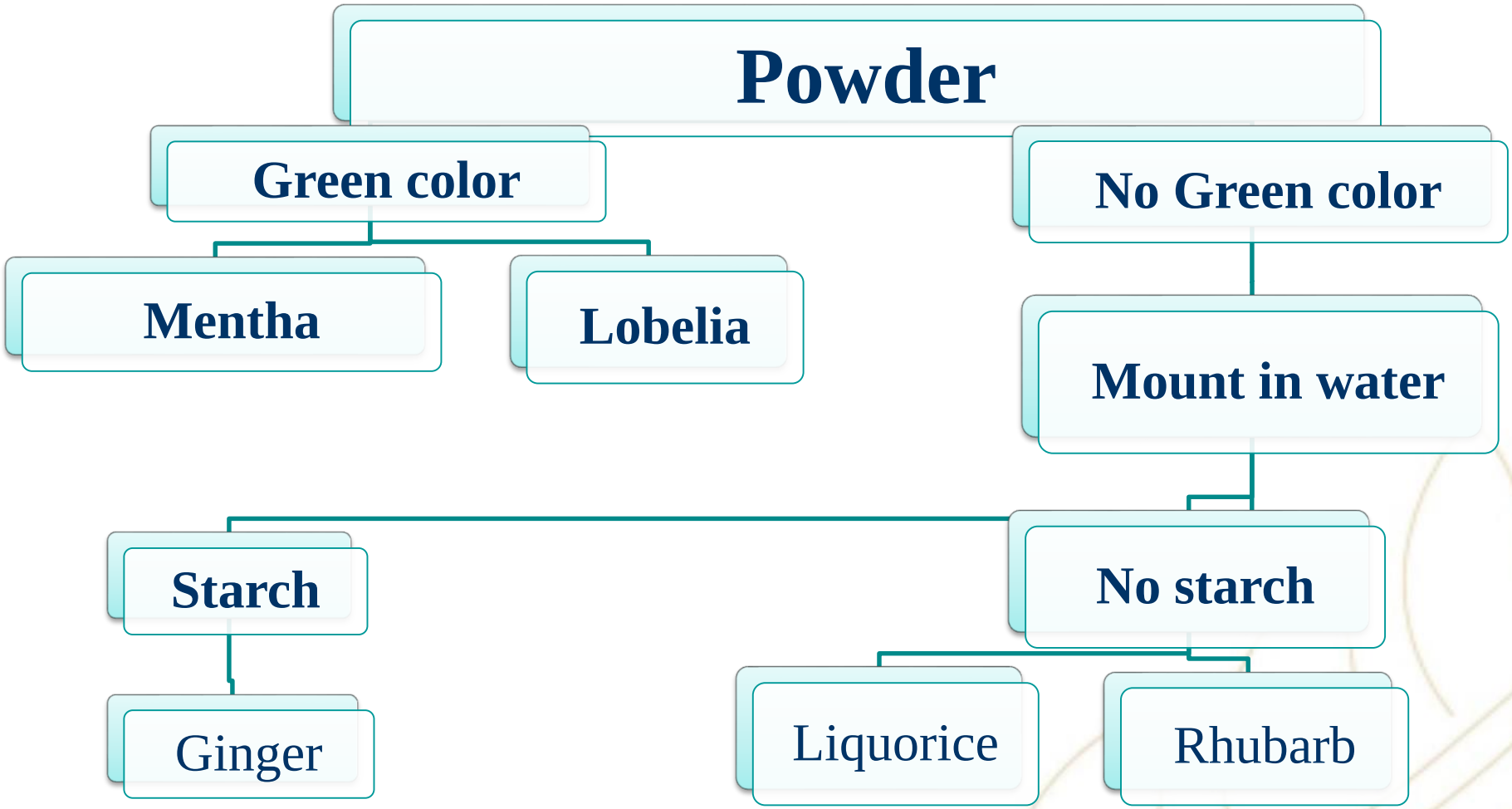
Water- Phloroglucinol -KOH

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

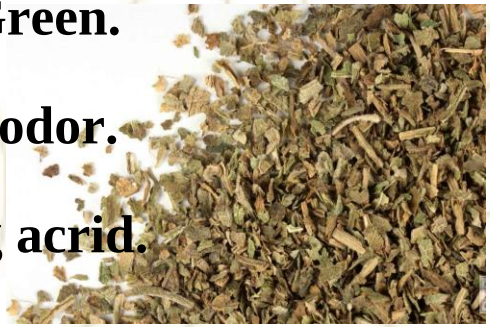
Lobelia

Condition: Fine powder.

Colour: light Green.

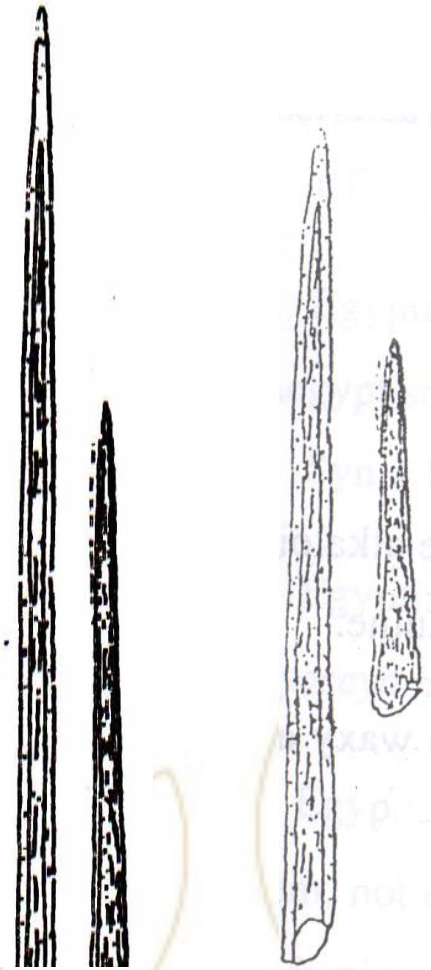
Odor: Irritant odor.

Taste: Burning acrid.



If lobelia you will see under the microscope:

- **Non glandular trichome**

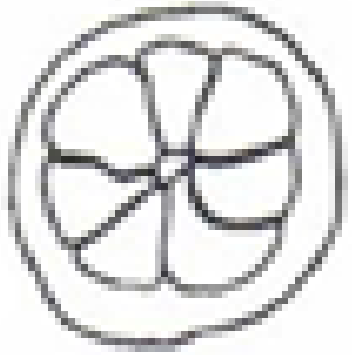


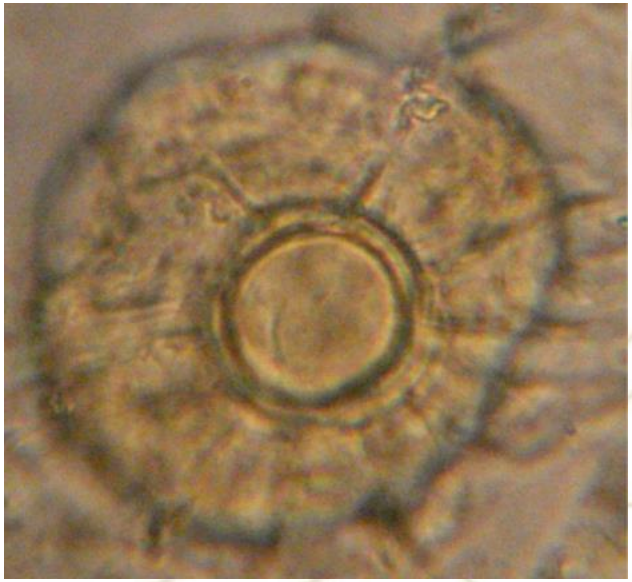
Powder + KOH (boil)

Mentha

If Mentha you will see under the microscope:

- **Labiaceous hair**





Red color with KOH solution

Rhubarb

Condition: Powder

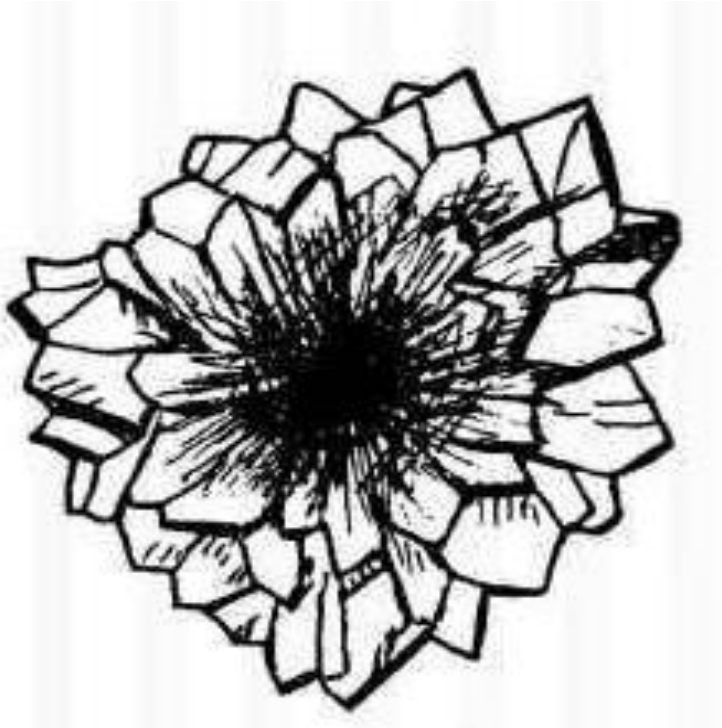
Colour: Reddish brown

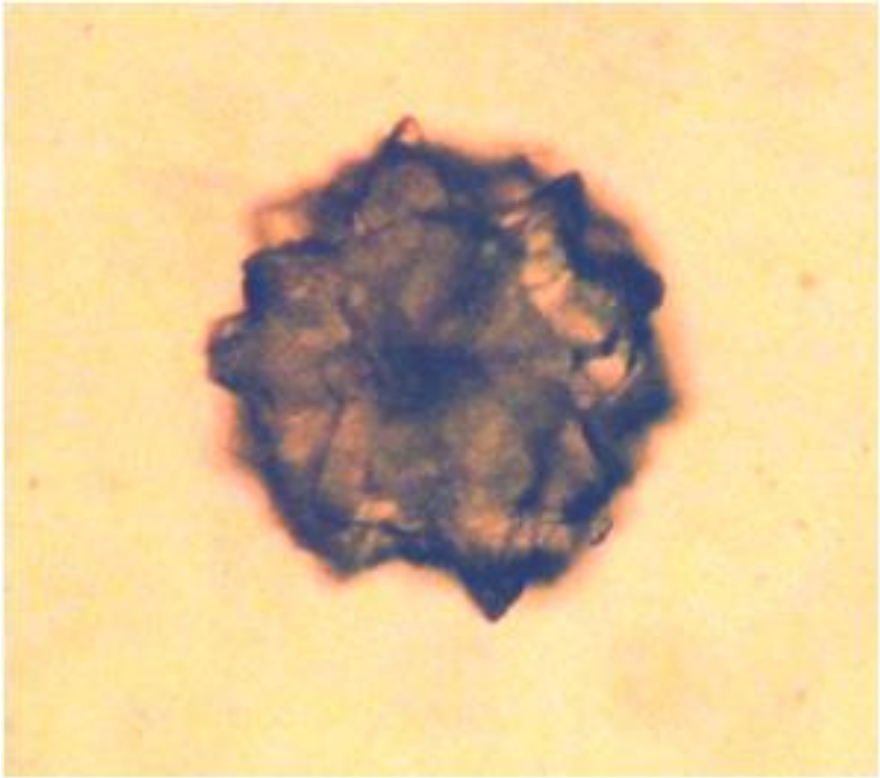
Odour: Aromatic odour

Taste: Bitter astringent with gritty taste.

If Rhubarb you will see under the microscope:

- Cluster crystals of CaOX





Powder with mount in water

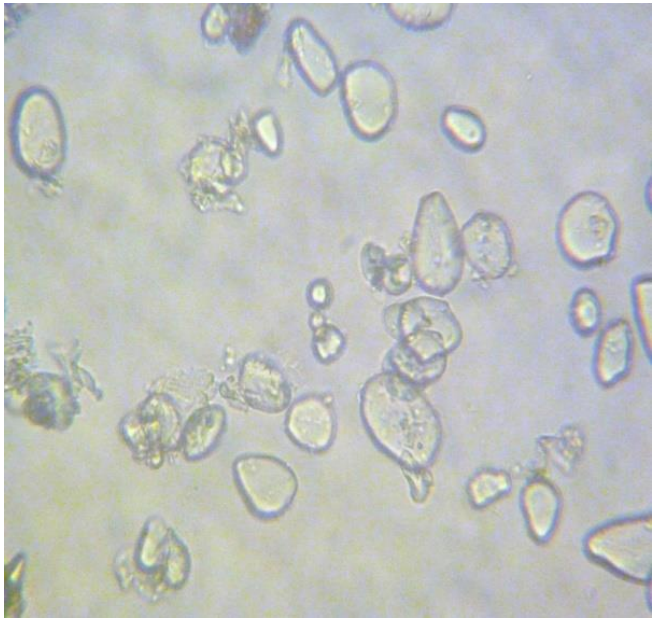
Starch of Ginger

Condition: Powder
Colour: Yellowish brown
Taste: Pungent taste
Odour: Aromatic

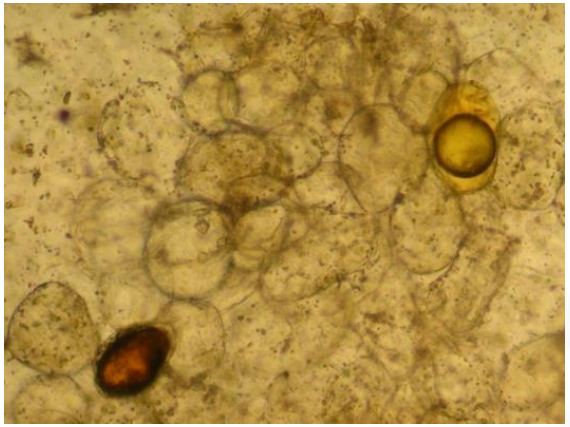
If Ginger you will see under the microscope:

Water mount

- Staminecious starch

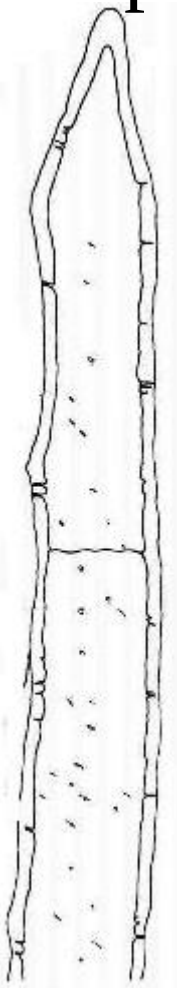


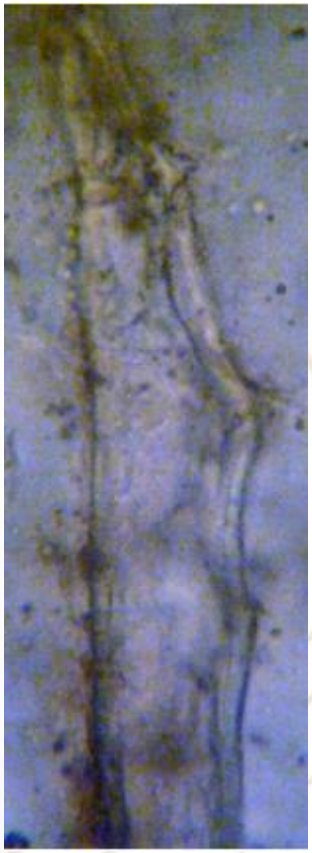
Oleo-resin cells



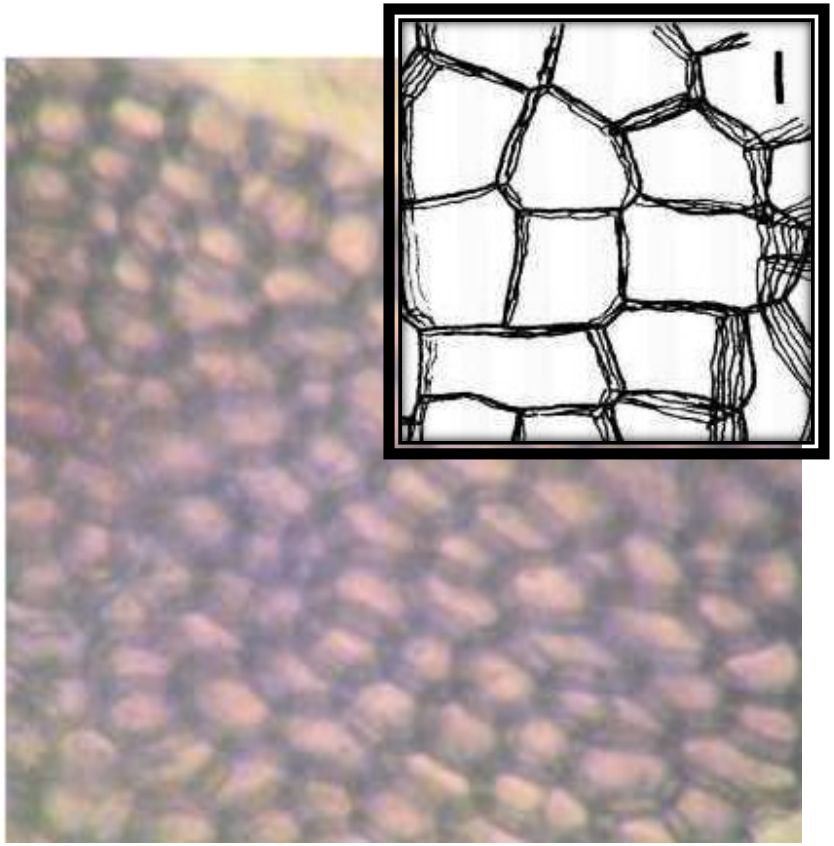
KOH mount

Septate fibers

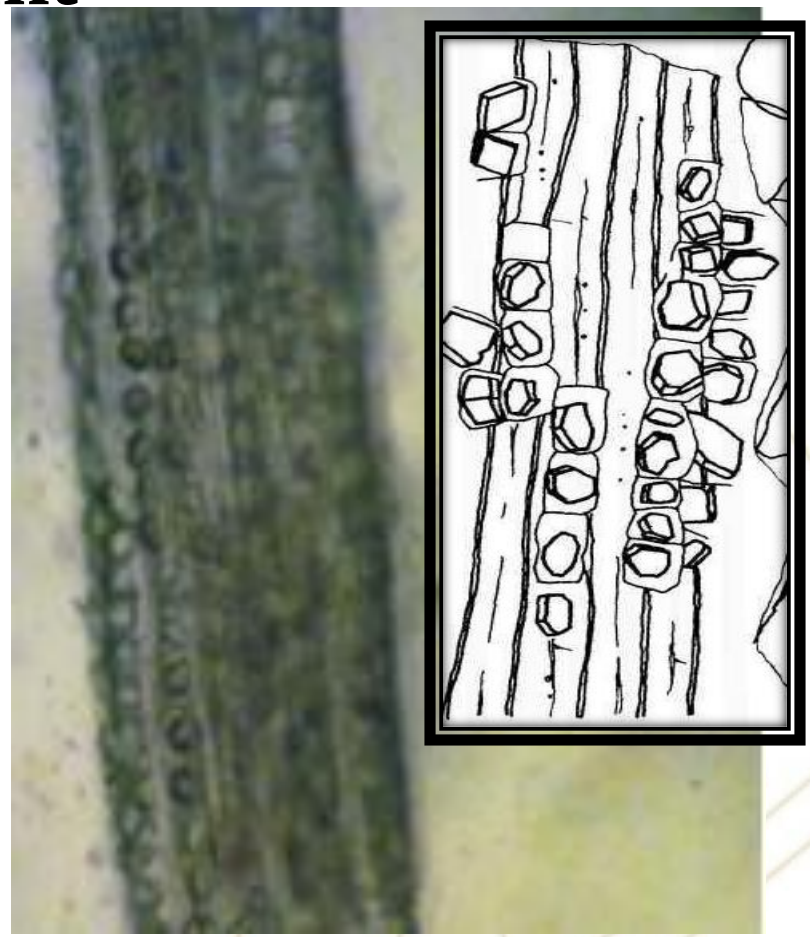




If Liquorice you will see under the microscope: KOH mount

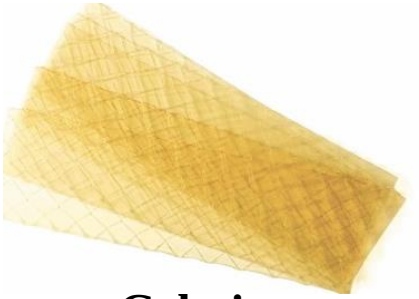


Cork cells



Crystal sheath

C. Spots exam:



Gelatin

Liquorice

Aloe

Ginger

Lobelia

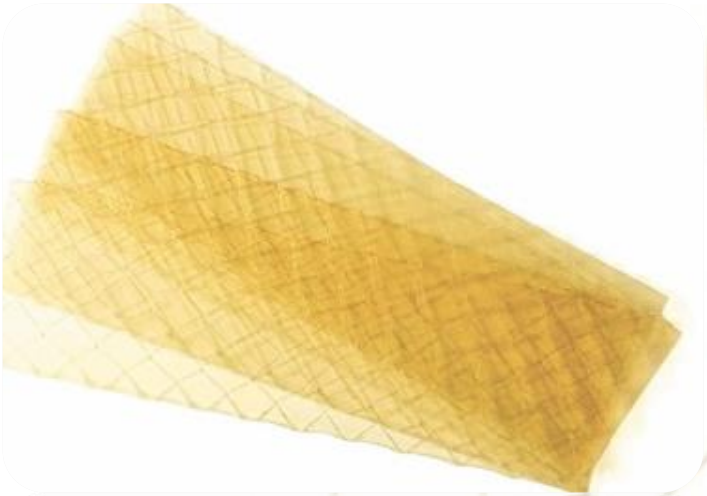
Myrrh

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