



EXPERIMENT NO: 16

Fennel fruits: *Foeniculi fructus*

Latin name: *Foeniculum vulgare L.*

Family: *Umbelliferae*

Perennial herb with yellow flowers.

Fruits colour: greenish yellow or greenish brown.

Odor: aromatic.

Taste: Aromatic and sweet.

Origin: Mediterranean region.



Foeniculum vulgare

Constituents

Volatile oil:

Fenchone , Anethole and limonene.

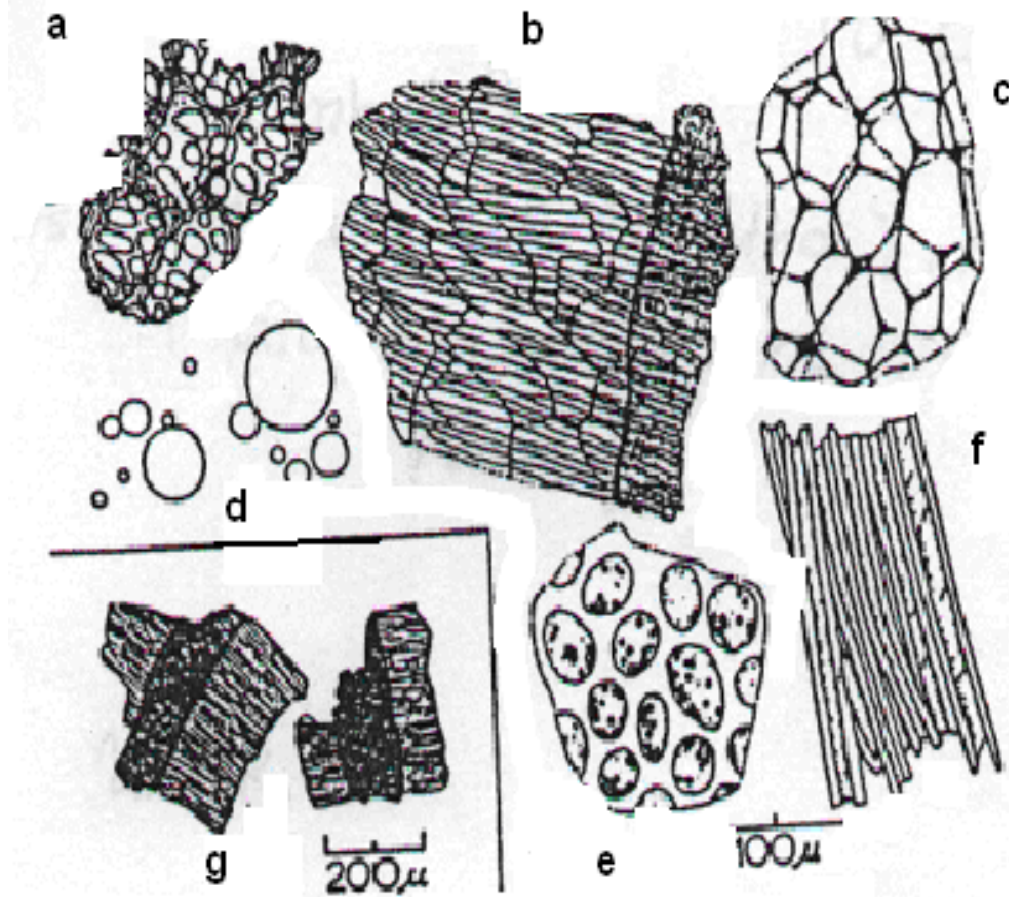
Uses:

1. Carminative.
2. Antispasmodic.
3. Flavoring agent.
4. Sedative for the menstrual pains.
5. Treatment of inflamed eyes.

Microscopical examination

Characteristic microscopical features:

1. Pitted parenchyma (a).
2. Corner collenchyma (c).
3. Yellowish oil droplets, numerous (d).
4. Endosperm with minute calcium oxalate rosettes (e).



- a) Pitted parenchyma (denated cells) from the mesocarp.
- b) Parquet cells of the inner integument epidermis with subjacent parenchyma, on the right, residual oil duct (fragment of a schizogenous duct by epithelial cells).
- c) Corner collenchyma near conducting vascular bundle with brown- red cell walls.
- d) Yellowish oil droplets, numerous.
- e) Endosperm fragment with minute calcium oxalate rosettes, hyaline, thick cell walls.
- f) Fragment of broken sclerenchymal fiber from the carophore, rare, not characteristic.
- g) Fragments from the parquet cell tissue with dark yellowish secretory ducts, evident even under low magnification.