VIREYA VINE
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AN INTERNATIONAL GROUP OF "VIREYA BUFFS' - PUBLISHED BY THE EDUCATION COMMITTEE OF THE RHODODENDRON SPECIES FOUNDATION

From E. White Smith Tacoma, Wa.
Dear VV, July 5, 1987

When I started to grow Vireyas back in 1972 I used the same potting mix that I used in all of the other Rhododendrons in my small home greenhouse. To tell the truth, I have not been very successful with Vireyas. I have quite a few because I have been trying for so long. Many of my plants are big enough to bloom and some do very well. My biggest problem has been to find a potting soil mix and to stay with it.

Vireyas for the most part seem to want a very well draining damp soil (or mix). I can not go along with people who say that Vireyas can be kept on the dry side or that they can be let go dry. Yes, some plants can get very dry with out harm and I think that it is a condition of the plant and not the species or variety. I have lost many Vireyas from letting them get dry. I have also lost many plants when they were to wet for to long. SO. I am still looking for the perfect potting mix. I have tried forest moss, red wood tree bark hair, fern root, pea gravel and course peat, chopped Styrofoam with peat, heavy clay sub-soil, perlite, vermiculite, micro-peat and pumice mixes. All of the potting mixes work to a degree while some work only for a while. The forest moss for instance breaks down after about a year and then is a soggy mess. The vermiculite and micro-peat were very hard to keep from being over watered and killed many small plants.

This spring I have tried two new ideas. In the June 1987 issue of SUNSET Magazine (page 216) there is an article about soil polymers. The article talks about a polyacrylamide soil treatment material called "Broadleaf P4". This polymer absorbs from 200 to 400 times its weight in water and last from 5 to 10 years in the soil. I found some P4 at the local Fred Meyer store. (which is a large chain sells everything store) I mixed the P4 into the dry mix that I was transplanting Vireyas into and watered after planting. The next morning I had large 1/4 inch pieces of the gel on the surface of the pots. The P4 starts out as very small grains that look like sand. The plant roots are suppose to go to these gels and grow better. This P4 material is said to be able to release over 95% of the water to the plant. I labeled the plants that went into the P4 mix and shall watch what happens.

When I was in a local nursery looking for the Broadleaf P4 I happened to read the label on a 25 pound bag of cat litter. The bag said that it could be used for potting mixes, to help heavy soils, to soak up oil from garage floors etc. The bag also said that there were no other chemicals like baking soda in the mix. I bought two bags and went home and potted more Vireyas with 1/3 cat litter and 1/3 peat, 1/3 pumice. The cat litter is small compressed clay particles that will hold water. (see VV13 page #3 for the letter from M. Cullinane) It could be that many of the clay type cat litters that do not have odor preventing ingredients added could be used.

From a local fertilizer chemical Company (Lilly Miller) I bought two 50 pound bags of a clay material called "DIALOAM". The Dialoam label says "it is a specially processed granular diatomite for use as a soil conditioner, mulch and top dressing. For greenhouse bench and potting soil: Dialoam absorbs and stores more water faster and retains it longer than ordinary sand or soil. It steps up root growth. Use Dialoam as you would a mixture of sand or gravel and soil for greenhouse". Dialome is made by, Eagle - Picher Industries, Cincinnati, Ohio. I have not used the dialome yet but it looks just like the cat litter.

My whole purpose in using the polymers and the clay particles is to get a Vireya potting mixture that drains fast but holds water and has lots of air room. I have heard that the clay type products can break down in a year or two and cause troubles. Many people have tried different Vireya mixes that work. We know from observations in the wild that the plants will grow on or in just about any soil. They do need good drainage which they get even on the clay road cuts in PNG where the plants grow on steep banks.

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From M. D. Cullinane, Russell, New Zealand
Dear VV, May 19, 1987

This is in response to your query (VV13) concerning flocculated clay, which is clay broken up into small units. The most important property of the small clay units is their ability to hold and release chemical compounds as ions. Most of the common nutrients in soils enter plant roots in the form of ions. The clay particles stop them from being leached away.

Clay can be flocculated mechanically, by digging and breaking it up, and I got into its value by seeing how plants did so well in the clay spoil that was dug out when the house was built. Colonizing plants ,(in the wild) such as Vireyas, can be seen doing very well on man made roadsides and mine tailings. The same effect can be achieved chemically, by adding gypsum. Gypsum will keep the clay particles apart without altering the ph. I generally use course sand for the same purpose, mainly because it is at hand and have found that it does a good job and is cheaper. I have over 90 Vireyas, all planted outside on clay banks and steepish slopes. Over 8 years, my losses directly attributable to poor drainage would be 6 to 7, in the early days. Several of the plants are topping 2 metres, and macgregoriae X christianae is about to flower. It has 86 flower buds, so it must like what it is planted in. The practice of clay burning, done in England for a very long time, is another, but laborious way of treating clay. Clay would be burnt in heaped fires for several weeks and the resultant particles of brick returned to the soil as a conditioner.

The vast majority of terrestrial Vireyas I saw in Papua New Guinea were growing in granulated clay soils.

Michael Cullinane
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From Graham Smith Pukeiti Rhododendron Trust, New Zealand
Dear VV, May 5, 1987

Any Vireya Buff who has used Sleumers reference book on the species will be aware that some of the species he named were probably natural hybrids. He admits this himself and even carries it one stage farther by listing parentage of a few in his 1973 supplement.

Having made a couple of collecting trips to Papua New Guinea and assembling a good collection of Vireyas at Pukeiti. I have become very aware of the frequent occurrence of natural hybrids. On the most recent trip in 1986, which Fran Rutherford is writing up so well, I paid particular attention to anything that looked like a hybrid between the species of the area.

Norman Cruttwell probably knows as much as anybody on the subject and has shared his views in the VV. When we visited Norman in Goroka he showed us and gave us cuttings of a number of his finds. Unfortunately they were not in flower so I can not report on these at this stage. However we are now growing R. culminicolum X dielsianum, Dielsianum hybrid (larger but similar foliage to the species), R. stevensianum hybrid (much larger than the one form of the species that I have seen and almost R. christi shaped foliage, R. rarum hybrid (again larger in all parts) and a R. multinervium hybrid. I got R. macgregoriae X rarum on the previous trip and it flowers well with small pink bells on a compact, spreading plant.

Mt. Wilhelm at 4500 meters is the highest mountain in P.N.G. and the upper slopes are now a national park. The flora of the mountain is fascinating and it is here that obvious hybrids were seen in flower. The first was a dense meter high shrub sheltered by boulders. It had small leaves crowding up the stems and neat red bells covered with scales. The overall appearance was like R. womersley but with a lot more brown scaling. My guess was R. beyerinckianum X womersleyi and later found this cross listed by Sleumer for Mt. Wilhelm.

Bob Standley (from Ft Bragg California) brought in a most unusual shoot with R. culminicolum characteristics (it was plentiful here) but the truss was reduced to one large scarlet bell. Probably not the most exciting thing that we saw but that one flower was beautiful and much larger than the typical R. culminicolum.

Above the hut on a ridge rising to 3900 meters, R. culminicolum and R. atropurpureum were common - the latter at the highest elevation. These two plants look so similar that I would think that they had a common ancestor. The main visual difference was that R. atropurpureum had somewhat ascending habit and its stiff, short petioled leaves were also pointing upwards. R. culminicolum tends to have a more open habit and its larger, longer petioled leaves are held at the horizontal. The tubular, curved red flowers that hang from the shoot tips are similar. Yet we found one plant that was a real mixture of the characters, ascending habit with large leaves held at 45'.

One other strange plant that I grow at Pukeiti came to us as R. atropurpureum from Graham Snell, Australia. He list this a being grown from seed collected on Mt. Wilhelm. I saw no plant like this on the mountain and from it's general appearance I feel that it is a hybrid of R. atropurpureum and R. womersleyi. The dark, shiny leaves are much smaller than atropurpureum and cluster densely up the stem. Sleumer list this hybrid for Mt. Wilhelm and other areas. It is an attractive, small plant worthy of cultivation.

From the mountain tops we moved to the swampy valley near Laiagam. Here, the new well documented colony of colored forms of R. commonae exist. The normal red form is present but the cream, buff, salmon, coral and even bi-colors are the real attraction. The only other Rhododendron seen growing in the swamp is the orange flowered form of R. macgregoriae. My theory is that natural bybridisation has taken place between the red form of commonae and macgregoriae and that this hybrid swarm has stabilized. The two species occur elsewhere but I have not heard of other natural hybrids or non red commonae's. I collected seed from the commonae in 1983, but as yet none have flowered so I do not know how true they will be. They certainly look like R. commonae. Cuttings from the color forms rooted well in 1986 so I now have a good cross section of some thirty plants to observe and report on. Perhaps it is just as well because in the three years between visits the plants were much reduced in numbers and as Fran Rutherford mentioned in VV12, the pigs are responsible. Given twenty years they will all be gone.

To throw a spanner into my own works I found what is certainly a macgregoriae X commonae hybrid on our next mountain. It was a vigorous shrub growing on the bank of a creek in long grass. The foliage was typical commonae but the scarlet flowers were much closer to macgregoriae with a short tube, open flowers and about 12-15 per truss. I have this growing now

so I will be able to compare it with the others latter. On the same Mt. Yakopimaneda I picked up a R. beyerinckianum X rarum hybrid. The two parents are very common there and the offspring shows the sprawling habit of rarum and it's long pointed leaves, but these and the stems are densely covered with thick brown scales like woolly indumentum. An attractive foliage plant and easy to grow.

Mt. Miap is another peak close to Laiogan and at about 2800m is part of a rugged range that almost mark the western end of the Highland plateau. It yields interesting Rhododendrons including, christi, vitis-idesa, caliginis and lindaueanum. R. calignis is particularly fascinating as it has only been named in recent years and was confused with R. hooglandii because both have very long, thin leaves, almost like needles and open growth. R. calignis leaves are held horizontally as opposed to the upright foliage on hooglandii. R. calignis was seen and collected with pink, cream and lavender flowers but has not proved to be to easy to root. I did find what appeared to be a very compact form of this species, but on close examination it proved to be a hybrid with the dwarf R. vitis-idaea. the thick leaves and strong recurved margins, typical of vitis-idaea had been overlaid with the dense brown scales of calignis. It will be interesting to see what the flowers are like. I brought back cuttings of both parents and the hybrid and now they are all in growth. I am certain of the cross.

One last speculative hybrid also came from R. calignis in the area. Instead of long, narrow, straight sided leaves this has long wedge shaped foliage, almost rarum like in appearance. The dense scales of calignis give a warm tan color to the new leaves. It is obviously much more compact than the loose growing parent and has proved easy to establish.

I have no doubt that this is just the tip of the iceberg when we really start examining Vireyas in the wild. We also have a few natural hybrids from Mt. Kinabalu, Borneo and we must assume that where ever a number of species grow in close proximity then hybrids will appear. After all they are still developing and todays natural hybrid may be in a thousand tomorrows, a new species.

Graham Smith
Pukeiti Rhododendron Trust
R.D. 4, New Plymouth
New Zealand

(Editors Note: I some times wander if I am going crazy. I got a cutting from Tom Tatum a few years ago and Tom said that he got it from Don Stanton and that it was R. atropurpureum. I looked it up in Sleumers book and could not tell anything from that. Then during the International Rhododendron Meeting at the Species Foundation I had the honor of taking John Womersley to my home in Tacoma. We did the normal walk through with me naming plants for him. When we got into the greenhouse he didn't say to much but asked about the plants that I had labeled atropurpureum. I told him where the cutting had come from and he told me that he was sure the it was R. womersleyi. OK fine I was sure happy with the new name and felt it real neat to know someone that a Rhododendron was named after. After Fran Rutherford came back from PNG on the same trip that Graham Smith was on, he questioned the name that I had on the plant. Now he is sure that it is not womersleyi and I think that I do also. We have a plant of R. womersleyi at the Rhododendron Species Foundation that does not look at all like the plant that John pointed out in my greenhouse. Would not Womersley know the plant named after him????????? Is what I have a hybrid??? Nice small upright, round shinny leaves, red scaly flowers, leaves held out from the stem at about 90'. E. White)

From Stan Eversole Palo Alto, Ca.
Dear VV, June 30, 1987

Some notes on R. zoelleri:

I have grown one plant of zoelleri from a rotted cutting, and it is now a three foot, only moderately lanky plant that has tolerated my various cultural indiscretions admirably. Its dark green glistening leaves are 4.5 X 2.5 inches, and as with all of my Vireyas, it is in a wooden box with 1/2 inch screen bottom and 3/4 inch holes in the sides. As the plant has grown, it has advanced in container size so that it now resides in a 20 inch square box. The soil mix has varied with added wood chips, etc. It receives liquid fertilizer every 3-4 weeks when it is growing. I use Plantex with either high N or high P in half-strength or less.

Although my greenhouse does not get hot in the summer, most of my plants seem happier outside with various amounts of direct sunshine. My zoelleri receives about 2 hours of California morning sun, and takes it very well. With the soil mix I use, I ignore the "drying out" dictum and these plants are watered heavily 2-3 times weekly in warm weather, but in the winter only every week or so depending on the weather. Each fall, there is room for fewer and fewer plants in the greenhouse. Zoelleri resided outside last winter, and thought we have minimal frost, the nights drop down to the mid-thirties commonly. If we are having heavy rains, the plants are brought under cover. Zoelleri blooms in summer and winter. The flower on this plant, a sister seedling to the clonal form, "Island Sunset", is very large, 4 3/4 inches in diameter, six flowers to a truss. These impressive flowers are a glowing orange-red inside with a yellow tube and yellow outside.

BUT, I am having a problem: at present, there are four trusses open and there are 2-3 flowers in each that have deformed petals, some of these being semi-petaloid. For the first few times, it bloomed I thought that it would outgrow this tendency, but this third or forth blooming finds the situation worse than ever. Am I stuck with some genetic problem? The plant now has giant seed pods resulting from my pollination, which I will send out as they ripen. These large pods look like green beans.

I have heard that zoelleri is hard to grow, but this plant has been easy to please. Perhaps it does not like being "on the dry side" when it is growing. Maybe some clones grow better than others. Except for the above deformed flowers, the flowers are very beautiful and impressive.

Stan Eversole
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From E. White;

My father-in-law, who is also a Rhodie nut like me, (It is really not his fault that I am like I am) got a rooted cutting from Stribling at one of the ARS National Meetings in San Francisco a few years ago. This plant was a R. zoelleri cross and has grown into a very large upright, easy to grow Vireya plant. OK, STAN, it also has split flowers, every one, every time that it blooms. I have never grown it myself to blooming size but use the cuttings for grafting sometimes. The plant is much more vigorous than zoelleri. Take note, the flowers always split. None of the other Vireyas that I have grown over the years do that.

I also have sister seedlings from Don Stanton of "Island Sunset". I must have got the seed in about 1974 from Don. These plants are still alive but very slow and hard to grow. I think that it could be that all zoelleri's are hard to grow. Maybe because it is one of the very few Vireyas that grow at sea-level it will be hard for us. I have also bloomed a different clone of R. zoeleri once that looked very typical (Sleumers Book) that had normal flowers.

We should get a lot of answers from the Viners about the above statements like; well look people, here is why flowers split_____, and sure I have an easy to grow form of zoeleri and I will be happy to send out a few cuttings to people who will then share them around, and are plants that grow at see level in the tropics hard to cultivate? etc. ??

From John Rouse, Melbourne, Australia
Dear Vireya Viners, June 29, 1987

In September 1981 the pollination R. retusum X R. nudiflorum (R. periclymenoides) was made as part of a program that Professor Bruce Knox and Dr. Elizabeth Williams were working on to investigate sexual compatibility barriers in Rhododendron. The female parent is evergreen in section Vireya and the male parent is a deciduous azalea in section Pentanthera. The cross spans the breeding barrier which separates the lepidote from the elepidote Rhododendrons. Seed was collected and sown in January 1982 and the few seedlings which resulted were reported as being 4 to 5 inches tall one year later in Vireya Vine #3, March 1983. Hybridity was confirmed soon after the seed germinated by the characteristics of the juvenile indumentum on the first true leaves (presence of glandular hairs and absence of scales).

During the last five years most of the hybrid seedlings died. They never looked particularly healthy and it was as if they could not make up their minds whether to be evergreen or deciduous. One seedling, however, has shown better form and vigour, producing many new shoots from the base. It now is 36 inches tall and a few weeks ago - after 5 1/2 years - a flower bud dormant for the last few months showed some pink at the top. Slowly the bud burst and all but one of the flowers are now open. The flowers have pink 5-lobed corollas and there are 14 of them in the truss. The corolla length is 27 mm long, diameter at the base 4 mm and 20 mm acrost the lobes. The pedicel is 10 mm long. There are (5) 6 (7) stamens per flower and the pollen tetrads are shriveled, only 30 um in diameter even when hydrated and completely sterile. No part of the flower, or the bush itself for that matter, could be found showing scale like those to be found on the flowers of R. retusum. The style length is 24 mm and the pistil length 27 mm.

Back crosses with fresh pollen of R. retusum and stored pollen of R. nudiflorum have been made to determine the fertility of the hybrid as a female parent and hopefully to get seed. Because of its suitable style length, 32 mm, and the availability of fresh pollen, R. laetum has also been tried as a male parent. If seedlings should result from any of these pollinations, one wonders what form their juvenile indumentum will display on their first true leaves!

R. retusum appears to be compatible as a graft on R. 'Fragrantissimum' as well as hybrid Vireya stock. Only time well tell if R. retusum x R. nudiflorum is compatible on R. 'Fragrantissimum' and even if it is long term incompatible it may, as Leslie Riggall suggest in Vireya Vine #12, January 1987, hasten the production of further flowers.

John Rouse
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Editor Note; This is great what you have done John. This is the first time that I can remember of the Vireya hybrid cross with another Section of the Genus Rhododendron. Oh sure I have heard of them but do not know anyone who

has seen them. Why did you pick and American azalea to make this cross on? Would it not be logical to cross the scaly leafed Vireya on with a scaly leafed Rhododendron from the Section Rhododendron. You have talked in the past about what seems to be the important aspect of style length. Do you still think that this length is very important? Good Work. EWS

From Clarice Clark (Propagator) Rhododendron Specie Foundation
Dear VV, July 24, 1987

The RSF is constantly re-evaluating it's collection and would be interested in other collectors experience with R. acuminatum and R. rugosum. Both have bullate leaves and a wide variation of leaf shapes. (I rarely get to see many of the Vireyas in flower as I am constantly pruning to produce wood for propagation. Many of the plants are also only a few years old and have not bloomed yet or are represented in the collection buy only one or two specimens.)

Dr. Mossmen inspected leaves from two plants (acuminatum & rugosum) under the microscope and found they all have stalked, dendroid scales. This would make both specimens R.rugosum. I would be interested to hear from other growers with experience in blooming acuminatum and with their experiences with the range in leaf shapes of rugosum.

I was impressed with the color photo of R. tuba in the Summer 1987 ARS Journal. Ms. Hilda Crouch of Australia sent in a small article and photo. The RSF would like to acquire some cuttings of tuba as our plant under that name has bloomed and is obviously not tuba, but a hybrid. A very nice hybrid - I would say R. superbum parentage with pink color from somewhere. Not fragrant in my opinion, but easy to propagate and a huge truss. We acquired cuttings in 1983 from Peter Schick and perhaps he can furnish more information about it's origins.

I have just received a letter from Mr. Blumhardt of Koromiho Nurseries in Whangarei, New Zealand. He sells Vireyas and I am wondering if anyone is headed down that way in October of 1988. This is North of Auckland and off the beaten track, but it looks like he has an extensive collection and some new acquisitions of which he doesn't have enough wood, yet to sell.

Clarice Clark
Rhododendron Species Foundation

(Ed. note, Don Stanton sent me cuttings of R. acuminatum in 1973 which I grew on. It is not an easy plant for me. Only grows once per year, slow to root but always roots and has not bloomed yet. The plant that the RSF has is from me and I have no reason to not think that it is acuminatum, but I have not checked it out with Sleumers book, it is the only plant named R. acuminatum that I have ever seen and it is very hard to tell what species you are looking at in any plant family. It does not act like plants that I have of rugosum which I find easy and a fast grower. They do look much the same though.)

The fourth International Rhododendron Conference

October 1st to 5th, 1988 - Wollongong - New South Wales - Australia

I now have the official program in hand. They have five full days planed for the Rhododendron people who attend. The first 2 1/2 days well be sessions at the Wollongong University (with afternoon tours of the area if you want to do tours instead). The forth and fifth days will be special bus tours of gardens. I think that the prices for the Conference is very reasonable. The registration fee is $75. The bus tours on day 4 and 5 are only $22 and $24 each. Remember that these are Australian dollars. I think that the Conference cost in U.S. dollars will be about $120 including the tours.

If you are considering going to this Conference you should write to the
The Rhododendron Conference Organiser
P.O. Box 1988, Wollongong East, 2500
New South Wales, Australia

The program has special items in it for us Vireya Nuts. Dr. Ben Wallice, Rev. Norman Cruttwell, Graham Smith, Dr. George Argent and Graham Snell will all speak about Vireya Rhododendrons.

NOTICE TO ALL VINERS; I need your letters. The Vireya Vine is not something that just happens. YOU make it happen with you letters and stories.

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