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Forcing bulbs

Beautiful bowls of blooming bulbs make great Christmas gifts and decorations for your table. Tulip, daffodil (narcissus), hyacinth, crocus, scilla, grape hyacinth, snowdrop and lily of the valley can be forced to bloom in the Winter or early Spring by mimicking Winter in your home. The process should be started 6-13 weeks before the blooms are needed. Much of this advice was gathered from the University of Minnesota Extension service. Good charts of varieties of bulbs to force are available at the University of Missouri Extension service at <http://extension.missouri.edu/p/G6550>.

Preparation

Clean and sterilize shallow, decorative containers. Use a light, well-draining potting soil and plant bulbs loosely in soil about 1-2" deep with the noses exposed (much more shallowly than outdoor planting) in containers. Bulbs are also planted much more densely than outdoors, using around 6 tulip bulbs, 3 hyacinths, 6 daffodils or 15 crocuses per a 6" pot. Place the flat side of the bulb against the side of the container so the largest leaf, which emerges here, will grow over the edge and make a prettier pot.

Label the containers, water the bulbs thoroughly. Keep the soil moist, but not soggy and never dry. Containers won't require much watering.

The forcing process

Bulbs must get cold for the right period of time to bloom. Winter takes care of this outdoors. To imitate this process indoors, set containers of planted bulbs at 35–48°F (40°F is perfect) for a minimum of 6–13 weeks (paperwhites are the fastest) to get the chill they need. The refrigerator is perfect (cover containers with plastic and punch a few breathing holes in it). Do not allow the bulbs to freeze; keep an eye on any containers in a cold frame, an unheated attic or cellar.

Mark your calendar and watch for the signs of sprouts, which will need light to thrive.

When bringing sprouted containers into the home, place pots in a sunny location at about 50–60°F for the first week to permit shoots and leaves to expand. When flower buds are almost fully developed, move to warmer locations, but avoid direct sunlight.

Hyacinth flower heads may "stick" in the clasp of leaves and fail to produce a long stem. Placing these plants in the dark for a few days or place a paper cone over the plants to draw out the flower from the bulbs. Warmer temperatures will result in rapid growth. Once the bulbs are blooming, move the pots to

a cool location each night to prolong the life of the flowers (again the refrigerator is perfect if you have the space).

Forcing in water

Hyacinth, crocus, and narcissus can be forced in water. Special hourglass-shaped hyacinth glasses are made for individual bulbs, with the bulb placed in the upper portion and the lower filled with water to touch the bulb. Place the vase in a cool, dark room (preferably under 50° F) for 4-8 weeks until the root system develops and the top elongates. At this point the vase should be placed in a bright window, where the plant soon will blossom.

Bunch-flowering narcissus, like paperwhites, can be grown in shallow pans of water filled with crushed rocks or pebbles. The bulbs should be secured in the pebbles deeply enough so that the basal plate is in contact with the water. Keep them in a cool, dark room for several weeks to ensure root growth, then place in a sunny location. Each bulb will send up several flower stems bearing many tiny blossoms.

Discard tulip, narcissus, crocus, and hyacinth bulbs after forcing. They will be spent and unlikely ever to flower satisfactorily again.

Forcing Amaryllis

Amaryllis is a tender bulb that, when new, will bloom without special treatment. It should be potted up in light, rich soil in a container that is only 1–2" larger in diameter than the bulb – often these come with the bulb. The upper half of the bulb should be exposed above the soil. After watering thoroughly, allow the soil to become quite dry. Water more frequently after the flower stalk appears, but never water when the soil is already moist. Put the plant in a warm, sunny spot until the flower buds show color, then move it out of direct sunlight.

Large blooms on tall stems may require staking.

After blooming, cut the flowers off to prevent seeds forming and treat the foliage like a sun-loving houseplant, placing it in the brightest possible indoor location until it is warm enough to sink the pot in soil outdoors where it will receive dappled sunlight at first. Gradually move it to a brighter location where eventually it has full sun for at least 5-6 hours daily. Fertilize with a balanced houseplant food at regular intervals to build up the nutrients needed for the next bloom.

Bring amaryllis indoors before the first frost in the Autumn to rest in a dark place for around 8 weeks, withholding all water and allowing the leaves to dry out. New growth may appear spontaneously. If necessary, repot in a slightly larger container. If the pot is still large enough, remove the upper 2" of soil and topdress with fresh potting soil. This completes the cycle, which can be repeated for years.

Amaryllis also can be kept growing actively year-round without the traditional rest and subsequent forcing. When handled this way, however, the bulbs probably will not bloom until Spring. They still require annual repotting or topdressing, along with adequate light and fertilizer, to ensure repeated blooms.

Often small plantlets will develop beside a well-grown amaryllis. These may be separated gently from the large bulb and repotted, or they may be left attached and allowed to grow to full size along with the original bulb, eventually resulting in a large pot containing several amaryllis, all blooming at once.

Just too leggy

If your forced bulbs are too tall and leggy, as they often are, try alcohol. According to research done by the Flower Bulb Research Program at Cornell University, paperwhites grown in a dilute solution of alcohol are stunted by up to ½ their normal height, but the flowers remain normal size and last just as long.

The trick is to pot up paperwhite bulbs as usual, but replace water with a solution of less than 10% alcohol (any stronger and the plants will be badly damaged) as soon as the roots show and the green shoot is 1-2" tall.

The simplest way to make a dilute alcohol solution is to take whatever hard alcohol will be used (vodka, tequila, whiskey or rubbing alcohol, but don't use beer or wine as these have too high in sugar) and find what proof it is. Since proof is not the same as percentage – 86 proof drink is 43% alcohol – it will need to be diluted with water to make the proper strength solution. The following chart will help get the solution right.

Converting alcohol to dilute solution for paperwhites

Proof	Per cent alcohol	Parts alcohol	Parts water
20 proof	10% alcohol	1	1
30 proof	15% alcohol	1	2
40 proof	20% alcohol	1	3
50 proof	25% alcohol	1	4
60 proof	30% alcohol	1	5
70 proof	35% alcohol	1	6
80 proof	40% alcohol	1	7

So using 80 proof vodka, take ¼ cup vodka and 1 ¾ cups water to get your paperwhite solution.