



Department of  
Horticultural Science

## HINTS FOR FALL-PLANTED SPRING AND EARLY SUMMER FLOWERING BULBS

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### I. Plan in the Spring

- A. Photograph your spring garden to know where your bulbs need to be planted in the fall.
- B. Major Bulbs (Tulips, Hyacinths, and Daffodils)
  1. Flowering season: mid February to mid May, depending on local weather and climatic conditions, e.g. coastal plain, piedmont, mountains.
  2. Height range: 6 inches-3 feet
  3. Colors and shapes: A wide selection is available.
- C. Specialty bulbs (*Allium*, *Crocus*, *Galanthus*, *Fritillaria*, *Scillas*, etc.)
  1. Flowering season: mid February to early July, depending on local weather conditions.
  2. Height range: 3 inches-4 feet
  3. Colors: A wide selection is available when all species are used.

### II. Purchasing - Fall

- A. The best purchasing criteria for bulbs is that they be firm. Buy early to get the best selections. The size and/or number of flower(s) is directly related to the size of the bulb.
- B. Small nicks and loose skins (tunic) do not affect development of the bulb. In fact, loose tunics aid in inspecting for diseases and this condition encourages rooting.
- C. Keep cool (50-65°F) before planting. Be certain, however, to keep bulbs away from ripening fruit since they produce ethylene.

### III. Planting Techniques - Fall

- A. **Where to plant?**
  1. Bulb Soils
    - a. Good drainage is essential for spring-flowering bulbs! If the soil is mostly clay, mix in an organic amendment such as peatmoss, compost, aged bark, etc., up to 50% in volume, or plant in raised beds. If the soil is mostly sand, add an organic amendment to increase water and nutrient holding capacity.
    - b. Soil pH is critical! The pH of the planting area should be in the 6-7 range. If you need assistance in this area, contact your county extension office.
  2. Spring flowering bulbs can be used in beds (annuals or perennials), borders, ground covers, rock gardens, and wooded areas. For perennialization, avoid planting them near heated basements. These bulbs do best in areas which do not receive

direct sunlight during midday, especially during hot summer months.

3. Some bulb types can be interplanted in the same area based on time of flowering and plant heights, e.g. *Crocus*, *Muscari*, and *Allium*.

**B. When to plant?**

Spring and early summer flowering bulbs must be planted in the fall in order to develop a root system and satisfy the cold requirement of the bulbs. Wait until soil temperatures are below 60°F (16°C) before planting. In NC, this is usually late October to November.

**C. Excavate the area to be planted.** The depths given below are measured from the base of the bulbs to soil level.

1. Small sized (1 inch in height) bulbs - 5 inches deep
2. Large sized (2 or more inches in height) bulbs - 8 inches deep

These depths of planting will help protect the bulbs against frost, animals and physical damage due to hoeing, etc. Be certain to thoroughly loosen the soil under the bulbs.

**D. Place bulbs in bed; space according to size.** Large bulbs should be 3-6 inches apart, small bulbs 1-2 inches. Interplant, if desired.

**E. Cover bulbs with soil** using only one-half of the soil removed. Water thoroughly! Finish covering bulbs with remaining soil.

**F. Cover the bed with 2-3 inches of mulch.**

**G. If the fall is dry, water** area as needed.

**H. Bulb Fertilization**

Fertilization improves bulb performance! Newly planted bulbs will have improved quality. In addition, fertilization encourages bulbs to perennialize; that is, flower for several years without replacing or dividing the bulbs.

There are 2 fertilizer systems available for spring-flowering bulbs! The first system utilizes a single fall application at planting. You can purchase a sulfur-coated, slow-release complete fertilizer. This should be incorporated into the rooting area at planting, at a rate of 1 rounded tablespoon per square foot. The second system uses bone meal incorporated in the rooting area at planting time with an application of 8-8-8 (1 level tablespoon) or 10-10-10 (1 rounded teaspoon) in the fall, followed by a repeat application of the same fertilizer as soon as you see shoots breaking the ground in the spring.

**IV. Spring**

**A.** If fertilization of 8-8-8 or 10-10-10 was used in the fall, repeat the treatment (see III H above).

**B.** After flower petals fade or fall off, remove flower organs with scissors or a hand pruner.

**C.** Allow foliage to die naturally!

**D.** When desired, overplant area with summer annuals.

**V. Diseases** - If one starts with healthy bulbs, bulb diseases are generally not a problem. However, if the soil becomes diseased, use Terraclor (PCNB) in the bed before planting the bulbs in the fall. The major foliar disease is *Botrytis* (Fire). This is readily controlled by many available fungicides. Check labels for recommendation.

**VI. Insects** - The insect that may become a problem is the aphid. It can be readily controlled by available insecticides. Check labels for recommendations.

**VII. Splitting or Harvesting Bulbs** - This is not generally advised. If bulbs were satisfactory, do not disturb! If unsatisfactory, remove the entire plant as soon as flowers are finished and replant next fall with new bulbs.

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