Propagating Native Azaleas
Earl A. Sommerville — Marietta, Georgia

[This article is an adaptation of a similar article by Sommerville that was published in the Journal American Rhododendron Society. Used by permission, Ed.]

Over the past 30 years, I have sought to develop a reliable process for propagating native azaleas. For the first 20 of those years, my efforts met with little or no success. The next five years showed marked improvement, and for the last five years I have been consistently rooting at a rate of 80 percent. After much trial and effort, I have learned that some plants simply will not root. Ironically, these are usually the very best plants. Although this may seem frustrating, do not give up. For instance, I dug a “horizontal R. calendulaceum” in 1963, and for 28 years it refused to root. After all that time, last year it produced two plants, and those two plants yielded four more this very year.

North Georgia contains a variety of native azalea species that have crossed naturally through the years, called natural hybrid or inter-species hybrid azaleas. This natural crossing may serve to aid the propagating process. While I have been successful in propagating particular plants in all species, I have also found individual plants that will not root in each of the species with which I have worked. For years I have been told that you can’t root native azaleas, but I have been quite pleased with the results. The following sections provide the detailed methodology that I have developed over the years for propagating native azaleas.

Propagating Bench
The bench measures four feet wide, eight feet long, and 12 inches deep. On the bottom of the bench is a layer of 1/4-inch hardware cloth topped by a 3/4-inch water pipe. Next is three inches of large pine bark, a heating cable or hot water pipe to maintain 85°F, and three inches of small pine bark. All of this bark is for drainage. The pots sit in the bark.

Lighting
Four daylight tubes, eight feet in length, are positioned two feet above the propagating bench. These tubes are controlled by a 24-hour clock with one-hour trips to turn on at 7:00 p.m., off at 11:00 p.m.

Primary Mist System
The primary mist system consists of a filter, solenoid valves, and a 24-hour clock with 15-minute trips that controls a six-minute clock with one-second trips. Flora Mist brand nozzles are used in conjunction with baffle wire and placed 18 inches above the bench. The mist head spacing is not to exceed three-feet-six inches, and the operating pressure on these heads should be set to 60 psi. This system should be operated from 8:00 a.m. to 7:00 p.m. for two seconds every two minutes, or for one second every one minute. By the first of July, the primary mist system is phased out to allow the secondary mist system to take over.

Secondary Mist System
I use a Mist-A-Matic brand system to operate around the clock. Although this system is built to operate 24 hours a day, in actuality it operates from 7:00 p.m. to 8:00 a.m., or as needed.

Pots
Use tree seedling pots measuring 3” x 3” x 5 1/2”, with an “almost open” bottom.

Medium
The medium consists of two parts pine bark screened through a 1/4-inch screen, one part peat moss, and one part Perlite. It should be subjected to the mist for a period of seven days before it is ready to accommodate the cuttings.

Hormones
The recommended hormones are Hormodin #3 and Roots, a liquid gel (Canadian product). Failure to use a hormone in the propagation process slightly lowers the success rate percentage, but if the cutting sends out roots, it will break into new growth sooner without the added hormone.

Fertilizer
The fertilizer of choice is Peters 21-7-7 distributed in a Gewa injector with a 1-100 mixing valve. Issue the fertilizer at a ratio of two pounds per gallon (derived from Gewa Constant Feeding Chart for a seven- to ten-day feeding program). If watering by hand, mix one teaspoon of fertilizer per gallon. Plants should be fertilized beginning on June 15th and every ten days thereafter. Moreover, make sure never to fertilize plants that are in winter dormancy.

Greenhouse
The greenhouse should receive a full measure of sunlight from 8:30 a.m. to 7:00 p.m., and no shade should be provided for the propagating bench. The temperature rises to a full 100 degrees Fahrenheit in the greenhouse while the medium temperature approaches 85 degrees F. under the mist. Experience has proven that providing this atmosphere to the cuttings increases the likelihood of success.

Taking Cuttings from the Garden
I generally take cuttings from the 21st of April to the 5th of May, but never after May 10th. The cuttings should be taken very early in the season while they are extremely soft from a plant that has been well watered and fertilized with a well-balanced mix the previous year. The plants also need to be in a stage of active growth. After taking the cuttings, put them in a plastic bag and place them in a refrigerator for 12 to 48 hours. It is very important that water not be added to the plastic bag prior to refrigeration.

Cuttings from the Mountain
If the cuttings are allowed to wilt, they will not root. Therefore, the cuttings should be taken early in the morning, placed in an airtight plastic bag with a wet paper towel, and if at all possible, stored in a cooler with ice. The cooler will greatly increase the probability of successful propagation. I have even converted a backpack into a small cooler for this very purpose.

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The Cutting

After removing the cutting from the refrigerator, remove the tip and all but four leaves. Next, cut off one-half of each of the remaining four leaves, and dip the cutting into a Malathon-Captan mix before placing it into the medium. By July, the cutting will begin to show new growth, and by the first of October, it will have grown an additional six to eight inches in length. In the middle of October, move the rooted cuttings to a cold frame covered with white polyethylene for the winter season.

Potting Up

Wait until the following spring to pot up the rooted cuttings.

Conclusion

Conventional wisdom discourages the possibility of rooting native azaleas, but the formula I have developed after years of trial and effort has consistently provided a respectable level of success. While each of the steps involved in the process is important, there are three areas that require the most attention: the timing of taking the cuttings, using the refrigerator, and fertilizing properly. Giving these three steps the utmost attention to detail will greatly increase the your chances of success.

References


Earl A. Sommerville has been a member of ASA since the early 1980s and of ARS since 1966. He says he started collecting native azaleas in 1960, and in the late 1980s, “The creeks got too wide, the hills too steep, the water too cold, so after that, all a person can do is talk about collecting plants. Most all of my crosses were made by the bees, and they do a very good job.”

Consult his website for many images of natives: www.mindspring.com/~earlsommerville/home.htm.

Fire on the Mountains

J. E. Schild, Jr. — Hixson, Tennessee

[Two trips into the mountains form the basis for this record of plant exploration for native azaleas, Ed.]

As the spring of 1999 approached, there was an expectation that bordered upon total and delirious excitement rising within my spirit. The year was a celebration of 30 years into plant exploring and, in particular, azalea chasing in the southeastern United States.

It was in 1969 that my friend and mentor Clifton Gann introduced me to those jewels of nature, the native species azaleas and rhododendron. I was hooked. I was so intrigued by those marvelous shrubs that Clifton and I traveled perhaps a thousand miles or so to see and experience azaleas in the wild, in their native habitat, and in all their beauty and glory. It was Clifton who taught me to recognize the species and propagate them from seed and cuttings. In a few years, my own home landscape was becoming filled with native azaleas. To some, it is a malady or weakness to be so engrossed by a plant; but, in my case, I prefer to call it a sublime fascination.

Early Season Hunting

My fascination on April 17, 1999, had me rolling from bed before five in the morning. This was to be the first field trip of the season, and I did not want to be late for my appointment with nature on the Cumberland Plateau, a 40-minute drive from my home in Hixson, Tennessee. I had my daypack loaded with plant tags, bright ribbons, a notebook, extra rolls of film, and my cameras.

The early morning air was chilly for mid-April. With my truck loaded and my usual mug of coffee in hand, I departed for Dunlap, Tennessee, on State Route 111 where it joins SR-8 and the long road to the plateau top. At the Hardee’s Restaurant, Burton Johnston joined me.

For early flowering azaleas, one must think pink and white, for they are the predominant colors of Rhododendron canescens, R. periclymenoides, R. alabamense, and R. prinophyllum. In early May to early June, one may find R. arborescens, R. cumberlandense, R. calendulaceum, and large numbers of interspecific and intraspecific hybrids.

In my home gardens, the earliest were past prime bloom, and I was searching for near peak flowering on the Cumberland, often two weeks behind my garden plants. In a mile or so, before SR-8 turns off at the Skyline Coal Company mines, I started noting a few random pink and white flowering shrubs and knew we were right on schedule.

One mile beyond the turnoff, we stopped and started exploring the woodland edges where sun exposure gives the azaleas a boost in flower bud production. There were some seductive pink-flowering Pinxterbloom (R. periclymenoides) and Piedmont (R. canescens) azaleas. One group of five plants, all looking alike, had dark pink margins on the lobes, while the leaves had almost fully emerged.

A few yards away, 10- and 12-foot shrubs of pure white flowers drew my attention. A sweet fragrance pulled me close, and I saw plant characteristics I could use to identify Pinxterbloom. Back in the understory were a number of shrubs with scattered bloom, but these were a delicious dark rose pink with reddish filaments twice as long as the flower tubes.

Burton and I made many stops at prime locations we had previously identified. To our surprise, we found large numbers of shrubs in various states of bud and flower. Some plants were still in tight bud with others in soft or full flowering.

It was no surprise to us that we found many shrubs of mixed genes between species, for this is the same area that confused Henry Skinner in 1951, on his extensive search for native azaleas. Burton and I saw this mixture of natural hybrids, and I must say the result is quite delightful.