

**Vivekanand College, Kolhapur**  
(Autonomous)

**Department of Botany**

**B.Sc. I**

**FAMILY: MALVACEAE**

**Dr. B. T. Dangat**  
M.Sc., Ph.D.

# INTRODUCTION

**This has about  
82 genera  
1500 species.**

**Occurrence Worldwide,  
Tropical Region**





*HIBISCUS ROSA SINENSIS*

**CHINA ROSE  
GURHAL  
SHOE FLOWER**

# STEM

- \* Erect
- \* Cylindrical
- \* Herbaceous above
- \* Woody Below
- \* Branched
- \* Mucilaginous



**HABIT:**

**Ornamental shrub**

**Flower for Dye**

**Shoe Polishes**



# ROOTS

Colourless



## LEAF

- **Cauline**
- **Ramal**
- **Simple**
- **Alternate**
- **Petiolate**
- **Stipulate**
- **Ovate**
- **Margin Serrate**
- **Reticulate**
- **Multicostate**

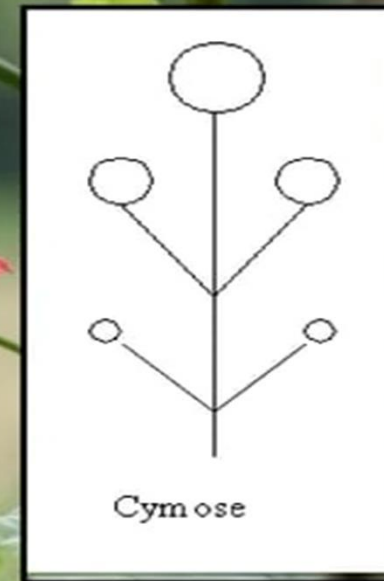


# INFLORESCENCE

➤ **Cymose**

➤ **Solitary**

➤ **Axillary**



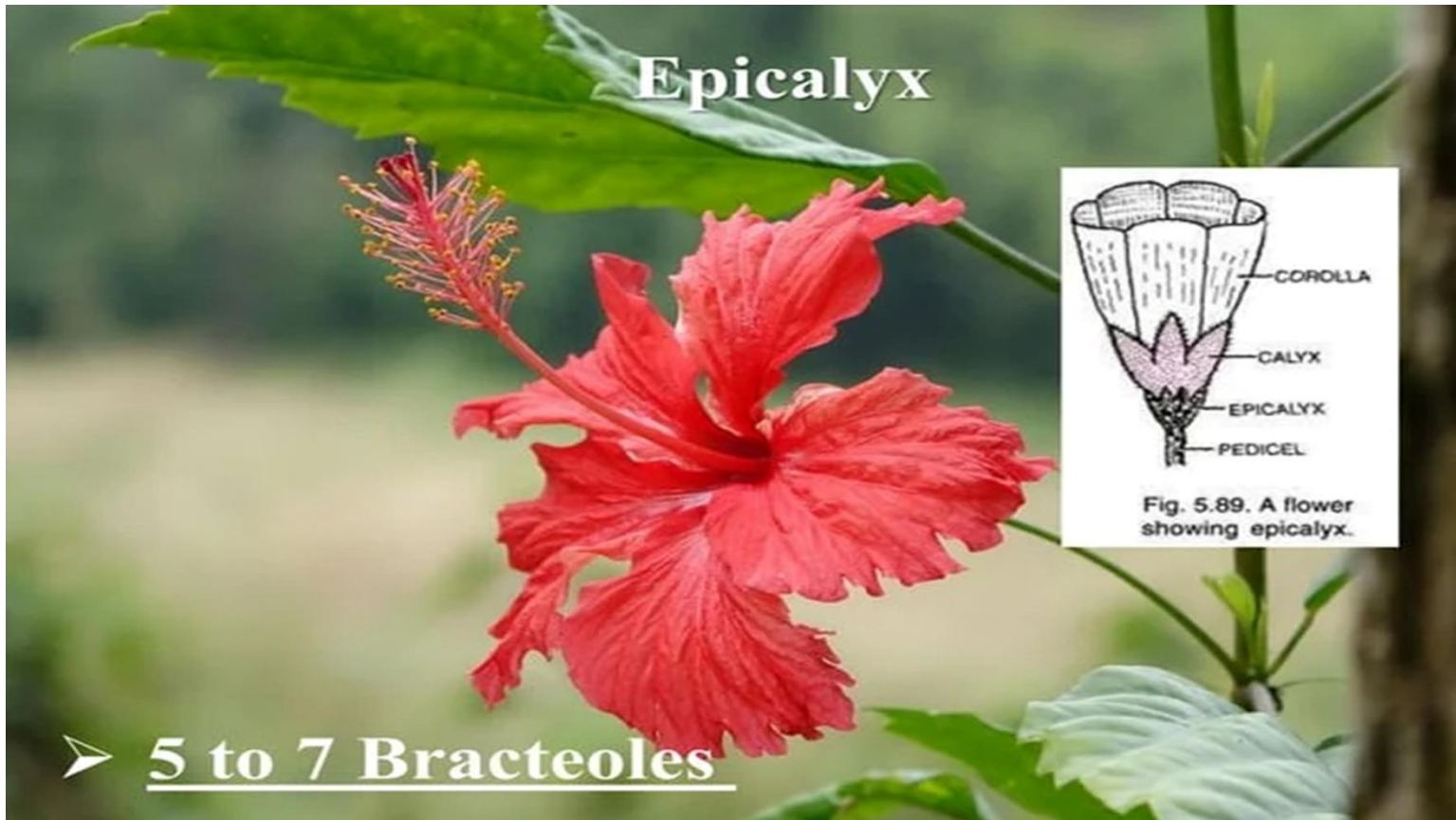


## Flowers

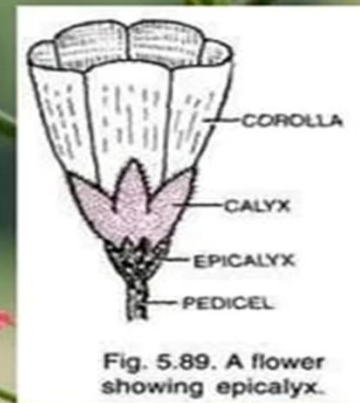
- **Ebractiate**
- **Pedicellate**
- **Complete**
- **Actinomorphic**
- **Bisexual**
- **Hypogynous**
- **Pentamerous**
- **Flower Red, White and Pink**



## Epicalyx

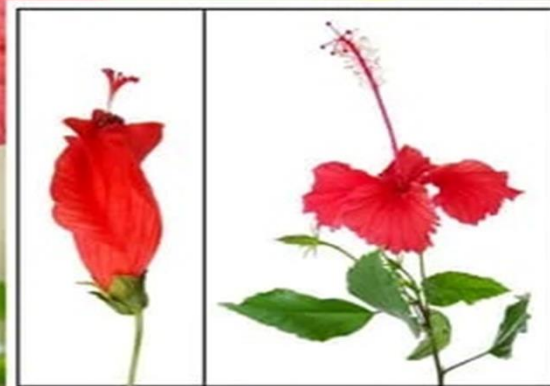


➤ 5 to 7 Bracteoles



**Calyx**

- Five Sepals
- Gamoseplous
- Green
- Inferior



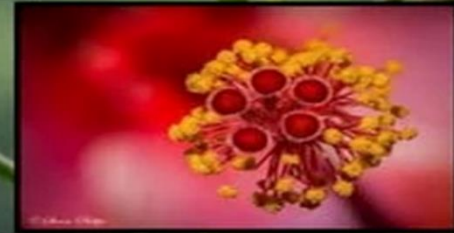


## Corolla

- **Petals 5 United Below**
- **Adnate to staminal Tube**
- **Polypetalous**
- **Red and Pink**
- **Inferior**

# ANDROECIUM

- Stamens Indefinite
- Monoadelphous
- Filament United
- Formed staminal tube
- Around style
- Polyandrous
- Anther Free
- Anther basifixed
- Inferior



ANDROECIUM





## GYNOECIUM

- Pentacarpellary
- Syncarpous
- Ovary Superior
- Pentalocular
- Placentation Axial
- Style Long ending.
- Rounded Stigma



# FLORAL FORMULA AND FLORAL DIAGRAM

$\oplus \text{♀} , K_5 C_5 A_\infty \underline{G}_5$



## ECONOMIC IMPORTANCE:

### Sources of Cotton wool:

- Many species of *Gossypium* are grown for the hairy covering of the seeds which constitutes the "cotton wool" or "cotton" of the commerce.
- This is used for the manufacture of cloth, cellulose and other products. Failure of the crop means a tragedy for the poor farmers



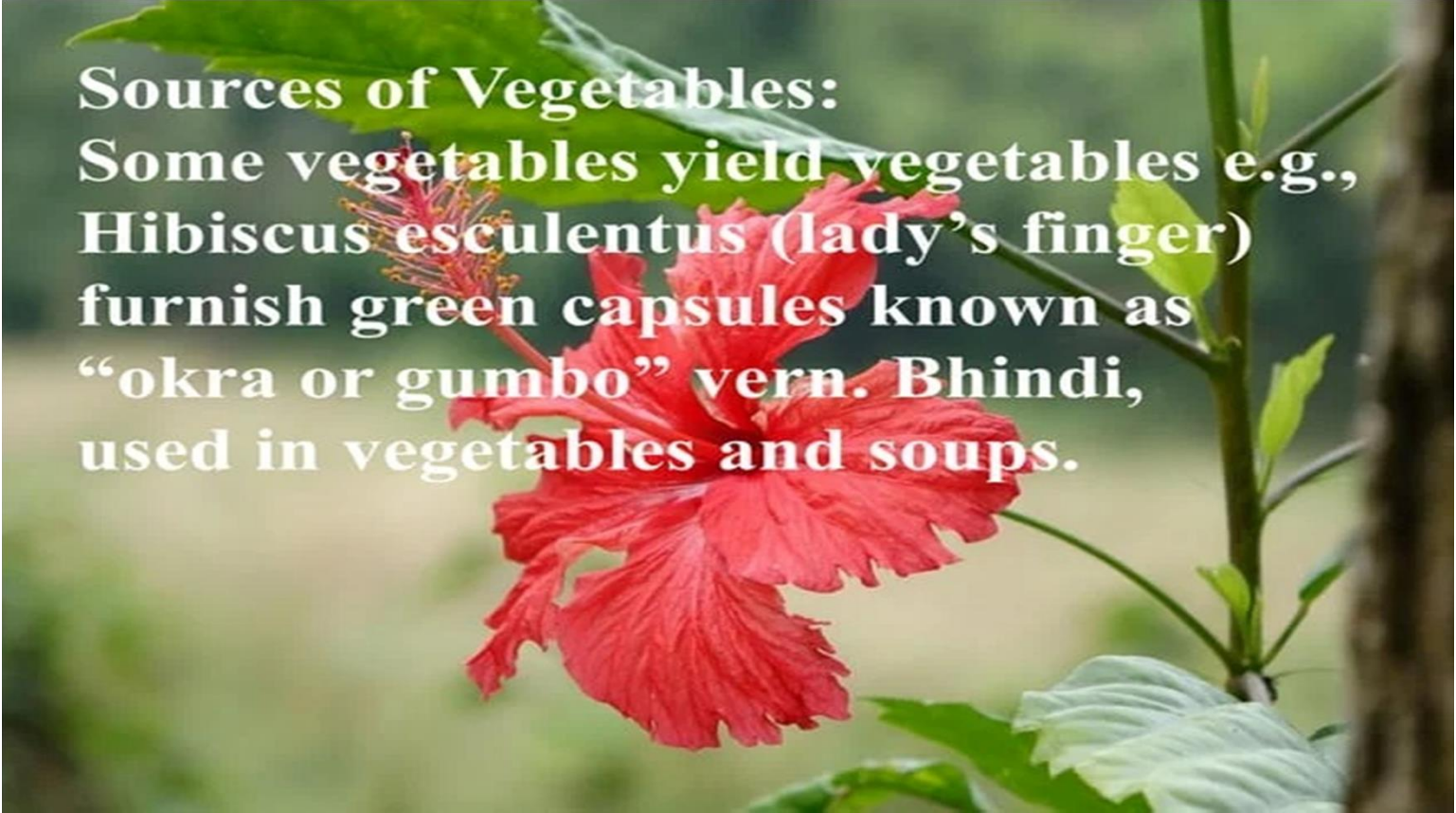
# Ornamental Plants

ALTHAEA



Marwa





**Sources of Vegetables:**  
**Some vegetables yield vegetables e.g.,**  
**Hibiscus esculentus (lady's finger)**  
**furnish green capsules known as**  
**“okra or gumbo” vern. Bhindi,**  
**used in vegetables and soups.**



**Source of Drugs:**

*Malva sylvestris*, yields a drug called Khatmi for horse throat. The roots of *Urena rependa* are used in hydrophobia.

**Source of Wood:**

*Bombax malabaricum* (Simbal), yields wood which is used in the match industry and silk-cotton for stuffing pillows.



**Source of Oil:**

Cotton seeds are used to extract oil which is hydrogenated to produce “Vanaspati ghee”, while the oil cake is used as fodder and manure.

**Source of Color:**

Petals of *Hibiscus rosa-sinensis* are used for cough and polishing shoes and coloring other articles. Sinhalese dye yellow with the capsule of *Thespasia populnea*. The coloring matter in the flower of *Alcea rosea* var. *nigra* is used in coloring wines in certain parts of Europe.



## Some Important Genera

- *Hibiscus rosa-sinensis* (China rose)
- *Malva sylvestris*
- *Alcea rosea* (Hollyhock)
- *Abutilon* (Kangi)
- *Gossypium* (Cotton)
- *Malva parviflora*
- *Malvestrum tricupidatum*
- *Bombax malabaricum* (Simbal)

