



# Lab 5



# Pharmacognosy PHG112

# Practical exam I

## I. Powder Identification

### Physical characters:

Cond....

Color...

Odor...

Taste.....

### Microscopically examination:

Mount in water.....

Mount in KOH.....

Mount in phloroglucinol +HCl

Comment.....

### Diagnostic element (3 key elements):

Name.....

Origin .....

Uses.....

## II. Spots

### Spot 1

Name.....

Origin.....

Photo

### Spot 2

Name.....

Origin.....

Photo

### Spot 3

Name.....

Origin.....

Photo

# Powder

## Seeds

Linseed



Foenugreek



Cardamom



## Fruits

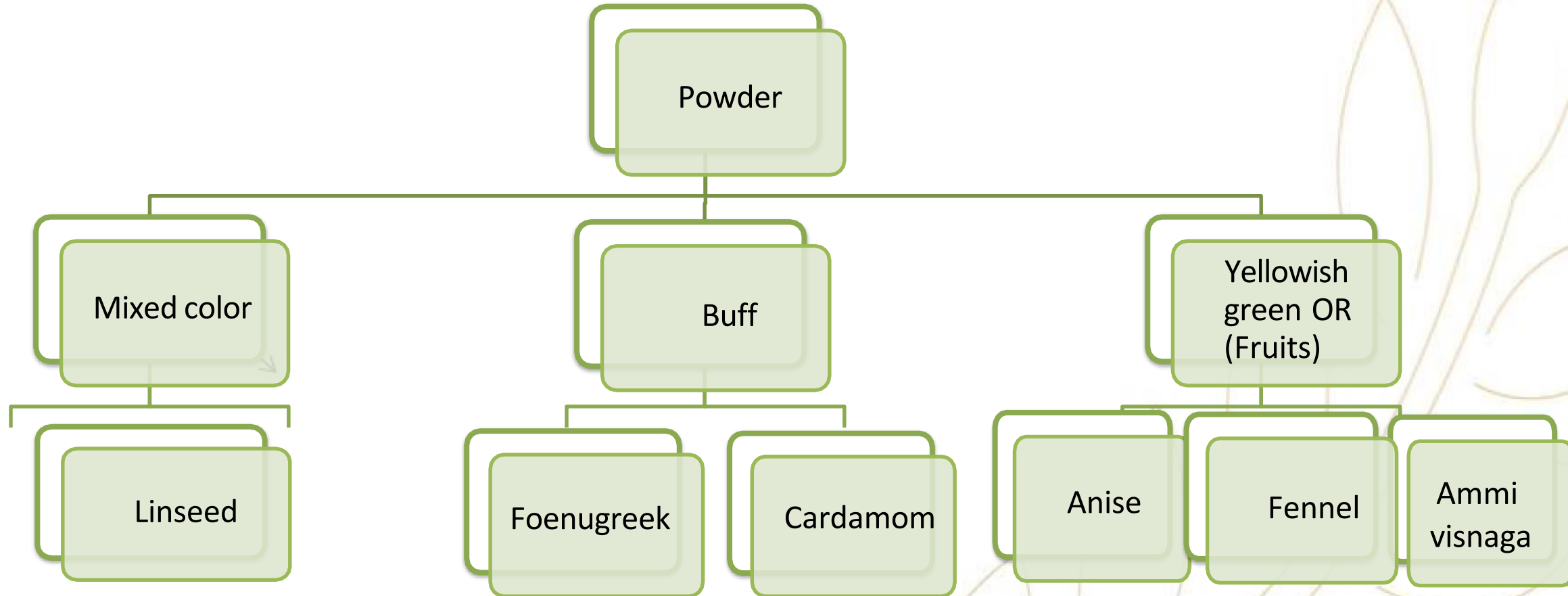
Anise  
Fennel

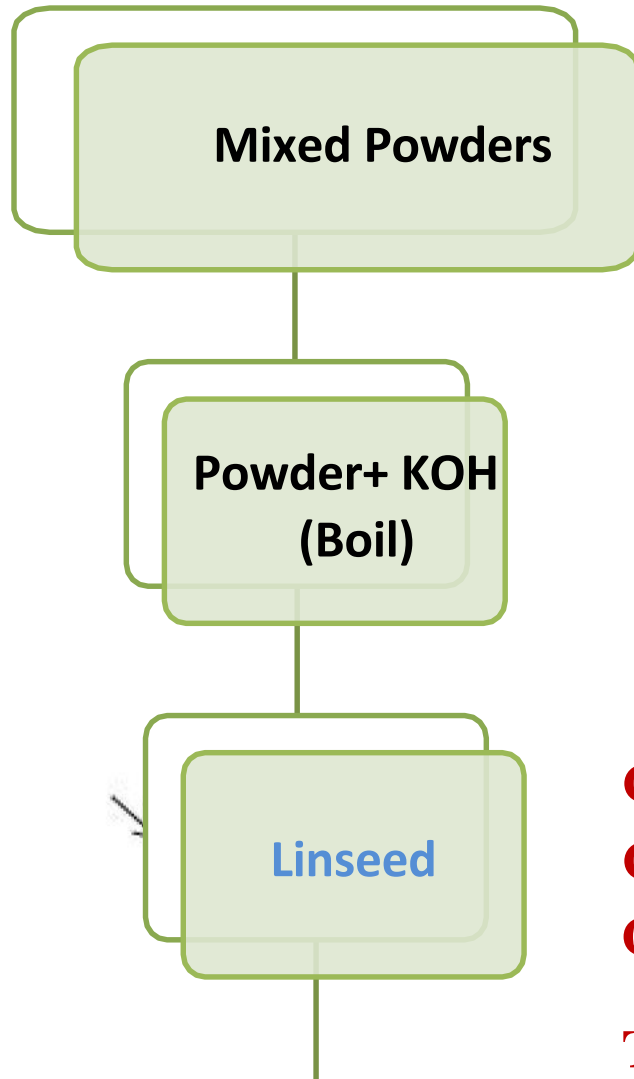


Ammi visnaga



# I. SCHEME FOR POWDER





**Condition:** Fine powder

**Color:** Yellowish brown with dark particles

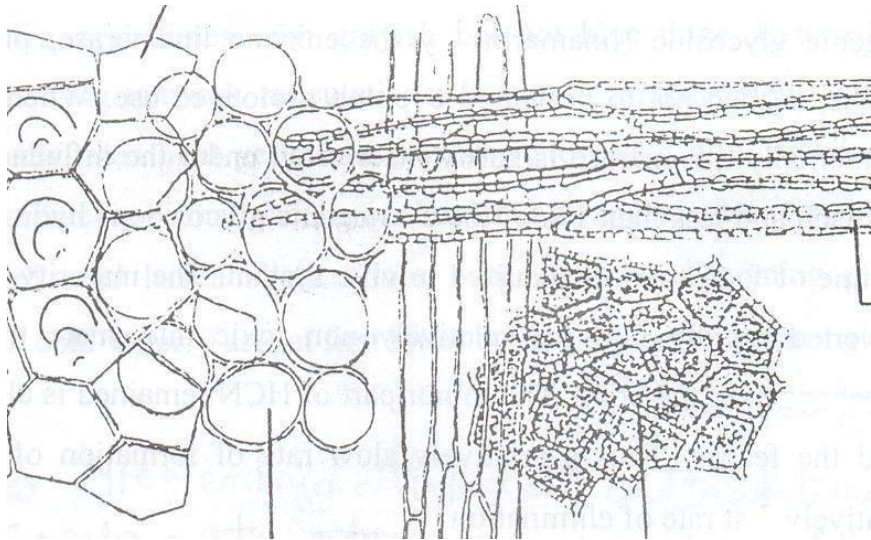
**Odor:** Oily characteristic odor of linseed

**Taste:** Mucilaginous oily

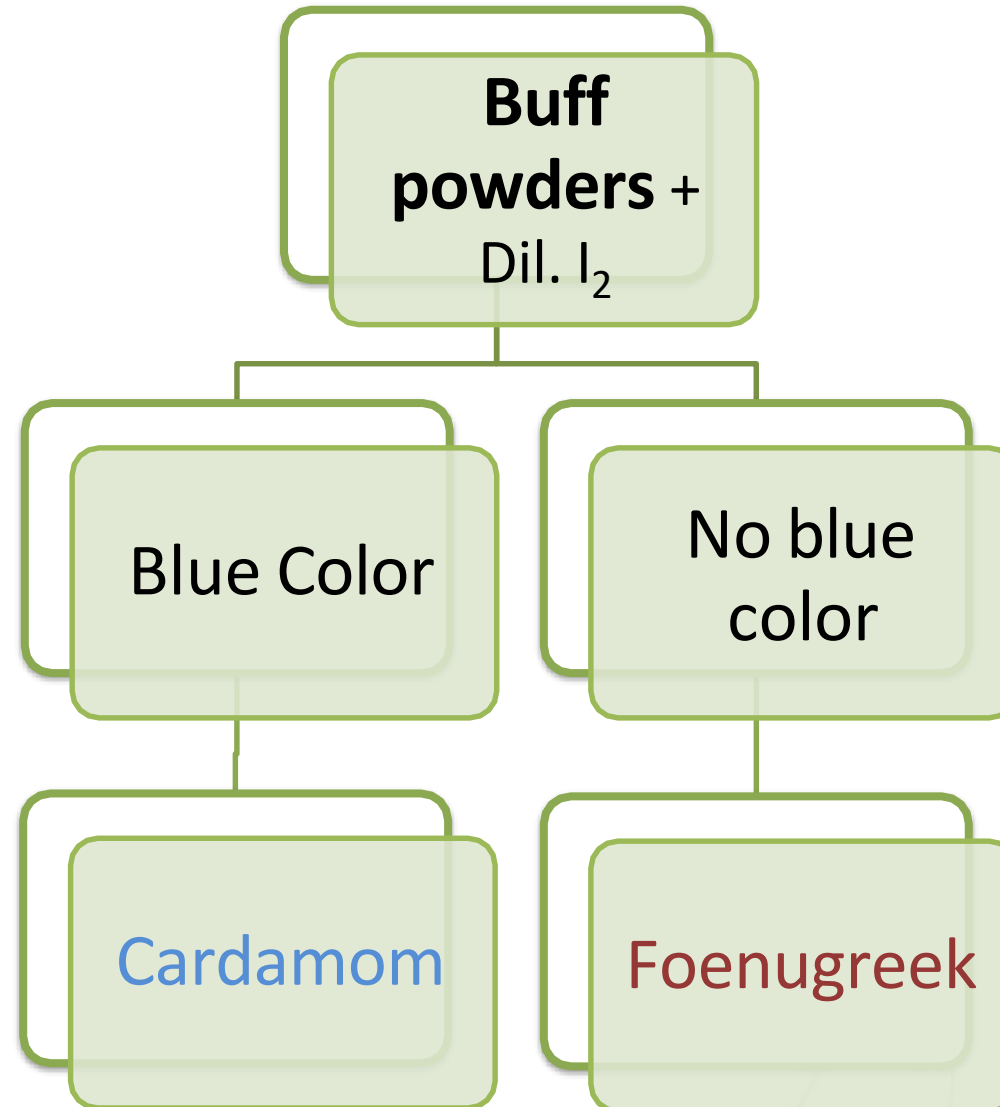


# If **Linseed** you will see under the microscope:

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



# I. SCHEME FOR POWDER



# Dil. I<sub>2</sub> test

Add 2-3  
drops of I<sub>2</sub>

+

10 ml water



**I<sub>2</sub>**

**Diluted I<sub>2</sub>**



Buff powders  
+ Dil. I<sub>2</sub>

Blue Color

Cardamom

**Condition:** Homogenous

**Color:** Greyish-buff

**Odor:** Aromatic

**Taste:** Aromatic, Pungent



No blue color

Foenugreek



**Condition:** Homogenous fine powder

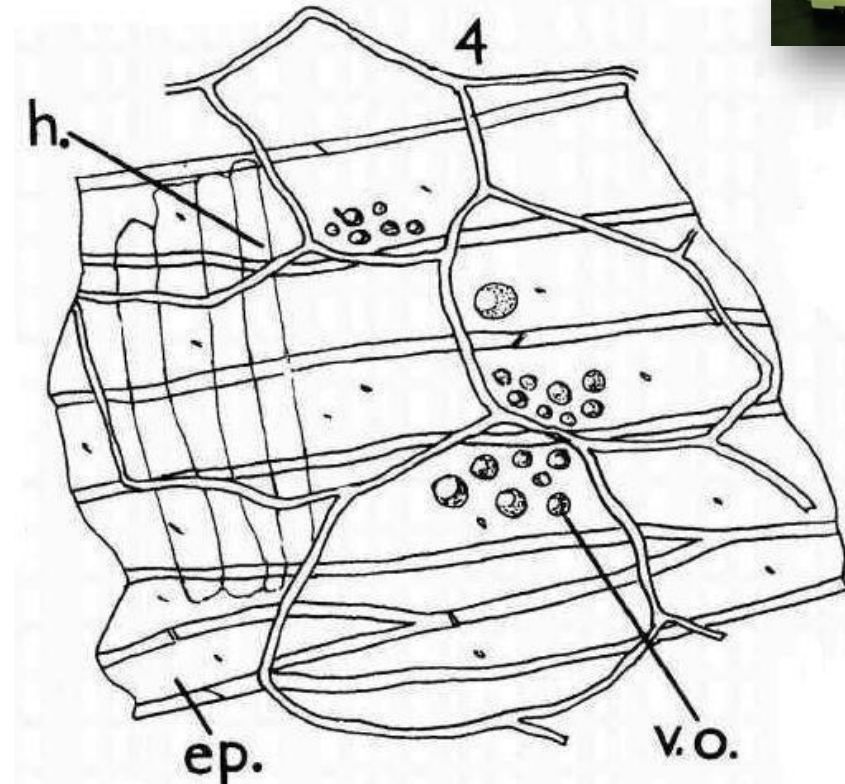
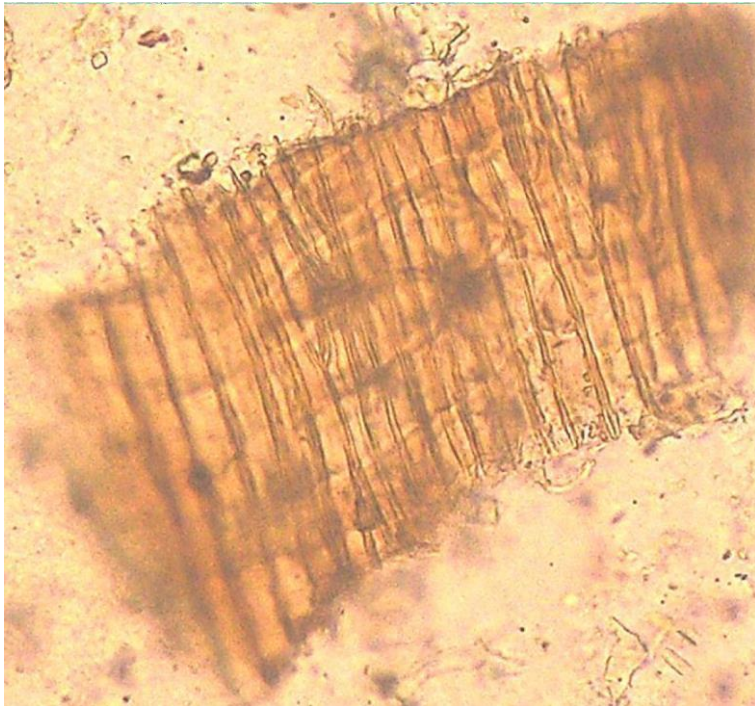
**Color:** Yellowish-buff color

**Odor:** Characteristic odor of fennel

**Taste:** mucilaginous, slightly bitter

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

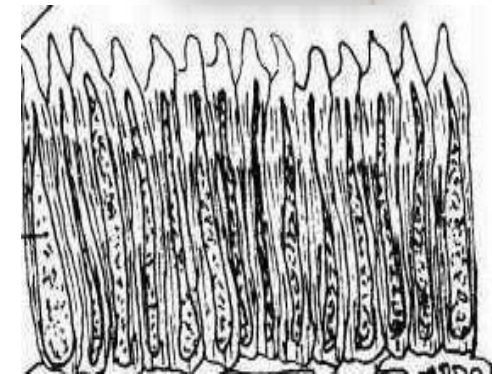
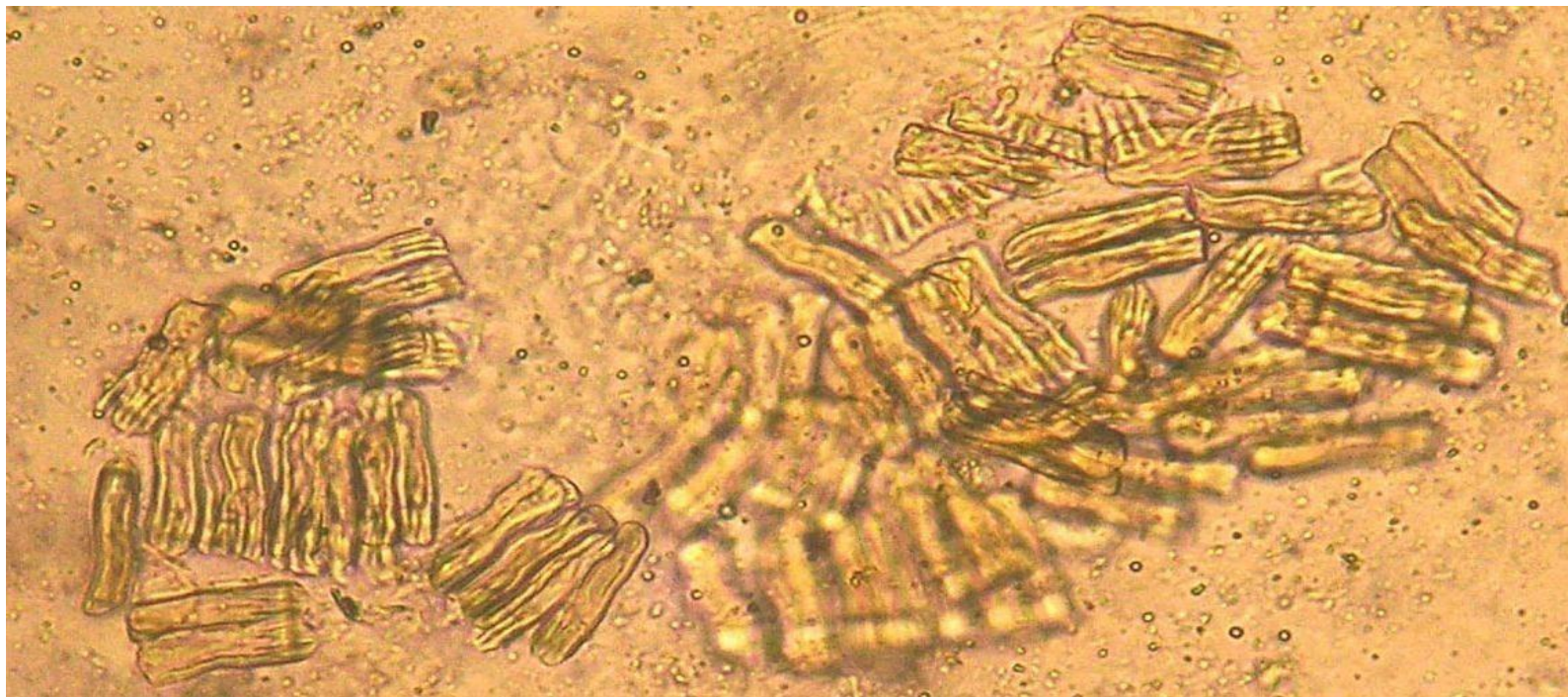
- **Prosenchyma cells crossed with cells of hypodermal collapsed cells and cells of oily layer.**



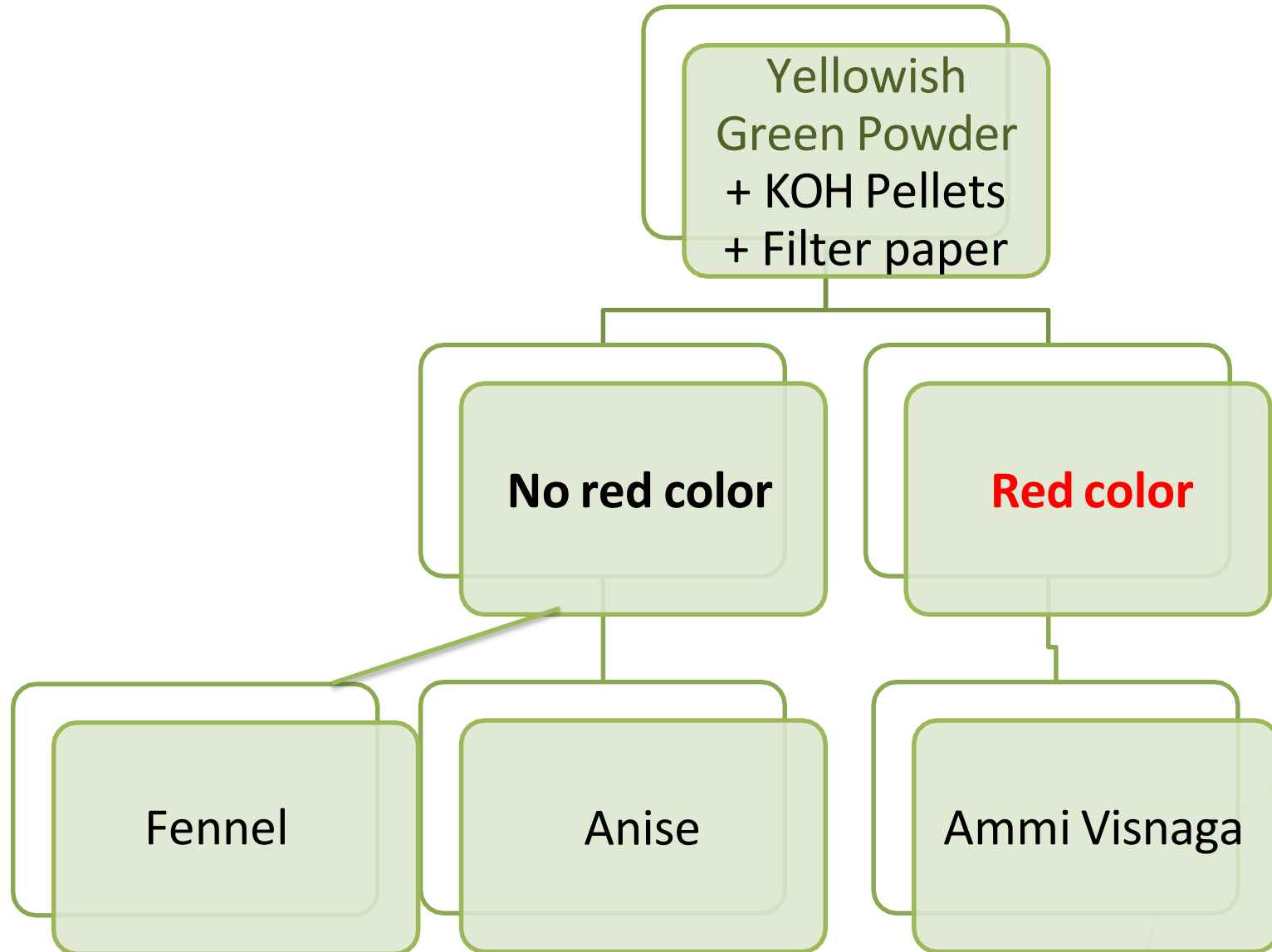


# If **fenugreek** you will see under the microscope:

- **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

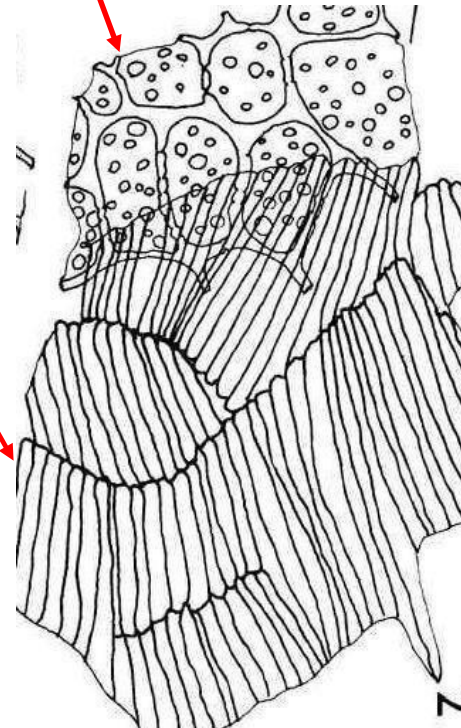
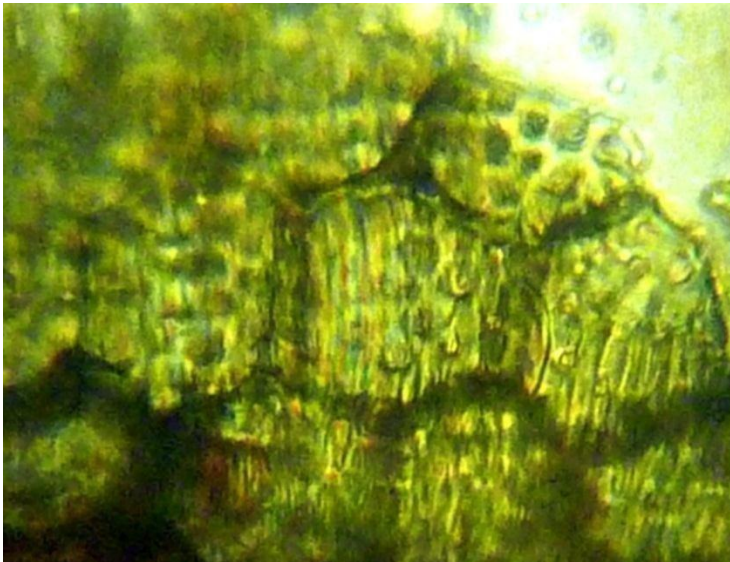
**Condition:** Fine powder  
**Color:** Brownish green  
**Odor:** Slightly Aromatic  
**Taste:** Bitter taste



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

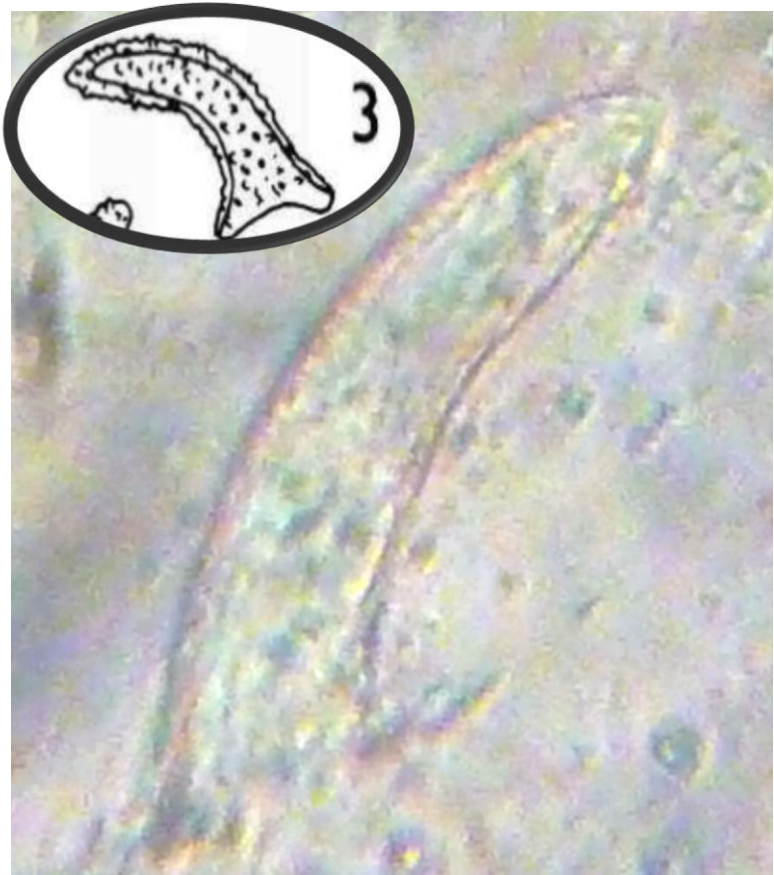
Fragments showing innermost layer of mesocarp (porous layer) accompanied by parquetry endocarp

- Inner most layer of mesocarp
- Parquetry endocarp

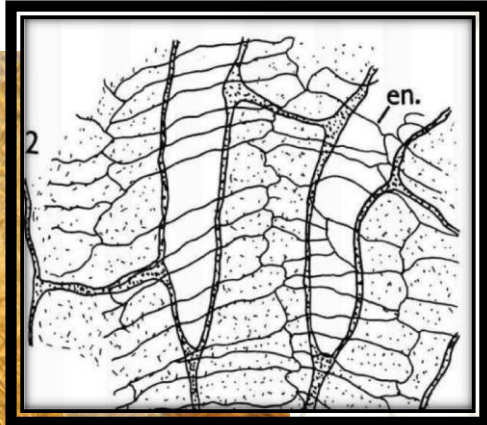
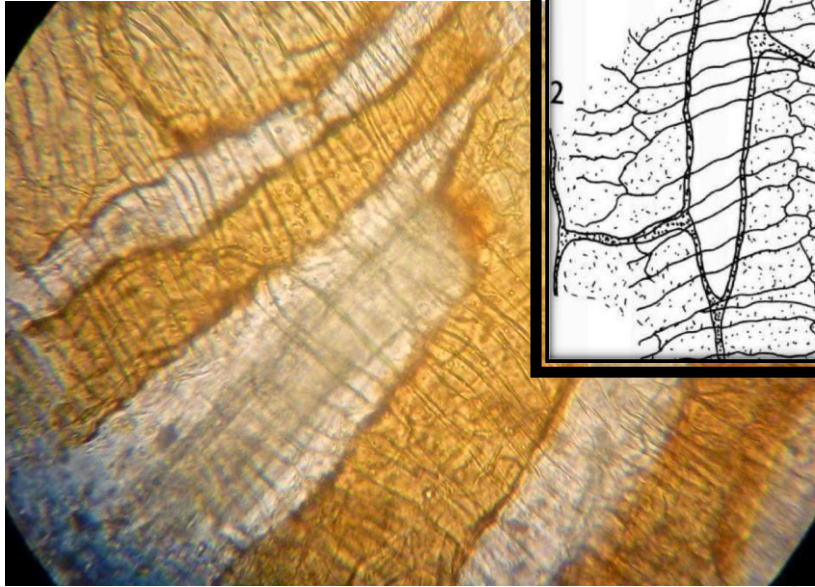




# If **Anise** you will see under the microscope: KOH mount

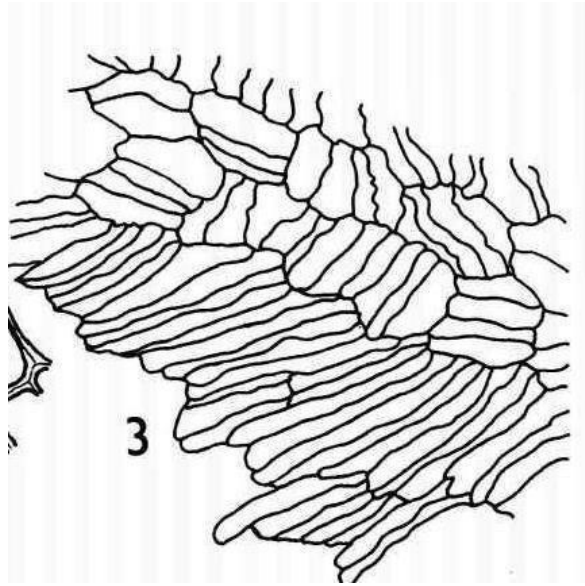


Non glandular hair

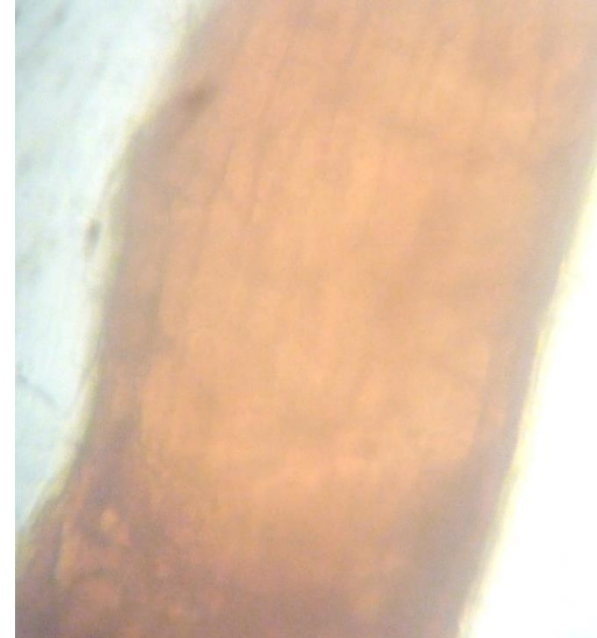


- Branched vittae overlapped by non parquetry endocarp.

**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**.

# Foenugreek



**Dried ripe seeds of *Trigonella Foenum-graecum* 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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