



**Theodore Payne Foundation for Wild Flowers and Native Plants**  
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## **GROWING CALIFORNIA NATIVE BULBS**

Several hundred species of bulbs and corms are native to California. Here are some tips on caring for them in the garden and in pots.

### **WHERE TO PLANT**

#### **In the Ground**

Try to plant native bulbs in sites and with other plants that most closely match their natural ecology. Some bulb species are typically associated with low growing shrubs, while others are found among grasses. Species found in moist meadows will be successful among sedges and grasses that can take periodic summer water. Note that several species can do well in many garden situations.

#### **Container Culture**

Plant in pots to provide fast drainage. Use a soil mix such as a cactus mix with well-composted organic matter. Potted bulbs should be moved into a cool, shady spot once their foliage has turned brown or flowering has finished to dry out. Storage in a dark, dry, cool part of your garage is ideal during dormancy. You can pull them out of storage in late September or early October when they begin to grow again.

### **HOW TO PLANT**

#### **Planting Depth**

Bulbs should be planted at a depth about two to three times the height of the bulb. Since most of our native bulbs are about an inch high, the top of the bulb should be planted about two or three inches below the soil line. A few species, like *Brodiaea californica*, all *Chlorogalum* species, *Erythronium*, and all *Lilium* species are larger than most and should be planted deeper. But the rule still applies for these larger bulbs, and you should plant them about two times as deep as their height.

Many bulbs have the means to position themselves lower in the soil. Contractile roots pull some bulbs slowly deeper; other species produce droppers (root-like structures that create new bulbs at lower depths). If you are concerned about planting depth, plant them a little more shallow than deep. The bulb or corm will position itself as needed.

### **OTHER HORTICULTURAL CONSIDERATIONS**

Whether you plant in the ground or in pots, it is important to understand these key horticultural issues: soil, water and supplemental nutrients.

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## Soil and Soil Amendments

Make sure you know how well your soil drains in the location where you'll plant them. It is necessary to know if you are planting in clay, loam, or sand. It is not necessary (or even advisable) to amend your soils with compost or other additives; don't try to change the structure of your soil.

If your soil is mostly clay, select bulbs that are tolerant of that soil type or plant your bulbs in pots. Bulbs will perform well in soils that are sandy, rocky, or loamy, but the locations must be completely dry during the summer.

When planting in pots, use a commercial cactus potting mix, which has more sand and other materials that promote faster drainage. It is essential that organic material in the potting mix is well composted.

## Water

Most native bulbs require good drainage, they don't like to sit in moist soil. Many native bulbs are found on slopes, where water flows off quickly.

Know your soil and water appropriately. Sandy soils will dry quickly, while clay soils retain water and dry slowly. Adjust water accordingly. The critical balance is to ensure that the bulbs receive regular moisture during their growing season, but don't sit in moist soils.

Follow natural rain cycles to guide your watering regime. In particular, water well and often from October through early spring. Cut back on watering potted bulbs when a winter heat wave strikes.

As Summer approaches, stop all watering when either:

- the foliage has nearly completely browned or
- the flowers have nearly completely finished blooming.

## Fertilizer

Fertilize with caution. Supplemental nutrients aren't necessary at all for bulbs planted in the ground. Since most of our bulbs are accustomed to growing in lean soils, added fertilizer can result in excessive growth that may be harmful to the plant. For potted bulbs, use an organic balanced (such as a 5-5-5), applied twice during the growing season at half the strength recommended on the package. It's best to water the containers first and add fertilizer at least one hour later, on the same day.

## Pests

The two most troublesome pests you'll encounter are squirrels and slugs/snails. Squirrels are particularly fond of *Calochortus* bulbs and may go after *Brodiaea* and *Allium*, as well. Slugs and snails will consume soft bulbs, including *Lilium* and *Erythronium*. Bulbs are particularly vulnerable when grown in pots. Make sure you control mealybugs (that may lodge in leaf joints and bases) and ants, which can transmit viral diseases among plants).

## TO LEARN MORE

Check the Theodore Payne Native Plant Wiki at [theodorepayne.org](http://theodorepayne.org) for details on each species and cultivar.