

Mastering Azaleas

Part 4. Propagating Deciduous Azaleas from Cuttings

Joseph E. Schild, Jr. — Hixson, Tennessee

We continue this series of articles on propagation of azaleas with a few methods on cloning deciduous forms. Though the basic process is the same as for the evergreen azaleas, we differ slightly in the methods and timing. The methods mentioned in the previous article will also work for the deciduous cultivars; but, from the standpoint of achieving success, propagating deciduous azaleas is a more difficult task.

We will discuss several tried-and-true methods in this article. All work, some better than others, and some may seem to defy logic. After 35 years of propagation trials, I have learned an important lesson, and that is to never, ever, say “never” or “no way” to a method until it has been tried. Experimenting with methodology is important to the knowledge base, and sharing these ideas allows more people to learn.

When to Take Cuttings

I am sure you have heard the phrase, “Timing is everything.” With deciduous azaleas, that saying rings very true. Normally, one will look for new growth shoots that are soft, pliable, but not too soft. Confused? The new shoot should bend to between 45 and 90 degrees without breaking, but not be so soft as to wrap a finger or wilt quickly. This works well when collecting cuttings in your own garden, but what about when you are 100 or more miles from home?

The simple answer would be to take the cuttings anyway and properly bag, tag, and refrigerate them in an ice cooler until they can be stuck.

I have done this with very mixed results. Some of the species present a broad window of opportunity for taking cuttings and root well with a high percentage of plants breaking dormancy the following year. (We will discuss the dormancy issue later.) Some species have a very narrow window of opportunity, only 6 to 10 days, thus making it difficult to measure timing on a yearly basis, as each season is different. *Rhododendron cumberlandense*, *R. calendulaceum*, *R. prunifolium*, and *R. flammeum* seem to fall into this latter category.

Basic Bucket Method

Okay, so given these possible problems, you still wish to root deciduous azaleas? Let us look at the equipment you may need to be successful. The simplest method I know is one using a 5-gallon bucket, shredded peat moss, Perlite®, composted pine bark fines, some polyethylene, a very large rubber band or elastic, and rooting hormone. This method was devised by Olin Holsomback of Ringgold, Georgia, and he has rooted rhododendron and deciduous azaleas for many years using it.

The bucket becomes a mini-greenhouse or sweatbox. The mixture for the soilless medium is 20% peat moss, 25% Perlite®, and 55% pine bark fines. This mixture is pre-moistened, not saturated, and firmed in to about 8" deep in the bucket. To aid in wetting the mixture, I use a few drops of dishwashing detergent in the water to act as a wetting agent. An important note here is there are no drain holes in the bucket.

Select cuttings that should be about 3" to 4" long, then pinch out

the terminal bud and strip all but the top three leaves. Keep the cuttings cool and moist, but not standing in water. With a nail or other probe, make holes about 2" apart in the firmed medium in the bucket for the cuttings. I have used a number of different rooting aids or hormones and all work equally well for specific species. For simplicity here, I will use Hormodin® 3, a talc based product with 0.8% active IBA (8,000 ppm).

Since the hormone is expensive at around \$20 for an 8-ounce tin, I remove what I think I will need for a particular time and reseal the tin. I wear rubber gloves for protection. A large-mouthed plastic pill bottle works well as a container for the hormone. I plunge the fresh cutting into water to moisten it, and then into the hormone powder about 1", tap the cutting to remove the excess, and stick it in one of holes pre-punched in the planting medium. Once I have all the cuttings stuck, I give them a mist of water, place a sheet of poly over the bucket top and use a large rubber band or length of elastic to secure it in place. I then put the bucket in a shady spot out of direct sun and just forget it for about two months.

Propagation Under Mist

I still use the above method on some species, but prefer to use the mist system of rooting propagation, since I root in numbers that prohibit a couple of hundred buckets sitting around under the trees. A very simple mist system may be constructed with an up-front cost of perhaps \$200 to \$300, depending upon your water and power source, construction skills, and room for the system.

A mist system contains the following items: a 24-hour timer, a cycling timer, low voltage solenoid valve, low voltage power supply, low voltage wire, a water strainer, PVC pipe and fittings, PVC solvent and glue, mist heads, containers for the rooting medium, shade cloth, and polyethylene sheeting. As a structure, I have a greenhouse set up for the purpose, but a simple structure may be made from 1-inch black plastic pipe, some 2" x 6" pressure treated wood of what ever length you need, pipe clamps, nails or screws, and a plan. (See photo of a simple, multi-purpose structure.)

A complete mist system may be purchased from any number of sources, but I have listed one in the resources section at the end. It is a product called Mist-O-Matic, and has a simple controller that uses a stainless-steel screen to activate the solenoid valve with a mercury switch. This system eliminates the timers, but you must still purchase and install the valves, water filter, and heads.

For containers, I use plastic inserts in standard 1020 flats. I prefer to use at least 3" x 3" deep inserts to keep the cuttings at least 1" from the bottom. My soilless mixture is the same as described above for the bucket method, but I do fill the inserts, drench them, and allow to drain for about 48 hours before sticking cuttings. One of the inexpensive plastic mortar mixing boxes works well for drenching from the bottom. A child's wading pool will also work.

Following the same cutting and sticking method as above, I put two cuttings in each insert to cut down on space needed. As each flat is filled, it goes into the misting house or frame. Again, the area must be out of direct sun or properly shaded. Since my frames are in full sun, I use two layers of 55% shade cloth to protect the cuttings from direct sun.

Aftercare

Now comes the hard part, the waiting. *Patience is the mark of a good propagator and is never more important than when propagating deciduous azaleas.* Once the cuttings have rooted, they need to be inspired to put out new growth before we allow them to go dormant for winter. I use a string of incandescent lights about 3' over the flats and give them a light feeding of liquid fertilizer. Bulb sizes of 60 to 75 watts work. A cold frame to over-winter the rooted cuttings for protection is needed.



Schild Poly Huts, 6' wide by 28' long, used both for rooting cuttings and for holding potted azaleas. It serves as a cold frame when covered with white poly or as a shade frame when covered with shade cloth. This structure can hold 1800 azaleas planned in 4-inch square pots. The arches or bows are fixed on 4' centers. The PVC purlin down the center also serves as the irrigation or mist source, and is clamped to the bows. (Photo by Joe Schild.)

Yes, dormancy is key to success. Deciduous azaleas do not like their roots disturbed, so do not repot them after rooting. When the small plants break dormancy in the spring and put out new growth, then and only then replant them into larger containers using pine bark with perhaps a little Perlite®.

Other Methods

Other methods abound for rooting deciduous azaleas. Mike Creel of South Carolina has been very successful rooting hardwood cuttings using plastic jugs, two liter cola

bottles, and plastic pots. His soilless mixtures and the use of *mycorrhizae* seem to be the key. Past articles and data posted to the ASA e-mail discussion forum provide details of his methods.

There are some methods that are slightly exotic using DMSO and KIBA, but for the beginner I have chosen not to expand upon them here. As you gain success and wish to experiment with other methods, please try them with caution.

For many years, I used a modified Nearing Frame to root cuttings.

In the structure I built from plans given me by Clifton Gann, I rooted thousands of azaleas and other shrubs. To save money, I built my frame from lumber out of packing crates I treated with Copper Napthenate to keep the wood from rotting. If you would like a copy of the plans, contact me.

Keep in mind that the small cuttings are susceptible to disease and insects while the plants are young, so periodic inspection is needed. Remove any dead cuttings and their fallen leaves. Look for insect damage and spray with the proper insecticide at the labeled rate. Handle and use all chemicals with caution and per instructions, even household bleach.

Note: The mention of brand names in the context of this article does not represent endorsement of the products, but only illustrates products that may be used.

Resources

1. For most materials needed, Morton's Horticultural Products, Inc. 1-800-473-7753, Web site <http://www.mortonproducts.com> E-mail: mortonprod@blomand.net They also have a printed catalog.
2. Dirr, Michael A. and Charles W. Heuser, Jr. 1987. *The Reference Manual of Woody Plant*

Propagation, From Seed to Tissue Culture. Athens, Georgia: Varsity Press, Inc.

3. Galle, Fred C. 1987. *Azaleas*. Revised and Enlarged Edition. Portland: Timber Press.

Joe Schild has been an avid grower, propagator, and breeder of azaleas for nearly 35 years. He has owned and operated a niche nursery specializing in the species for over 14 years. Joe is the current president of the Tennessee Valley Chapter-ARS, immediate past president of the ASA (2001-2003) and a member of the Tennessee Nursery

& Landscape Association. He says he is better known as an azalea nut and chases the natives' bloom each year with many fellow enthusiasts. Contact him at:

1705 Longview Street
Hixson, TN 37343
423-842-9686
azaleajoe@mindspring.com

ASA Conventions

Tadeusz Dauksza — Orland Park, Illinois

There's nothing quite like an Azalea Society of America convention! It's a great big family reunion of sorts, an exciting kaleidoscope of sights, sounds, and smells, and an unusual exposure to the world of rhododendrons, azaleas, annuals and perennials, woodland flowers, trees and other shrubs, all rolled up into one wonderful experience.

These conventions are many things. They are hectic, informative, nostalgic, very friendly, fun. There are so many other memories: Seminars by great speakers about subjects they know first hand from experience. Happy hours. Waiting in line. Book sales. Eating. Clapping. Getting up early. Going to bed late. Losing your nametag. Speeches. Reports. Laughing. Reminiscing. Taking pictures. Packing and Unpacking. Rain, heat. Meetings. Door prizes. Auctions. Awards. Checking in and out. Rushing to catch the plane. Looking for the best and closest parking place. Loading up the copious amount of plants that you bought. Elevator rides. Trying to read-decipher plant tags. Trying as heck to recall people's names.

You ooh and ah through gardens and arboreta that you wished your garden would look like but never does. You jot down the names of countless azaleas, rhodies, companion plants. You see breathtaking sights—mountains, lakes, sunrises and sunsets.

And then there's the plant sale! A no-holds-barred battle royal of normally nice, civil folks temporarily crazed by the thought that someone else might get the plants he or she can't live without. Waiting for the plant sale to open (usually after dinner) is like watching a group of great white sharks circling for the kill on the Discovery Channel. The tactics of the veteran plant sale shopper in out-maneuvering and out-conquering, by saying "That plant does not do well," should be studied as to what drives us to this madness. Azaleaphiles go to great lengths in driving long, long distances, emptying the trunks of cars for more room, and packing the plants (UPS should study the methods). What's the normal response you usually hear? "I don't know where I am going to plant these!!"

But the main attraction of the convention is the people. ASA members are the greatest in the world. I never met a member I didn't like. Nowhere is the charm and friendliness of members more apparent than at our conventions. Attendees come from all areas of this globe and all walks of life. Some are professional, many are amateurs. You see old friends and make many, many new ones. You place their faces with the articles that they wrote in *The Azalean*, their gardens that you have visited on the tours, and you thank them for sharing their corner of the world with you. You meet our "volunteer lead-

ers." You hear about where we're heading and where we have been. You hobnob with the greats, and the greats-to-be. You talk with legends. You stand and pay tribute to the people who have made our Society what it is today.

A lot of truly dedicated people knock themselves out to make our conventions exciting and trouble-free. They spend an unbelievable number of hours to accommodate a very diverse group of people. It's a frustrating, Herculean task; but somehow, they do it, never asking for a dime in return. We are lucky that we have human beings like that. If you like azaleas, you'll like an ASA convention. If you like new things, new places, new excitement, you'll enjoy an ASA convention. If you like people, you'll love an ASA convention.

On behalf of the Lake Michigan Chapter of ASA, I cordially welcome you to attend the annual ASA convention scheduled for May 19-22, 2005, in Holland, Michigan. Registration details will be available soon on the Society Web site, www.azaleas.org and in the Winter 2004 issue of *The Azalean*.

Tadeusz Dauksza is a board member of the Lake Michigan Chapter of the ASA and the membership renewal chair of the Midwest Chapter of the American Rhododendron Society.