

# CUCURBITACEAE

# Common plants



 GardeningTips in

**SYSTEMATIC POSITION:**

**DIVISION :** Spermatophyta.

**SUB-DIVISION :** Phanerogams.

**CLASS :** Dicotyledons.

**SUB-CLASS :** Polypetalae.

**SERIES :** Thalamiflorae.

**ORDER :** Passiflorales.

**FAMILY :** Cucurbitaceae.

# Vegetative characters

- Habitat: Tropical & sub-tropical region.
- Habit: Annual or perennial herbs, mostly are tendril climbers.
- Root: Tap root system.
- Stem: Herbaceous, usually climbing,  It has tendrils.
- Leaves: Simple, alternate, exstipulate, petiolate, palmately lobed, palmately reticulate venation.



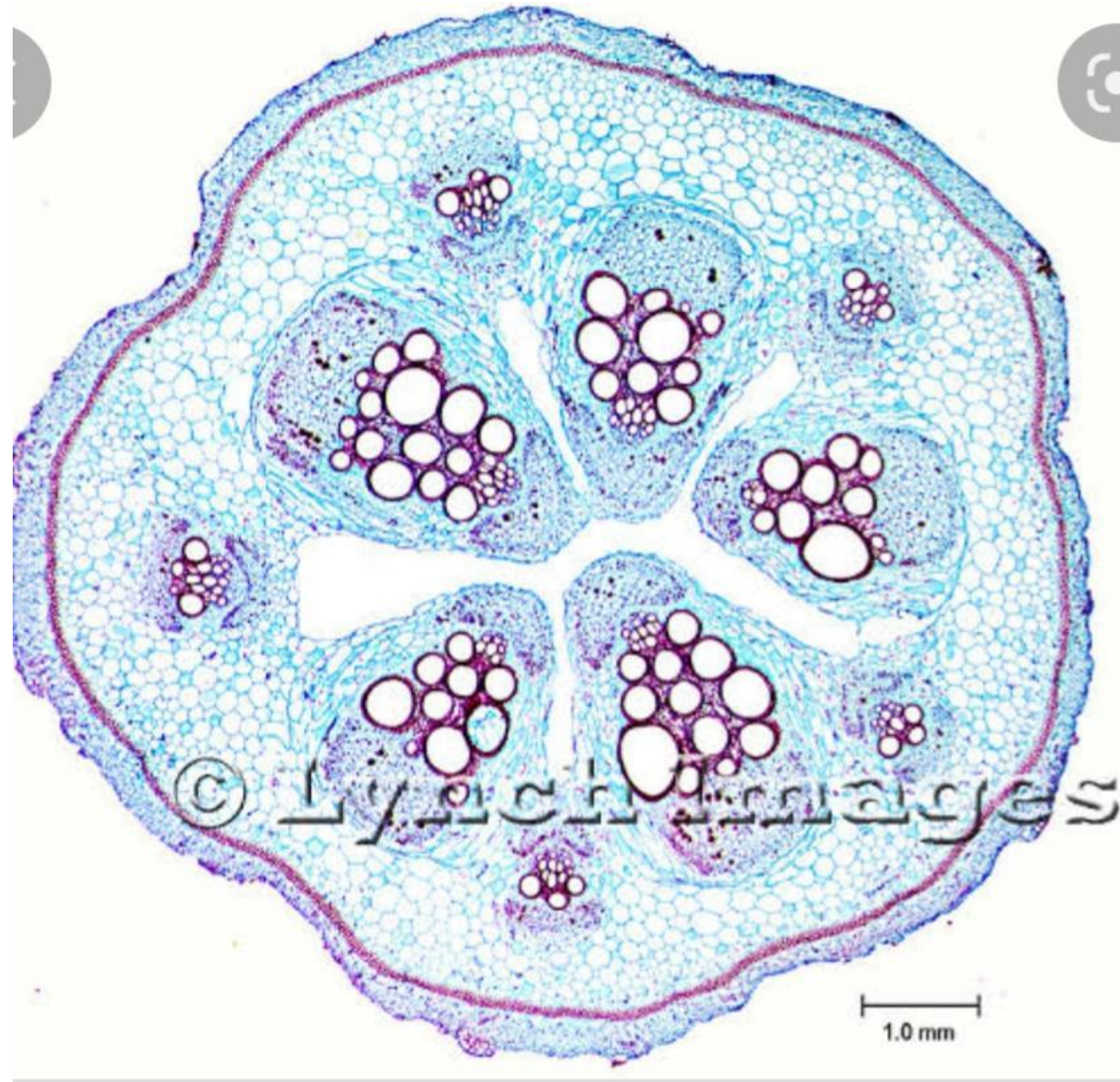


Tendrils



Stem

Ts of stem



# Floral characters

- Inflorescence: solitary axillary cyme.
- Flowers: unisexual, regular, epigynus, incomplete, actinomorphic.
- Calyx: 5 sepals, gamosepalous, green in colour and campanulate.
- Corolla: 5 petals, united, gamopetalous, yellow or white in colour.





Flowers



# Contd...

- Stamens in male flowers: 3 to 5 stamens, united by various degrees, anthers are very long, stamens are borne on calyx tube.
- Carpels in female flowers: 3 fused carpels, syncarpous inferior ovary, parietal placentation.
- Fruits: Fleshy berry.
- Seeds: Non-endospermic seeds.

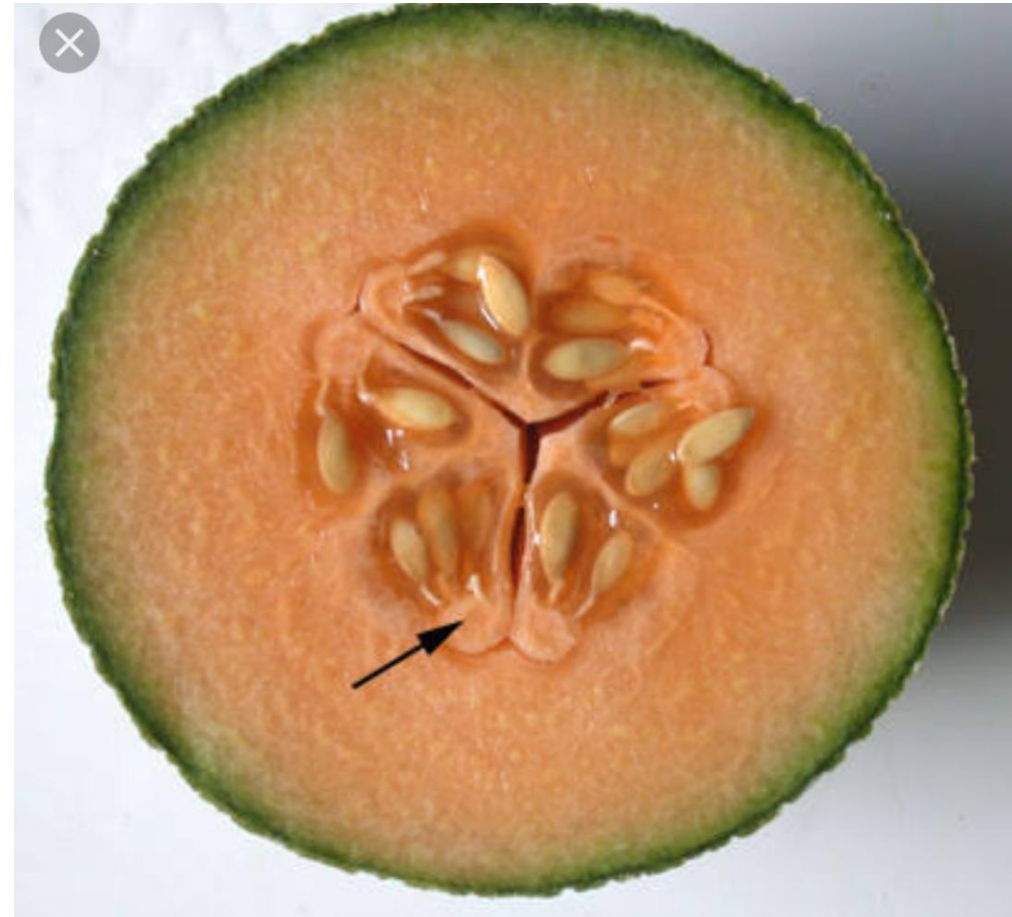
■ Floral formula:

■ Male flowers: Ebr,  $\oplus \circ \nearrow$   $k_{(5)}, C_{(5)}, A_{(3-5)}, G_0$

■ Female flowers: Ebr,  $\oplus \circ \text{♀}$   $k_{(5)}, C_{(5)}, A_0, \overline{G}_3$



**Androecium**



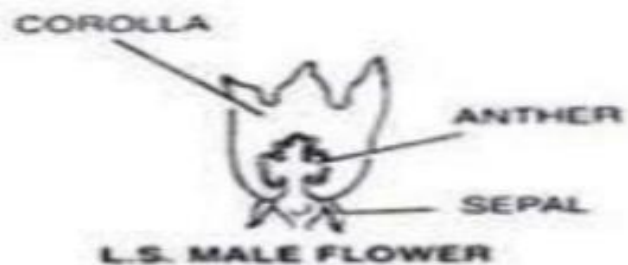
**T.S of ovary**

# Cucurbitaceae - Cucurbita maxima (Kadu)

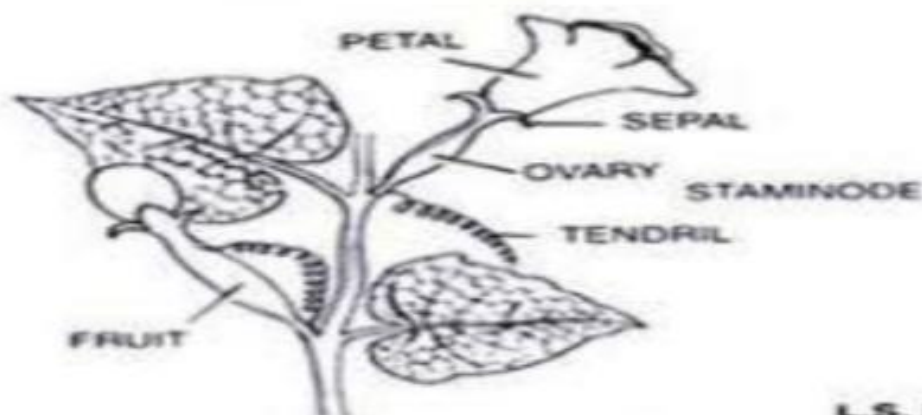
MALE FLOWER



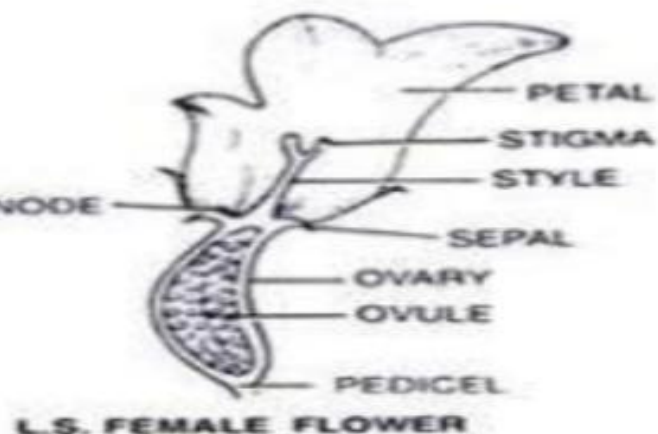
A MALE FLOWERING TWIG



L.S. MALE FLOWER



A FEMALE FLOWERING TWIG



L.S. FEMALE FLOWER



FLORAL DIAGRAM (MALE)



FLORAL DIAGRAM (FEMALE)



# ECONOMIC IMPORTANCES

- Vegetables: Immature fruits of several cucurbits are eaten raw or cooked as vegetables.
- Fruits: Ripe fruits of some plants are eaten as desserts or used to making refreshing juices.
- Medicines: Fruit pulp of pumpkin used as a poultice on boils, burns & inflammations. Fruits of *Momordica charantia* are used for stomach ache, rheumatism, liver & spleen problems & diabetes.
- Fibrous pericarp of some fruits are taken from dried fruits & used as bath sponge.

## Economic important species

- *Benincasa hispida* (Thunb.) Mats. & Nakai- **Kohala**
- *Citrulus colocynthis* (L.) Schrad- **Kadu Indarayan**
- *Citrulus lanatus* (Thunb.) Mansf. var. *lanatus* -**Kalingad**
- *Coccinia grandis* (L.) Voigt -**Tondali**
- *Corallocarpus epigaeus* (Rott. *ex Willd.*) *Bent*- **Mirachikand**
- *Cucumis melo* L. var. *melo*- **Kharbooz**
- *Cucumis sativus* L.- **Kakadi**
- *Cucumis setosus* Cogn.- **Mehaki**
- *Cucurbita maxima* Duch. *ex Lamk.*- **Tambada Bhopala**
- *Cucurbita moschata* (Duch. *ex Lam.*) *Duch.* - **Kala Bhopala**
- *Cucurbita pepo* L.- **Kashi Bhopala**
- *Diplocyclos palmatus* (L.) Jeffrey- **Shivlingi**