Northern Virginia Chapter, Azalea Society of America

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July 2021

The Azalea Clipper

Next Chapter Meeting:

The July chapter meeting will be at 1:30 pm 11 July at Kirkwood Presbyterian Church.

Due to the nature of the program (i.e., cutting exchange), it will not be broadcast via Zoom.

Cutting Exchange 11 July

Our annual cutting (and plant) exchange will be held 11 July at 1:30 pm at the Kirkwood Presbyterian Church in Springfield, VA.

Please label your cuttings and plants. Guidelines for labeling and taking cuttings are on page 5.

All attendees should bring refreshments to share.

We're on the Web!

http://www.nv-asa.org

The Northern Virginia Chapter web page is a great source for late breaking news, such as weather-related cancellations.

President's Message

I know that like the rest of you, I'm happy that COVID restrictions are starting to be lifted. One aspect of this relaxation of restrictions is that we will once again be able to meet inside at Kirkwood Presbyterian Church. We thank them for their continued support.

The upcoming meeting is one of my favorites for the year…the annual cutting exchange. This is an excellent opportunity to obtain different varieties of azaleas and to try your hand at propagation. Propagating these varieties, many of which were hybridized by chapter or society hybridizers is a great way to support the Legacy Project. This is also an opportunity to share your excess plants with other chapter members. My thanks go to John Torbert, President of the Alabamense chapter, for allowing us to reprint his article on propagation.

The chapter continues to promote azaleas in various ways. Information on our ongoing initiatives is in this newsletter.

Rick

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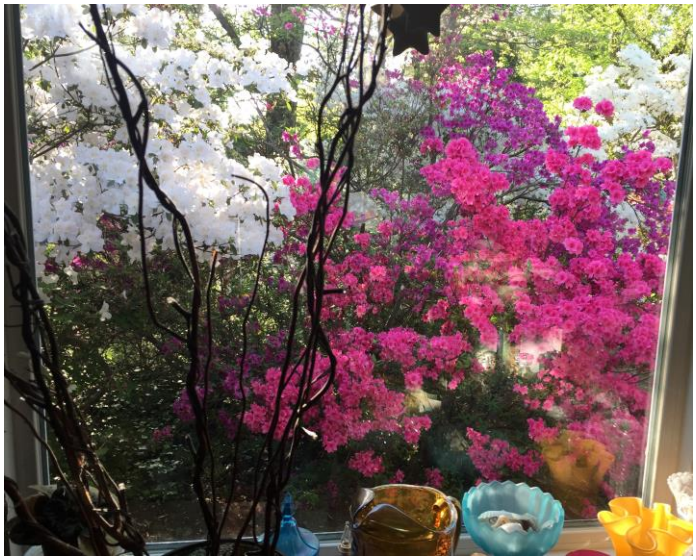
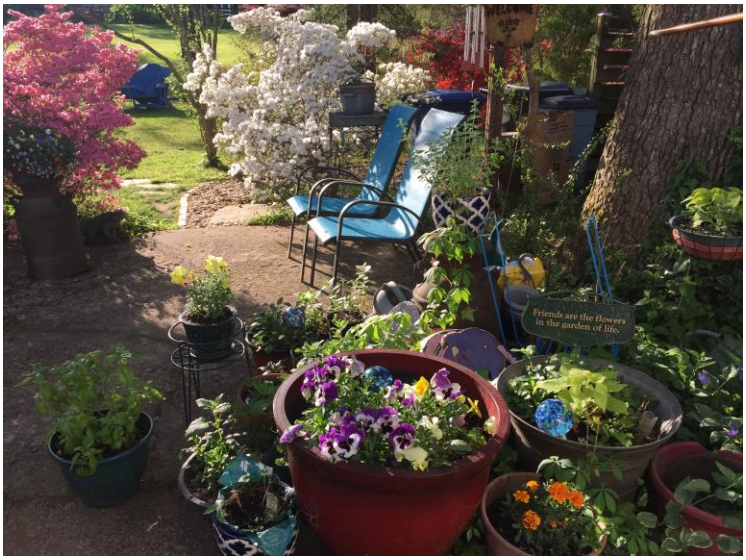
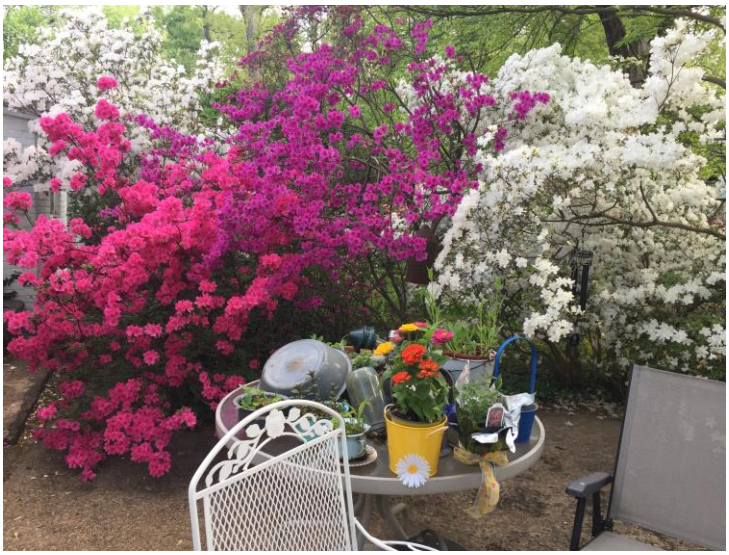
Member Gardens

Many of our members opened their gardens for visits by other chapter members this past spring. Others have contributed photos of their gardens to share. Below are photos submitted by **Judy Shapleigh**. All members are encouraged to provide photos for the ***Clipper*** or the monthly newsletter. Send photos to rickfbauer@gmail.com.







Sperling Garden

This link will take you to pictures of **Barry's** garden: https://photos.app.goo.gl/6VBuL1TBoYML6474A

New Members

The chapter would like to welcome **Larry Sporn** to the chapter. **Larry** lives in Williamsburg, VA.

2021 ASA Virtual Convention

As you are aware, COVID forced the society to conduct a virtual convention this year. If you missed it or want to view either the evening programs or the garden tour videos, most of them are posted on YouTube. Just go to Youtube.com and search for Azalea Society of America. You will find the available videos there, including a number submitted by chapter members.

All About Azaleas Webinars

The Alabamense Chapter, along with the Alabama Cooperative Extension Service and Davis Arboretum sponsored an excellent four session webinar on azaleas. If you missed any of the sessions, they are available online by clicking this link.

Satsukis for Jenkins Arboretum

l-r Tommy Victor, Nicki Anchor, Jake Summers and Paul Beck after offloading the Satsukis at Jenkins – photo Carolyn Beck

The chapter has been working with Jenkins Arboretum in Devon, PA to develop a Holly Springs Legacy Garden. The **Bauers** and **Nanneys** delivered 117 Holly Springs azaleas last year to Jenkins.

We have expanded our support of the arboretum to assist them in increasing their collection of Satsuki azaleas. Since the Satsukis bloom later than other varieties, it will allow them to extend their bloom season. **Paul** and **Carolyn Beck** delivered 150 Satsukis to Jenkins on 18 June.

Smoky Mountain Hikes

For over 20 years, members of the Azalea Society of America and the American Rhododendron Society have gone to the Smoky Mountains in mid-June to enjoy the spectacular views of native azaleas and rhododendron. Unfortunately, due to COVID, the hikes were canceled last year, however this year they were back on from 13-20 June.

Seventeen members of both societies as well as representatives from Jenkins, Tyler and Stoneleigh arboreta in Pennsylvania and Mt. Cuba in Delaware joined us for the hikes. While we were are little early for the R.catawbiense rhododendron, the azaleas, particularly the R.calendulaceum (Flame azalea) were in great form. On the next page are some photos from the hikes. More photos will be shown at the 11 July cutting exchange.

Linville Falls, Blue Ridge Parkway

Rough Ridge, Blue Ridge Parkway

R.calendulaceum on Roan Mountain

R.calendulaceum on Roan Mountain

Forest Service Tower on Wayah Bald

R.calendulaceum on Hooper Bald

Calendar for 2021

Below is the schedule for the 2021. The calendar is also available on the chapter website at https://www.nv-asa.org/calendars.

Monthly workdays will also be scheduled at the Klimavicz Legacy Garden. Dates and times will be published closer to the actual workday.

Date	Event	Organization	Location
July 11 1:30 pm – 4:30 pm	Cutting Exchange	NV-ASA	Kirkwood Presbyterian Church Springfield, VA
Sep 25 1 – 4:30 pm	Fall Plant Sale	NV-ASA	Kirkwood Presbyterian Church Springfield, VA
Oct 24 1:30 – 4:30 pm	Fall Meeting with speaker	NV-ASA	Kirkwood Presbyterian Church Springfield, VA
Oct 24 4:30 – 6 pm	Executive Committee Meeting	NV-ASA	Kirkwood Presbyterian Church Springfield, VA
Dec 5 1 – 4:30	Holiday Social/Annual Meeting	NV-ASA	At the Beck's home

Taking Cuttings and Labeling (from the July 2018 Azalea Clipper)

Select cuttings from **new growth found at the terminal branch ends** (avoid branches that have produced "sport" blossoms uncharacteristic of the named variety). Collect cuttings **after the stems are fully mature**, but before they turn woody. The parent plants must be in good health. A good time to take the cuttings is in the **early morning**. If drought conditions are present, **water the plants well the evening before**. Select stems of medium diameter rather than thin weak wood. Place cuttings (4 to 6) from each plant in a separate plastic bag (identified by the parent variety) along with a few drops of water, and seal it to retain 100% humidity inside. Print the name of the plant variety on the outside of the bag, along with a short description of the plant. **Avoid overheating of cuttings from direct sunlight.** Cuttings should be stuck in the rooting medium as soon as possible after taking the cuttings, but they can be stored in a closed container in the refrigerator for up to a week. {At the meeting ask our experts about growing cuttings!}
A good **label** with the plant name, hybridizer, flower description and "cutter" would help a lot!

Plants for the exchange should also be labeled with the plant name, description, brought by.

Directions to Kirkwood Presbyterian Church

8336 Carrleigh Parkway, Springfield, VA 22152, 703-451-5320 Kirkwood.office@verizon.net
From the East : Rte **95** exit **169B, Franconia Rd West**, which becomes **Old Keene Mill Rd (**Rte 644) about 3 miles, passing **Irving Middle School**, to a **Right** at a light on **Carrleigh Parkway**
Make a U-turn at **Dabney Avenue**
From the West: Fairfax County Parkway (Rte 286)
East on **Old Keene Mill Rd** (Rte 644) about **3.5 miles**, passing **Rolling Road**
to **Left** at a light on **Carrleigh Parkway** ; Make a U-turn at **Dabney Avenue**

Propagation of Native Azaleas via Rooted Cuttings*

John Torbert
(originally published in the March 2021 Alabamense Chapter newsletter)

Propagation of native azaleas from seed is an easy way to get a lot of plants quickly and with little effort. However, the plants will not be exact replicas, and in many cases will not look anything like the plant you got the seed from. This is especially true if your plant may have been pollinated by surrounding azaleas blooming at the same time. The only way to get a significant number of perfect replicas is to clone it, either by tissue culture or rooting stem cuttings. Tissue culture (a.k.a "micro-propagation") is specialized technique beyond the ability or patience of most amateurs. Rooted cutting propagation, on the other hand, is something the average enthusiast can do with some success.

I started propagation via cuttings in 2015 when I wanted to copy a real pretty red flammeum (var "Jack Melton"). Our earlier attempt to propagate this plant (adjacent to an austrinum and canescens) from seed produced more than a hundred plants, but almost all of them had pink flowers, a few with an orange splotch, two or three plants that were bright orange (very nice), and only a single red plant. This is when I realized I needed to learn how to root cuttings. I've learned that there is some science, some art, and a little luck required to be good at this. I will describe some of my experiences and questions.

The basic steps for native azalea propagation from root cuttings are:

- take cuttings in early Spring when the stems have hardened enough such that they are not too soft & flimsy but before they have gotten stiff and woody,
- remove a couple leaves from the bottom and cut the top short enough to leave 3 or 4 leaves;
- dip the bottom in hormone;
- stick it in the growth medium;
- keep the leaves moist so they don't dry out;
- wait a month, or two, or three for the cuttings to form roots.

There are many internet sources with more useful detail about how to take and prepare the cutting, about hormones, trimming the leaves left on the stem, etc. Here is a link to a good description from the ASA webpage provided by ASA member Don Hyatt. This is especially helpful if you only want to do a small number of cuttings, inside your house near a window. https://www.azaleas.org/wp-content/uploads/attachments/AzaleaCuttings-Diagrams.pdf

For a larger quantity of cuttings, Vernon Bush (who was instrumental in producing most of the natives in The Huntsville Botanical Gardens, describes his popular technique here: https://hsvbg.org/2017/07/27/native-azalea-propagation-methods-of-vernon-bush/

And I have particularly benefited from this article with some modification to Vernon Bush's technique written by our own Dale Berrong and published in the Spring 2020 issue of the Azalean: https://www.azaleas.org/wp-content/uploads/azalean/42/1/Layout_Spring_2020_WEB.pdf.

The technique described in the Bush and Berrong involves sticking 50 to 100 cuttings in large plastic bins with lids, and for the first month or so, opening the lid and manually misting the cuttings 2 or 3 times a day with a spray bottle. The manual-misting technique can be problematic if you are inclined to often forget misting time or you're frequently not home to do so.

*Note – these techniques are also applicable to evergreen azaleas. Evergreen cuttings are taken later.


Taking cutting in May 2002 from lower portion of austrinum that was established from cutting in 2018

Since I am forgetful and often not home, I use cell packs (individual cells are about 2 in. wide x 2 ½ in. deep), in a small hobby greenhouse. I made a simple misting system programmed to mist for about 5 seconds every 10 minutes during the late morning to early evening. I can squeeze 800 cuttings on a 10 ft x 4 ft bench.

Overall, my experience from 2015 to 2019 was “ok” to “decent; never “great”. In those years I found that some species root more easily than others. I had “good” (80% +/-) success with canescens, austrinum, atlanticum, viscosum, but I’ve been continuously disappointed with flammeum (only 5-10% at best). Other species/varieties were somewhere in between.

And I found, as many have, that just because a cutting grow roots does not mean that it will keep growing to become a vigorous seedling. In the past, some cuttings would make some roots, but they did not produce a plug full of roots and too many of them either died over the winter, would not start growing in the spring, or they would make a short spurt of growth in the spring and then die.

This phenomenon of not growing in the following Spring, has been noted by others and it seems to be common knowledge that to prevent it, the rooted cutting has to make new foliage and grow a little before dormancy to ensure new growth in the Spring.

This past year (May 2020 to now), I made some changes, after carefully studying Dale Berrong’s article, and consulting with others. I didn’t do a real “scientific” replicated experiment to isolate treatment effects and interactions, but there is no question that collectively these changes made a huge difference. From my perspective this past season was “very good”. Root systems were denser, and the difference in growth was like night and day. I had strong growth (up to 22 inches) on most cuttings before October. Here are four factors I think were important:

Rooting medium / misting interval– Until last season, I’ve always used weathered pine bark mulch, sieved through a 2 mm screen, and sterilized in the oven by baking at 250 degrees for an hour or more. Sometimes I’ve included a small amount of peat moss. After reading Dale Berrong’s article I suspected that aeration within the plug of 100% pine bark might not be high enough, and maybe my previous misting regime of 10 seconds every 10 minutes was too high. This year, I added a lot of perlite; using a 50:50 mix of perlite & pine bark for my easy species. On the hard-to-root species (flammeum) I used 3 parts perlite : 1 part bark. Since these cuttings were in a greenhouse that does get hot, I tweaked the misting interval and morning start & evening stop times through the spring and summer, as I monitored soil moisture at the bottom of the cells (making sure it didn’t get “wet”) while not allowing foliage to wilt. Most of May through July I misted about 5 seconds every 10 minutes.

When to stick – Until last season, I always started sticking on June 1 and finished in middle of June. We live near Auburn. AL. Thinking I might be starting too late, last season I started on May 1 taking cuttings from plants where new growth had barely hardened enough such that the cutting was not too flimsy. I was done by May 18. I also experimented with some cuttings taken in late July, from the regrowth (not too flimsy, not too woody) that occurred where I took the original May cutting. And these seem to have done well too.

Where to take the cutting – I’ve always thought it was better to get the cutting from a young plant than an old one, but I never paid much attention to where to take the cutting from the plant. A friend of mine who has commercially rooted hundreds of thousands of loblolly pine cuttings per year stressed the importance of getting the cutting (at least for pine) from as close to the ground as possible.

He says "*the closer the cutting is from the root system, the more the cutting wants to act like a root system*". He also stressed, as many others have, the benefit of soaking cuttings in Captan solution before sticking and occasionally drenching the cuttings with Captan or another fungicide. So – this season I took my cuttings from as close to the ground as possible and preferably from plants that I started from cuttings in the previous season (2019) or in 2018. Again, I didn't do a controlled experiment, but I feel like this was helpful.

Lighting – I feel like this is the most significant change I made, especially with respect to getting these plants to grow. Until last season, I never used supplemental light. I relied on the natural photoperiod and the intensity of light that came through the greenhouse which has shade cloth on the top and upper sidewalls. This past season, I bought 3 high-intensity LED lights from Home Depot; with a light spectrum closest to mimicking natural light. Each light fixture was 2-ft long and 1-ft wide. I hung them 34 inches above the 4-ft x 10-ft bench and kept them on for 20 hours per day until October.

Results

Better rooting – I found new roots were evident on austrinums as soon as four weeks after sticking. As I recall, it was usually 10 weeks +/- before I saw new roots in the past. Also, roots systems were much denser. By October, the majority of cuttings of all species and varieties had roots throughout the plug; even the various flammeum varieties. But, a relative few had died or only had a slight amount of roots, and most of these were the flammeums.

Much Better Growth – I was thrilled with the amount of growth. I'm certain this is the result of increasing the light. By July/August, realizing that top growth was vigorous growth was vigorous, that there was little fertility in the mix of pine bark and perlite, and realizing that they now had roots capable of absorbing nutrients, I began to fertilize. For the most part, I drenched them with Miracle Grow azalea.

Nutrient deficiencies? Fertilization led to dark green foliage on the best plants and growth accelerated. But some, mostly the flammeums, did not green up and grow slightly at best. What little new growth they had got more and more chlorotic, eventually becoming light yellow, except for some green along the veins of new leaves. Having spent the first half of my career in the field of tree nutrition and soil chemistry, I assured myself that this was obviously the symptom of a deficiency of one of the immobile nutrients (perhaps calcium, sulfur, iron, zinc, copper, manganese, molybdenum, and/or boron). After concluding that the pH of 5.5 was not high enough to cause this problem, I indiscriminately threw about ½ dozen remedies at the problem over the course of a couple months: calcium phosphate; gypsum, epsom salt, a foliar copper treatment, a galvanized nail in each plug of the symptomatic plants, and more MiracleGro with micronutrients. I noticed no benefits (though now that I think about it, I should have tried a little borax).

By October, while still supplying 20 hours of light, many of these plants looked fantastic and now seemed too big for their plugs. I thought - maybe they're growing too much. They were out of rooting volume, shading their smaller neighbors, still growing, and showing no signs of making buds. Not knowing if it was ok to let these plants grow through the winter without a dormant period, I moved more than ¼ of the most vigorous into 1-gallon plants, and moved the next ¼ of them into 1-quart pots and put them outside. Moving them from 20 hours of light to about 12 hours of light quickly slowed their growth, caused them to form buds and go dormant. Now as Spring is here, I see that almost all of the plants moved into 1-qt pots have extended their root systems to the edge of their new pots and buds are starting to swell. I have high hopes for this half of my cuttings.

For the cuttings, still in their plugs in the greenhouse, I ramped back the lighting such that by November, they only had supplemental light during the day. And they formed buds too.

Now, at the beginning of March, the 50% of cuttings outside in larger pots look great. About 15% of the original cuttings are dead or nearly so. The remaining 35% are still alive, in plugs in the greenhouse and they look like they are going to be fine. These include the plants that appeared nutrient deficient and didn't make much growth last year, but they made some; they have roots, they made small buds, and some of the buds are starting to break open. Fingers crossed.


October – cuttings moved from greenhouse into 1-gal or 1-qt pots

Opportunities for Improvement?

If anybody can make suggestions or answer these questions, I would be grateful. Please email or call me. If I get any responses, I'll consolidate answers and include in next newsletter.

Preparation of the Cutting – I've seen various recommendations concerning scraping the cambium / "wounding" the below ground portion of the stem, angle of the cutting, hormone concentration, etc. Is any of this crucial for any particular species/variety?

Lighting - What about lighting 20 hours/day during the growing season? Can these plants be grown under 24 hours of light? Don't they need some dark period for respiration?

Nutrition – any suggestions?

Actinovate – this is a biological powder, containing a variety of "beneficial" bacteria and fungi ("bugs" and "crud") marketed as a "natural" fungicide and an all-around plant growth promoter. I've used it on and off for years. I don't see that it helps, but maybe I don't know what circumstances it might be most useful in. Anyone have opinions about it? Or about any of the many mycorrhizae enhancement products on the market?

Flammeum – what's the trick with this one? A higher hormone concentration? Can the fertility of the plant or hedge that the cuttings come from be manipulated to make cuttings more rootable?