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Flowers from fall-planted bulbs and corms

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Quick Facts

- There is a direct correlation between the size of a bulb and the size of the flower grown from that bulb.
- Late September is the preferred time to plant bulbs so they can become well rooted 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 methods will differ. Bulbs should be planted with the growing tip up.
- Fertilizer must be present in the root zone to be effective.

Purchasing

The earlier bulbs and corms are purchased in the fall, the better will be the selection. The largest bulbs of a variety should be selected since there is a direct correlation between bulb and flower size. Avoid those that show evidence of mold or mechanical damage.

While it is preferable to select bulbs and corms individually from open bins than to purchase them 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.

Site Selection

Generally, a gardener has the site selected before the bulbs are purchased. Since bulbs represent an investment, this site usually is conspicuously located to show the flowers off to their best advantage. If the bulbs are to remain in this location for more than one year, they must have adequate sunlight to regenerate strong bulbs. A southern exposure, especially when close to the foundation, will induce early emergence that may result in freezing injury. Drainage should be provided so that the bulbs do not stand in water. Finally, a solid block of one color is more impressive from a distance than a mixture of colors and varieties.

Soil Preparation

Bulbs are planted much deeper than seed; therefore, soil preparation methods will differ from those used in the garden.

The traditional methods of preparing garden soil by applying soil amendments to the surface and spading or rototilling these amendments into the upper 3 to 4 inches (7.6-10.2 centimeters) of the soil are not adapted to bulb culture. According to the bulb-planting chart (Table 1), all bulbs root below 4 inches (10.2 cm); and for fertilizer to be effective, it must be present in the vicinity of the roots.

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A better way of preparing soil for bulbs is to excavate the bed to the level at which the bulbs are to be planted. The fertilizer and soil amendments then should be applied at this level, and the soil spaded or rototilled to a depth of 3 or 4 inches (7.6-10.2 cm).

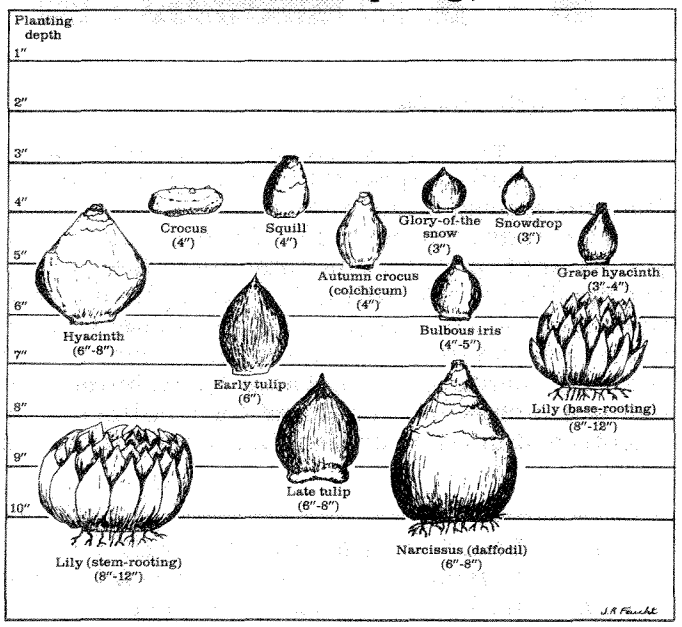
Aeration is the most important aspect of soil preparation; therefore, before the soil is shoveled back into the bed, it is a good practice to mix it with some type of organic matter. The bulbs then are spaced out as desired, the bed refilled and watered to settle the soil around the bulbs.

Soil Amendments

The flower bud and the food necessary to produce the flower are already present inside a bulb when it is planted; therefore, fertilizer is applied to make larger bulbs the following year. Phosphorus fertilizer needs to be applied at the time of planting if it is to be available to the roots, since it does not trans-locate in the soil. Adequate phosphorus may be supplied with a one-half pound (.2 kilogram) of 0-46-0 fertilizer (super phosphate) per 100 square feet (9 square meters).

Just as important as the application of fertilizer is the addition of organic matter to improve the texture of the soil. This may be accomplished by adding peat moss or well-decomposed compost using up to one-third of the volume of soil removed from the bed as described. Soil amended in this way offers less resistance to the shoot as it emerges and provides better aeration and drainage for root growth. Soils with a high clay content should be heavily amended.

Table 1: Bulb planting chart. (Numbers in parentheses refer to minimum spacing.)*



Lilies normally are planted in the spring, while autumn crocuses normally are planted in mid-summer. All other bulbs shown are planted in the fall. Planting depths shown above are for well-drained soils. Bulbs do best in a sandy, clay loam. In heavier soils, they should be planted 1 to 2 inches (2.5-5 centimeters) more shallow.

**To convert to metrics, use the following conversion: 1 inch = 2.5 centimeters.*

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.

The bulbs should be planted 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. Bulbs should be planted with the growing tip up.

After the ground has frozen, the bed should be covered with a 3-inch (7.6-cm) mulch to prevent alternate freezing and thawing that breaks roots and damages bulbs. For more information see Service in Action sheet *7.214, Mulches for home grounds.* This mulch may be removed in April before the shoots emerge, or left in place if the shoots can penetrate it easily.

As soon as the flowers wither, they should be removed, because production of seed diverts food that otherwise would be used to produce more vigorous bulbs. An application of nitrogen at the rate of one-half pound per 100 square feet (.2 kg per 9 square meters) should be applied before the foliage withers. After the foliage has withered completely, the bulb will be dormant.

The bed usually is not dug up after the first year; however, after the second year, the developing bulbs begin to crowd and much of their original vigor is lost. When this occurs, the gardener may wait until late August and dig the bulbs and allow them to dry for a few days in a shady, cool spot. Then they should be divided and only the best ones replanted, preferably in a new location. If none of the bulbs are as large as the original bulbs, better results will be obtained if new bulbs are purchased. This is especially true of hyacinths, which are seldom worth transplanting.

When the bulb bed occupies a prominent place in the yard, many growers will remove the bulbs after flowering, replacing them with annuals for the summer months. It also is possible to interplant annuals among the withering bulbs tops; however, the bulb tops should not be removed until they are dead. The annuals will grow faster and fill in the bed sooner if 5 pounds (2.3 kg) of 5-10-5 fertilizer per 100 square feet (9 square meters) are worked into the soil rather than the half-pound (.2 kg) of N as suggested previously.

References

Anonymous, *Spring Flowering Bulbs,* H & G Bulletin #136, USDA 1968.

Scott, Kenneth R., *Flowering Bulbs & Corms,* Extension Leaflet #255, University of Arkansas, 1976.

Seymour, E. L. D., *The Wise Garden Encyclopedia,* William H. Wise & Co., Inc., New York, 1963.