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Dept. of Botany

Class : Deg. - II (Hons.)

Paper : III (Group - 'B')

Topic : Family - Euphorbiaceae (continued)

Lecture No. - 71

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(5)

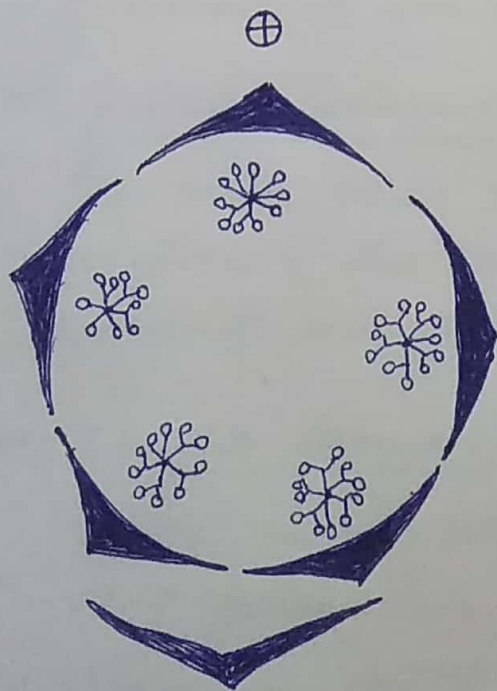
Family : Euphorbiaceae (contd.) :

• Floral characters :

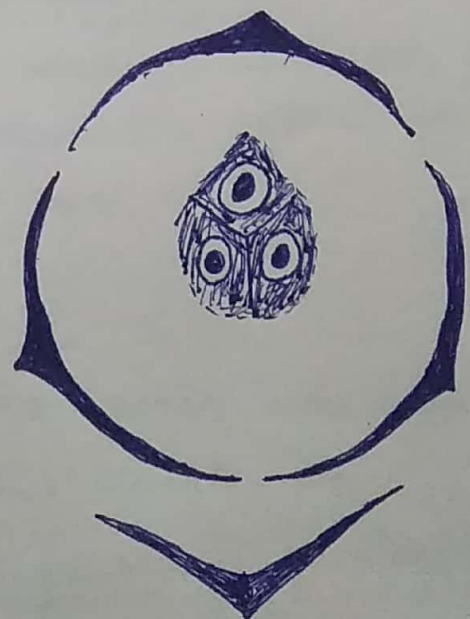
• Floral Formula :

Male flower : $\oplus \text{♂ } K_5 \text{ or } 4 C_0 A_5$

Female flower : $\oplus \text{♀ } K_3 C_0 \underline{G}_1 (3)$
(Ricinus flower)



• Floral Diagram
(Male flower)



• Floral Diagram
(Female flower)

(6)

• Economic Importance of the family:

Name of five plants ^{or} with their economic importance:

(i) Euphorbia hirta (Dudhi):

It is medicinal plant used in worms, bowel complaints, cough, juice is used in , dysentery, latex is applied on warts.

(ii) Phyllanthus niruri (Jar amala):

It is medicinal, used in jaundice, dropsy and urogenital infections.

(iii) Embilica officinalis or (Amala):

It is extremely medicinal. It is the richest source of Vitamin C. The fruit in fresh or dried forms given as medicine in diarrhoea, dysentery, cough, anemia and many other diseases. Morabba is also very tasteful and useful for health.

(iv) Ricinus Communis (Andi or Asandi):

The seeds yields castor oil, which is used as purgative, also used as lubricant, applied on burning and several other uses.

(v) Jatropha Curcus (Jamalgota):

It is strong purgative. Its seeds are used in soap preparation, varnish, candle etc.

• Diagnostic features or Distinguishing features:

The plants are mainly shrubs or trees, a few are herbs; latex invariably present;

leaves alternate and stipulate; flowers are actinomorphic, unisexual, hypogynous; inflorescence cymium or raceme or cyme; perianth in one or two whorls or absent; stamens one to indefinite, free or connate; Ovary trilocular, syncarpous, superior, trilocular, axile placentation, stigma bifid; fruit-schizocarpic or regma; seed endospermic.

• Affinity or Relationship of the family:

Bentham and Hooker have placed this family in Monochlamydeae before Utricaceae but Hutchinson has included it in the order Euphorbiales.

Randle and Wettstein have placed it in order Malvales. It is probable that the family might have arisen from the ancestors of Malvales due to the reduction of inner whorl of Perianth and abortion of one of the members of stamens or carpels during the course of evolution.

The family is closely allied to the members of Malvales particularly sterculariaceae in its floral structure such as monodelphous stamens in about 25% of genera, presence of rudimentary stamens and pistil.

It also shows resemblances with Geraniales and Sapindales due to occasional presence of disc and number and structure of ovules.

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(complete)