

### 7.4.3. Datura (37)

The transverse section of datura leaf shows its dorsiventral features (**figure 7.18**):

- 1) Anisocytic or cruciferous stomata are present on both the sides of epidermal cells.
- 2) Epidermal cells are covered by a **thin cuticle**, and **glandular** and **non-glandular simple trichomes**.
- 3) Single layer of **palisade cells** cover almost 40% of the lamina.
- 4) About 6-8 layers of **spongy parenchymatous cells** are found.
- 5) Midrib of the leaf has vascular tissue with **metaxylem** and **protoxylem**.

- 6) Distribution of trichomes is more on the midrib region.
- 7) Other characters:
- i) **Stomatal Index:** The value of stomatal index on each surface is given below:
    - a) **Upper Surface:** 12.7-19.5, and
    - b) **Lower Surface:** 21.2-24.
  - ii) **Palisade Ratio:** 3.5-6.5.
- 8) The spongy parenchyma contains **calcium oxalate crystals**.

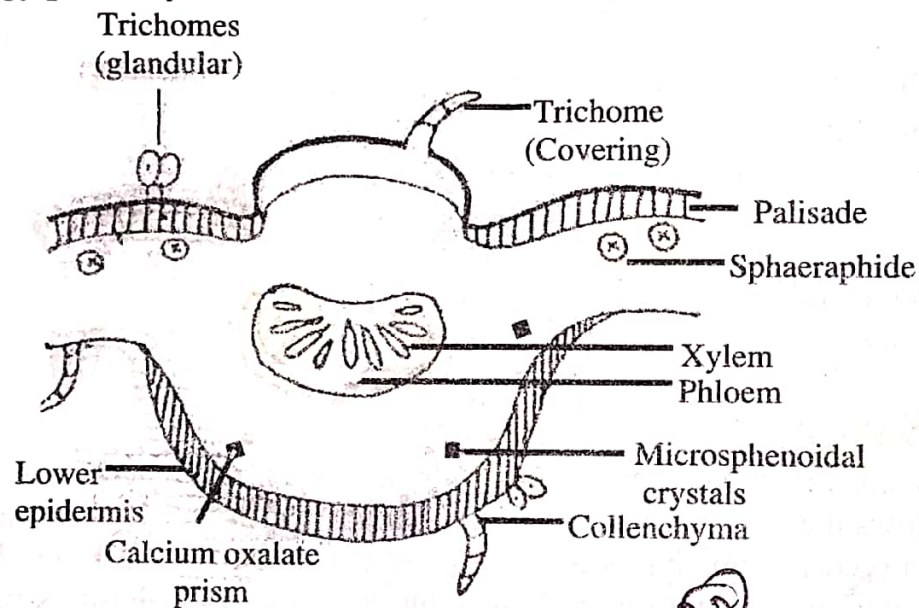


Figure 7.18: Datura Leaf (T.S.)