

Topic: Anatomical Adaptation in Xerophytes

B.Sc. Botany Sub. II

Group: B

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Anatomical Adaptation in Xerophytes

- Presence of thick cuticle on the upper surface of leaves.
- The epidermal cells are thick walled.
- Multiple epidermal layers are seen on both upper and lower surface of leaves.
- Stomata are reduced in numbers and are sunken type.
- The stomata pits are filled with number of hairs.
- Thick walled sclerenchyma cells are seen in the hypodermis. e.g., *Pinus needle*.
- Few spongy parenchyma cells with small inter cellular spaces.
- Presence of many layered palisade parenchyma.
- The cells are relatively smaller in size and vacuoles are small.
- Well developed vascular tissues are present.

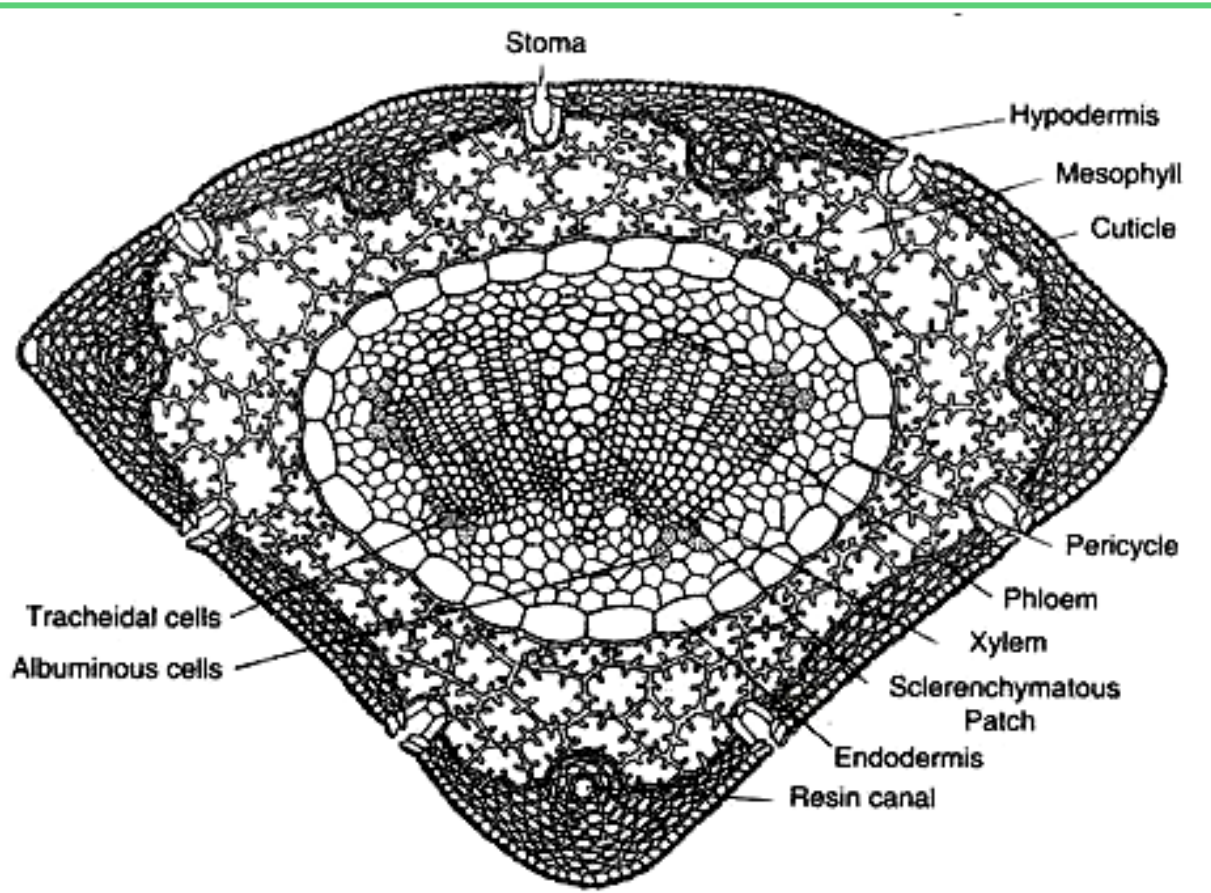


Fig. T.S. of *Pinus* needle.