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4-H INDOOR GARDENING PROJECT:

# Forcing Spring Flowering Bulbs

by Madge Balden Adams, special assignment writer for Horticulture

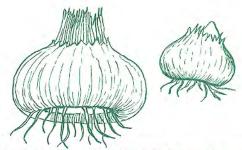
You can add a touch of spring to your house in the middle of the winter with this indoor gardening activity. Many spring bulbs such as daffodils, tulips, and hyacinths can be forced to bloom indoors during the winter. You will be able to watch as a small dry bulb, which may look like an onion, grows into a plant and then produces beautiful flowers. Bright blooms in red, blue, yellow, pink, or white can provide a cheerful spot of color on a gray winter's day. Many of the blossoms have a delightful scent which will add to your enjoyment. This might be a good idea for a Christmas or winter birthday gift.

## Facts about Bulbs

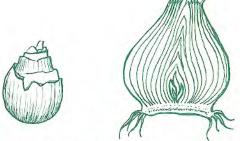
A bulb is a kind of stem which grows underground. Commonly the term bulb refers to true bulbs, corms, fleshy rhizomes, and tubers—all of which are underground stems with slightly different structures.

Some bulbs are called hardy bulbs because they need to be exposed to cool temperatures (40°) during the winter in order to grow and bloom in the spring. Other bulbs known as tender bulbs may be hurt or killed by low temperatures. They do not require any period of cold temperature to make them bloom. Some bulbs may bloom for many years; others only bloom once.

Bulbs which normally bloom outdoors can be forced to bloom indoors during winter months. Forcing means hurrying the plants into flowering by placing them in an environment in which they flower. Some bulbs need to be planted in the soil to bloom. Others will grow and flower in just water.



Corm: Solid mass of starchy material with bud at top. Examples: crocuses, gladiolia.



Bulb: Fleshy scales which protect bud at base. Examples: tulips, hyacinths, daffodils.



Rhizome: Fleshy horizontal stem with roots along lower side and buds on top side. Examples: Iris, lily-of-the-valley.





There are catalogs which show the wide variety of bulbs which are available. Some possible ones to order are:\*

P. de Jage & Sons, Inc., Dept. H-2734, South Hamilton, Mass. 01982.

John Scheepers, Inc., 163 Wall Street, New York, N. Y. 10005.

\*No endorsement is intended. Company names are included to simplify this project.

# Forcing Tender Bulbs

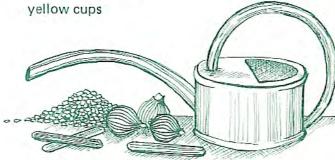
The best time to begin this project is during October or November.

Paper white or tender narcissus bulbs are very easy to bring into bloom. They can be grown in water. These bulbs do not withstand frost, do not grow outdoors, and are worthless after flowering. Three varieties are suggested:

#### Narcissus

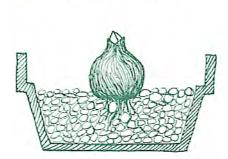
- Paper White-white flowers
- Chinese Sacred Lily-white flowers with yellow centers

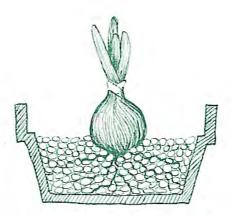
Grand Soleil d'Or-yellow flowers with orange,



### what you will need:

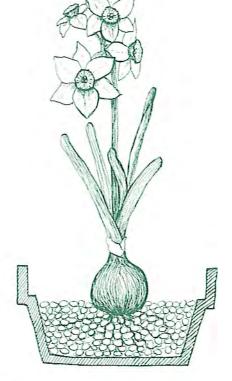
- 1-5 bulbs of selected variety—plump ones
- Shallow (2 to 3 inch) container large enough to hold bulbs without crowding—may be glass, glazed pottery, or metal (an aluminum pie or cake pan, small coffee cans or nut cans could be used)
- Gravel, pepples, or sand
- Water
- Labels—ice cream sticks







- Fill container with gravel or sand up to 1/2 inch from the top.
- Plant bulbs so that old roots are covered about 1/2 inch.
- Add water until it is even with the top of the gravel or sand.
- Write the variety name and date of planting on a label and place it near the back of the container.
- Keep water at that level until bulbs have bloomed.
- Put container in a sunny window.
- Bulbs will bloom in 3 to 5 weeks. You can plan when to plant your bulbs by when you would like them to bloom.



Narcissus bulbs bloom in 3 to 5 weeks in water.

# Forcing hardy Bulbs

Hyacinths, daffodils, or tulips will bloom indoors in January or February if potted in October and given proper cold treatment. The cold treatment permits root formation and initial bud formation on which forcing depends. There are several recommended varieties for forcing.

#### Hyacinths

Bismarch-light blue flowers La Victorie-rose flowers

#### **Daffodils**

Cheerfulness-white flowers King Alfred-yellow flowers

#### Tulips

Prince of Austria-orange, red flowers William Pitt-red flowers

## what you will need:

- Clay Flower pots—with drainage hole
- Plump bulbs of selected variety
- Soil—a ready prepared plant potting mixture or mix equal amounts of sand, good garden soil and organic matter
- Gravel
- Water
- Labels—ice cream sticks

BULB	NUMBER	POT DIAMETER
Hyacinth	3-4	5 inches
Daffodil	3-4	7-8 inches
Tulip	3	5 inches

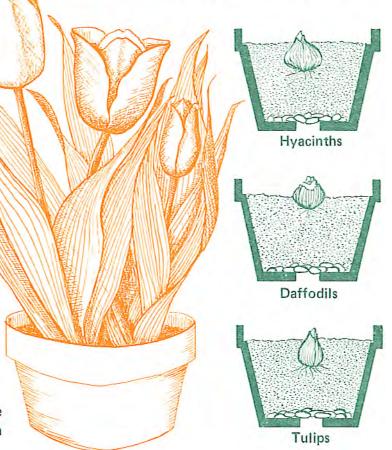
#### how to do it:

Put a small amount of gravel over the drainage hole of the pot.

Add soil to pot. Allow bulbs to rest with flat side toward bottom of pot as follows:

Hyacinths-bulb tops show just above the

Daffodils-bulb tops even with top of pot Tulips-bulb tops just above the soil line.



Add soil around or over the bulbs and press the soil until it is 1/2 inch (soil line) below the pot rim.

Water the soil until water begins to seep out of the drainage hole.

Write the flower name and date of planting on a label and stick it in the soil near the edge of the pot.

## Cold Storage

Bulbs should be kept at 35° to 40° for 2 months or until roots are produced. You can use one of several methods for cold treatment. Use the one easiest for you.

- Bulbs can be potted and stored in a cool, dark cellar. They should be watered occasionally so that they are always moist.
- The pots may be buried outdoors. Pots of bulbs should be set in a 12 inch deep trench and covered with at least 4 inches of leaves or straw. A few inches of soil should be placed on top of the straw.
- Bulbs may be placed in a wooden apple box outdoors. Place 2 to 3 inches of gravel in the bottom. Pack pots into the box and surround with moist leaves or peat moss. Place box in a cool spot outdoors. After the ground freezes, cover the box with straw, leaves or similar material.

# Forcing the Bloom

- 1 After 2 months, bring the bulbs indoors and put in a cool place (40°-50°) with a lot of
- 2 light—perhaps a sun porch.

  Keep out of direct sunlight for two weeks.
- When bulb tips have grown a few inches, place them in full sunlight where the temperature is 65° to 70°. Be sure the plant gets plenty of light but is not too hot.
- Keep the plant moist, but not soggy at all times.
- Bulbs can be planted outdoors after forced blooming where they will bloom again after two years. Or they can be thrown away.



# **Project Suggestions**

- \* Complete one of the suggested activities.
- ★ Team to identify 10 flowers that come from "bulbs" (for example: 4 varieties of tulips, 4 varieties of daffodils, 2 varieties of hyacinths or other combinations). Take photographs, cut pictures from a catalog or make drawings to show how each looks. Look around your neighborhood and try to identify the flowers you see.
- \* Complete the project record.
- \* Take pictures or make drawings of what you did in this project.
- Present a demonstration related to this project or exhibit the bulbs that you forced.

## Reference

U. S. Department of Agriculture Publication "Spring Flowering Bulbs". G-136.





#### IT'S WHERE YOU'RE AT



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