

DERMAL TISSUES

Function of dermal tissues:

- Protection
- Regulate gas exchange
- Prevent water loss
- Lower the rate of evapotranspiration
- Protect plants from herbivory
- Increase water uptake

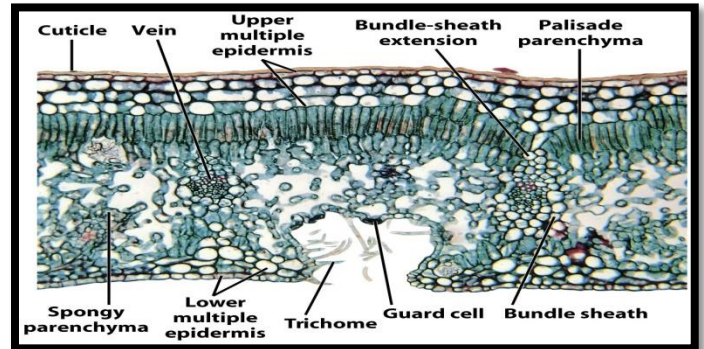
Components of dermal tissues

- Ordinary epidermal cells
- Stomatal apparatus
- Trichomes
- Root hairs

ORDINARY EPIDERMAL CELLS

- no particular content, same morphology and structure

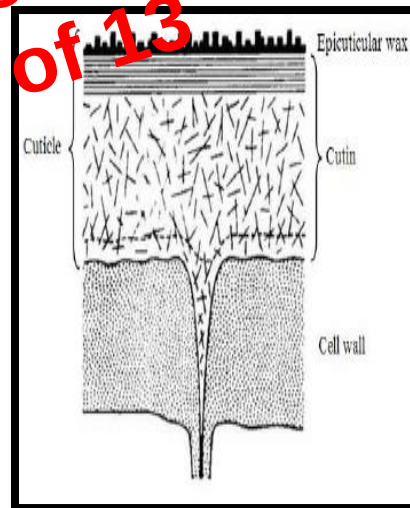
HYPOSTOMATIC	Stomata are confined in the lower epidermis
EPISTOMATIC	Stomata are confined in the upper epidermis
AMPHISTOMATIC	Stomata are confined to both upper and lower epidermis



Nerium oleander- can be found in dry regions

XEROPHYTIC- can live in scanty amount of water

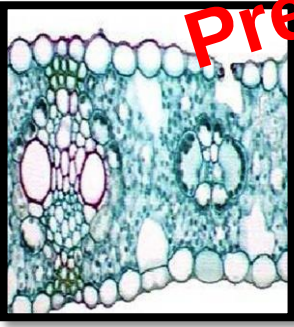
CUTICLE



COMPOSITION OF CUTICLE

EPISTICULAR WAX – responsible for enhancing the ability of the surface to shed water

CUTIN- lipid polymer

UNISERiate EPIDERMIS	MULTISERiate EPIDERMIS
	
Single layer of epidermis Example: <i>Lingustrum</i>	Multiple layer of epidermis Example: <i>Ficus Leas</i>

*** Thick multiseriate upper epidermis (*Peperomia* leaf, cs)

*****TABACCO** (*Nicotiana Tabacum*)- has thin cuticle

***Epidermis of *Erythronium* petal

*****YUCCA LEAF** – has thick cuticle

- ***Musa textilis*** (abaca or Manila hemp)

SOFT

- **Kapok (*Ceiba pentandra*)**
 - Bedding and upholstery industry
 - Construction of thermally insulated and soundproof covers and walls.
 - Manufacture of lifebuoys and belts, waistcoats and other naval life-saving appliances.
- ***Gossypium hirsutum***
- **Ramie (*Boehmeria nivea*)**

***TRACHEIDS- one of the cells of a xylem (Collective term), can also transport water aside from vascular bundle

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