

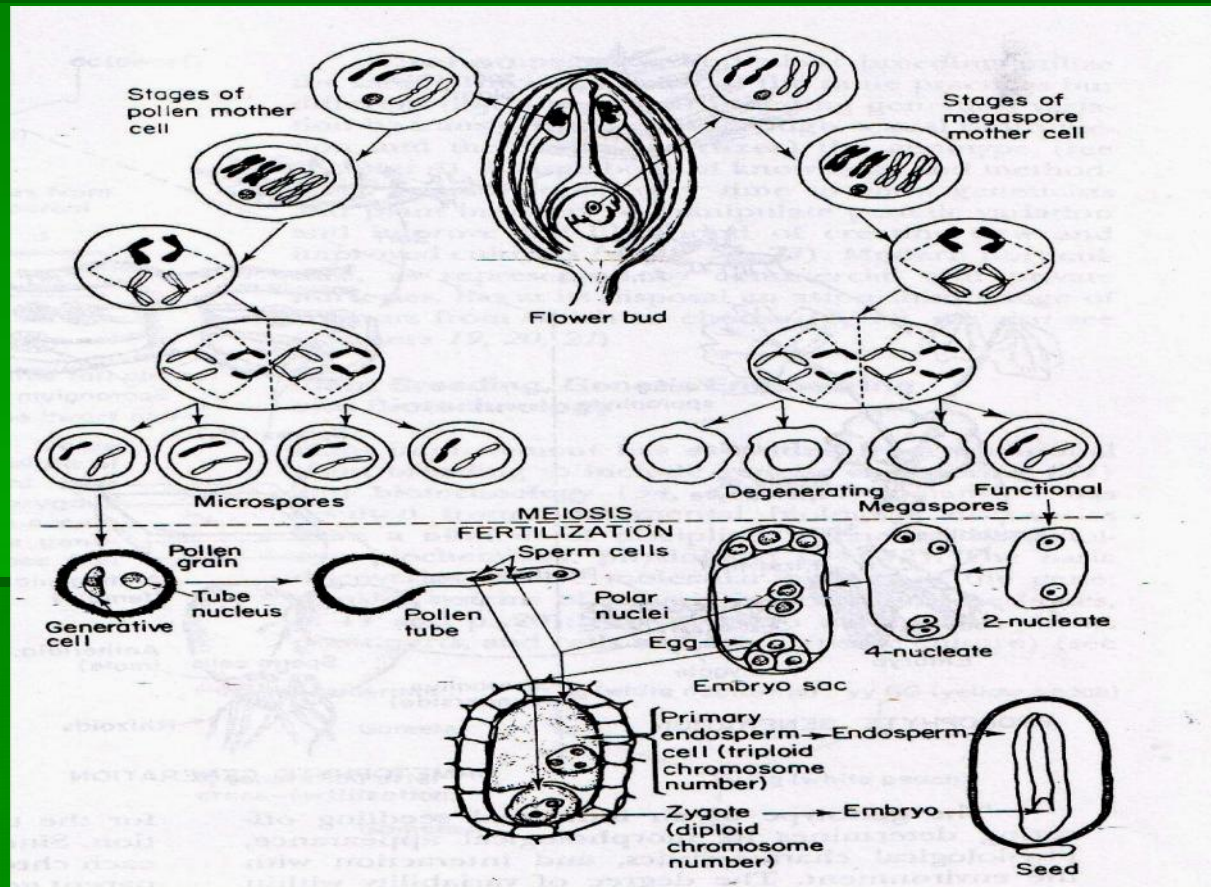
FLOWERING PLANTS (ANGIOSPERMAE)



a. Classification

The division Magnoliophyta is comprised of 83 orders, 383 families, and approximately 215,000 species. It consists of two unequal-sized classes: the Magnoliopsida (dicotyledons) made up of 64 orders, 318 families, and 165,000 species and the Liliopsida (monocotyledons) with 19 orders, 65 families, and about 50,000 species

b. Seksual Reproduction





Modern Classification is as follows:

- Division Magnoliophyta (Angiospermae):
 1. Class Magnoliopsida (Dicotyledons)
 - Subclass I. Magnoliidae
 - Subclass II. Hamamelidae
 - Subclass III. Caryophyllidae
 - Subclass IV. Dilleniidae
 - Subclass V. Rosidae
 - Subclass VI. Asteridae
 2. Class Liliopsida (Monocotyledons)
 - Subclass I. Alismatidae
 - Subclass II. Arecidae
 - Subclass III. Commelinidae
 - Subclass IV. Zingiberidae
 - Subclass V. Liliidae

c. Selected Orders and Families of Dicotyledoneae

1. Leguminales

The Order is best split into three separate families:

- a) Caesalpiaceae
- b) Mimosaceae
- c) Papilionaceae

a) **Caesalpinaceae**

Salient Features

Trees or shrubs, more rarely herbs.

Leaves pinnate or bipinnate, rarely simple.

Flowers zygomorphic. Sepals 5, free or the upper sepals may be united imbricate.

Petals 5, free, ascending imbricate.

Stamens 10 or few, free or united in one or two bundles

Distribution

- Plants are cosmopolitan, distributed throughout the world but more commonly in tropical regions

Economic Importance

- Ornamental (*Caesalpinia pulcherrima*, *Bauhinia* sp., *Delonix regia*, etc.)
- Medicine (*Tamarindus indica*, *Casia alata*, *Cynometra cauliflora*, etc)
- Food (*Tamarindus indica*, etc)

Example:

Caesalpinia pulcherrima



b) Mimosaceae

Example:

Mimosa pudica



Leucaena glauca



c) Papilionaceae

Example: *Arachis hypogaea*



2. Malvales

- Malvaceae

- Example



hibiscus

3. Solanales

Solanaceae

- Example: *Capsicum* sp.



Example: *Lycopersicon esculentum*



d. Selected Orders and Families of Monocotyledoneae

1. Orchidales

The order include a single family
Orchidaceae

Distribution

The plants are of world-wide distribution but are abundant in the tropics where they behave as epiphytes

Economic Importance

- Ornamental plants (*Vanda*, *Phalaeonopsis*, *Arachnis*, *Dendrobium*, etc)
- Medicine (*Vanda roxburghii*) are used as a cure for rheumatism and antidote for scorpion stings.
- The pods of *Vanilla planifolia* yield the “vanilla”, a flavouring agent widely used in confectionary

Example:
Phalaeonopsis





Cattleya



Arachnis



Dendrobium



Terrestrial orchid: *Spathoglottis plicata*

