

Lecture III: Cultivation of Annuals

SELECTION OF SITE

Annual can be grown in various types of soil having good drainage facility with optimum fertility. Annual flowers offer flexibility in landscape design. Planting site should be changed each growing season, creating an entirely new design. As a part of their quick change potential annuals can be used as a temporary solution for a problem site.

PROPAGATION

Annuals are commonly propagated by seeds. The sowing of summer annuals starts from **January and ends in June** depending upon the climatic zone of country. Rainy season annuals are sown with the **onset of monsoon**, while winter season annuals sown in **Sept-Oct** under Northern Indian condition.

SEED SOWING

- For small and delicate seeds: Raised nursery bed, size (15 cm above ground level, 1.0-1.2 m width and convenient length).
- Direct sowing for bold seeded annuals.

Beds proposed for growing annuals should be dug deeply. Well rotten manure or other organic matter should be worked in to the soil as it is turned over. A mixture of NPK in the form of 5:10:5 also may be scattered over the surface at the rate of about 0.5-1.0 kg per 10 sqm before preparation. If soil fertility status is not known, soil test is done to determine the need of fertilizers and micronutrients. If drainage is poor, then bed should be a raised one. After the seed bed is ready shallow trench is made and seeds are scattered thinly in to it and covered very lightly. After sowing the seed bed is watered with a fine spray to avoid washing. The surface of the seed bed should be kept moist with light watering until germination is completed. Once seedling is matured they should be thinned before they become crowded.

PRICKING AND TRANSPLANTING

Transferring of young seedlings to another pan or tray known as **pricking**. Pricking at 4-6 leaf stage along with compost is advisable for most of the annual crops. The seedlings are pricked and transplanted in the beds. Transplanting must be done in evening hours. Select only healthy seedlings and avoid seedlings that are leggy, yellowish or dry looking.

NUTRIENT MANAGEMENT

5 -10 kg/m² FYM is sufficient for most of the annual flowers. FYM should be incorporated in soil at the time of soil preparation. Avoid nitrogenous fertilizer during flowering. Application of mixture of Ammonium Sulphate, Single Super Phosphate and Potassium Sulphate (2:1:1) per square meter followed by irrigation is found beneficial for growth and development of annuals.

WATER MANAGEMENT

Annuals require frequent and light irrigation which depends upon the season of growing and weather during growth and development. Correct method for water application in annuals is weeding or hoeing followed by irrigation. Weeding and hoeing should be done after two-three days after irrigation.

WEED CONTROL

Using mulch and spacing plants so they produce a solid canopy are the best ways to minimize weed problems. Weeds can also be controlled by cultivation or use of herbicide, but some weeds will still need to be pulled by hand. Weeds are easier to pull after a rain or irrigation.

STAKING

Many tall annuals such as cosmos and cleome may need support to protect them from strong winds and rain. Begin staking when plants are about one-third their mature size. Many materials can be used for staking: wire cages, bamboo stakes, tomato stakes, twiggy brushwood, or wire rings. The staking material should be 6 to 12 inches shorter than the height of the mature plant. Place stakes close to the plant, but take care not to damage the root system. Bamboo sticks, G.I wires, dry sticks of jute, cotton and pigeon pea are used for this purpose. The stacks can be interlinked with strings, forming an interlacing mesh as is done in the case of *Sen Rin Tsukuri* method of growing chrysanthemum.

DEADHEADING/PRUNING

Deadheading is the removal of dead or faded flowers and seed pods. When annuals expend energy to produce seeds after the flower fades, flower production often decreases. To maintain vigorous growth and assure neatness, remove spent flowers and seed pods. Although this step is not necessary for all flowers, it is a good practice with ageratum, calendula, celosia, coleus, cosmos, geraniums, marigolds, salvia, rudbeckia, and zinnias.

Some bedding plants such as polka dot plant and impatiens may benefit from pruning back for size control and rejuvenation. Others such as *Gomphrena* can be pruned or sheared into shapes. Pruning can stimulate greater flowering of some cultivars of petunias. Cut back plants as needed leaving approximately one-half of the shoot.

REFERENCE

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