

FORCING PAPERWHITES IN A SOIL POT



SOURCES: Unknown. Houseplants - forced bulbs. / Photography by Jean Allsopop, Southern Living

CONSIDERATIONS: *(See checklists located toward the end of this lesson plan.)*

OBJECTIVES:

EDUCATIONAL

Participants will learn about the types of bulbs, tender and hardy bulbs, and how to force Paperwhites in a pot of soil.

ACTIVITY

Participants will force Paperwhites in a pot of soil.

TAKE AWAY

Participants will take their project activities back with them to their rooms, along with a handout, "Caring for your Potted Paperwhite." They will also bring along stakes to place in their pots as their Paperwhites grow.

SPECIFIC MATERIALS NEEDED FOR THIS PROJECT:

(Plan materials for 11-12 projects: 10 for patients, 1 for your demo, and if enough time 1 example)

- 11-12 (6") pots with drain holes. Pots should be twice as deep as bulbs.
- 3 - 5 Paperwhite bulbs per pot (36 or 60 for 12 pots; usually an odd number per pot)
- Potting soil (may be some in BRI cabinet)
- 11-12 coffee filters

(Materials continued on next page)

"FORCING PAPERWHITE IN A SOIL POT" LESSON PLAN

SPECIFIC MATERIALS NEEDED FOR THIS PROJECT *(Continued)*

- Stakes to keep grown Paperwhites from toppling over (e.g. dowels cut into about 10" lengths and painted green)
- *Sphagnum or green moss, optional*

ACTIVITIES TO DO BEFORE CLASS:

- 1) HINT: It is easier to buy Paperwhite bulbs in the fall than it is the winter. By December and January, there is very limited availability, and the quality of the bulbs are poor (e.g. rotting, dried out). If you need to store bulbs prior to your presentation, keep them at room temperature in a dark place for up to 4-6 weeks.
- 2) If there is enough lead time for the Paperwhite bulbs to grow and bloom by your presentation time, prepare a project example *(Recommended)*. Bulbs bloom 4-6 weeks after potting.
- 3) Decide what you're going to use for stakes. If using dowels, cut them into about 10" lengths and paint them green.
- 4) Rubber band the stakes in groups of either 3 or 5, depending upon whether each project uses 3 or 5 bulbs.
- 5) If necessary, make drainage holes in pots.

ACTIVITIES TO DO DURING CLASS:

1. Leader will give history and overview of the master gardener program.
2. Introductions: Leader will introduce self; other master gardeners will introduce selves. Participants will introduce selves.
3. Leader will give short presentation and demonstration about Paperwhites and the Paperwhite project.
4. Participants will line the bottoms of the pots with a coffee filter.
5. Participants will fill their pots half way with potting soil.
6. Participants will place 3-4 bulbs in their pot, pointed sides up.
7. Participants will fill their pots with more soil until top 1/3 of the bulb remains uncovered.
8. Participants will water well.
9. *Participants will place moss around bulbs to cover soil. (optional)*

Bulbs are nutritional units that sustain the plants when it is too cold or hot to flower. They help the plants survive by storing food during its dormant period (from late spring when the foliage dies to early fall when roots form for a new growth cycle), and it provides nutrients during the growing and flowering season. The term "bulb" has become a catchall word for the four major types of underground storage units. They all perform the same basic function.

TRUE BULB - Includes hyacinths, daffodils and tulips

TUBEROUS ROOT OR TUBER - Includes dahlias and some begonias. Fleshy-rooted daylilies are similar in appearance

CORM - Includes crocuses and gladioli

RHIZOME - Includes bearded iris and cannas.

“FORCING PAPERWHITE IN A SOIL POT” LESSON PLAN

Bulbs are further classified into hardy and tender bulbs. Hardy bulbs are cold-tolerant and can survive in the ground during the winter months. They need the cold, chilling period of winter to perform at their

best. In Southern climates where there is little or no frost, it's a good idea to dig these bulbs up every couple of years and store them in the refrigerator during the summer to simulate winter so they will keep blooming year after year.

Hardy bulbs are planted in the fall and are typically spring-flowering. Hardy bulb varieties include tulips, crocuses, daffodils, hyacinths, anemones and irises.

Most tender bulbs are called summer bulbs, but there are several varieties that bloom in the fall. Tender bulbs are cold-sensitive and may not be able to survive the winter in areas of the U.S. other than the Southern coastal regions, the Southwest or coastal areas of California. Unless you live in these climates, you will need to plant tender bulbs in the spring after the ground has warmed up and dig them up in late fall for winter storage. Some tender bulb varieties are elephant's ear, caladium, gladiolus, canna and dahlia.

When selecting bulbs, choose large firm ones - they will produce the most flowers. The larger a flower bulb is, the bigger the bloom will be. A nick or small blemish is of no great concern, but avoid soft or moldy bulbs. Also be sure they are free from visible disease and damage.

Paperwhites are the simplest bulbs to force into flower during the winter months, don't require refrigeration as many other forced bulbs do, and can be forced with soil or just water and pebbles. Daffodils, amaryllis, hyacinth, tulips and crocus are also popular bulbs to force, although not all of them are as easy to force as Paperwhites.

Paperwhites can be grown in temperatures from 40°F to 80°F, though the best is 60-65°F. The plant should be placed in full bright light so it doesn't have to stretch too far to get its energy. The bright light enables the plant to stay shorter and stockier. Too little light results in tall leggy stems that fall over.

The bulbs can be grown in any loose potting soil or even pebbles and water, and they do not need fertilizer. Bulbs may be planted anytime from October through March, with the pointed side of the bulbs sticking above the soil or pebbles. Paperwhites flower in approximately four weeks from planting.

PLANT/PROJECT MAINTENANCE *(See Handout below, "Caring for Your Potted Paperwhite.")*

SOURCES:

Gardeners Supply Company. (n.d.). Forcing Paperwhite Narcissus. Product bulletin.

Pulaski County Master Gardeners. (2005). Baptist Rehabilitation Institute horticultural therapy program., 12.

"FORCING PAPERWHITE IN A SOIL POT" LESSON PLAN

SOURCES *(Continued):*

Rhoades, H. (n.d.). Forcing bulbs in winter - how to force a bulb inside your home. Retrieved October 3, 2018, from <https://www.gardeningknowhow.com/ornamental/bulbs/bgen/forcing-bulbs.htm>

Riley, E. (n.d.). Scentsible solution. Southern Living Magazine, 69. *(Photo)*

Source Unknown. (n.d.). Bulbs.

Source Unknown. (n.d.). House plants - forced bulbs. *(Photo)*

Source Unknown. (n.d.). Indoor forcing Paperwhites.

Source Unknown. (n.d.) Tips for planting Amaryllis and Paperwhite bulbs for indoor winter blooms.

White Flower Farm. (n.d.). How to grow Paperwhites. Retrieved October 3, 2018, from <https://www.whiteflowerfarm.com/how-to-grow-paperwhite-narcissus-bulbs>

HANDOUT AVAILABLE: *"Your Potted Paperwhite."*

"FORCING PAPERWHITE IN A SOIL POT" LESSON PLAN

CHECKLISTS

(As you develop your lesson plan, consider the following:)

MATERIALS IN BRI SUPPLY CABINET

(Quantities and availability may vary, so check the cabinet as you develop your project.)

- ___ 2 dishpans for dirt
- ___ 2 watering cans
- ___ Name tags for participants
- ___ Potting soil
- ___ Containers
- ___ For PowerPoint presentations - an HDMI cable to connect laptop to TV monitor

ADDITIONAL PRESENTATION MATERIALS NEEDED

- ___ 1-2 Pens for BRI MGs to sign paperwork
- ___ Markers for nametags for participants
- ___ Example of your completed project
- ___ Completed presentation forms (1 to BRI and 1 mailed to ext. office)
- ___ Your clean receipts for materials purchased (give to BRI therapists)
- ___ Other

CONSIDERATIONS FOR DEVELOPING YOUR PROJECT

- ___ Safety, e.g.
 - ...Use of knives
 - ...Use of glue (fumes, super glue sticking to skin, hot glue gun burning skin, Elmer's glue not drying by end of presentation, etc.)
- ___ Cost of project (*Will it cost \$40 or less?*)
- ___ Is this something most participants can do?
- ___ Size of project (*Can participants fit it on their windows or ledges in their rooms?*)
- ___ Lighting requirements (*Can the participants fulfill plant lighting requirements in their rooms?*)
- ___ Can the participants keep their plants alive in their rooms? e.g.
 -Do the plants need to be watered with a plant mister? Are you giving them one to take back to their rooms? etc.
- ___ After your presentation, ask participants how they like the project.

HANDOUTS

Topic suggestions:

- ___ How should participants take care of their plants in their rooms?
- ___ Recipes (Food recipes - if relevant to your plants, soil recipes)
- ___ Any plant info that could include history, long-term maintenance, facts, etc.
- ___ Other
- ___ If you have handouts available, attach them on a new page after this *CHECKLIST* section.

CARING FOR YOUR POTTED PAPERWHITE



SOURCES: Unknown. Houseplants - forced bulbs

1. Keep pot in a dark place until sprouts emerge.
2. Move pot into bright light.
3. Keep bulbs moist, but not soggy.
- 4 As Paperwhites start to grow, place stakes into soil by foliage to keep Paperwhites from toppling over.
4. *HINT: Cooler room temperatures (50's or 60's) will help keep flowers fresher longer.*