

## **Inflorescence**

The reproductive shoot bearing a commonly a number of flowers, or only a single flower, is called inflorescence.

- i) May be terminal or axillary
- ii) May be branched in various ways

### **Types of inflorescence**

1. Racemose i.e. indefinite
2. Cymose i.e. definite

### **Racemose Inflorescence**

The main axis of inflorescence does not terminate in a flower but continuous to grow and give off flowers laterally in an acropetally succession.

#### **A) With the main axis elongated**

- a) **Raceme:** The main axis in this case is elongated and it bears laterally a number of flowers which are all stalked, lower or older flower having longer stalks than the upper or younger ones e.g. Mustard, Golmohur.



b) **Panicle:** Branched raceme is called panicle e.g. rice, sorghum.



- c) **Spike:** Here also, the main axis is elongated, lower flowers are older but the flowers are sessile.



- d) **Spikelets:** These are very small spikes with one or few flowers (florets). Spikelets are arranged in a spike, raceme or panicle, and may be sessile or stalked on the main inflorescences e.g. in wheat.

- e) **Catkin:** This is a spike with a long and pendulous axis which bears unisexual flowers only e.g. mulberry.

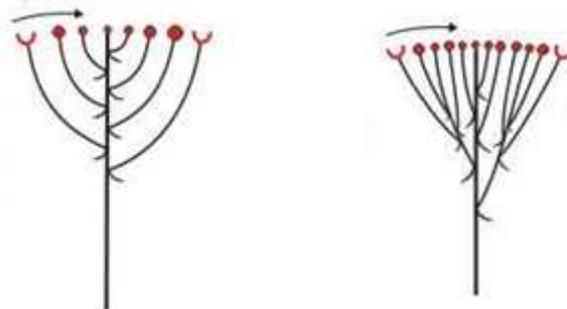


- f) **Spadix:** This is also a spike with a fleshy axis, which is enclosed by one or larger, often brightly colored bracts, called spathes found in aroids, banana, jackfruits etc.

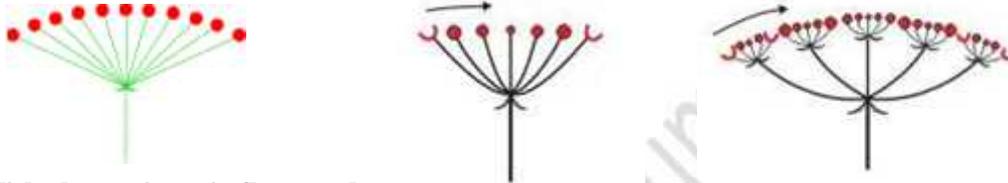


**B) With the main axis shortened**

- a) **Corymb:** Here, the main axis is comparatively short, and the lower flowers have much longer stalks or pedicels than the upper ones, so that all the flowers are brought more or less the same level. e.g. Wallflower



- b) **Umbel:** Here, the primary axis is shortened and it bears at its tip a group of flowers which have pedicels of more or less equal length, so that the flowers are seen to spread out from common point.



**B) With the main axis flattened**

- 1) **Head or capitulum:** Here the main axis or receptacle is suppressed, becoming almost flat and flowers (florets) are also without any stalk so that they become crowded together on the flat surface of the receptacle. e. g. sunflower

**2) Cymose Inflorescence**

Here, the growth of the main axis is soon checked by the development at its apex and lateral axis, which develops below the terminal flower. The cymose inflorescence may be uniparous, biparous or multiparous.

- a) **Uniparous or Monochasial Cyme:** In this type of inflorescence, the main axis ends in a flower and it produces only one lateral branches at a time, ending in a flower. The lateral

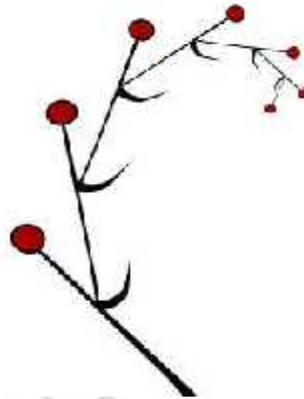
and succeeding branches again produce only one branch at a time, like the primary one.

Two types of uniparous have been seen:

**i) Helicoid**

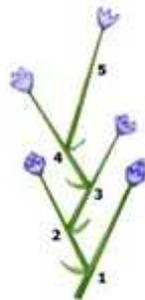
Secondary buds always develop on the same side of the stem: helicoid cyme

**ii) Scorpioid**



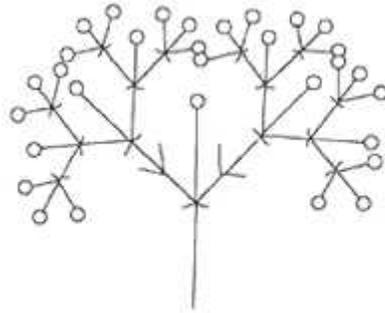
Secondary buds develop  
stem: scorpioid cyme

alternately on the

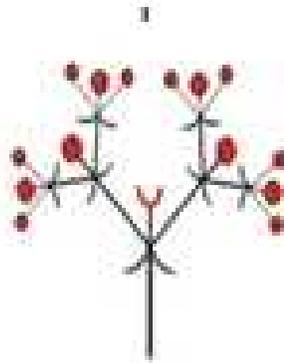


**iii) Sympodial cyme**

**b) Biparous or dichasial**



**c) Compound or mixed forms**





(Summer 2016)

## Special type

### Cyathium

There is cup-shaped involucre, often provided with nectar secreting glands. The involucre encloses a single female flower in the centre, seated on a comparatively long stalk and a number of male flowers around this, seated on short stalks.



### Verticillaster

This is a condensed form of a cymose inflorescence with a cluster of sessile or almost sessile flowers in the axil of a leaf, forming a false whorl at the node.

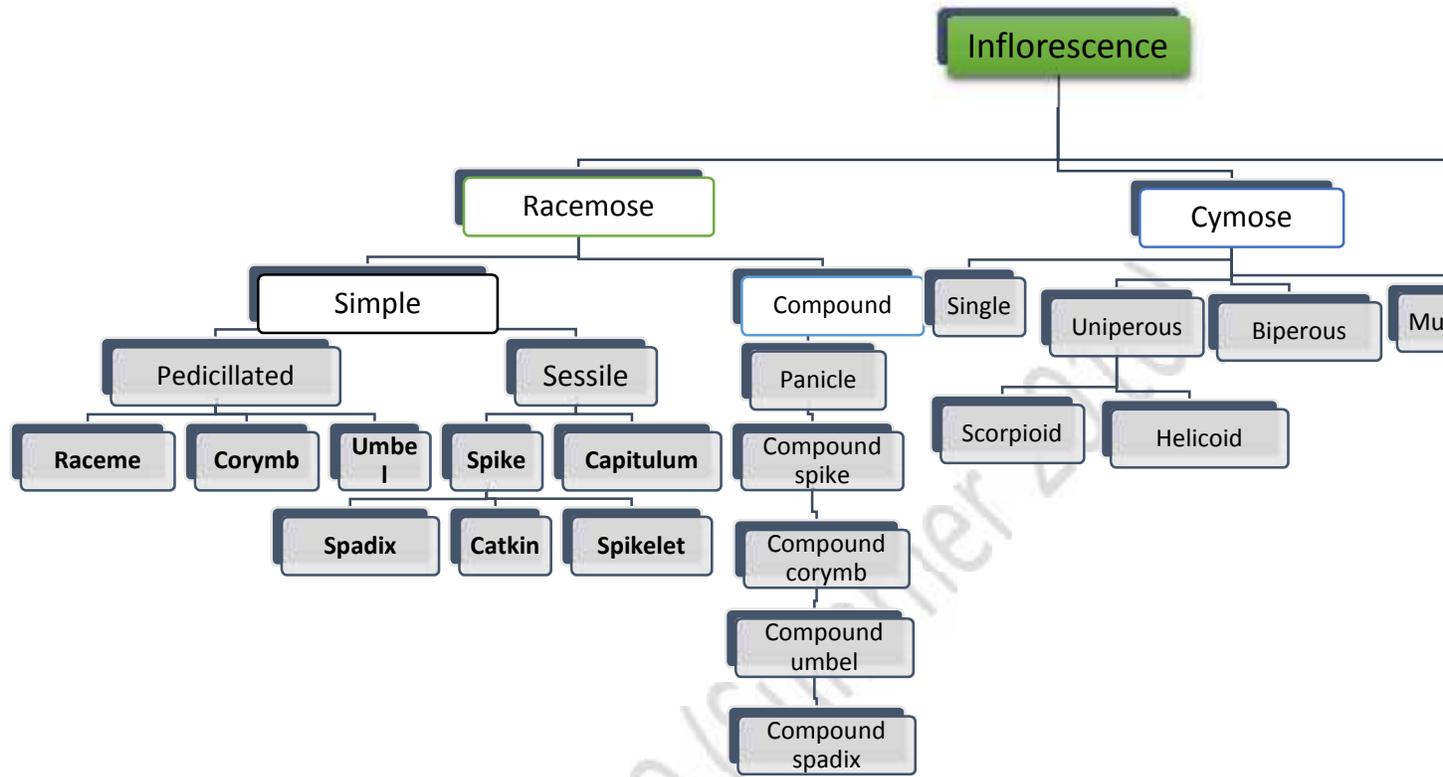


### **Hypanthodium**

When the fleshy receptacle forms a hollow cavity, more or less pear-shaped, with a narrow apical opening guarded by scales, and the flowers are borne on the inner wall of the cavity e.g. Ficus, peepul etc. Here, the female flowers develop at the base of the cavity and the male flowers higher up towards its mouth.



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