

6. Ethylene stimulates root hair formation.
7. Ethylene breaks dormancy of buds and seeds.
8. Ethylene promotes senescence of leaves.
9. It inhibits basipetal polar and lateral transport of auxin.

7.4 Physiology of Flowering

The physiological changes occurring in plant in response to relative length of day and night is called "photo periodism". This term was first of all used by W.W. Garner and H.A. Allard in 1920. They observed that Mary and Mammoth variety of tobacco failed to flower in summer but when they were placed in green house in winter flowering and fruiting takes place. It was concluded that flowering in tobacco plants were promoted by short day length.

7.4.1 Photoperiod : Plants require a critical photoperiod to induce flowering. If we divide 24 hrs into 12 hrs light and 12 hrs dark then short day plants require less than 12 hrs light for flowering. This will be the critical photoperiod for that plant.

Later on plants were classified into three groups according to their photoperiod:

1. Short day plant (SDP)
2. Long day plant (LDP)
3. Day neutral plant

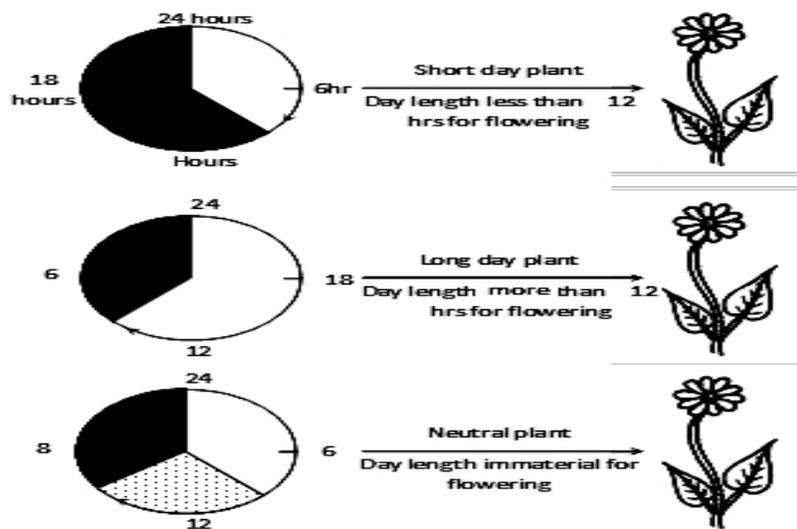


Fig 7.5 Short day, long day and day neutral plants

Source: <https://www.studyadda.com/notes/11th-class/biology/growth-and-development-in-plants/physiology-of-flowering-plant/9751>

