## Forcing Paperwhites

This is Gardening with Chuck on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. Forcing bulbs is something that is neither illegal or immoral! Forcing bulbs is just using some tricks to get them to bloom in a pot, indoors, out of their normal blooming cycle. Must bulbs take a long period of cold treatment before they will bloom, but paperwhites are a form of daffodil that don't need this chilling treatment. Start by buying some paperwhite bulbs and then a 3 to 4 inch decorative container that does not have drainage holes and clear enough that you can see the water level. Place 1 to 2 inches of washed gravel, marbles, glass beads or stone in the bottom. Whatever you use, we'll call it the media. Place the bulbs on top of the media, really packed in. Add enough more media to then hold the bulbs in place. Next add enough water so that the bottom of the bulbs are sitting in water. Don't submerse the bulbs, just cover the bottom quarter or so of the bulb. Then maintain this water level and in 4 to 8 weeks the bulbs should bloom. One of the problems with this technique is that the plants can get kind of leggy and tend to fall over. Well, Cornell University's Flower Bulb research program found that if once the shoots were about 1 to 2 inches tall and showing green, if you'd pour off the water and start using a dilute alcohol solution, they'd be about 1/3 shorter. Don't use drinking alcohol as the sugars will cause problems. Use 70% rubbing alcohol and mix 1 part alcohol with 10 or 11 parts water and use this every time you water. Use this mixture every time you water and you should see shorter stalks with less issues of them falling over! This has been Gardening with Chuck on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

## Starting onions from seed

This is Gardening with Chuck on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. When we buy onion plants or sets in the store, we often are buying just yellow, white or red. It can be hard to find specific varieties so starting them yourself from seed may be preferable. Because onions can take 4 to 8 weeks to reach transplant size, and because we can often plant onions in very late March in our area, we need to be starting our onions fairly soon. Place onion seeds <sup>1</sup>/<sub>2</sub> to 3/4 inch apart in a pot or flat filled with seed starting mix. You don't need to plant them too deep, probably just 1/4 of an inch. Now place this container in a warm location, 75 to 80 would be ideal, to get the seeds to germinate. Once the seedlings are up and 1 to 2 inches tall, move to a cooler location but make sure that they have plenty of light by having a bright fluorescent lights just an inch of two above them. When the seedlings are 2 to 3 inches tall, start fertilizing with a soluble fertilizer solution with every other watering. Don't mix this too strong though. Onion Seedlings tend to be spindly and don't be surprised if there is a little bit of the seed left on the top of the shoot. When the plants are 4 to 5 inches tall you can help encourage them be a little stockier by trimming back the very ends of the leaves. In early March you'll need to start the hardening off process by moving the plants to an outdoor sunny location next to the house or out building. Be prepared if they are talking cold temperatures to bring them back inside so they don't freeze in extreme cold snaps. But generally buy the last 7 to 10 days of March, weather allowing, you can transplant the onions into the garden! This has been Gardening with Chuck on the Talk of JC, 1420 KJCK, I'm Chuck Otte.

## What do Plant Hardiness Zones Really Mean?

This is Gardening with Chuck on 1420 KJCK, I'm Chuck Otte, Geary County, K-State Research and Extension Ag & Natural Resources Agent. In the cold weather of last week we started talking in my office about if it was colder here or in Kansas. So that led to a discussion that some parts of Alaska were in a warmer plant hardiness zone than we are which lead to a general discussion of plant hardiness zones which lead to a discussion of how many gardeners don't really understand plant hardiness zones and how misunderstood they are by many gardeners. Plant Hardiness zones are a measurement or prediction of how cold it may get or has gotten in the past 30 years. Plant Hardiness zones run from 1 to 13 with higher numbers being warmer. In our part of Kansas we are considered a zone 6A. When you go to a nursery or look in a catalog at perennials, especially trees and shrubs, you will see that it may say something like adapted to zones 4 to 7 or hardy to zone 3. The confusion comes when people believe that if a plant is hardy in the zone that they live in, that it will thrive in that area. Unfortunately it isn't that simple. There are so many more factors that figure in to whether a plant will survive and especially thrive in an area. There's summer heat, and we don't really have a good standard for that. There's tolerance to summer winds. There's even sensitivity to low or high relative humidity, sun exposure and even tolerance to certain soil conditions like high or low pH, and the amount of clay in the soil which impacts soil moisture. So as you start looking for new trees and shrubs this spring, don't just pay attention to plant hardiness zones, ask questions about all the other factors too! This has been Gardening with Chuck on the Talk of JC, 1420 KJCK, I'm Chuck Otte.