



'Forcing' Paperwhite Narcissi

Paperwhite narcissus bulbs are some of the easiest flowers to grow. They are very popular indoor plants for winter and for the holiday season. Unlike other bulbs, paperwhites don't require a chilling period, so forcing them is as easy as putting the bulbs in water and waiting. The fragrant flowers bloom about 3 to 6 weeks after planting, for almost instant gratification.

Planting In Soil -

Plant 5 - 6 bulbs in a 6" pot. The pot should be at least 5" to 6" deep. Bulb tips should just peek through the soil surface. Make sure the bulbs don't touch each other or the sides of the pots.

Water the bulbs occasionally but do not keep the soil soggy wet. The plants will need more water as the leaves begin to grow and the plants will need even more water once the flowers begin to appear.

Keep pots cool (50° to 55° F.) and dark until top growth begins. When shoots are about 2" tall bring pots into light to develop flower stalks.

Tall plants need support. Bright light and cool temperatures (60° to 70° F.) will help keep narcissi compact.

Bulbs started in mid-November will bloom about mid-December.



Planting in Gravel & Water

Put a layer of gravel in a decorative bowl. The bowl needs to be at least 5" to 6" deep.

Arrange bulbs and fill the bowl with gravel. The gravel may be any size or color. Be sure to completely cover the bulbs with gravel to prevent the bulbs from tipping.

A little charcoal mixed with the gravel will help keep the water fresh.

Add enough water to only touch the base of the bulbs. Do not let the bulbs sit in water.

Check the water level often - too little will dry the roots, and too much will invite decay.

Keep cool (50° to 55° F.) and dark until top growth begins. When shoots are about 2" tall bring pots into light to develop flower stalks.

Tall plants need support. Bright light and cool temperatures (60° to 70° F.) will help keep narcissi compact.

You can start pots of paper whites every couple of weeks, for a continuous display of flowers throughout the winter.

Discard Paperwhite Bulbs when they are finished blooming. They are not winter hardy outdoors in Utah. They will take two or three years of TLC to bloom again if you do try to keep them.



One Problem

A problem with paperwhites planted in pots is that they grow quite tall and all of their weight is at the top. Unless supported, these bulbs tend to topple over. You may need to put a small green bamboo stake in the center and then tie the leaves with a small decorative ribbon.

However, when paperwhite bulbs are grown in a dilute solution of alcohol, the plants only grow 1/3 to 1/2 their normal height. Their flowers remain normal size and last just as long. Shorter plants, with normal size flowers, are very attractive.



To help keep paperwhite plants more compact, please read the information 'Keep Paperwhites Shorter' on the back of this handout.

Keep Paperwhites Shorter

Pickling your Paperwhites - Using Alcohol to Reduce Growth of Paperwhite Narcissus

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The paperwhite narcissus is a popular bulb for indoor forcing in the winter months. Unlike most other daffodils, paperwhites (*Narcissus tazetta*) do not require a cold period. They are simply planted in pots with soil, or even more commonly, in dishes or bowls with gravel, marbles or other decorative material. With a little water, they rapidly form roots, grow leaves and shoots. The white, fragrant flowers usually open up within 2-3 weeks of planting.

A common problem with paperwhites, however, is that they often grow too tall and flop over.

Recent research conducted by the Flowerbulb Research Program at Cornell University has found a simple and effective way to reduce stem and leaf growth of paperwhites. The “secret” is using dilute solutions of alcohol.

Properly used, the result is paperwhites that are 1/3 to 1/2 shorter, with equal sized flowers that last as long as normal.

What to do

We suggest planting your paperwhite bulbs in stones, gravel, marbles, glass beads, etc. as usual. Add water as you normally would, then wait about 1 week until roots are growing, and the shoot is green and growing about 1-2” above the top of the bulb. At this point, pour off the water and replace it with a solution of 4 to 6% alcohol, made from just about any “hard” liquor. You can do the calculations to figure the dilution, but, as an example, to get a 5% solution from a 40% distilled spirit (e.g., gin, vodka, whiskey, rum, tequila), you add 1 part of the booze to 7 parts of water. This is an 8-fold dilution yielding 5% alcohol.

Then, simply use this solution, instead of water, for further irrigation (watering) of your bulbs. It’s as simple as that. The result will be a plant that is 1/3 shorter, but with flowers just as large, fragrant, and long-lasting as usual. But, the plant will be nicely proportioned and won’t need support stakes, wires, or other gizmos to keep it upright. You will see results within just a few days. You can have some fun by doing a simple experiment having one bowl of bulbs given normal water and the other given the alcohol. You will see a dramatic difference, as shown in the picture. This could be a neat activity to occupy kids during the upcoming holiday season!

A few other thoughts

Do not use beer or wine, as the sugars in them will cause major problems with the plants.

As with humans, paperwhites can also suffer alcohol overdoses! We suggest 4-6% alcohol as a normal and safe range. If plants are given much more than 10% alcohol, growth problems will start, and 25% alcohol is dramatically toxic. So, moderation is the key!

It is not strictly necessary to pour off the water after the plants are rooted (as we suggest above). You can just as well add your 5% alcohol without pouring the water off. The result, though, will be a lower than optimal alcohol concentration around the roots, and ultimately, growth will not be reduced as much as you expect. The reason to pour off the water is to simply maximize the alcohol level around the roots.

Basically, the higher the alcohol concentration (within reason), the shorter the plants. So it is not critical whether you use 4, 5, or 6% alcohol. Just stay well below 10%, where growth problems become noticeable.

If you do not have alcohol for consumption in your household, rubbing alcohol (isopropyl alcohol) works just as well. Since this is usually 70% alcohol when purchased, a dilution of 1 part rubbing alcohol to 10 or 11 parts water is appropriate.

Why does this happen? We are currently working on this, but we feel it is simply “water stress”, where the alcohol makes it more difficult for the plant to absorb water. The plant suffers a slight lack of water, enough to reduce leaf and stem growth, but not enough to affect flower size or flower longevity. - end of story

Paperwhite Varieties

There are several varieties of paper whites available that warrant your attention. Some of them aren’t even white!

Ziva is a reliable strain. It produces clusters of pure white blooms with a strong, spicy fragrance on stems averaging 16-18 inches tall. Ziva takes as little as two to four weeks to bloom.

Inball is very similar to Ziva. Inball only grows 12-14” tall and does not have as strong of a fragrance. Some people like the fragrance of paperwhites, others do not - this variety gives the gardener a choice.

Galilee bears pure white blooms with a lighter, musky scent on stems 12- 14 inches tall. It blooms in 3-4 weeks, often having several bloom stems per bulb.

Grand Soleil d’Or offers lemon to gold petals around a yellow-orange cup with a delicate sweet fragrance. It grows 12-14 inches tall and blooms in 4-5 weeks.

Chinese Sacred Lily has blooms that are white with yellow. It isn’t as strong as some others and needs support, but the fragrance is wonderful!

Erlicheer -Double Paper Whites are a wonderful new development. They have a lovely fragrance, too.

