



Lab 5



Pharmacognosy PHG112

Practical exam I

I. Powder Identification

Name:

↙ **Origin:**

Physical characters:

Diagnostic element (3 key elements):

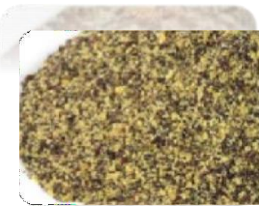
Powder

Seeds

Linseed



Black Mustard



Foenugreek



Cardamom



Fruits

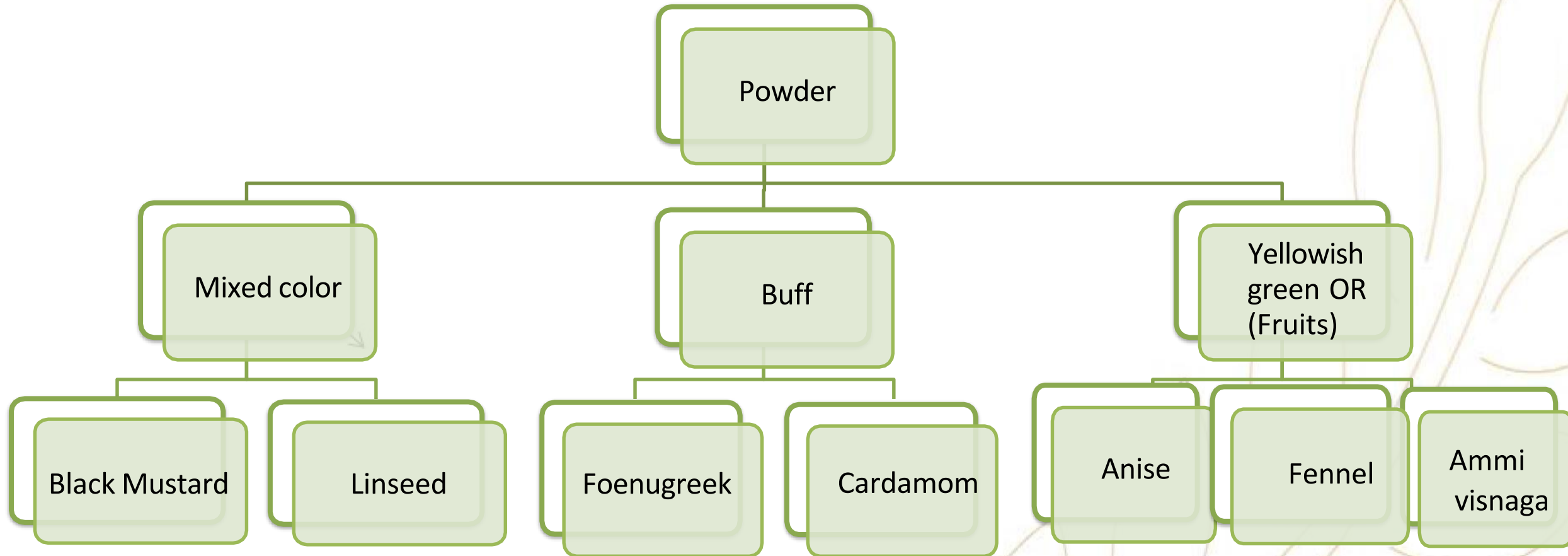
Anise

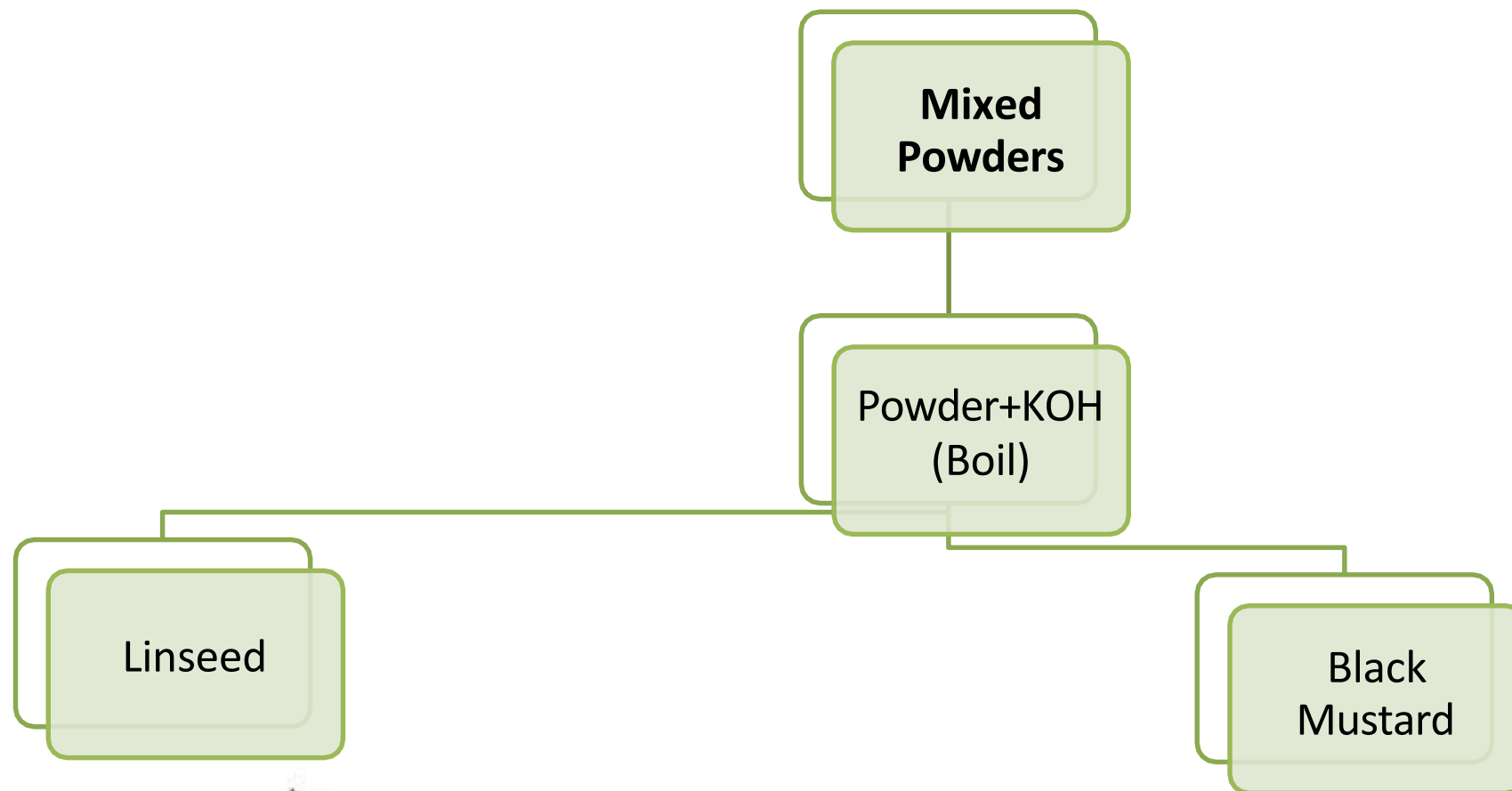
Fennel

Ammi visnaga



I. SCHEME FOR POWDER





Condition: Fine powder

Color: Yellowish brown with dark particles

Odor: Oily characteristic odor of linseed

Taste: Mucilaginous oily



Condition: fine powder

Color: Yellow with dark brown particles

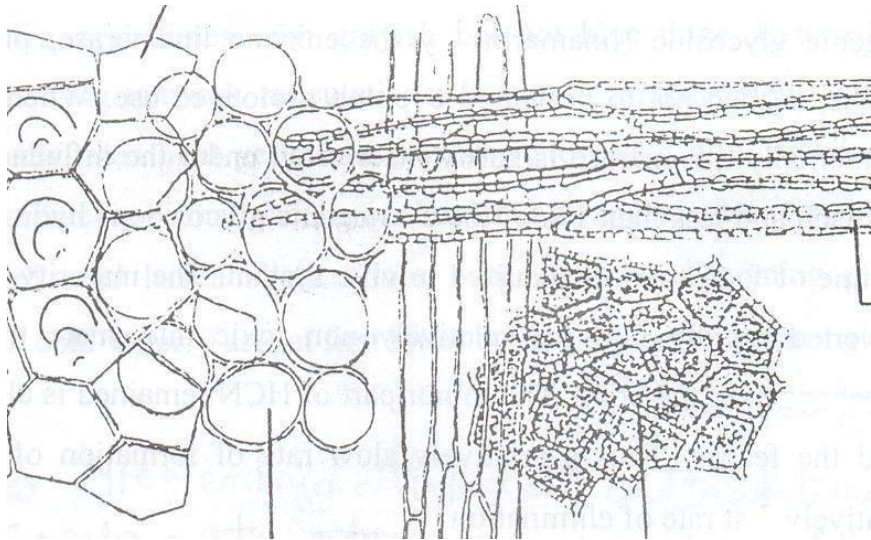
Odor: pungent

Taste: bitter acrid



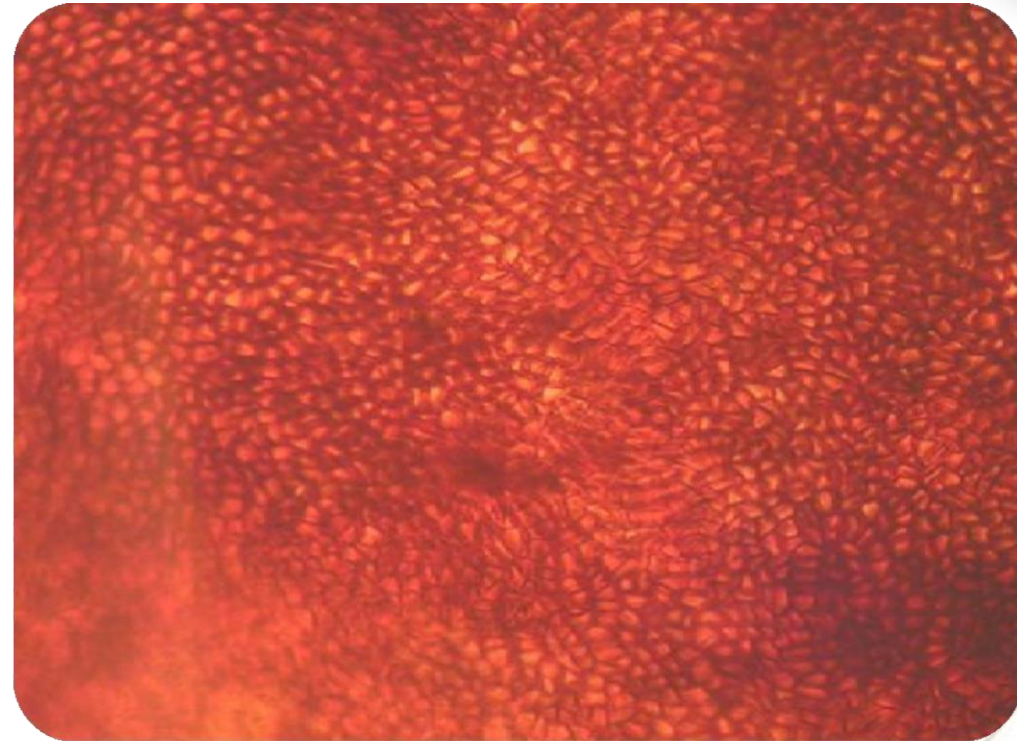
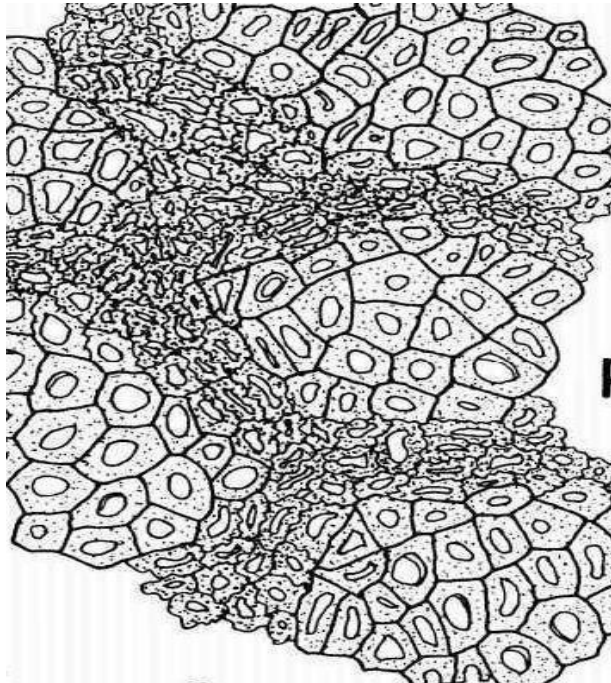
If **Linseed** you will see under the microscope:

- **Sclerides (narrow elongated cell with thick lignified pitted wall) overlapped with hypodermis.**

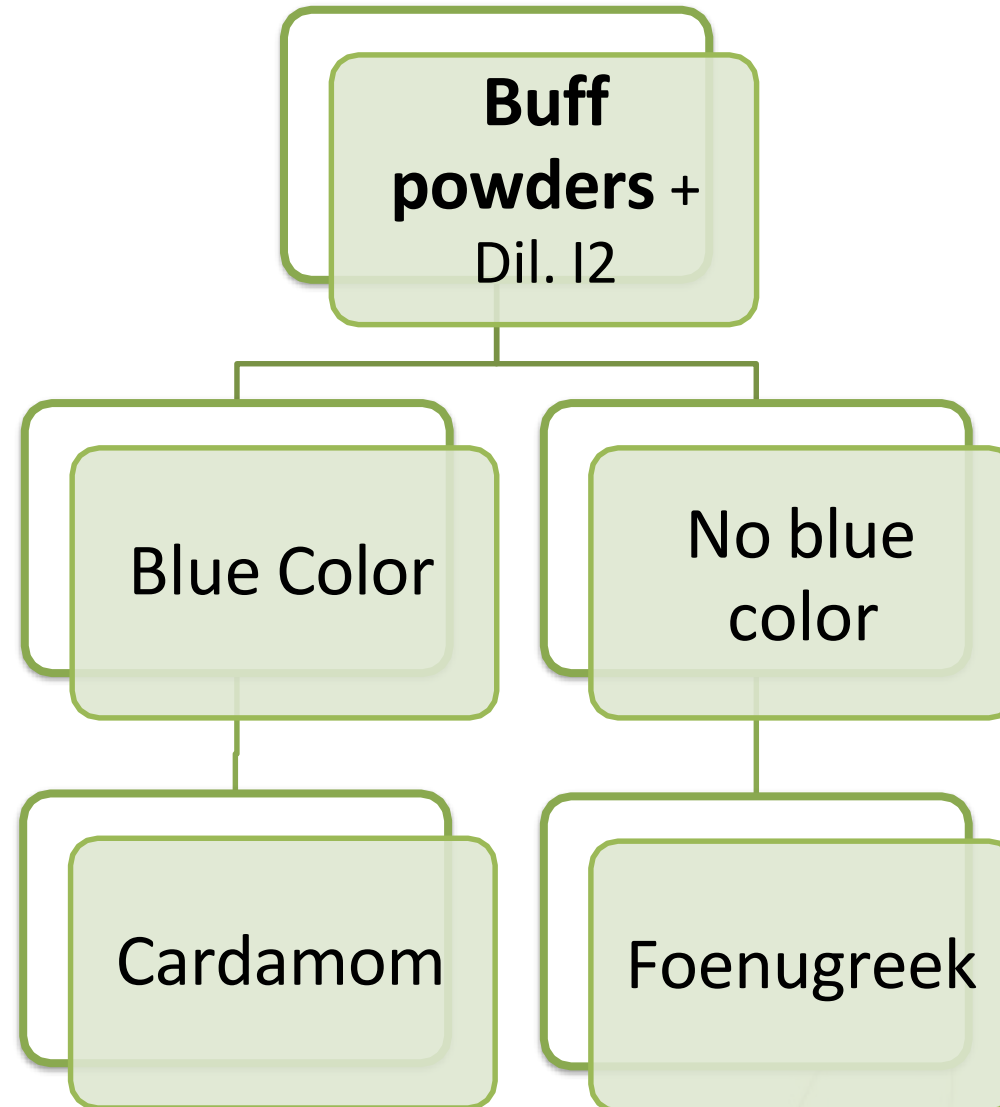


If **Black Mustard** you will see under the microscope:

- Sclerides of unequal heights and thickening



I. SCHEME FOR POWDER



Dil. I₂ test

Add 2-3
drops of I₂

+

10 ml water



I₂

Diluted I₂

Buff powders
+ Dil. I2

Blue Color

Cardamom

Condition: Homogenous

Color: Greyish-buff

Odor: Aromatic

Taste: Aromatic, Pungent



No blue color

Foenugreek

Condition: Homogenous fine powder

Color: Yellowish-buff color

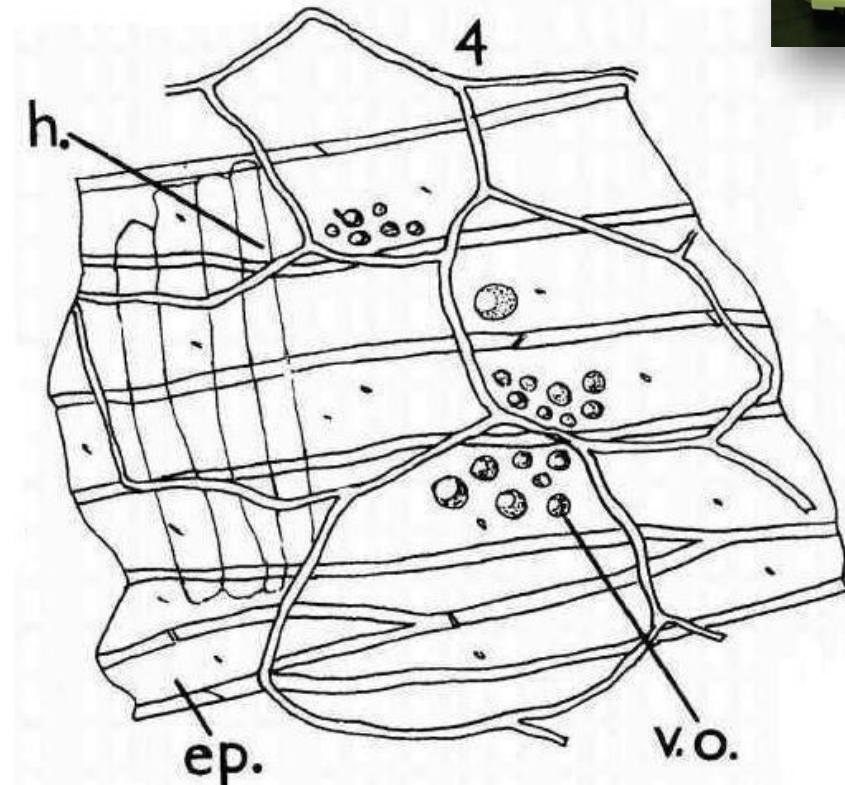
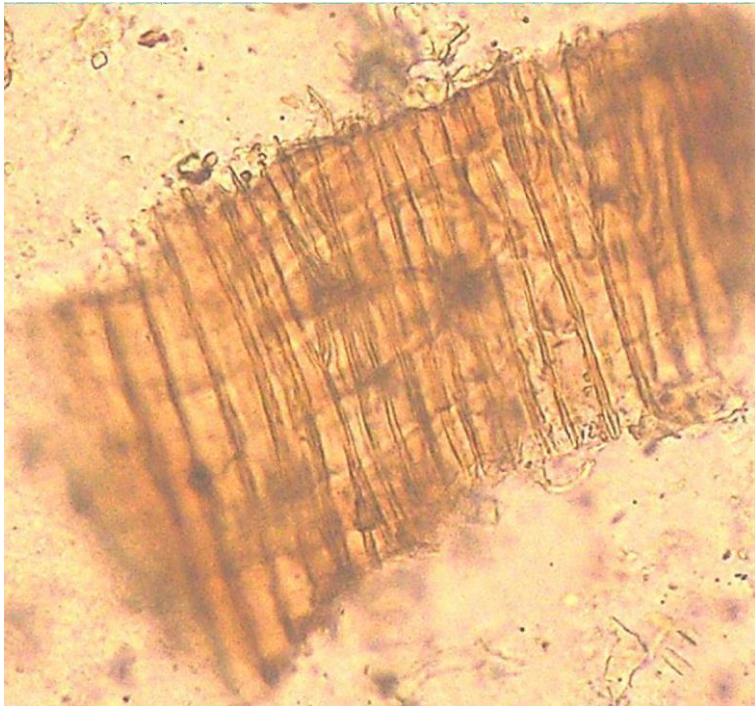
Odor: Characteristic odor of foenugreek

Taste: mucilaginous, slightly bitter



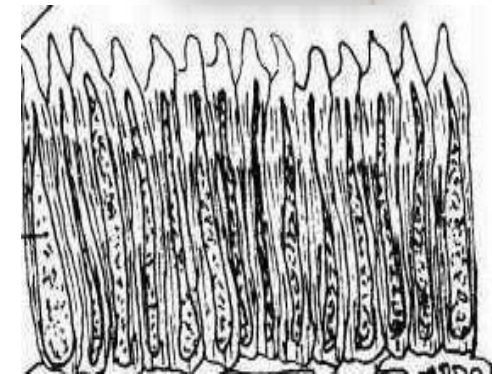
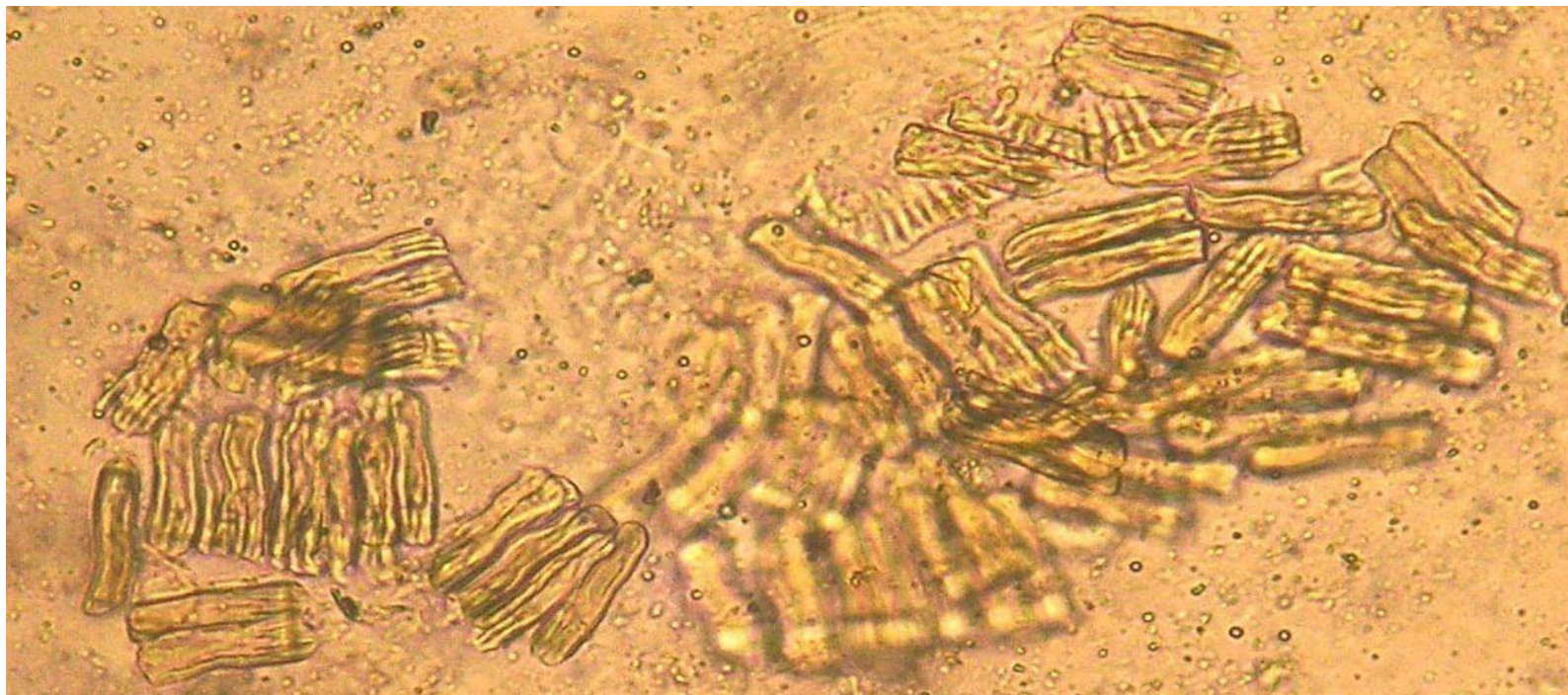
If **Cardamom** you will see under the microscope:

- **Prosenchyma cells crossed with cells of hypodermal collapsed cells and cells of oily layer.**

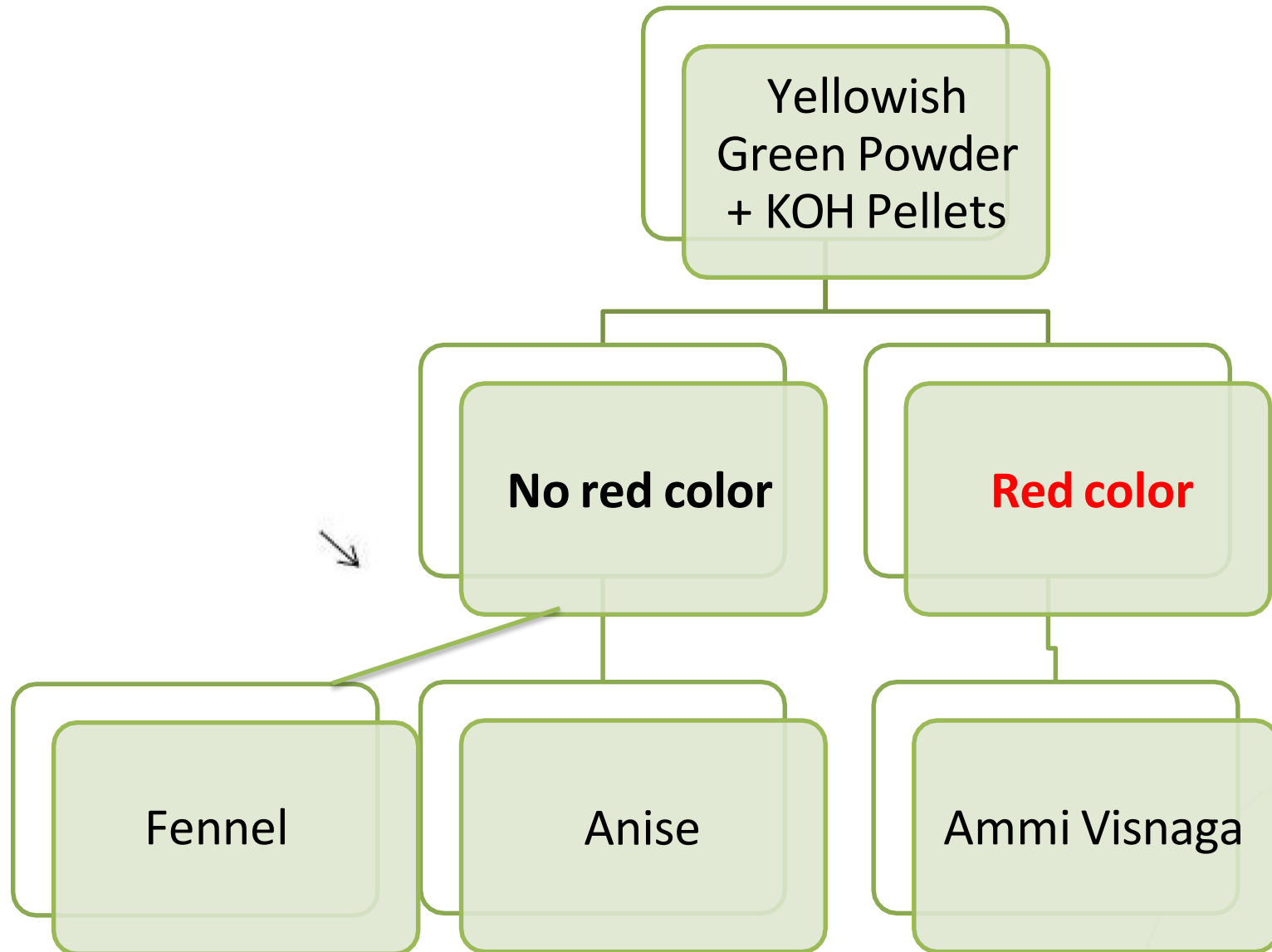


If **fenugreek** you will see under the microscope:

- **Palisade-like epidermal cells**



I. SCHEME FOR POWDER



Yellowish
Green
Powder

Fennel

Anise

Ammi
Visnaga

Condition: Fine powder
Color: Yellowish green
Odor: Aromatic
Taste: Aromatic taste

Condition: Fine powder
Color: Yellowish green
Odor: Aromatic
Taste: Sweet Aromatic taste

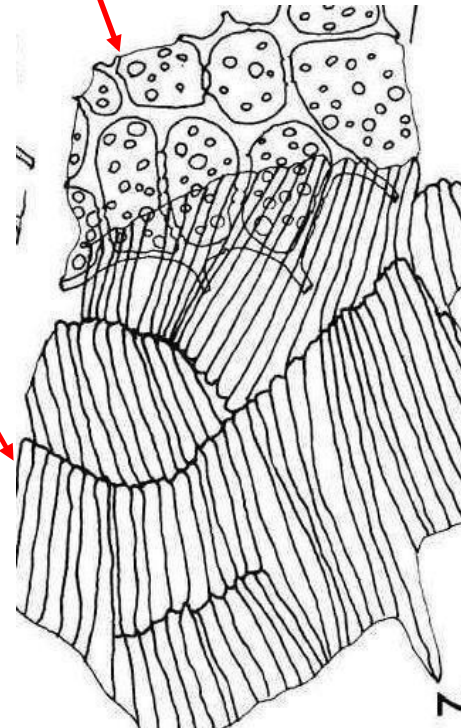
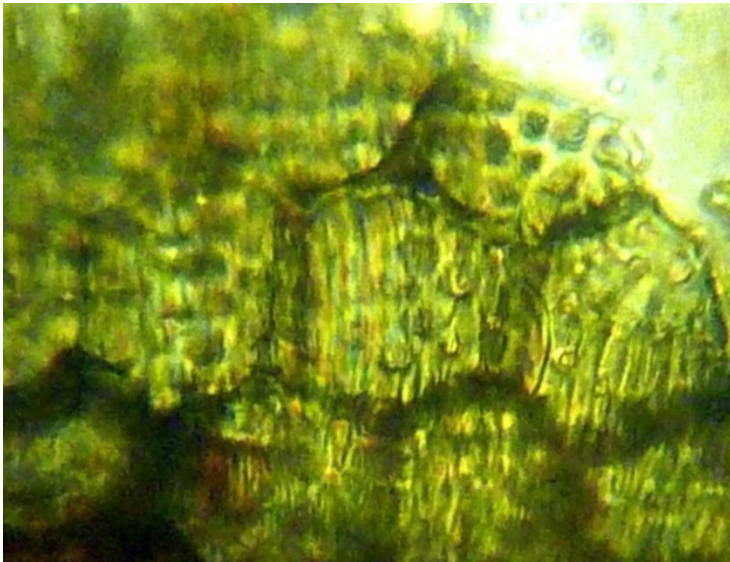
Condition: Fine powder
Color: Brownish green
Odor: Slightly Aromatic
Taste: Bitter taste



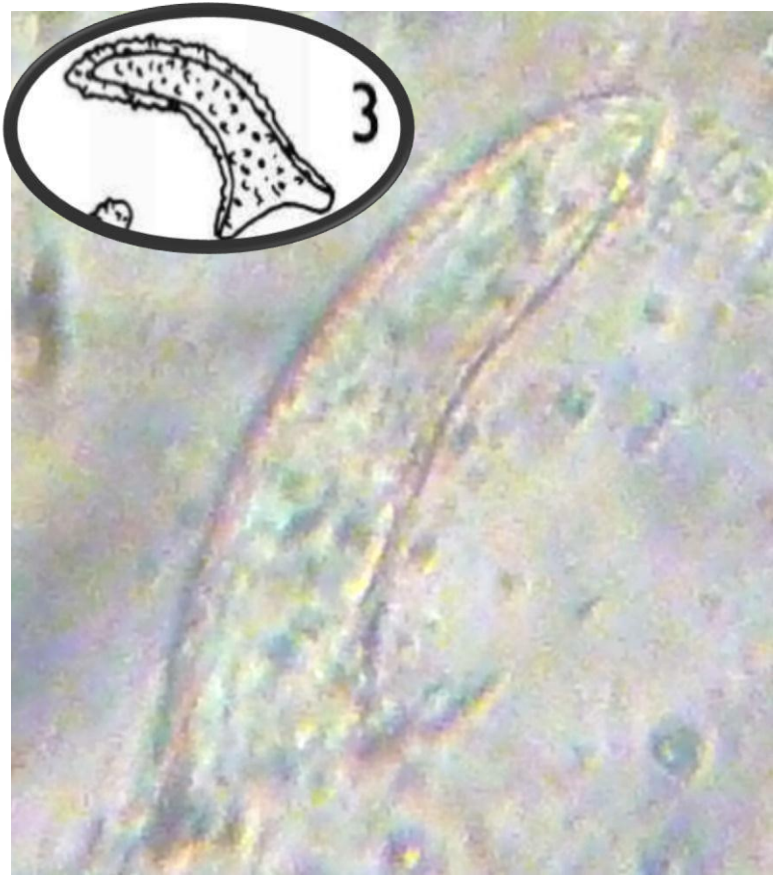
If **Ammi visnaga** you will see under the microscope:

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

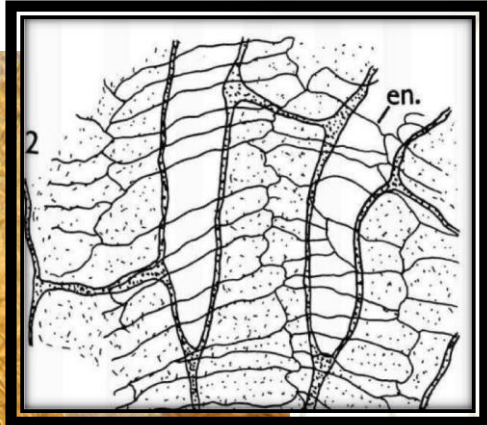
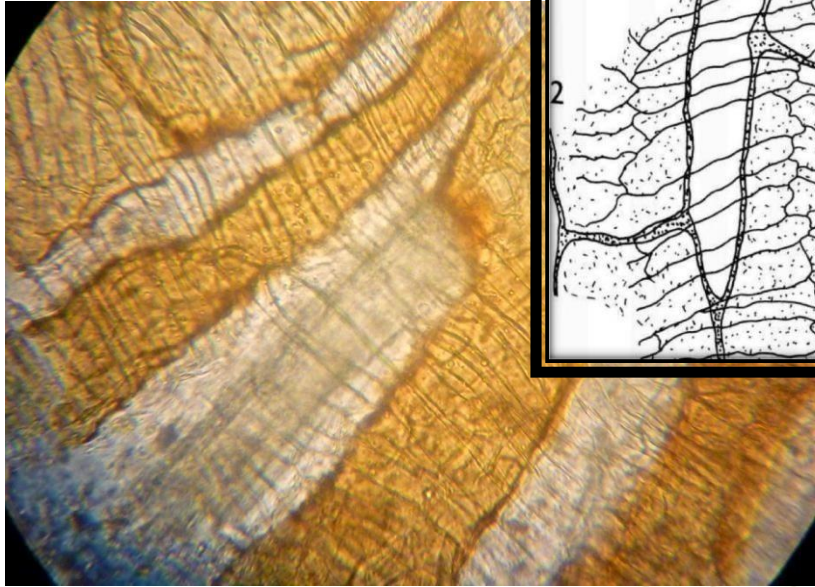
- Inner most layer of mesocarp
- Parquetry endocarp



If **Anise** you will see under the microscope: KOH mount

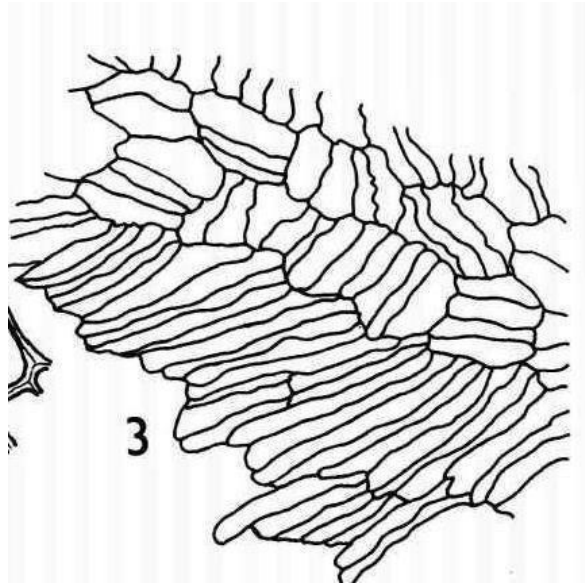


Non glandular hair

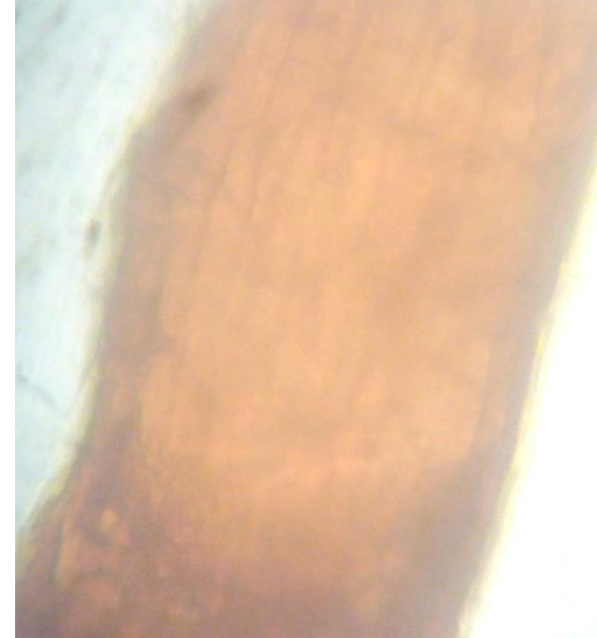


- Branched vittae overlapped by non parquetry endocarp.

If **Fennel** you will see under the microscope:
KOH mount



**Parquetry
endocarp**



Simple vittae

II. Spots

Name:



Origin:



Linseed



It is the dried ripe seeds of *Linum usitatisimum* Family: Linaceae.

Blackmustard



The dried ripe seeds of *Brassica nigra* Family: Brassicaceae (Cruciferae)

White mustard



The dried ripe seeds of *Brassica alba* Family: Brassicaceae (Cruciferae)

Foenugreek



Dried ripe seeds of *Trigonella Foenum-graecum*, Linn. (Family Leguminosae).



Cardamom



Dried ripe seeds of *Elettaria Cardamomum*, F. Zingiberaceae



Fennel



It is the dried ripe fruits of *Foeniculum vulgare* family **Apiaceae (Umbelliferae)**.



Anise



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

Ammi visnaga



It is the dried ripe fruit of *Ammi visnaga* family Apiaceae



Established by Dr.Nawal El Degwi
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Thank You!

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