



# FALL BULBS

## Quick Facts...

- Bigger Bulb = Bigger Flowers
- Late September and October are the best months to plant bulbs so they root well before the ground freezes.
- The selected site should have adequate sunlight, be well drained and show the flowers off to their best advantage.
- Bulbs are planted much deeper than seed; therefore, soil preparation is very important.
- Plant bulbs with the growing tip up.
- Fertilizer must be present in the root zone to be effective.

## Selection

Bulbs—The earlier bulbs are purchased in the fall, the better the selection. Select the largest bulbs of a variety, because bigger bulbs mean bigger flower size. Avoid those that show evidence of mold or physical damage.

While it is preferable to select bulbs and corms individually from open bins rather than prepackaged, there is a chance that a customer may not put bulbs back in the proper bins. If the adjacent bins have similar bulbs, this mix-up will go undetected.

## Location

Generally, a gardener selects the site before purchasing bulbs. This site usually is conspicuously located to show the flowers off to their best advantage. If the bulbs will remain in this location for more than one year, they need adequate sunlight to regenerate strong bulbs. A southern exposure, especially when close to the foundation, induces early emergence that may result in freezing injury. Provide drainage so the bulbs do not stand in water. Remember that a solid block of one color is more impressive from a distance than a mixture of colors and varieties.

## Planting and Growing Fall Bulbs

September and October are the best months for planting bulbs because they can become well rooted before the ground freezes. Bulbs planted after October may not have time to root adequately and therefore may not flower uniformly in the spring.

Plant the bulbs at a depth consistent with the level indicated on the planting chart. As a general rule, this depth is four times the height of the bulb between the soil surface and the tip of the bulb. Plant bulbs with the growing tip up.

Cover the bed with a 3-inch mulch layer to prevent alternate freezing and thawing that breaks roots and damages bulbs. This mulch may be removed in April before the shoots emerge, or left in place if the shoots can penetrate it easily.

In the spring, remove flowers as soon as they wither, because seed production diverts food that otherwise would be used to produce more vigorous bulbs. Apply a balanced fertilizer before the foliage withers. Once the foliage has withered completely, the bulb is dormant, the dead leaves may be cut away, and annuals may be planted among the bulb tops.

It is not necessary to dig up the bed after the first year. But after the second year, the developing bulbs begin to crowd each other and lose much of their original vigor. When this occurs, dig the bulbs in late August and allow them to dry for a few days in a shady, cool spot. Divide and replant the best ones. If none of the bulbs is as large as the original ones, purchase new bulbs for better results. This is especially true of hyacinths, which are seldom worth transplanting.

## Soil Preparation and Planting

- Bulbs are planted deeper than seed; so soil preparation is very important.
- Excavate the bed to the bulbs' planting depth. Apply fertilizer and soil amendments at this level, and spade or rototill the soil to a depth of 3 or 4 inches.
- Aeration is the most important aspect of soil preparation. Before the soil is shoveled back into the bed, mix it with some compost at a ratio of 1 part compost to 2 parts original soil. Soil amended in this way offers less resistance to the shoot as it emerges and provides better aeration and drainage for root growth. Space the bulbs as desired, refill the bed and water well to settle the soil around the bulbs.
- The flower bud and the food necessary to produce a flower are already present inside a bulb when it is planted. Fertilizer is applied to make larger bulbs the following year.

## Forcing Bulbs Indoors

Many bulbs can be forced or stimulated to bloom indoors in the winter. Look for bulbs that have been specifically bred for forcing, or those that have been 'pre-chilled'. Start with a clean container. A squat-shaped pot is better than a tall, narrow container. Use any good-quality potting soil available here at Bath, and fertilizer is not necessary because the flower bud and the energy it needs is already in the bulb. Add two to three inches of potting soil to the bottom of the container. Place bulbs on the potting soil, but don't force them into place. Cover the planted bulbs leaving the tips exposed. Your bulbs are now ready to be chilled. The best temperature to do this is 41-48°F. The amount of chilling required will vary with type of bulb, bulb size, number of bulbs per container, and start date. Determine this time-frame by finding your desired bloom date and counting backwards. For example, if you want early-blooming tulips before February 1, they'll need 14-20 weeks of cold preparation, followed by two to three weeks indoors to force them to flower. So, the best time to plant would be early September. Make sure to monitor the soil moisture closely. Don't let the bulb pans dry out or become too wet while they're chilling. An un-heated garage or basement works well to store your bulbs, but keeping them outside is not a good idea. The temperatures can easily reach below freezing and damage your bulbs. You may put your pans in the refrigerator, but avoid storing bulbs in the same area as fruits and vegetables. Ripening vegetables and fruit, like apples, give off ethylene, which can cause flower-bud development to fail. After you bring the bulbs in from chilling, place the pots in indirect sunlight at around 60°F for several weeks. When the plants are 4-6" tall, increase the temperature to 68°F through exposure to direct sunlight. Narcissus, tulips, crocus, hyacinth, & iris are generally easy to force in the home using these techniques.

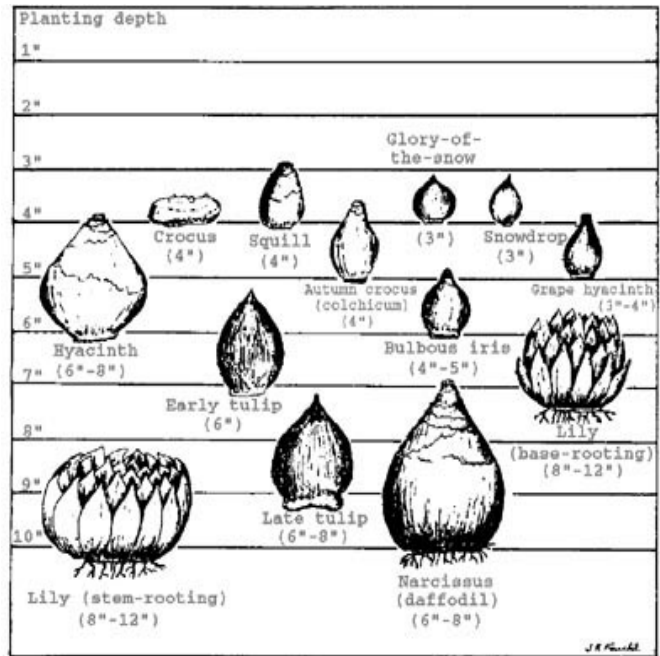


Figure 1: Bulb planting chart. (Numbers in parentheses refer to minimum spacing.) Lilies normally are planted in the spring, while autumn crocuses are planted in late summer. All other bulbs shown are planted in the fall. Planting depths are for well-drained soils. Bulbs do best in a sandy, clay loam. In heavier soils, they should be planted 1 to 2 inches higher.