

Q. Mention the diagnostic features of the following families. Give botanical name of at least three plants.

1. Family Euphorbiaceae

Introduction → The family Euphorbiaceae furnishes several valuable commodities such as food, drug, rubber and oil. It has been included in the unisexuales, by Bentham & Hooker and in the Euphorbiales by Hutchinson, Cronquist and Takhtajan. The members seem to be highly specialised in the presence of reduced flowers.

Common members → It includes 300 genera and 5,000 species of which 61 genera and 336 species occur in India. Some common members include Euphorbia, Ricinium, Manihot, Embllica, Gettopha and others.

Identifying features -

(A) Vegetative characters

1. Plants are mostly shrubs or trees.
2. Plants have cactus like habit.
3. Plants contain milky latex.

(B) Floral characters

Inflorescence → Cyathium

Flower - Pedicellate, incomplete, unisexual, actinomorphic and hypogynous.

Calyx - Sepals - 5, free, valvate.

Corolla - Petals - 5, free, twisted.

Androecium - Stamens 1-100, free, anthers basifixed, dithecous, opening longitudinal.

Gynoecium - Carpels - 3, syncarpous, axillary, trilocular with axile placentation, style and stigma bipartite.

Fruit - Schizocarpic capsule.

Pollination - Insect

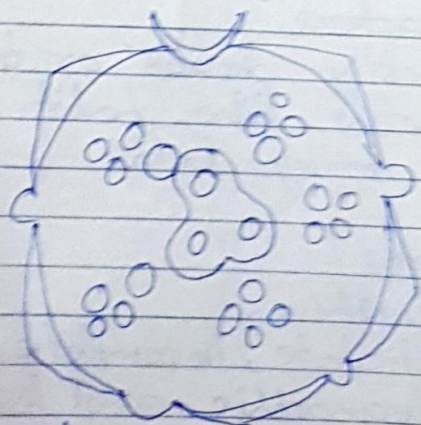
Floral formulae -

Male flower - $\text{K}_5 \text{C}_5 \text{A}_{1-100} \text{G}_0$

Female flower - $\text{K}_5 \text{C}_0 \text{A}_0 \text{G}_3$

Chief points \rightarrow

1. Plants have cactus like habit.
2. Plants have milky latex.
3. Cythium inflorescence.
4. Flowers incomplete, unisexual and hypogynous.
5. Tricarpellary, syncarpous, trilocular ovary with axile placentation.
6. Schizocarpic capsule fruit.



Floral diagram of *Euphorbia pulcherrima*



Euphorbia pulcherrima
A flowering branch

Use →

1. Rubber tree

Botanical Name → *Hevea brasiliensis*

Uses →

1. It is the natural source of rubber.

2.

2. Castor tree

Botanical Name - *Ricinus communis*.

Uses → Seeds yield oil used as mild laxative as a lubricant and in paint and plastic industry. The oil cake is used as manure.

3. Cassava

B.N - *Manihot esculenta*

Uses → The plant is cultivated for large fleshy, tuberous root. Which contain starch. It forms a valuable food.

