

Evergreen Azalea
propagation with this
season's cuttings.

Disclaimer/Caution

- Don't take cuttings of patented or copyrighted varieties. It's illegal. It's stealing. It's cheating the owners of their profits.
- It takes lots of time and money to create, register, patent and market a worthy new variety.
- By far, most varieties encountered are not patented or copyrighted.

The format for this presentation.

- 1. Ask questions!
- 2. Ask questions!
- 3. Speak loud for everyone to hear.
- 4. Raise your hand so we don't have chaos!
- 5. Enjoy each other's comments and conversation. Let's all learn together!

Materials list 1

- 1. Humidity Chamber Of some kind—clear plastic tub, clear drink cup, even a zip lock bag will do
- 2. Perlite—doesn't matter what grade or size
- 3. Milled peat moss—doesn't matter the brand



**Improves
Drainage
& Aeration
In Potting
Mixes**



**Retains
Moisture
& Nutrients**

Perlite/Peat media

4 parts perlite to
1 part peat moss

Peat moss also
maintains an
acidic pH, which
keeps the fungus
away!





Materials List 2

- 1. pots or containers for the perlite/peat mix
- 2. Rooting hormone—whatever's cheapest. Lowe's sells a small bottle of 0.1% IBA for less than \$10. It will do about 200 cuttings!
- 3. Spray bottle for keeping cuttings wet through the entire process

Tools needed to collect cuttings

- 1. Sharp scissors or nippers
- 2. Zip lock bag or container with sealable lid
- 3. sharp knife to wound the base of the cutting
(I did not say scrape)
- 4. Table, and chair, to work on

Collect the cuttings

- 1. Best done in the morning, but when you have the time!
- 2. Have a zip lock with you and put the cuttings into the bag immediately. Zip the bag closed. Don't let the cuttings dry out or wilt.
- 3. Make sure to label the bag with the name of the azalea.

- 4. Select firm stems with at least 4 sets of leaves not counting the very tip growth. More is better. Usually, 4 to 6 inches is a good target.
- 5. Cut the selected stems. Don't break them off—cut them! Causes less dehydration.
- 6. Have a label of some kind naming the cuttings. Write on the bag or have a label to drop in the bag.

- 7. Put the cuttings in the bag and label it.
- 8. Optional—stick the cuttings immediately!
- 9. Put the bag of cuttings in a fridge over night before sticking them. DO NOT WET THE CUTTINGS! Keep them dry. This improves the percentage of success.
- 10. Cuttings will be good for two weeks in the fridge. Stick them when you have the time to do it!

Extra Notes

1. The size or length of cuttings is really determined by the plant. For example, a dwarf variety gives dwarf size cuttings—shorter cuttings and smaller leaves
2. Sometimes, early in the season, and you can't wait, you can take the newest/youngest woody ends of branches and have success

- 3. Treat those woody stems just like the green cuttings with one exception—use the sharp knife to gently slice a very thin section of the ‘bark’ layer from the base of the cutting THEN dip it in the rooting hormone of choice
- 4. Generally, you have a better rooting percentage if you cut the tip off the cutting—more energy goes into root production rather than stem and leaf growth. DEFINITELY REMOVE ALL FLOWER BUDS!

Let's do it! Select some cutting material.









What about this creeper?

- Follow the same steps and process as any other azalea!
- The cutting material may be smaller or shorter, but the steps are the same.
- With dwarfs and creepers, it's easier to lift the branch and view from below to see the new growth.

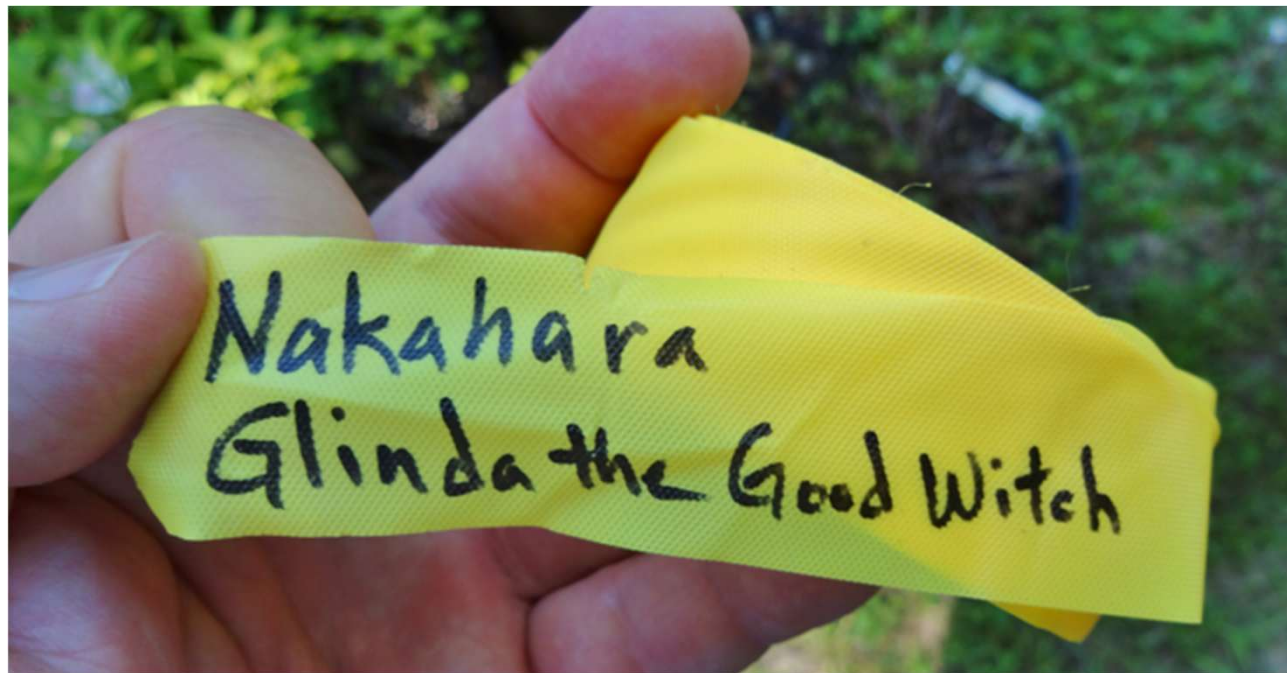








Well now, I have decided to do more than
one variety of cuttings today. So???
Bag 'em Dano! Hahaha!
And don't forget to label them, Dano!!!



Rukizan Witches Broom—super dwarf



No apparent new stems—go for woody cuttings!









We've got cuttings—let's stick 'em!

- 1. cuttings
- 2. cups of water to hold cuttings in while working
- 3. rooting media
- 4. containers, pots, cups—something to hold the media
- 5. humidity chamber—container to keep relative humidity at 100%







Details—What's on the table?

- 1. Containers of cold water to hold the cuttings
- 2. Spray bottle to keep cuttings wet
- 3. Fine point nippers/trimmers
- 4. Sharp pocket knife
- 5. Labels and pencils
- 6. Rooting hormone—more about this later!
- 7. Cuttings—in containers of cold water





Rooting media already in pots!

- 1. Have a lot of rooting media made up ahead of time.
- 2. Get pots filled with media—then gently press it down/tamp it down
- 3. Works better when it's damp already!





























How does IBA produce root growth?

- Indole-3-butyric acid (IBA) promotes root growth by mimicking natural auxin (growth hormone), triggering the differentiation of mature cells into active root meristematic new growth cells-like human stem cells, especially in stem cuttings. It increases cell division in the root tip, increasing the number of new root hairs—the actual roots that take up water and nutrients. IBA is converted into Indole-3-acetic acid (IAA) in the plant stem and stimulates root formation. It increases over all root length, numbers and weight.
- The cuttings grow roots!
- Your percentage of success goes up! More cuttings root!













- 1. On thicker, riper, or more woody stems, we need to help to get the IBA into the stem.
- A sharp knife helps with this. NOT a razor blade! Much too sharp and dangerous! NOT necessary!
- Make a thin slice off the base of the stem to expose the vascular cambium—like our blood vein system!















You can do this, so can your kids!

- Nothing you've seen is overwhelming. It's step by step, just like making cookies! Include your kids and grandkids!
- Materials needed are simple, cheap and readily available.
- Have fun, share, teach, get your kids and their friends involved—use this to excite young folks to become azalea lovers and ASA members.

You can do this, so can your kids!



Now what?

- Now that we have the cuttings stuck and the pots placed into a humidity chamber of some sort, we need to think about temperature and light.
- As long as I can keep the temperature between 65 F and 80 F, all is good. If it gets a wee bit below or above that range, it'll be alright.
- If it goes above 85 F, you might have some cuttings and even some varieties that won't make it. So, you might wind up with only 50% of the cuttings rooting or even less!
- If it goes below 60 F, you might lose a few. Below 55 F, and success rate will probably go way down.

Lighting

- The cuttings will do best with 12 to 16 hours of light per day. Natural sunlight is best, but they can't take direct sunlight—it will heat the container and temps will get way too hot. You wind up with steamed veggies!
- If you have a shady patio with high bright shade that never gets direct sun, that will work. Outside anywhere, means you better make sure the temperature stays in the safe range.
- Indoors is an excellent option. You can control the temperature and the lighting. There is an enormous variety of lighting available. We need light temperatures (measured in degrees Kelvin) between 5000k and 6500k. 6500k is the light temperature of the sun or natural daylight. It is not the heat temperature. Most manufactures call 5000k “sunlight” temperatures. 5000k will be fine!

- Under no circumstances do you want direct sunlight. It just puts too much heat onto the cuttings.
- A reasonable place is light from an east facing window. Since cuttings are usually taken in the summer, cold at the window should not matter.
- Using tubs to hold several pots of cuttings might require a light “set up”. Again, all lights but fluorescent, will produce heat. Several lights together can produce too much heat to be good for cuttings. A simple solution is to keep the humidity tubs on the floor.
- A pole lamp with multiple lights shining down on a tub can be very effective.
- If it’s a very small tub or “coffee cup”, a desk lamp with a plant bulb is a wonderful choice. Adjust the distance for proper temperatures.
- If needed, lights can be put on timers to come on and go off for the desired time spans.





How long for roots to form?

- For evergreen cuttings, most varieties will form roots in 8 to 10 weeks. Some might be “rooted” in 6 weeks while others might take 14 weeks. But these are the exceptions.
- The age-old test for roots is to give the cutting a very gentle tug. Try to pull it up, but very gently! You just want to feel a slight resistance to the tug. If it resists coming up, give it another 2 weeks and try again. This time give it a real firm but slow tug. If it doesn't come up, it's probably rooted enough to be potted up. If in doubt, wait another two weeks.
- During this time, you might see moss start to grow on the surface of the pots. That's fine. No problem. Ignore it.
- If you see tufts of white mold start to appear, spray the whole tub with any good rose fungicide.



Moisture Control in the tub

- When things are right, you should see lots of condensation on the sides of the tub every morning. There should be a bit of condensation on the sides at all times for at least the first 6 weeks. NOT ON THE LID.
- If you don't see drops of water on the sides of the tub, spray the cuttings with cold water until the cuttings are dripping wet. Watch for condensation drops. Keep spraying the cuttings daily until condensation is coating the interior of the tub every morning.
- After 6 weeks, you can gently add water soluble azalea fertilizer mix at $\frac{1}{4}$ strength to the media in the pots. That should carry them through until they have developed a strong root system.
- After 14 weeks, all evergreen cuttings should have roots formed and they can be separated and potted individually into a good azalea potting soil mix.

































You can put more than one cutting in a pot!





Let's pot up some cuttings!

































This works for gardenias too.











- Many different flowering shrubs can be propagated using this method. Some require taking different kinds of cuttings, for example, bougainvillea. For them you need hard woody cuttings about double the diameter of a pencil. And they can be just a couple inches long! Make a few thin slices off the base and apply some rooting hormone. Stick like an azalea and in just a couple months they are well rooted.
- Boxwoods do well, but usually take 3 full months to root and maybe a bit longer.

How about flowering trees? Some will,
some won't. Ask Google!







- With the use of the internet, you can google just about any plant you desire and ask for propagation methods.
- Many times, this method is fine but you might need to do it at a different season.
- Don't be afraid to try new plants and see what happens! The materials aren't prohibitively expensive. The methods are straight forward and simple enough that most kids can do it. And most probably would love giving it a try. Make new azalea gardeners!

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- Email me questions
- Put “azalea question” in the subject line/box
- I’ll do my best to give a reply in a reasonable time frame
- I don’t know it all or have all the answers, but will try to find out
- I’ve had wonderful teachers. SHARE WHAT YOU KNOW! TEACH OTHERS! ESPECIALLY KIDS!!!