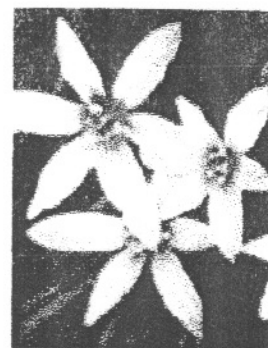


## Paperwhites - Using Alcohol to Keep Paperwhites from Falling Over

From Marie Iannotti,  
Your Guide to Gardening.  
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How to Force Paper Whites  
Marie Iannotti

### How to Stunt Paperwhites with a Nip of Booze

Paperwhites (*Narcissus tazetta*) are popular indoor plants for winter. Unlike other narcissus, 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 within about 2-3 weeks of planting, for almost instant gratification.

A problem with paperwhites, as with many bulbs planted in pots, is that they grow quite tall and all of their weight is at the top. Researchers in the Flowerbulb Research Program at Cornell University have come up with an unusual solution to this top heavy problem: Alcohol.

When paperwhite bulbs are grown in a dilute solution of alcohol, the plants reach a height of 1/3 to 1/2 their normally expected growth - but the flowers remain normal size and last just as long. Why they thought of giving their paperwhites a nip, I don't know. But it appears that the resulting water stress on the plants is just enough to stunt their growth, but not interfere otherwise.

### How to Stunt Paperwhites with Alcohol

1. Pot your paperwhites in stones and water, as you normally would.
2. Once the roots begin growing and the green shoot on top reaches about 1-2", pour off the existing water.
3. Replace the water with a solution of 4 - 6% alcohol, as described below.
4. Continue to use the alcohol solution for future watering.

You should see results in a few days.

### How to Make the Alcohol Watering Solution

- The alcohol content needs to be less than 10%, or your plants will overdose and severe growth problems will occur.
- You can use any hard liquor (vodka, tequila, whiskey...) or rubbing alcohol. Don't use wine or beer because they are too high in sugar.
- Check the bottle for the percentage alcohol.
- You will have to do some math to get the different concentrations of alcohol down to 4-6%.

To convert your booze to 5% alcohol, just divide the percentage alcohol by 5 and then subtract 1. That will tell you how many parts water to mix with your 1 part alcohol. Ex: 40 divided by 5 = 8; 8 minus 1 = 7... 7 parts water to 1 part alcohol.

Or simply use this chart:

### Convert Existing Alcohol to a 5% Solution for Watering

10% Alcohol = 1 Part Water to 1 Part Alcohol  
15% Alcohol = 2 Parts Water to 1 Part Alcohol  
20% Alcohol = 3 Parts Water to 1 Part Alcohol  
25% Alcohol = 4 Parts Water to 1 Part Alcohol  
30% Alcohol = 5 Parts Water to 1 Part Alcohol  
35% Alcohol = 6 Parts Water to 1 Part Alcohol  
40% Alcohol = 7 Parts Water to 1 Part Alcohol

And so on.