



# Garden Notes

**GN 168**

## PLANNING AND PLANTING A BULB GARDEN

Bulbs offer the home gardener an opportunity for colorful and varied blooms. Requiring less effort than an annual or perennial flower garden, bulbs are a low-maintenance addition to any landscape. Plus, 'forced' bulbs provide us the chance to enjoy beautiful flowers indoors.

Bulbs are plants that store their energy for a season of growth in an underground storage organ. A bulb is made up of fleshy scales with a small basal plate and a shoot that emerges from the center of the bulb. The common edible onion is an example. The fleshy scales provide food for the plant to grow. In the nursery trade the word bulb is used to reference bulbs, corms, and tubers that can live outside the soil for 2 months. Home gardeners also refer to bulbs, tubers and corms as bulbs because they all have underground storage organs for plant growth.

Most bulbs come from areas with Mediterranean climates, like that of Sacramento, with dry summers. Many bulbs rot if watered too much during the summer. A large variety of bulbs do well in the Sacramento climate and with careful planning can provide year-round color.

### SELECTING

When selecting bulbs, avoid those that show any sign of rot, fungus, or mildew. They should be firm, and not slimy. Unusually light bulbs are often rotted. Refer to the USDA Hardiness Zone for each variety. The Sacramento area is in Zones 9 and 10.

### STORING AND CHILLING REQUIREMENTS

Many bulbs need a certain number of hours of winter chill to bloom. Tulips and hyacinths benefit from 6 weeks in the refrigerator before planting. Tender ones, such as gladiolus, need to be lifted in the winter so they don't freeze. Container growing is an effective strategy to manage bulbs that are not hardy, or need dry dormant periods. However, for bulbs that need winter chill, containers and raised beds are not effective. Store bulbs in a cool, dark and dry place until you're ready to plant. If placed in the refrigerator, place in well-labeled paper bags. Do not use plastic bags, store near apples or place in the freezer.

Tests done in Northern California by Sunset Magazine with UC Master Gardeners showed some surprising results. Pre-chilled bulbs produced normal blooms and very little difference in height. Chilled tulips bloomed only 2 weeks earlier and had only slightly taller stems.

### PLANTING

Plant bulbs shortly after purchasing so they don't dry out. Plant in individual holes, or for mass effect plant in an excavated bed. Refer to the planting instructions specific to each bulb variety to determine planting times, spacing and depths. If instructions are not included with the bulb purchase refer to the resources listed at the end of this publication.

When selecting the location, consider a microclimate close to the natural environment for the bulb. As a general rule, plant spring bulbs in full sun to partial shade, such as under a deciduous tree or shrub. For bulbs that are not cold hardy, plant them in protected sites, mulch heavily over the winter or plant deeply. For bulbs that need a dry dormant period, lift and store after the foliage fades to prevent rot, or grow as annuals.

Well-draining soil, rich in organic matter (compost), is ideal for most species. If the soil is heavy, compacted and/or drains poorly, dig in organic matter into the top 12 to 18 inches. Raised beds and containers are alternatives to poorly drained soil.

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Plant bulbs with the pointed end up and root scars down. Planting depths vary, but generally place bulbs three times as deep as the bottom diameter of the bulb. In heavy clayish soils, plant a little shallower. If in doubt about the top versus the bottom, place the bulb on its side. Do not add fertilizer to the planting hole. Top-dress the area with a balanced fertilizer (containing N, P, and K). New bone meal formulations contain less nitrogen and micronutrients and more phosphorous, requiring a supplement of fertilizer containing nitrogen and potassium. Further fertilizer is unnecessary. Water thoroughly after planting. If necessary, supplement winter rains with irrigation. Spring planted bulbs require irrigation until foliage dies back.

### **POST BLOOM**

After the plant blooms, deadhead just below the flower, leaving the stem and leaves to channel energy into replenishing the bulb for the next year. As the plant finishes its life cycle the leaves yellow and die back. With some bulbs this can be unattractive, but a necessary part of the life cycle. Remove leaves when they are completely yellow. Avoid tying or braiding declining leaves as this step eliminates or reduces the ability for the manufactured food to replenish the bulb. Spring annuals planted alongside the bulbs will disguise the fading foliage. If the bulb is grown as an annual pull it up after blooming.

### **PROPAGATION**

Over time, bulbs multiply and can become crowded resulting in a reduced number of flowers. Division is an easy propagation technique. Dig the clumps as the leaves turn yellow, digging far enough from the clump to avoid slicing the bulbs. There will be bulbs and smaller offsets, which should be separated and cleaned of dirt. Discard unhealthy bulbs or offsets. The bulbs or offsets can be replanted immediately or stored in a dark, dry, and well-ventilated spot. Spread them out to encourage air circulation and prevent mold.

### **PEST MANAGEMENT**

Very few pests disturb bulbs. Snails may nibble foliage and blossoms. Manage snails by trapping, handpicking, or using baits. Cover the planting site with a ¼ to ½ inch screen or hardware cloth to discourage squirrels, voles and gophers. Bulbs can also be planted in cages made of hardware cloth.

### **FORCING BULBS**

Hardy spring bulbs can be forced to produce winter blooms. In Sacramento's climate, use a container without drainage holes, and place pebbles, glass chips or perlite in the bottom of the container. Space bulbs close together, and add water until it reaches the bottom of the bulbs. A small piece of aquarium charcoal helps to keep the water fresh. Place in a dark, cool location and replace water as needed. When the roots have developed, move the container to a sunny location and wait for the blooms. Bulbs that have been forced are not renewable like those planted in soil and should be discarded after flowering.

### **RESOURCES**

UCCE Sacramento County Master Gardeners: 916-876-5338

UC Integrated Pest Management website: [ipm.ucanr.edu](http://ipm.ucanr.edu)

*Taylor's Guide to Bulbs*, Barbara Ellis, editor, 2001, Houghton Mifflin Co, NY

*All About Bulbs*, revised by Marty Ross, Meredith Books, Des Moines, Iowa, 1999

*The Sunset Western Garden Book*, Sunset Publishing, 2012