## Waking Up Your Bulbs, Corms and Tubers

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Feb. 17, 2016

A tender bulb is a bulb that cannot live through the winter in the ground. It must be lifted and brought in to be stored in the house through the winter, or simply planted as an annual and left to die in the fall.

We live in a part of the country with a short growing season, long summer days, and early frosts. Most tender bulbs require a longer growing season than we have. If we wait until the soil warms up to the temperature required by most tender bulbs, they would never bloom before September’s frosts.

A green house /hot house would be very nice, but is not necessary. All we need are a few pots, some sterile soil, some vermiculite, a warm, sunny window or some grow lights.

A true bulb, such as a tulip, or lily, is made up of overlapping scales that stores food for the shoot within it. Lumped together with true bulbs are corms, tubers, rhizomes, etc. that we commonly call bulbs. For instance, a glad grows from a corm, a dahlia is a tuber, an iris grows from a rhizome.

## Tuber: A swollen, fleshy, usually underground stem of a plant, such as the potato or dahlia, bearing buds or eyes from which new plant shoots arise.

## Rhizome:A horizontal, usually underground stem that often sends out roots and shoots from its nodes. Also called *rootstalk*, *rootstock*

**Corm:** A fleshy underground stem that is similar to a bulb but stores its food as stem tissue and has fewer and thinner leaf-like scales.

**Bulb:** A short, modified, underground stem surrounded by usually fleshy modified leaves that contain stored food for the shoot within.

## *General Tips*

## *Select bulbs, etc. that are firm to the touch.*

## *Try to avoid any with blemishes, that are soft or deformed. In general, the bigger, the better. If there is a growing tip, or an ‘eye’, make sure it is not damaged.*

## *For most bulbs, starting about 6 weeks in advance is enough time.*

## *Choose clean containers at least twice as deep as the height of the bulbs, with a drainage hole. Good drainage is essential.*

1. *Use a sterile potting soil or a mix with a drainage material like sand or perlite.*
2. *Place bulbs in the potting mix, following planting directions that come with the particular bulbs. Different types of summer bulbs require very different planting methods. Some are planted barely covered with soil, others deep, others laid in horizontally, some concave side up.*

## *Water thoroughly and move to a warm space. At this point, most don’t require light, but most do well with gentle bottom heat. A warm, moist (not wet) environment is very helpful. Using a heating mat can be helpful.*

1. *When growth begins, move to a sunny window or under artificial lights. Good light is essential to avoid leggy growth.*

## *Keep soil moist, but not wet.*

## *Plant outside when soil has warmed up to about 15 degrees. (usually when nighttime temps have been at 15 degrees for a week or more.)*

## *If you intend to keep the bulbs in containers and have the space, starting them in the container they are to stay in is better, as they will not require transplanting.*

## *On warm days, the containers can be placed out in a sunny, protected spot, slowly increasing the amount of time in the sun to harden them off and avoid sun scald.*

## *After enjoying a long season with your beautiful plants, either wait until the foliage have been killed by frost, then dig up the entire root system, shake off the extra soil, and store in dry peat moss, vermiculite or wood shavings in an open container in a cool, dry place, or bring in the whole container and bring in the entire pot, allow to dry out and store. Every two weeks you can fertilize with a balanced fertilizer, such as 20-20-20, at half strength once they have begun to grow well.*

**Tuberous Begonias:**

* Begonias are the slowest growers, and should be started indoors in early April.
* The top of the tuber is the side with the depression in it. Make sure when watering that you don’t water directly into the depression or it will rot.
* When starting them, cover them shallowly and keep slightly moist until you have shoots a few inches tall.
* Once you have shoots, they can be transplanted directly into eight inch pots.
* When transplanting, plant them an inch or so deeper than you started them at.  This will cause more roots to form above the tuber and make for a sturdier plant.
* Some growers say you shouldn’t start a begonia tuber until you can see a sprout forming, while others say to go ahead, but to not cover them with too much soil, and to not keep them too damp.
* I also don't start them downstairs under my lights - not enough air circulation and too much chance of mold. I wait until I open up the greenhouse in the first week of April, pot them up and put at the shady end of my greenhouse. I water when dry and feed weekly. Then harden off in the shade to plant out in the middle of June.
* When planting outside, find a shady spot (ie. not full sun) and don't bury much deeper (about an inch) than the pot level. Water in with fertilizer and stake if they have become tall in their pots.
* For storage, I dig up in the fall when the frost has hit, remove a good deal of the soil around the ball, dry for a day or 2 in the sun, then place in wire baskets (old bicycle baskets I got at yard sales) and store in a cold spot in the dark in the basement (cold room would be good!)
* I find them really easy to work with and, with care, they last for years. I have had some of my begonias for over 20 years.

**Dahlias**

* Dahlias aren’t quite as slow as begonias. Four to six weeks will produce some good-sized plants that will be off to a good start in the garden.
* Dahlias can stretch (become lanky and weak) if indoor temperatures are too warm, so don’t start them late and try to overcompensate with extra heat. A dahlia kept at 18C will grow more slowly than one kept at 24C, but it will be much tougher and better adapted to the outdoors.
* I divide my clumps of tubers carefully, by gently pulling them apart, or by dividing with a sharp, sterile knife. A dahlia tuber must have part of the stem to sprout an "eye"
* Allow the cut tuber to scab over before planting, to help avoid rot. Place the tubers with the ‘eyes’ up, under several inches of soil in a large pot or place several in a flat of vermiculite.
* In our area, dahlias should be in the ground by May 20.

**Gladioli**

* You can plant a group of glad corms in a large pot and simply move them onto your deck when it warms up enough to leave them outdoors.
* Plant the gladiolus bulb 4 to 6 inches deep, spacing them 2 to 4 inches apart in the pot.
* Plant large, or jumbo, bulbs deeper and farther apart and plant the smaller bulbs at the shallower and closer measurements.
* Water the soil after planting. Add water until the excess moisture drains from the bottom of the pot.
* Place the pot in a warm window that receives at least eight hours of sunlight a day. A south or east-facing window is preferred.
* Water when the soil surface begins to feel dry. Add water until the excess drains to ensure the soil is evenly moist, then empty the pot's drip tray so that the plant does not sit in standing water.
* I usually start glads inside in wooden flats or trays, in vermiculite (the roots are easier to separate in vermiculite when it’s time to plant out).
* Gladioli are speedy growers and can be planted in spring without being started indoors, **if** you can get into your garden early and the soil is able to warm up quickly, as in a raised bed. (Same as dahlias, planted by May 20).
* It is important to try to buy glads that are early season bloomers. Anything later than midseason bloomers will not bloom for us unless started indoors. If you purchase a mixed lot in a store, assume they are mid-late season and start them early.