

STUDY NO.: 06

NAME OF THE STUDY: STUDY ON EXTERNAL MORPHOLOGY OF SOLANACEAE FAMILY (A CHILLI PLANT)

Bengali name: Morich
English name: Chilli
Scientific name: *Capsicum frutescens*
Family: Solanaceae

Habit: Annual, herb or under shrub.

Root: Tap root system, branched.

Stem: Erect, branched, solid, cylindrical, green, glabrous or somewhat hairy.

Leaf: Simple, alternate, exstipulate, petiolate, leaf margin entire, acute, pinnately reticulate venation.

Inflorescence: Cymose, solitary, axillary.

Flower: Pedicellate, ebracteate, complete, bisexual, pentamerous, regular, actinomorphic, hypogynous.

Calyx: Sepals-5, gamosepalous (united), calyx tube campanulate, persistent.

Corolla: Petals-5, gamopetalous (united), rotate, white.

Androecium: Stamens-5, epipetalous, filaments long and anther short, bilobed, introrse, yellow in color.

Gynoecium: Carpels-2, syncarpous, ovary superior, bilocular, ovules many, stigma lobed, placentation axile.

Fruit: Berry with persistent calyx.

Floral formula: $+ \overset{\nearrow}{\text{♀}} K_{(5)} \overline{C_{(5)}} A_5 \underline{G}_{(2)}$

Family identifying characters: Other species:

- Calyx persistent
- Carpel-2, syncarpous
- Stamen epipetalous
- Fruit berry

1. Potato : *Solanum tuberosum*-raw fruits used as vegetable
2. Brinjal : *Solanum melongena*-raw fruits used as vegetable
3. Chilli : *Capsicum frutescens*-raw fruits used as condiment
4. Capsicum : *Capsicum annum*-raw fruits used as condiment
5. Tomato : *Lycopersicon esculentum*-raw fruits used as vegetable
6. Tobacco : *Nicotiana tabacum*- yields alkaloid nicotine

Book references:

1. Botany for Degree Students, A. C. Datta.
2. College Botany, H. C. Gangulee.
3. Modern Practical Botany (Vol-II), B. P. Pandey

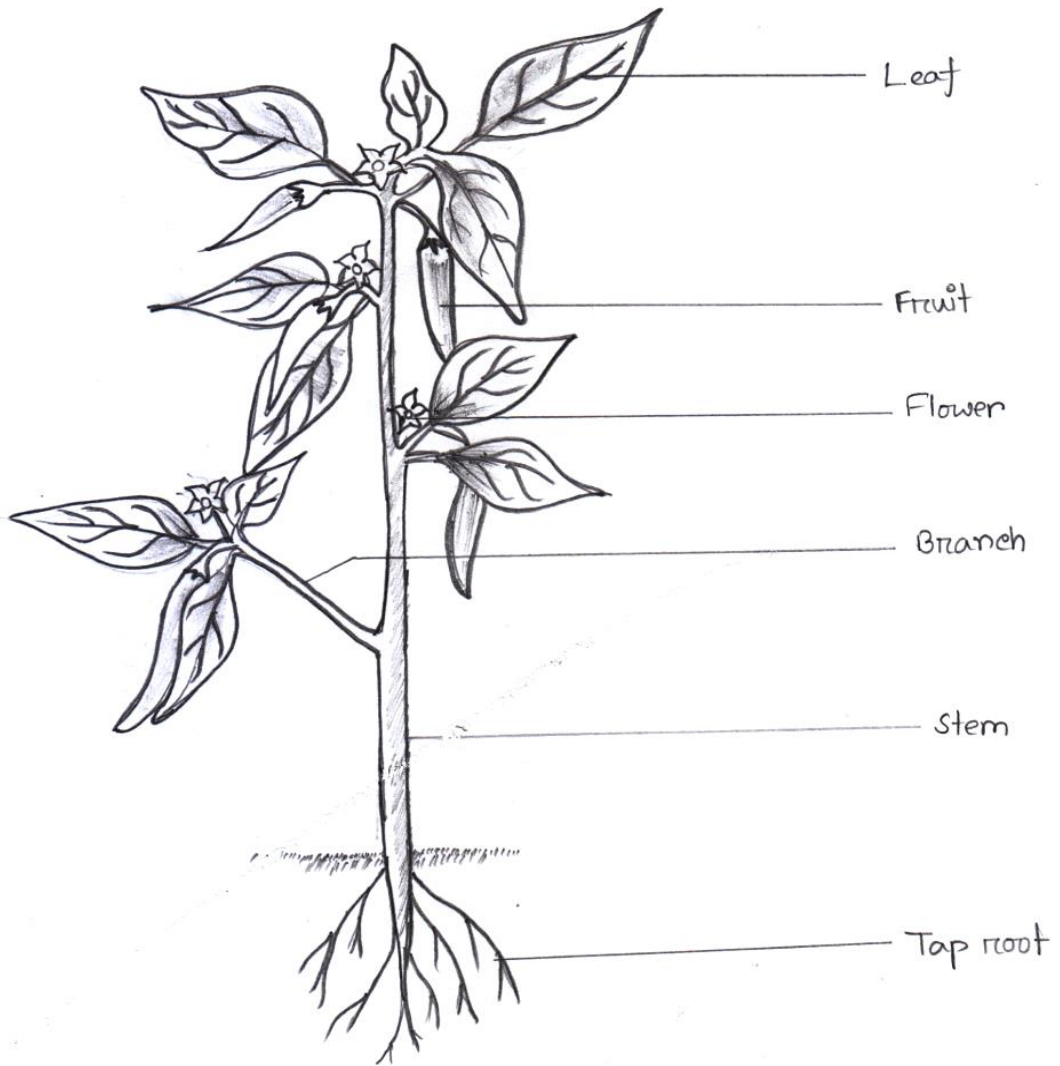


Fig : A chilli Plant.

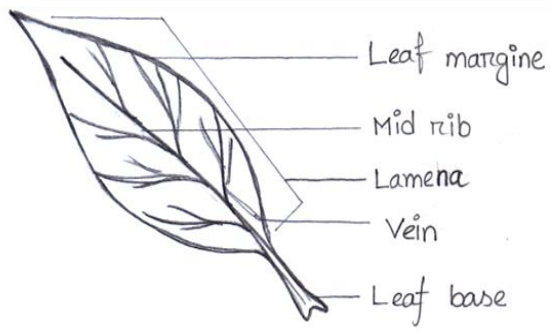


Figure - Leaf



Figure - Flower



Figure - L.S. of flower

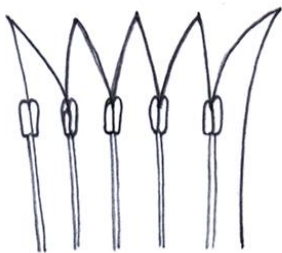


Fig: corolla with epipetalous stamens



Fig: Fruit

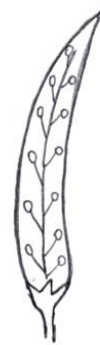


Fig: L.S. of fruit

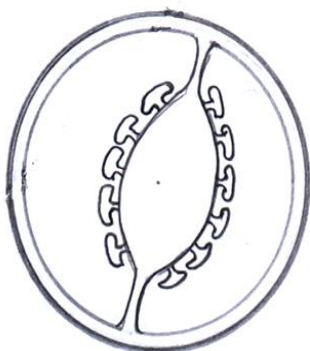


Fig: T.S. of ovary

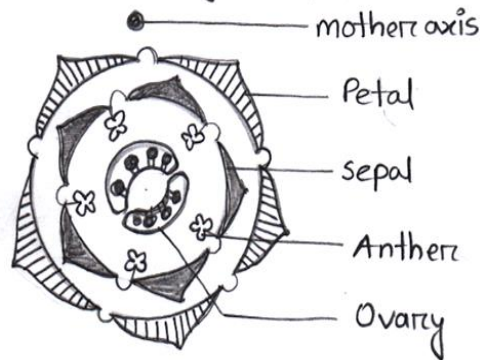


Fig: Floral diagram