VIREYA VINE

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E. White Smith, Editor

From Fran Rutherford — Port Orchid, Washington
Dear Vireya Vine — September 2006

This summer I have been moving my Vireyas out of pots into bins located in a medium sized glass greenhouse. The mixture in the first bin is equal parts of chunky peat, perlite and bark. In the second bin, the mixture is the same except fine peat is used in place of chunky peat. The third bin is 1 cubic foot of dolomite, 1 cubic foot of compost, 2 cubic feet of fine peat moss, 2 cubic feet each of three different types of bark. In pots, some of my plants were often a bit off color due to chlorosis. Now all have recovered and growing rapidly.

The best performer, by far, has been Lochiae from Mt. Finnigan. E. White gave me this plant some years ago and it has always been a good performer but a slow grower. Now that it is growing in a soil mixture the flower color is what it should be and the growth is rapid. If you are looking for a plant that flowers heavily, try this one.

Fran Rutherford

From George Klump — California
Dear VV — September 1, 2006

To Fran, noting what you have done here which is great, I would offer one caveat on 'bin #2' as you have described it here. We began experimenting with coarse peat moss ("chunky" as you have termed it) nearly 30 years ago and found it far superior to the fine grain peat by any measure. In fact no one in our ARS chapter will use the 'fine grain' type at all, only the coarse peat. We have found that it is very dangerous to the overall health of our plants for this reason: it easily cakes and becomes hard as cement thereby shedding water like off a duck's back. Vermiculite will also cake and cause problems, since it is an industrial byproduct, not a natural one, as is perlite.

We did some experiments at the UCLA botanical gardens about 30 years back with different mixes for rhododendrons, both lepidote and elepidote, and found that the mix of equal parts by volume of coarse peat moss, perlite and redwood bark (1 - 1 - 1) was by far superior for all sorts of botanical reasons. We also experimented with compost and fir bark and, in the case of compost, found that it broke down after about 5 years and returned to soil. The coarse peat moss, perlite and redwood bark mixture was still going strong after nearly 15 years, so we have stuck with that one.

The redwood bark breaks down so slowly that it is almost not noticeable over a reasonable time. There is always a little tannic acid bleeding from it which helps to keep the surrounding soil acidic. This tends to keep weeds down, too, we have found, although it is not a panacea. Kellogg produces it in 3 cubic foot bags under the name of "Big R" it contains very minor amounts of humus and urea.

E. White Smith has a similar mixture which also works very well. It is made up of coarse peat moss, perlite and orchid bark, the latter being really Douglas fir which is in abundance in Oregon.

Because pumice is readily available there, too, he has a mixture which is (1 - 1 - 2) coarse peat moss, pumice and Douglas fir bark which sold under the name of 'orchid bark'. The bark he uses in two parts instead of one. However, I suspect any good bark will work.

We found that certain kinds of bark broke down relatively faster than others, one being pine bark which seems to break down rather quickly at least in our soils. Dolomite on the other hand would be, one would suspect, slightly alkaline. Maybe not.

At any rate that is our experience over the past 30+ years with lepidotes and elepidotes. As you have found out, planting them in the ground is really best. Their roots seem to enjoy the freedom. My soil here is largely decomposed granite which drains rapidly. I have probably 80+ vireyas and elepidotes outside in the soil and they all grow beautifully. I use the mixture to start them off, when they are first planted. Then, they're on their own! Drainage is the key to everything we have found. Vireyas seem to be able to take all the water one can give them so long as it drains away just about as fast as it comes in. Out in nature where seeds make the difference on survival, vireya seeds (with 2 tails) often land in trees and take root on tree branches. Large amounts of rain hit them as they grow on the branches. However, the water rolls off the tree branch just about as fast as it falls from the sky. That's the way we view lepidotes and elepidotes here, too.

As for fertilizing them, I tend to do that Easter, 4th of July and Labor Day. High phosphorus (10 - 30 - 10) on the first two dates with high nitrogen (30 - 10 - 10) on Labor Day. Maybe some Nutracote, too, sprinkled around (13 - 13 - 13) just to provide a level amount of food, since it releases itself over a period of 6 months. That's just what I do. I find that fertilizer should not be too strong, since it seems to be more effective with vireyas, if it is not. Careful with 'bin #2.

George Klump
Southern California Chapter ARS

From Joel Freudenthal Tualatin, OR.
Dear VV September 15, 2006

Seeing the Vine on the internet, induced me to write a few words. First Alliete is available (at least 2 yrs) in California, under the Monterey Bay brand. It does seem to work, but can not be used all the time, because the fungus will become resistant, which has happened at some nurseries.

I was really enjoying the conversation and thought I might add my thoughts about Vireyas, temp. and the fluctuations of temperature in the greenhouse and in the ground. I am in agreement with everyone's experiences with Vireyas. They do seem to stop growing when the temperature gets to cold or to hot. Vireyas I am growing seem most active when the temp is warmer in the daytime 60 to 85 +/- 5 F and cooler at night. A temp drop seems to be appreciated and can go as low as 40 F +/- 5 with some vireyas without skipping a beat. When the temp get this low (40+/-5), in the daytime, it seems that I do lose some flower buds on some vireyas and some maddenia Rhod. Maybe even loss or damage of young growth. I really agree with Mr. Klump's observation about growing in pots and temperature change. Also, this is the problem with my greenhouse. Until the daytime temperatures cool down here in Portland below 80 F. It seems better to leave my potted vireyas outside under a shade cloth. I think the pots (and plants) are heating up to much in full sun or in the greenhouse and causing problems.

I have been trying to bury potted plants in the summer, and it really seems to improve the plants ability to take full sun or some of the highest day time and night time temps and not suffer for it. I think that you might have to be concerned about drainage and keep an eye on your Vireyas, maybe creating some kind of "French" drain like runoff system. A lot of people are now planting their Vireyas in permanent raised beds in the greenhouse and outside with great success. I would guess that it helps with the temperature highs and lows of the year, reducing the dormancy, bud loss, and new growth damage (and even loss of the plant itself due to stress).

Joel Freudenthal
Tualatin, OR.

From George Klump
"I think that you might have to be concerned about drainage and keep an eye on your vireyas. maybe creating some kind of "French" drain like runoff system".

This statement is for me the critical point for raising vireyas or elepidote rhododendrons, too, for that matter. It seems to be true with vireyas in the wild, especially those whose seed happens to land in trees. In those cases, the tree locations, rainwater washes over the roots and falls to the ground just about as fast as it falls from the sky. So vireyas, orchids and a dozen other similar plants can survive quite well on a tree branch without any root damage, since the water drains away about as fast as it comes in. The same is true in the soil in the wild.

My own soil is basically decomposed granite with sand under it. Drainage is rapid and there is very little concern for phytophthora here. This also means that the vireyas et al may be fertilized perhaps a little more frequently than otherwise merely because of the fast drainage which tends to prevent a salt buildup. However, I discipline myself to feed my plant roots usually only 3 times during the year: Easter, 4th of July and Labor Day, the first two dates with higher phosphorous and the last date with a higher nitrogen fertilizer. This seems to work well and none of the plants have filed any complaints so far. I can foliar feed them more often and sometimes do this and they love it. But I find even that requires some care with the younger, more immature plants. No point in racing their little motors before they're ready.

George

From Roland Bazley Auckland, New Zealand
Dear Vireya Vine October 2006

Well White, I owe you a vote of thanks for your suggestion that I contact the Brian and Jan Oldham over in Meadow bank in Auckland. It was a shock to the system to see what they are doing with Vireyas. I had come to believe that bright midday sun was to be avoided. That is plain wrong if the 2m. trees (Vireyas) they are growing are considered. Many species and hybrids are blooming profusely at their place in full all day South Pacific sun and the sunburn I had previously found on my Vireyas was nowhere to be seen. I have had no problems setting flowerbuds and subsequent blooming with my lower sun regimen, but it does restrict where I can place plants and the shelter/shade makes for generally very pretty foliage, the shelter also helps with the wind where I am. I will slowly acclimatize some to full sun and see how they go. On that matter, do you have ideas about which species/hybrids may be most suited? I have been wondering if leaf size/texture could be an indicator. A small shiny leaf such as on "Plum Pudding" or sp. goodenoughii might work?

Next surprise was the ground planting. All my plants are potted, both Vireyas and others. Not so at the Oldhams. The secret seems to be in the medium. The C.A.N. treated Pinus radiata bark fines they use exclusively is neat because it is readily available and an eco friendly use of waste from plantation timber harvesting. To learn that was all of their Vireyas are growing in requires some adjustment of thinking. However like most great ideas, once the thought goes into it, beautifully simple. (Why couldn't I think of that?). It's true I have read from the Vireya groups about mixes and bark use, but seeing is believing...

Brian's methods of propagation, both by seed and cuttings have been the same: ingenious and simple at the same time. I have already implemented some of his ideas. I plan to stay in touch with Brian and Jan and hope to learn more from them.

I am particularly enjoying the back issues of Vireya Vine, and especially the Anthology of articles on Vireyas from the A.R.S. Inside I have found an informative and readable discourse by an expert on every query I have made of it so far, with still many pages to read through. Almost makes me want to go to PNG to find some of my own Vireyas. (just kidding, I have flown over the island many times and no way would I want to take on the jungle there in the highlands or down at the coast either for that matter).

Regards
Roland Bazley

PS

I have transplanted some Vireyas to test how they go in this new medium. One immediately noticeable advantage has been the stability of the mix in wind. That is, the interlocking character of the bark has been holding the newly repotted plants well in position during the last week of high winds (up to 40kts) around here. I had already repotted before the winds arrived and having in the past seen freshly repotted plants pushed over in the pot in spring winds when I was using a soil based mix, it was a relief and a pleasant surprise to see these plants still upright and stable in the pots. The same winds have snapped the young tops off my more exposed Roses and Grapes and shredded the leaves on several others as well as tearing the flower buds off my Oranges and Mandarins. I try to shelter things as best as possible but the wind is pretty persuasive. Sometimes you just hang on to your hat. Trusting you are enjoying the arrival of fall colours.

PSS

I have asked around to get some detail. C.A.N. is short for Calcium Ammonium Nitrate. I am told the treatment is added as a nutrient to speed up the microbial decomposition process. It also stabilises the nitrogen levels as the bark leaches nitrogen from the surrounding media. It is deployed over an 8 to 12 week period onto new bark. "Fines" refers to bark particle size. I think the bits that fall through the grading drums are gathered up. They seem to vary from almost dust through 6~8mm in size, the variations serving to provide density. A big plus was the naturally anti phytophthora action of the bark itself. The manufacturer told me the process originated in the US so there may be someone near you making this product.

He also told me of a mix (per cu m. of CAN bark fines) for Rhododendrons incorporating 15~20% coir which had been flushed for a period with fresh running water when first expanded to reduce sodium chloride levels which he said can be elevated in coir products. He added the coir to assist in water retention. In addition he mixed 1kg Saturaid wetting agent to break down the surface tension of irrigated water and mixed in 3kg. Osmocote plus 9 month. His explanation for this was that once the CAN treatment was completed the bark was stable but had used much of the nutritive value in the treatment. He told me that the Osmocote was most effective mixed into the bark. I have always lazily sprinkled the granules around the base of the Vireyas and left it to dissolve over time, apparently much reducing its effectiveness. I asked him about using ground Pumice or sand and he said whilst these were good, the above mix was complete and didn't need them. The above mix has a pH of 5.5~5.8.

Well that's all I have on CAN for now. Hopefully I can get results like the Oldhams have achieved. I have seen some comments on the web about using Redwood bark in your area, also saying that it has some protective action against Phytophthora, maybe it is more or less the same as radiata bark for this application. Whether or not it needs CAN treatment is the thing. I have also seen comments about the risk of disease from coir sourced from some countries. Kind Regards

Roland Bazley

From: Tom
To: vireya@yahoogroups.com
Sent: Friday, November 10, 2006 2:15 PM
Subject: [vireya] Coir, salt and pathogens

Let's get a word in for coir! This is a fine product, and, it's easy to use. Coir comes in many forms, from the fine ground dust (coco peat) to assorted chipped material from 3/8" to 1 1/2" and is available as fiber too. They also now make coco charcoal (activated). In years past as the market for coir was being developed the salt and pathogen issues were debated and examined. The salt problem is easy to overcome, though I doubt that it is/was really a problem. The coir must be soaked prior to use and is easy to rinse with fresh water to overcome any "salt" problem.

Pathogens? You will always have pathogens in any mix you use. It is the culture practices that give these opportunists the upper hand. Coir contains natural Aspergillus mold, this natural innoculant is an aprophyte fungus, and a very good agent to prevent pathogenic organism attack (this is the group of fungus which gave us penicillin ect.).

I know that many people say many things about coir and I will respond by saying if you use coir you need to adjust some of your culture practice to get good results. I use it and find it an excellent renewable, sustainable, natural material that makes for a greener planet Earth! Tom

From George Klump Southern California ARS
From the internet 11 November 2006

Coir is a fine product, Tom. If it were not, we would not have invested in it (c.166 cubic feet) for the expansion bed of our vireya project at Descanso Gardens near Los Angeles. And we have it available to us, as you have indicated, in at least 3 forms plus it can be used as wattle, if one has an erosion problem. We are using it as a test case for the expansion bed in place of the coarse peat moss we used in the original bed. However, I did point out to Pete Adams in Hawaii that 3 universities here independently found the coir from Sri Lanka tainted with pathogens, that is, their botanical labs did. What kinds of pathogens, I do not know nor does it matter.

Since we have a source for coir which to-date contains no pathogens (and they are very proud of this and their state-of-the-art equipment for producing coir), we see no reason to take chances with our vireyas in a professional botanical garden. Azaleas are a little more forgiving.

Contrary to the idea that "the salt problem is easy to overcome", the rhododendron family of plants, except for the subfamily of azaleas, is not dimorphic. That is, rhododendrons, both lepidote and elepidote, cannot dump excess salts through their leaves, as can azaleas. Therefore it is in our interests, or perhaps I should say, it is in the interest of the vireyas, a lepidote rhododendron, to be as free of salts going in as is possible. This is just one reason why we stress rapid drainage as an essential element in the planting of vireyas and elepidote rhododendrons.

As for coir, we can say that so far it is working beautifully in our expanded vireya garden at Descanso Gardens. We've gone 12 months with it now and there is to-date no difference between it and the coarse peat moss.

George Klump
Southern California

Another new Vireya book. (At least about a Vireya person). The book is "Oswald Blumhardt, New Zealand Plant Pioneer" by Catherine Ballard. Published by Touchwood Books, Box 610, Hastings, New Zealand. Their web site is www.touchwoodbooks.co.nz I have 6 copies that I will sell and mail in the USA. Outside the US please go to their web site and order from them. The price in the US will be $30 postpaid.

Many of us Vireya nuts have met Oz Blumhardt over the years. He was one of the early important Vireya growers. I was at his nursery north of Auckland at least four times and knew OZ as a friend. Oz passed away this year. He was a plant hunter and collector. The book is about his life, his nursery, his introductions, and his plant hunting in the south pacific area. 119 pages in soft cover with 16 pages of color photos. Very nice and well done.

I also hope to have another 8 copies of George Argents "Vireya Species book" soon. If you are really serious about Vireya Rhododendrons you need this book. You can get it from the Royal Horticultural Society in London on the web at www.rhs.org.uk (outside the USA). If you want one of the 8 copies I have on order you need to let me know (I have 3 copies sold already). Not sure of the price but it should be about $70US. The book is also available at the RSF gift shop. Retail price is $100.

Sent: Tuesday, July 18, 2006 10:27 AM
To: vireya@yahoogroups.com
Subject: [vireya] Re: The Dreaded Phytophthora

In vireya@yahoogroups.com, "Rob Wagner" wrote: Here in south Florida it is a big issue. We are now into our hottest, muggiest months and I have lost two vireyas so far despite what I thought were careful planting methods. Both were in pots. I feel that if I ever figure out and conquer this problem nothing else will be a big concern (except hurricanes, but that's another story). I would be surprised to discover a single member of Ericaceae that is particularly resistant to Phytophora. I've lost so many beautiful Rhododendrons including Vireyas to Phytophthora that it makes me heartsick. I've also lost Ericas, Pernettyas, Gaultheras, and Agapetes, not to mention lots of plants with Southern Hemisphere origins (Southern Hemisphere didn't have it until historic times when humans brought it in, and many of them have practically zero resistance). I will say this much, for what it is worth: irrigation seems to help spread the stuff. Rhodies that need less irrigation are less apt to get it. Overhead irrigation is supposed to spread it, and so is water flow. So if planting on a sloped ground it's better to have them high up than down slope, and if irrigation is necessary, leaky-hose drip systems are better than overhead irrigation.

Hot weather is double-trouble because if heat and drought don't get them, spraying them with water might spread the Phyto and that will kill them...plus most species of Phyto are more active in hot weather anyway. Muggy weather is really bad. Often it kills so fast there is no time to do anything; by the time you notice something's wrong it's a goner. BUT I seem to have at least one Phytophthora that kills stems and leaves but is slow enough that sometimes I can spray with sulfur and save the plant. Usually the branches are goners but sometimes I can save dormant buds.
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From Christy Hartsel

Rob, I too lose one or two vireya every year to the fungus among us. They always seem to be the recently transplanted ones. I have gone to using Alliete (or Subdue) as a preventive in July on the newly transplanted. My warmest weather tends to be in late Aug. and Sept. The plants are already dead if you wait for first sign usually drooping new growth, then I just get lots of cuttings. I also move my plants to full shade when it is hot. Thanks Christy Hartsell, Palo Alto in sunny California

From Graham Price — Melbourne, Australia
Dear VV, — November 2006

Terribly sorry to see that you didn't have any letters or articles to print in the last issue of The Vireya Vine. We 'Newsletter Editors' cannot let that happen – so I am writing this letter for your next issue. I could go into a deep analysis of why there aren't many people writing letters or notes on Vireyas for newsletters, but it would probably be rather boring for your readers. So I will write on vireyas instead – much more interesting.

I have recently been reviewing the results of a hybridising experiment I have been conducting over the past 5-6 years. I find the results interesting and informative and maybe your readers will too.

Brian Clancy (the same Brian Clancy whose letter you included in the last issue of the 'Vine') once told an audience at a monthly meeting of the local Victorian Branch of The Australian Rhododendron Society (sometime in 1996 I think) that when doing hybridizing one should try to use as parents the very best forms of species or hybrids and not just use whatever happened to be flowering at the time.

He stated that he had followed this rule and made several crossed using the best varieties of species he could lay his hands on and that he expected some outstanding results. I recall he mentioned the Tom Lelliot form of laetum, the Michael Black form of zoelleri and phaeopeplum (didn't mention a particular form of this) as being wonderful parents. Brian suggested that if one did use quality parents then one could expect to get a much higher percentage of quality offspring than usual – the usual proportion being only about 5%. That is, only 5 out of every 100 seedlings from a cross are usually worth keeping, the rest should be destroyed.

At a Society show about a year later Brian was selling small seedlings of some of his crosses and I bought two, both (phaeopeplem x zoelleri) x superbum. These two plants developed to be quiet similar, but one is definitely better than the other – large flowers, 5-6 per truss, white flushed pink/mauve with a lovely perfume, new leaves that remain deep tawny brown and velvety rough for a long time on a tall-growing plant. I regard this as one of my 'best' vireyas. Brian was certainly right about outstanding seedlings coming from quality parents.

I had another hybrid that I was quite fond of because of its flower colour, which was a peachy orange – {(laetum x aurigeranum) x zoelleri Island Sunset) F2}. That is, the {(l x a) z} hybrid was 'selfed'. It is a much smaller and compact plant with round, shiny light green leaves and it always caught my eye as being something different and better than most – another of my 'best' vireyas.

So, when I was at the peak of my hybridizing frenzy 1999 I remembered Brian Clancy's advice and chose to make the cross between these two of my 'best' vireyas. I knew that the big differences between these two plants was likely to produce a wide range of characteristics in the seedlings so I set myself some high expectations. I also committed to keeping a reasonably large number of the seedlings, at least up to flowering stage.

Over the next 5 years up to flowering (I don't push my plants into early flowering – some are only now flowering for the first time) I noticed a wide range of leaf shapes and colours (smaller, green and shiny to tawny/plum and velvety) and different plant habits (small and bushy – tall and lanky). Some of the early flowers also showed signs of quality, though there were a few that were obviously rather poor.

Earlier this year I still had about 160 of these seedlings – all in black plastic pots in a shadehouse - and some were getting rather tall and difficult to manage. So, I contrived to get access to (that is, take over and manage) a single empty garden bed at the foot of the apartment building where I live in central Melbourne. The bed is 8.5m by 3m and I planted all these seedlings in the one bed, 40cm apart in seven rows. My logic to justify planting them all together, the better ones and the bad ones (plus one plant of both parents) is that I see merit in comparing between the offspring and with the parents and that, even though there would be big differences between the plants and flowers, there would be a single pallet or theme that connected them all. There would be value in the bad plants even if only to show off the better plants.

Flowering has continued as the plants made adjustments from the pots into an open garden bed. As prophesied by Brian there are some real beauties among them - large bright pinks, orange/pinks, subtle mauves flushed white and even one pure white with a lime-yellow throat. I look forward with some eagerness to these plants settling in, growing bushier and flowering more consistently – many years of enjoyment.

My estimate is that if I didn't have the plan, or the capacity, to keep all these seedlings I would probably select about 40-50% as worthwhile keeping – much higher than the 5%. Though what I would have done with 65-80 plants I really don't know.

However, what I can now do is take cuttings from the very best of the plants and distribute them to members of the Society so they too can enjoy the 'best' of my vireyas. As I have said elsewhere, the only way to save and persist with a particular variety is to give it away – but that's another story. Cheers

Graham Price (lithic01@bigpond.net.au)

See Chris Callard's wonderful Web site at www.vireya.net
Get into this group and let's talk about Vireyas www.groups.yahoo.com/group/vireya

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Catalog on the internet (Mail Order)

Glendoick Gardens (Kenneth & Peter Cox
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www.pacificislandnursery.com They also handle the Vireya seed exchange. WorldWide.

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