



Simple Steps to 'Force Bulbs'

The fragrance, the color, and the special magic of spring flowers can brighten your home during the winter. With a little planning and preparation you can have blooming flowers from December through April. A pot of flowering bulbs makes a wonderful gift for a birthday or other special occasion.

Although most bulbs can be forced to bloom early, some bulb varieties are easier to force than others. Paperwhite narcissus do not need any special cold treatments, and they can be grown with or without soil: they can be grown in just gravel and water. Paperwhite narcissus will bloom in about four to eight weeks after they are planted. Hyacinths can also be forced to grow and bloom with or without soil, however, hyacinths must be chilled eight to twelve weeks to bloom. Following these simple steps will produce amazing results.



Steps To 'Force' a Bulb

Bulb Forcing is a process which helps bulbs bloom sooner than normal. 'Forcing' consists of four major stages:

1. **Planting Stage**
2. **Root Development Stage**
3. **Leaf Growth Stage**
4. **Blooming Stage.**

Always choose the largest, '**Top Size**' bulbs of the variety of flowers you choose to force.

Planting Stage

Any container that will hold soil can be used for forcing bulbs. The container should be at least twice as deep as the diameter of the bulb. A deep pot is the best, so roots have room to grow, but short '*Azalea Pots*' are adequate. Black nursery pots make good forcing containers, just set them in a decorative pot to make them look pretty while inside the house.



Always use good potting soil in your containers. Do not use plain garden soil, even if your soil grows excellent flowers outside in the garden. **Black Gold All-Purpose Potting Soil** is one of the best mixes we have found for forcing bulbs. This soil holds moisture well yet it provides good drainage. Good drainage is very important to force bulbs properly.



Fill your container with potting soil so the tips of the bulbs will be one inch below the top of the pot. Place your bulbs in the pot as close as possible without letting the bulbs touch each other. Place the flat side of tulip bulbs towards the outside of the pot. (Read the section on **Layering Bulbs** later in this handout to learn how to grow several different types of bulbs in the same pot).

Do not just put one or two bulbs in your pot; use five or seven bulbs for the best show of color. Fill the pot with soil and water it thoroughly.



Make sure water soaks into the soil and you do not let the soil dry out while the bulbs are rooting, growing, and blooming.



Root Development

After planting and watering your bulbs, the pots need to be kept cool, moist, and dark for eight to fourteen weeks. Keep your pots between 35 to 45 degrees during this period. If you keep the soil too warm the bulbs will start to grow leaves before the roots have developed, and the blossoms will not develop properly. Many bulbs need cold temperatures to make physical changes within the bulb so they will bloom in the spring. The bulbs may not bloom properly, or they may not bloom at all, if they haven't been kept cold long enough.



Gardeners in the Southern U.S. cannot just plant and grow tulip bulbs like we do in Utah. They must refrigerate their bulbs before they plant them. They must also dig the bulbs up each summer to refrigerate them before replanting them in the fall. The weather in the Southern United States is too hot to grow tulips and daffodils without this extra care. Gardeners in the south are '**forcing**' their bulbs to bloom every year.

Cold sheds, root cellars, and refrigerators work well

Most Important

1. Water regularly from the beginning.
2. Containers must be well drained.
3. Never try to force bulbs to bloom into flower before the roots are fully developed.

to force bulbs. **Do not force bulbs in the same room, or in the same refrigerator, that you store fruit.** Ripening fruit produces ethylene gas which can stunt flower development.



Basements and garages are not always cold enough to force bulbs. If you do not have a good cold area, dig a trench next to your house and bury the pots in the soil. Cover the pots with mulch so they are easy to dig up and bring inside during the winter.

After the bulbs have been chilled for eight to fourteen weeks, you may dig up your pots and bring them into the house. For an extended blooming season inside the house, bring in a pot of bulbs every two or three weeks instead of bringing them inside all at once.



Leaf Growth

When you bring bulbs in from cold storage let them warm up gradually. Do not touch any frozen leaves or damage may occur. Keep your pots in a sunny room, about 60 degrees, for three to four weeks, or until they start to bloom.

The warmer you keep them the faster they will grow and bloom. They faster the leaves grow the weaker the stems may be. You may need to put a stake in the pot to support the leaves.



The cooler you keep them during the leaf growth stage the stronger the stems will be, however they may take a little longer to start blooming.

Your bulbs need consistent water during this stage of growth. Do not let your bulbs dry out. The longer the pots are in the house the more water they will need.

Bulbs do not need fertilizer; they have stored all the energy they need to bloom within the bulb. However, if you plan to keep the bulbs for more than one season, and plant outside, you will need to fertilize them regularly from the time they start to grow until the leaves turn yellow and die. Either fertilize them regularly with **Fertilome All-Purpose Plant Food** or use **Osmocote Time Release Fertilizer**.

Blooming Stage

When the flower buds begin to form they have reached the blooming stage. Give your bulbs plenty of water during this stage. Don't let the soil dry out during this stage or the blossoms will die prematurely. Do not keep the soil soggy. Good drainage is the main reason you need good potting soil.



The cooler you keep your bulbs during this stage of growth the longer the blossoms will last. If you have your bulbs in a hot area of the house try moving them into a cold room during the night; to make the blossoms last longer. Bulbs will vary in the length of their bloom. Some bulbs may bloom two weeks while others may bloom



Step By Step

1. Select a pot that is big enough so you can plant several flower bulbs in it.



2. Partially fill the pot with potting soil and compact it. Set the bulbs on top of the soil so the bulbs don't touch each other. Turn tulip bulbs so the flat side faces the pot.



3. Add potting soil to completely cover the bulbs. Water thoroughly to encourage root development.



4. Place the bulb in a cool, dark place for eight to fourteen weeks.

5. After the waiting period move the container inside the house to watch it bloom. Keep the soil moist during this period.



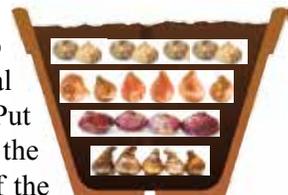
four weeks. Remove all the faded flowers so you can enjoy the remaining blossoms in the pot.

After they finish blooming most forced bulbs should be discarded or planted in a back garden. Forced bulbs usually will not bloom for a year or two because they spent all their energy producing flowers and did not store nutrients (unless you fertilized them regularly during their growth period). Paperwhite narcissus will not usually survive outside, so just discard them rather than trying to save them to plant outside.



Bulb Layering

You do not need to be limited to planting just one type of bulb in a container. Try planting several different types of bulbs in a pot. Put the largest bulbs in the bottom of the pot. Put a layer of soil on top of the bulbs and then put another layer of bulbs. Try not to place bulbs right above the lower bulbs.



You can put several layers of bulbs in a pot using this procedure. The more layers you want, the larger container must be. After you finish planting your top layer of bulbs, try planting pansies on the top of the soil. Use your imagination and try several different flower combinations.



Suggested Layers for Bulbs

Bottom layer: Long Stem Tulips and Daffodils.
Middle Layer: Short Stem Tulips, Daffodils, Hyacinths
Top Layer: Miniature Daffodil, Crocus, Scilla, Chionodoxa, Galanthus, Miniature Iris, Anemone, Puschkinia, Muscari.