

# How do I store bulbs for winter?

There are many tender perennial plants with corms, bulbs, tubers, and rhizomes that can be stored dormant over the winter and re-planted in spring, including dahlias, cannas, tuberous begonias, caladiums, gladiolas and calla lilies. For the sake of simplicity, we'll refer to them all as bulbs. In order to store these bulbs successfully, several steps are needed.



## 1 Digging

- **Caladium** bulbs are very tender, and should be dug before the first frost in the fall.
- Most other bulbs should be dug after a light frost damages the tops, but before a hard frost kills the roots.
- **Gladiolas** can be dug after the foliage has turned yellow, or after the first frost, whichever comes first.
- When digging up your bulbs, be careful to avoid damaging them. Damaged bulbs are more susceptible to rotting in storage.
- If the plants are large and hard to handle, cut the tops down to 6 to 12 inches.

The average first (light) frost in Middleton/Madison is September 28th. The first hard frost usually occurs between October 4th and 10th.

## 2 Cleaning

- Some people choose to simply remove excess soil with a soft brush. However, cleaning with a soft spray of water can remove unwanted bacteria, fungal spores, and insects.
- Inspect the bulbs for signs of rot and insects. Cut away any bad parts and dust open cuts with an anti-fungal bulb dust.

## 3 Drying

- This process is called “curing”. Curing removes excess moisture from the bulb, allows any damaged or cut spots to callus over, and “thickens” the skins.

- Lay the bulbs out with the tops still attached in an open, dry spot out of the direct sun.
- Allow them to dry until the tops have died back all the way. This will take anywhere from a couple of days to several weeks, depending on the type of plant and size of the bulb.
- After the tops dry, pull them off... most will come off easily. If not, cut the stems back to the top of the bulb.

## 4 Dusting

- Not everyone does this, but it really helps to decrease outbreaks of fungal rot during storage. Sulphur or a labeled bulb dust is used to lightly coat each bulb.

## 5 Bagging

This is where methods vary. Some people use paper bags, others use plastic produce storage bags (the ones with the holes found by the plastic bags in the grocery store), and others use nylons or cardboard boxes. And then there's packing mediums: vermiculite, perlite, wood shavings, peat moss, shredded newsprint, potting soil, or nothing at all.

- The bulbs should not touch each other; this will prevent rot from spreading quickly.
- Place your bulbs individually into paper bags, or together but separated by packing material. The bulbs should be able to breathe, so avoid solid plastic bags and boxes.
- Also, don't forget to label your bulbs! Write on the bags, or on the bulbs themselves. This will avoid confusion in the spring.

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## 6 Storing

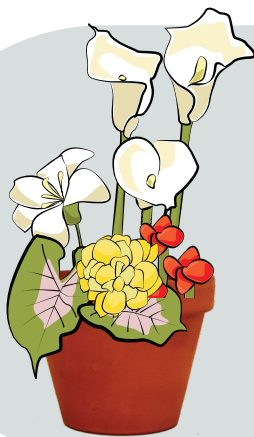
People store their bulbs in a variety of places. Unheated bedrooms, basements, attics, heated garages, and crawl spaces are all often used. Some people use spare refrigerators, but be careful: you can't store the bulbs with produce because fruits and vegetables produce ethylene gas that will kill off the buds.

- The main concern with where you store your bulbs is temperature.
- **Dahlias and Gladiolas** do best when stored between 35 and 45° F.
- **Cannas and Elephant Ears** should be stored between 45 and 55° .
- **Tuberous Begonias and Callas** can be stored slightly warmer, between 45 and 65° .
- **Caladium** bulbs need to be stored warm at between 50 and 70° , so they can stay upstairs in a closet somewhere.
- The other thing to consider when storing bulbs is humidity. If stored in an area with low humidity, bulbs are more prone to drying out... consider using plastic to help keep some humidity in. If in an area with high humidity, air flow will be important to help prevent rot.

## 7 Monitoring

- Check your bulbs monthly for signs of rot or desiccation.
- If the bulbs are shriveling from not enough moisture, open up the bag and spritz with a spray bottle. Then let them dry before putting back in storage.
- If you find a bulb that is rotting, get rid of it! If it was stored in the same bag as other bulbs, remove the healthy bulbs, allow them to dry for a couple of days, dust them again, and put them back into a fresh bag and storage medium. This should prevent the problem from spreading.
- It is very normal to lose a few bulbs during storage. Even experienced people often lose 10% or more over the winter.

**8 After getting your bulbs through the winter successfully, all you need to do is remember to plant!**



### Potted Bulb

Many people who keep their bulbs in pots all summer get away with a much easier storage method:

- 1 Allow plant to dry out in fall (stop watering).
- 2 Remove dead foliage.
- 3 Store bulb, pot and all, in a dark, cool place