

### 7.4.6. Fennel (39)

The transverse section of mericarp of fennel shows the following parts (figure 7.21):

- 1) **Pericarp:** The pericarp section shows the following parts:
  - i) **Epicarp:** It is made up of a single layer of **polygonal tabular cells**. It shows a few stomata.
  - ii) **Mesocarp:** Lignified parenchyma cells surround the vascular bundles. These cells have reticulated cell walls and contains oval to round-shaped pits. The remaining portion of mesocarp contains cellulosic parenchyma. Mesocarp also contains vascular bundles and vitae.
  - iii) **Endocarp:** It has a single layer of narrow and **elongated cells**, arranged like parquet.

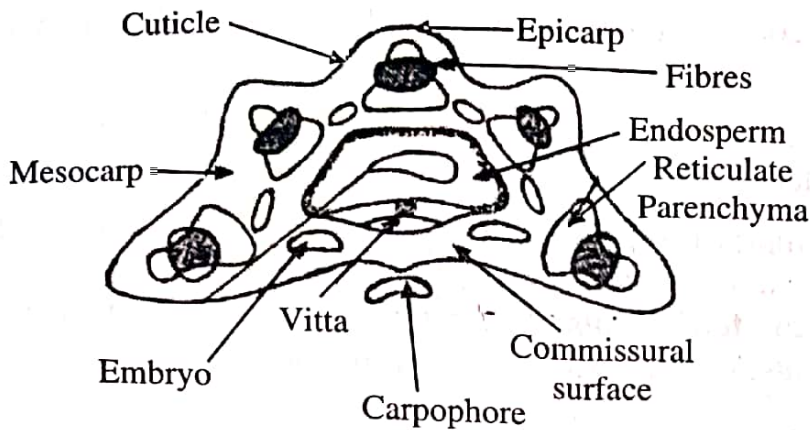


Figure 7.21: T.S. of Mericarp of Fennel

- 2) **Seed:** The fennel seed shows the following parts:
- i) **Testa:** It is made up of **yellowish brown** cells arranged in a single layer.
  - ii) **Endosperm:** It contains **polygonal** parenchyma cells having cellulose thickenings. The cells contain:
    - a) Fixed oil
    - b) Aleurone grains
    - c) Calcium oxalate crystals

### 7.4.7. Clove

The epidermis of clove has a thick **cuticle** covering and is composed of a large **anomocytic stomata** and straight walled cells. Schizolysigenous and ovoid-shaped **oil glands** are present in almost all portions of the drug. The isolated phloem fibres are rarely found in the spongy tissue. **Calcium oxalate crystals** with small number of stone cells are also found in clove. Starch grains are absent in it.

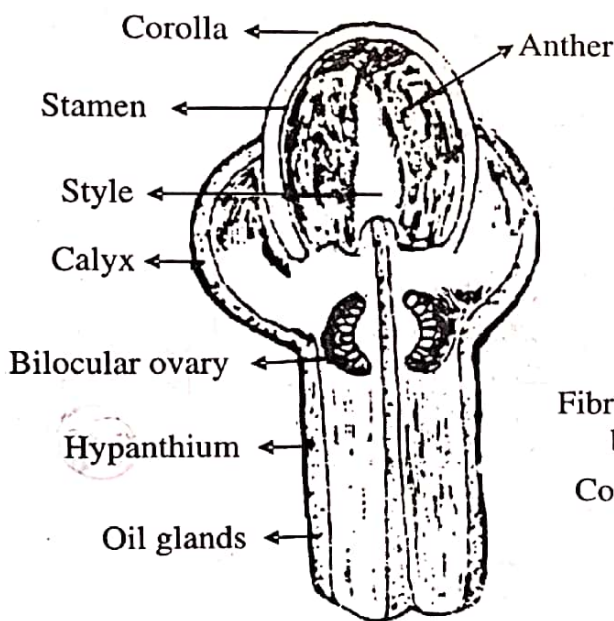


Figure 7.22: Longitudinal Section of Clove

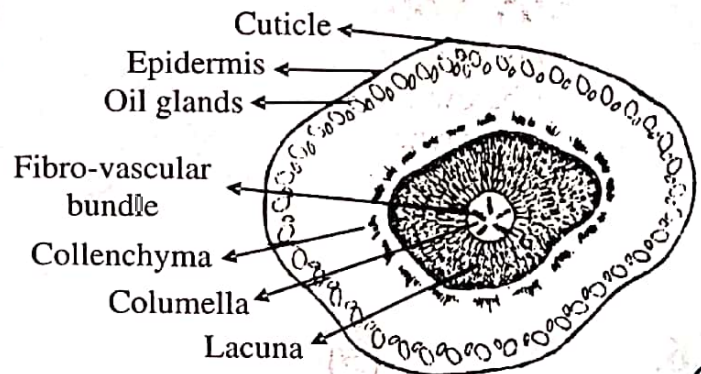


Figure 7.23: Transverse Section of Clove

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