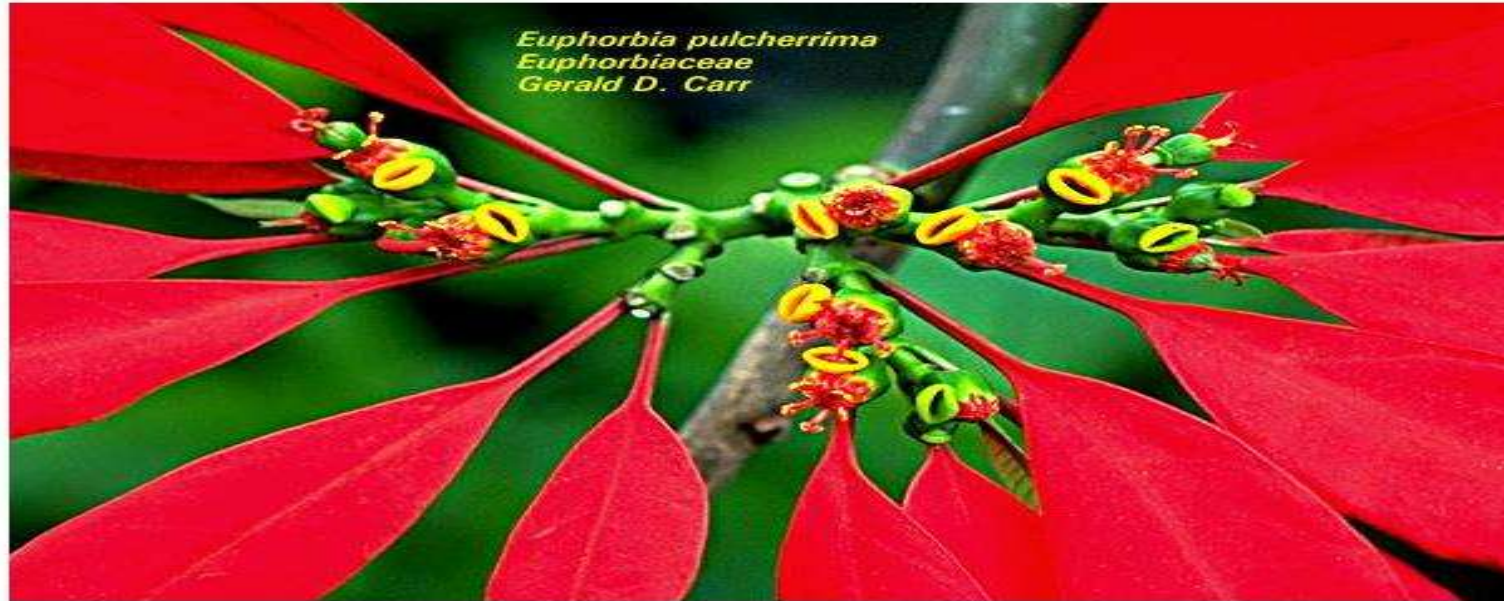


# *Euphorbia* - the spurges



# **EUPHORBIACEAE**

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## Taxonomy of the Euphorbiaceae

- Kingdom: Plantae
- Division : Magnoliophyta – Flowering plants
- Class : Magnoliopsida – Dicotyledons
- Subclass : Rosidae
- Order : Malpighiales
- Family : Euphorbiaceae



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## Introduction

- There are about 283 genera and 7,300 species in this family

- **Distribution:**

The plants of this family are found **throughout the world**. However, they are not found in arctic regions.

In our country the family is represented by several genera such as, ***Euphorbia*, *Ricinus*, *Phyllanthus*, *Croton*, *Pedilanthus*, *Manihot***.

In the desert regions of Africa and elsewhere the family is represented by cactus-like plants of different species of Euphorbia.

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Euphorbiaceae



# Characteristic of Euphorbiaceae

## • Habit:

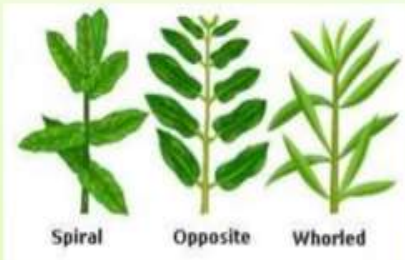
The plants exhibit great variation in their habit. The plants may be herbs, shrubs or trees.

- **Herbs** - *Euphorbia hirta*, *E. helioscopia*, *E. peplus*
- **Shrubs** - *Pedilanthus* sp., and *Jatropha* sp
- **Tree** - *Havea brasiliensis* (rubber tree), *Phyllanthus emblica* (Amla)

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- **Leaves:** spiral, sometimes opposite or whorled, simple or compound.



- **Stipules:** large, represented by small glands, or absent.

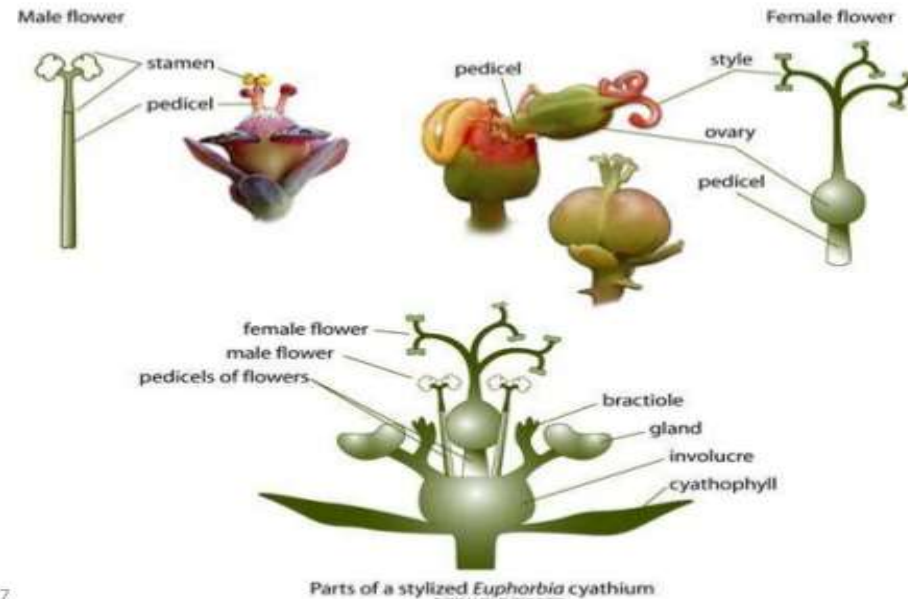
# Characteristic of Euphorbiaceae

- **Flowers:** unisexual, usually actinomorphic, cymose inflorescences.



- **Fruits:** capsule or drupe. Seeds often with conspicuous caruncles.

## FLOWER PARTS

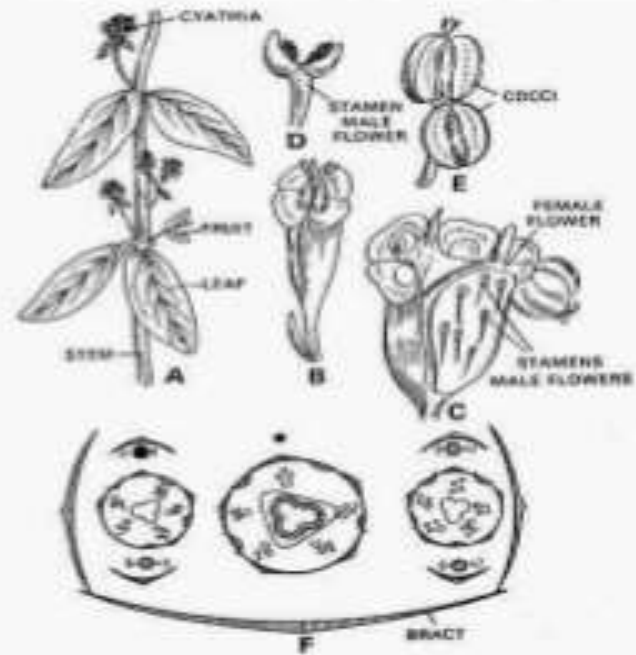


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# FLOWER PARTS

- **CALYX:** reduced or absent, 5 when present, valvate or imbricate.
- **COROLLA:** reduced or absent, 5 when present, valvate or imbricate.
- **ANDROECIUM:** stamens 5-numerous. Filaments basally united. Anthers with longitudinal slits or apical pores. Nectary disc present. Rudimentary ovary present in male flowers.
- **GYNOECIUM:** superior, usually 3-locular, with free or basally united styles.

### EUPHORBIA SP.



### RICINUS COMMUNIS



## Economic importance

- **Source of food:** The plant *Manihot esculenta* at gives starchy food from its tuberous roots.
- **Oils:** Some plants give wood oil, artist oil and other drying oils. These oils are used in paints. These oils are extracted from the seeds of several species.



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Euphorbiaceae

## Economic importance

- **Medicinal uses:** The fruit of *Phyllanthus emblica* has many medicinal uses.
- **Rubber:** Several species of *Hevea*, gives common rubber in their latex.



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Euphorbiaceae

## Economic importance

- **Ornamental plants:** The plants of this family have attractive colours. So they are commonly used as ornamental plants. Examples: *Euphorbia splendens*, *Euphorbia pulcherrima*,
- **Dyes:** *Chrozophora* gives dye.



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Euphorbiaceae



## Economic importance

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Euphorbiaceae

# ASSIGNMENTS:

1. Draw floral diagram of *Euphorbia hirta*.
2. Write name of inflorescence found in Euphorbiaceae family.
3. Which plant gives Biodiesel/biofuel?
4. Define perianth.
5. Write name of plant of euphorbiacea which is richest source of vitamin C.
6. Name the plant of euphorbiaceae which is decorating our college.

