

Potomac Valley Chapter

American Rhododendron Society www.arspvc.org

Summer Newsletter: July 2017

Potomac Valley Chapter Calendar - 2017

- July 15, 2017 Propagation Workshop, Potomac Community Center
- September 24, 2107 Chapter Picnic, Seneca Creek State Park
- October 20 22, 2017 ARS Eastern Regional, Richmond, VA
- October 28, 2017 PVC Banquet and Speaker, Normandie Farm
- May 20 27, 2018 ARS / DRG Joint Convention, Bremen, Germany

Our Next Meeting: Speaker: Karel Bernady Propagation Workshop: *Grafting!* Date: Saturday, July 15, 2017 Time: 1:00 PM – 4:00 PM Where: Potomac Community Center

We are excited to have ARS Gold Medal recipient Karel Bernady lead a workshop on how to graft rhododendrons. Karel will share a procedure we saw at the 2010 International Rhododendron Conference in Bremen, Germany. Since then, Karel has used the process to graft rhododendrons for his Greater Philadelphia Chapter ARS. He also grafted plants for the Williamsburg Convention we hosted in 2016. We are very thankful to Karel and also Stephen Kristoph who provided space at his nursery to produce grafts and to raise those plants.

A research scientist by nature, Karel holds a PhD in chemistry and is the chair of the Rhododendron Research Foundation. For years, he has collected data on his chapter's Plants for Members program. It includes data on cuttings they have successfully rooted and now he has nearly six years of data on grafts. Grafted plants do seem to perform better!

We will try to have some hands-on activities so that attendees can try to make a graft. In this newsletter your editor has expanded a 2014 article about the grafting process. If some attendees have never rooted azalea and rhododendron cuttings, we will have handouts and can provide help there, too.

Please remember that our meeting will be on *Saturday* rather than Sunday this time.

Refreshment Duty: We ask members whose last names are in the first half of the alphabet (A - M) to bring a dessert or snack to share with others.

Chapter Officers

President: Ginny Mohr rngmohr@msn.com Secretary: Diane Reinke Isabelle49@aol.com Treasurer: Phyllis Rittman prittman@erols.com



Karel Bernady will teach us how to graft

Directions: Potomac Community Center 11315 Falls Rd, Potomac, MD From I-270 North, stay in the Local lanes Take exit #4B/ MONTROSE RD WEST Continue west on Montrose Rd. for 1.7 miles Turn LEFT on FALLS RD (MD-189) Continue 1.4 miles to the Center (on the left) 11315 Falls Rd, Potomac, MD

ARS District 9 Director's Report from Bill Meyers May 24, 2017



The ARS Board of Directors' Meeting was held Thursday, April 27, 2017, in Eureka, CA. Our own Ann Mangels, Eastern VP and incoming President, conducted the meeting owing to the absence of then President Bob McIntyre for medical reasons.

We were saddened to learn, at the start of our Board Meeting, that Kathy Van Veen of Van Veen Nursery had lost her battle with cancer. It was her wish that the Nursery continue to operate and the good news is that is going to be done.

Gordon Wylie proposed updates to the Policies and By-Laws to reflect the new structure of the ARS now having an Office Administrator rather than an Executive Director. They now also reflect reduction of our expenses to more closely match our income. Three committees, Ratings, Pollen Bank and Rhododendron Database, no longer functioning or deemed needed, were eliminated.

Dave Banks, Treasurer, and Bill Mangels, Chair of the Endowment Committee, were asked to develop a policy regarding the acceptance and disposition of donations and gifts.

There was discussion about offering a reduction in dues of \$5.00 for members who wanted to receive the Journal in digital form only. This would reduce mailing costs and some printing cost. Bob Weissman, our webmaster, reminded us that only 3% of members now have an online login for the Journal and 99% are not interested in having the Journal be digital. The motion was defeated.

A proposal was made by Juliana Mederios, a scientist and researcher at the Holden Arboretum and Great Lakes Chapter member, to establish a long term Rhododendron Research Network (RCN) between the ARS and rhododendron researchers worldwide. Goals would be promotion of rhododendron as a model woody system for research, promotion of ARS and botanical garden memberships and creation of opportunities for collaboration between the research community and ARS members. Activities to be included will be hosting of a RHODi-RCN website within the ARS website, publishing in a scientific journal, initiating collaboration between ARS Members and researchers, initiation of science projects to strengthen that collaboration, and seeking of further funding. This was approved by the Board.

To help increase membership it was suggested we encourage horticulture students at nearby colleges and universities to join the ARS. Chapters can give student memberships for only \$5 each. The fee is \$10 but \$5 goes to the ARS and \$5 goes to the Chapter. The student membership gives digital access to the Journal but not the print version.

Bill Mangels reported three Endowment grant applications were received and funds were approved by the Board of Directors to be distributed to Friends of Laurelwood Arboretum, Planting Fields Arboretum and the Breuckner Hybrid Test Garden.

Dave Banks, Treasurer, reported the financial health of the Society is better than it was two years ago although membership is down.

Dave stressed that each Chapter must complete their IRS on-line e-postcard, Form 990-N, to maintain their Tax Exempt Status. Failure to do so can mean a very difficult application process to restore that tax exempt status. According to Steve Henning, EIN numbers of each ARS Chapter can be found through the IRS.

Ann Mangels reminded all of the 2017 ARS Fall Conference that will be held in Richmond, VA, October 20 and 21 at the same time and place of the MAC Chapter bi-annual Meeting. Other forthcoming Conventions and meetings are:

- Spring 2018 May 20-27 Bremen, Germany with pre-tours of Wales, UK, April 22-29, Holland, Germany, Denmark and Sweden and a post tour of Finland (See <u>http://ARS2018.org</u>) Earlybird member deadline to register is Oct. 30, 2017!
- Fall 2018 Chattanooga, TN
- Spring 2019 Philadelphia, PA (See http://ARS2019.org)
- Spring 2020 Portland, OR (for the ARS 75th Anniversary)

In conclusion, Bob Weissman, our ARS Webmaster, is updating the website. Changes to likely be available this summer (testing is underway now) will include multi-year memberships, making donations and using PayPal or a credit card.

Following the Board Meeting, at the Saturday evening Banquet, ARS Silver Medals were awarded to Don Wallace, Ken Webb and Nick Yarmoshuk. ARS Gold Medals were given to Fred Whitney, E. White Smith and Dee Daneri. Congratulations to all!

Grafting Rhododendrons!

By Don Hyatt

This is an expansion to an article I wrote for our Winter 2014 PVC Newsletter. It focuses on a grafting process demonstrated at the 2010 International Rhododendron Conference in Germany by wholesale nurseryman, Timo Schröeder. A cultivar that is hard to root like 'Jack Cowles' is grafted onto an unrooted cutting of a plant that roots very easily. The graft union and the rooting process happen simultaneously.



'Jack Cowles' – A very difficult clone to root!

Grafting is not just for rhododendrons that are very difficult to root, but could be used for many standard varieties that might not be as robust as we would like. Rhododendrons in our region often fail because the root systems are weak or prone to disease. If we use grafting to give them a stronger root system, they should be more floriferous. Most of the maples and conifers I grow are grafted. Why not rhododendrons?

Karel started grafting rhododendrons for his chapter's plant sale that first summer of 2010 and has continued experimenting every year. He kindly offered to graft some for our 2016 Convention. Since people were very generous giving cuttings, Norm Beaudry and I became interns and spent several days with Karel at the Steven Kristoph Nursery in New Jersey learning to graft rhododendrons. This article attempts to illustrate the process we used.

Timo Schröeder said he was making 1.5 million grafts a year at his nursery. In Europe, rhododendrons are routinely grafted on 'Cunningham's White' and some propagators were using Inkarho® understock, a patented rhododendron that can adapt to different soil types. Although Karel has tried various understocks, we settled on 'Roseum Elegans' as our first choice.

The late Hank Schannen once mused, "My idea of an erotic dream is 'Roseum Elegans' in 28 different colors." It is easy to root, a tough plant with a very strong root system and succeeds in most local gardens. If all of our rhodies had those same qualities, they would be much easier to grow.



'Roseum Elegans' – A great plant to use as understock

We soon realized that one of the most challenging tasks was to find enough 'Roseum Elegans' to meet our needs. It is a very common plant in the landscape but few collectors give space to that plant. Karel tried using 'Caroline' for understock since it has an equally tough root system. We tried it as well as other robust cultivars, too. We did have mixed results with those.

Having the proper equipment is important, and a good grafting knife is essential. It should be very sharp and beveled only on one side. We sharpened the knives on a stone prior to use and also during the day if the blade seemed to get dull. We used pruning shears and scissors to help trim leaves, and wiped down our tools with alcohol to reduce potential spread of disease.

Preparing the Understock

Before making the graft, the first task was to locate a stem of 'Roseum Elegans' that had the same diameter as the scion we wanted to propagate. Close alignment is important for a successful graft.



Standard leaf whorl on a 'Roseum Elegans' cutting

We remove all but two top leaves in the whorl on the 'Roseum Elegans' understock but we do not trim back those leaves. That will help us identify it later.



Understock – Remove all leaves except two

It is very important to cut out every single growth bud in the leaf axils and on the stem of the understock because we don't want a shoot to arise from the understock at a later date. Being more robust, the understock tends to dominate and the top graft will die.



All growth buds removed

Cutting with growth buds

Preparing the Scion

With the variety we want to propagate, no buds are removed except for flower buds. We keep three leaves instead of two and cut them back by more than half in order to help us tell it apart from the understock.



Scion - Keep three leaves but trim ends

As indicated, the reason for trimming the scion's leaves but not those on understock is to make it easier to tell the difference between the two. The understock will be cut off above ground when we transplant the grafts next spring since we only want its roots. The difference in leaf shape helps us tell them apart so we don't cut off the desirable clone by mistake!



Scion and understock are ready for grafting

Making the Graft

We shorten both scion and understock to 3 inches and must decide how they will fit together. We will make a "side graft" by removing a sliver of bark from the side of each shoot and then tying stems together so those two cuts match up.



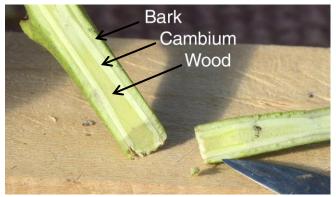
Matching scion to understock

The next stage is to remove a matching sliver of bark from the scion and the understock. To keep from cutting myself, I positioned the flat side of the blade against the stem and cut downward to a block of wood.



Cutting away a sliver of bark from the understock

The cuts should be deep enough to expose the wood and cambium layers. Cambium is the active growing layer between the bark and the wood. It is where the graft will form so the cambium layers must align on both cuttings. Sharp knives cause less cell damage so clean cuts will heal faster.



Detail of cut and cambium layer

The cut on the understock should be about $\frac{1}{4}$ to $\frac{1}{2}$ inch longer than the cut on the scion since we want that understock to extend below the scion. The end of each cutting should have a beveled edge, too.

We fit the two cuttings together carefully, lining up the cambium layers but allowing the understock to extend beyond the scion we want to graft. Then the cuttings are wrapped tightly with heavy cotton string. It is important that the string is 100% cotton rather than a synthetic since we want it to rot within the year.



Scion and understock tied together with cotton string



Finished graft is ready for rooting

Once the graft is made, it is rooted in a fashion similar to normal cuttings. We dip only that short extension of the understock in a solution of Dip $N\mathbb{R}$ Grow since it is where we want roots to develop. Then the cuttings are inserted in the rooting medium.



Karel sticks cuttings in medium after dipping in hormone

Karel put 25 grafts in each rooting box, labeled them carefully, and moved boxes to a propagation house with a mist system and bottom heat. Bottom heat encourages rooting. Over the winter the cambium layers of the scion and the understock will knit together while at the same time the roots will form.



Karel inspects grafts in Kristoph's mist house.

Next spring, we cut apart the grafted plants and transplanted them into gallon pots. Not all grafts make it, but not all cuttings succeed either. However, the grafts that do survive will likely have stronger root systems than most varieties on their own roots.



Before and after pictures of rhododendron grafts

Transplanting

In late May of the following year, Norm and I joined Karel for the repotting process at Kristoph's Nursery. The grafts were well rooted and most of the scions were sending out new growth.



Grafts are ready to transplant

Karel used a heavy kitchen knife to cut the grafts apart. We were impressed with the heavy root systems. Of course, we knew 'Roseum Elegans' roots easily and forms a strong root system which is why we used it!



Karel cuts grafts apart

Strong root systems!

At this point we cut off the understock to give full strength to the scion. We appreciate having two uncut leaves on the understock and the three trimmed leaves on the scion since it helps to distinguish between the two. We don't cut off the wrong part!



Cut off the understock but keep the scion

Growing On

We did give each pot a bit of slow release fertilizer and applied a pre-emergence weed killer to discourage weed seed germination. Then we moved them to a hoop house to grow on the rest of the summer.



Norm treats newly transplanted grafts for weeds



Kristoph's Hoop House filled with transplanted grafts

There were more casualties over the summer. Plants that had a weak graft union did not survive but those that were healthy grew into excellent plants. We did grow them through a second summer but due to adverse weather and a little too much fertilizer, we had more casualties but we did get some good plants. We hope you got some of those choice plants!



Karel inspects two-year old grafts

Wayah Bald in Recovery Mode By Don Hyatt



The image above was taken a few years ago from the fire tower on Wayah Bald, a mountain south of the Smokies near Franklin, NC. It has been a favorite on our June field trips to the Southern Appalachians. Pink Mountain Laurel (*Kalmia latifolia*) is in bloom beyond the wall but it has rhododendrons and native azaleas, too. This year we wanted to survey the damage caused by wildfires that ravaged Wayah Bald last fall.

After the record breaking drought of 2016 with reports of virtually no rain for nearly four months in late summer and fall, the Southern Appalachians had become a tinderbox. By November, there were reports of numerous wildfires including one on Wayah Bald.

Some populated areas ravaged by fires often made the national news. A fire started by two teenagers throwing matches on the Chimney Tops Trail in the Great Smoky Mountains National Park on November 23 was devastating. Winds reached nearly 100 miles per hour which spread that fire to nearby Gatlinburg and Pigeon Forge. It killed 14 people, destroyed over 2500 structures, and burned 17,000 acres including some slopes and trails on scenic Mount LeConte.

Internet bloggers and a few local news sources posted photos and videos of the fire on Wayah Bald. It was about 80 miles from Chimney Tops and also stared on November 23, but its cause has not been determined. It burned 3,422 acres.



Vista of Wayah Bald, now blackened by wildfires

Wayah was always a popular destination. We could drive to the top and enjoy the main attraction, a stand of fragrant *R. arborescens* that covers the summit. A few open flowers of that species can perfume an entire garden. Wayah in full bloom was intoxicating.



R. arborescens on the top of Wayah Bald



R. arborescens – a very fragrant native azalea

We also identified many beautiful forms of *R*. *calendulaceum* on the mountain. The prize was a rare double *calendulaceum* found along the Appalachian Trail which crosses Wayah. There are three doubles in that area, but one pictured below was clearly the best.



Double R. calendulaceum found on Wayah

Both George McLellan and Karel Bernady visited Wayah Bald in March of 2017 and documented the fire damage. We knew that area was especially hard hit, and the flames must have been the most intense at the top of the mountain. Stands of *R. maximum* and kalmia were killed, too. The photos were shocking.



Dead R. maximum with peeling bark photo: K. Bernady

To me, the most disheartening photo was Karel's picture of our cherished double *R. calendulaceum* (below left). It was burned and the bark on the smaller canes was peeling off. I was certain it was dead.

That plant was our first stop in June. As we neared the location, our despair was replaced by elation. We kept shouting a phrase from an old Frankenstein movie, "It's Alive! It's Alive!" One cane of the best double had survived and even had a bloom. Although all the other canes were killed, the plant was sending up some strong shoots from the base. (below right)



photo: K. Bernady

photo: D. Hyatt

The area around the fire tower had the worst damage. Over the bank we could see broad stripes of burned trees but also some green areas. The capricious fire destroyed many but did spare some. By the time the flames reached the crest, they must have converged into an inferno. The stone base of the tower remained but its top was gone as well as almost everything else. Interestingly, that tower must have blocked the flames since a few *arborescens* plants directly behind it survived and even greeted us with fragrant blossoms.



Trail to the Fire Tower

The Forest Service has been cutting down the dead trees and shrubs so soon there will be an unobstructed view from most of the summit. If they can keep the unwanted vegetation and weeds from taking over, Wayah Bald could be stunning in time.

Most of the kalmia and *arborescens* stumps were sending up shoots from the base. *R. maximum* must be more sensitive to fire since it showed no recovery.



Regenerating R. arborescens (left) and Kalmia (right)



New Vistas from Wayah Bald

The fire damage to Wayah and other places in the Southern Appalachians was indeed sad, but nature has an uncanny ability to heal itself. In 5 to 10 years, we decided that Wayah Bald might be better. I hope so!

Note: The next two pages will only appear in the digital version of our Potomac Valley Chapter Newsletter. Color reproductions have become expensive and we try to keep our mailings to four sheets of paper to save on postage.

Grayson Highlands, VA



Mountain Vista – Kalmia latifolia



Rhododendron Trail



Wild Ponies visit the Picnic Shelter



R. calendulaceum 'Grayson's Gold'

R. calendulaceum - Ball Truss





R. catawbiense - Carver's Gap



R. calendulaceum - Engine Gap

These last two pages show a few images taken by your editor on our annual field trip to the Southern Appalachians. We did have to dodge rain showers this time but managed to stay dry. Most of the places have been described in prior newsletters except a new trail to Elk Knob. It is excellent, not too difficult, and quite scenic. Maybe you can join us next year!



R. calendulaceum 'Frilly Jane' – Jane Bald, NC

Elk Knob Trail, NC





Vista on Elk Knob Trail (1.0 mile marker)

R. calendulaceum - Ruffled form near summit (1.9 miles)



R. calendulaceum "Summit Star"

Blue Ridge Parkway, NC



Elk Knob Trail - Stone "Easy Chair"



Charlie Andrews relaxes in Easy Chair



R. viscosum – Frying Pan Gap (MP 408)



Graveyard Fields Overlook (MP 419) Vista from Lower Waterfall Trail



Kalmia - Grassy Mine Ridge (MP 437)

Potomac Valley Chapter ARS Donald W. Hyatt, Newsletter Editor Don@donaldhyatt.com

Pink Kalmia and Bumble Bee