

Forcing Bulbs

Indoor forcing of winter-hardy bulbs (survive winter in the ground) is an easy way to bring flowers into your house while it's still winter outside.

SELECTION

Select varieties of bulbs that will force well. These include some Crocus, Narcissus (Daffodils), Tulips and Hyacinths; also Iris Danfordiae and Iris Reticulata. Buy the largest bulbs available.

PLANTING

Plant recommended number of bulbs in a clean 6" pot or bulb pan (see chart). Use fewer bulbs in a smaller pot; do not crowd. Plant in October or November, depending on date of desired blooming. Bulbs will bloom 3-4 weeks after a cooling period of 8 to 16 weeks depending on variety.

	No. bulbs in 6" Pot	No. weeks Cooling
Crocus	12-15	8
Iris	10-12	8
Muscari	10-12	8
Narcissus	6	12-14
Tulip*	6-8	13-16
Hyacinth	1 or 3	8

* Place flat side of tulips toward outside of pot for uniform appearance of leaves.

Uses light, well-drained, soil mixes that holds sufficient moisture, or make your own of: Equal parts light soil, peat, and sand. Soak clay pots overnight in water so they will not draw moisture from soil; not necessary with plastic pots.

Put soil in pot loosely. Space bulbs evenly on the soil surface. Tops should be even with the rim of the pot. Fill pot to rim with soil after bulbs are in place. **COMPRESS LIGHTLY.** The first watering will settle soil $\frac{1}{4}$ - $\frac{1}{2}$ inch below rim. Water until soil mix is completely moistened. Label variety of bulb and date planted. A good root system is essential for successful forcing: Check bulbs frequently to be sure soil is moist, with only a slight drying between watering.

Cooling

All hardy bulbs need a period of cooling between 35° and 40°F (see chart) 14-15 weeks gives the best results. (Longer cooling promotes longer stems). Store pots in an unheated basement, attic or old refrigerator. Note: Do not store bulbs in the same refrigerator as fruit. Fruit gives off ethylene gas which can kill flower buds. Air in a self-defrosting refrigerator is dry, so check soil moisture frequently.

If bulbs are cooled outdoors in a well drained, shaded, coldframe or in a trench, they must be insulated so that bulbs do not freeze and thaw each day as temps rise and fall.

A trench should be 6" wider and 3" deeper than the pots. Place the pots on 1" of gravel in the bottom of the trench and cover with a few inches of sand. Fill trench with soil. Mulch heavily with straw just before the first frost. Protect bulbs from mice with $\frac{1}{4}$ " hardware cloth. Water frequently if weather is dry.

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After the cooling period, move pots indoors to 60°F rooms with direct sunlight to trigger leaf and bud formation. Rotate pots regularly so all leaves receive light. When flower buds show color, remove pots from direct sunlight to prolong bloom. Be sure to keep soil moist. Bulbs will bloom 3-4 weeks after cooling period.

If specific flowering dates are desired, blooming and growth can be delayed by moving pots to a cool room (35°-40°F.) in low light (not darkness). When you want plant growth to continue, move the plants gradually to sun and warmth again. The fastest growth will occur at 60-62° F. and direct sun. 70° and higher causes plants to grow weak and will bloom out too quickly.

Forced bulbs cannot be forced next year. Many of them can be planted in your garden and will boom again next year if fertilized regularly. If this is desired, discard the flower stalks after the bloom has withered and treat the rest as a houseplant, feeding and watering as long as the leaves are green. Bulbs may be planted outdoors after frost threat is over to finish browning of the leaves.

Forcing Paperwhites

Tender Narcissus (Paperwhites), Grand Soleil d'Or and Nazareth) can be forced without a cooling period. Blooms start about 6 weeks after planting, lasting 2 weeks or more. Bulbs planted every 2 weeks from early October, provide a succession of blooms from Thanksgiving on.

1. Select enough large, firm bulbs to fill all your planting needs while they are plentiful in the fall. Store extras in a cool place, protected from mice.
2. Fill a decorative container half full of sand, gravel or pebbles. Add water to top of gravel surface. Set bulbs on surface and add enough gravel to cover lower half of bulb. Water should just touch bulbs.
3. Set container in cool (50°-60°). Place in low light until well rooted and shoots appear (usually 2-3 weeks).
4. At first sign of growth, move into direct sunlight. Maintain water level covering roots only throughout the growing period. Do not try to re-use bulbs. Forcing in water uses all the energy reserves and they cannot be reclaimed.

Other Forceable Bulbs

There are other tender bulbs that can be forced. These include Amaryllis, Calla Lily, Chinese Sacred Lily, Freesia, Lycoris, Persian Buttercup and Poppy Anemone.

2. Select large, firm bulbs.
3. Plant in good quality, light potting soil at a depth recommended in planting instructions.
4. Water and fertilize as you would a blooming houseplant. Most of these bulbs will do well under average home temperatures and sunlight. They will begin to grow soon after planting. To prolong blooms keep cool. (under 65°)
5. After flower withers, gently cut off flower stalk and maintain the rest like a foliage houseplant until the leaves turn yellow. This is 1-4 months, depending on variety
6. When the leaves are yellow, dry out the bulb. It may be left in the pot or removed if a larger pot will be necessary for the next bloom. Store bulb without water in a cool place for rest.
7. To begin new bloom cycle, repot if necessary, and begin to water and fertilize. Place the bulb in a sunny window and watch it grow.

With proper care, these bulbs will flower for several years and improve with age, amply repaying your effort.