## VIREYA VINE

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E. White Smith, Editor

From Craig Morell Dear Vireya Vine,

Miami, Florida October 08, 2008

A Tale of Woe, Basic Problems, Fungus Among Us, and a Call for Help. I've been meaning to write an article for the VV for some time, and now is the time for it to be written. I am the horticulturist for what was formerly known as Parrot Jungle in coastal Miami. Pinecrest Gardens is now a 14 acre public park and garden, and I have spent 4 years restoring it to its grandeur of 30 years ago, when it was a private institution. I may, if I'm lucky, finish the work in another 4 or 5 years. One of the specialties of the Jungle from decades ago was its spectacular aerial gardens, a simpler term for epiphyte collections. Original to the 75 year old property are massive Live Oak and Bald Cypress trees, many of which have thick stands of resurrection fern on them, in which fern I had hoped to grow Vireyas, epiphytic cacti, half a zillion bromeliads, and the requisite rainbow of assorted orchids. The basic setting is a rainforest, courtesy of the cypresss stand, and a number of other ecotypes ranging from grassland to Caribbean rockland to totally tropical rainforest lowland.

This setting would be ideal for Vireyas, albeit a very very small section of the overall subfamily. We have the abundant rainfall, both natural and artificial, the high humidity every week of the year, and a horticulturist (me) who knows the subleties of these rather finicky eaters of the plant world. I have read the VV for many years, and envy those people in almost every other state who can grow Vireyas, and turn green when I hear tales of some Vireyas used as small trees. In our always-warm-at-night climate, where the nights can easily sit at 76 F for months at a time, and as much as 85F at midnight, we are challenged to grow these plants. Several local growers have tried, but we end up with spindly tall plants that may pop out a few flowers now and then. One of the biggest challenges here is the pH 8.5 water, loaded with calcium and often other things as well. Even in prepared and defined media, we would have to use distilled water as irrigation water. Some growers have done just that, in an effort to keep them alive. Even when we bypass water quality issues, the ever-present root rots which seem to be in the air itself often wipe out our plants. With the confluence of high night temperatures, the basic water, and ever-present fungal problems, I'm tempted to give up hope. It seems to be a gardener's nature, however, to grow things he shouldn't e.g. coconuts in Chicago, and tulips in Miami. Therefore, since we are in the lowland (elevation 7 feet) sub-tropics with terrible water, is there any hope for my effort trying to grow Vireyas? Are there "rock solid" hybrids which can tolerate really adverse conditions?

Our daytime temps can easily stick at 92F or more, and the coldest winters can be below freezing, preceded just two days before by days in the 85F range.

I believe that southern Texas has, or used to have before the hurricanes, the same weather and water woes I have. Can anyone offer some advice?

I don't think I'll ever be able to grow these plants just sitting on a mossy tree while using our groundwater as irrigation, but possibly hanging baskets of an acidic mix? I envy the growers at some botanical gardens with the climate and water quality to grow the really sensitive things. I visited Ron Determan at the Atlanta Botanical Garden, and was amazed at both the conditions he has, and the expertise he has to grow some of the most demanding plants in the world. I am open for suggestions, or for some names of people in my area whom I might consult to see what I may be able to do. I used to grow Vireyas in West Palm Beach with some ease, using a neutral well water, and an orchid mix for Phalaenopsis orchids. That was 8 years ago, and just 75 miles north of here. The minor difference in water and temperature is profound.

Thanks for keeping up the work in publishing the Vine, and I'll write more articles if someone wants to hear how tough Vireyas are to grow here.

Best regards,

Craig Morell Horticulturist Pinecrest Gardens 5855 SW 111 St., Miami, FL 33156 CMorell@Pinecrest-FL.gov

From Stephen Brickley Dear VV,

Redwood City, California October 2008

I have had recent problems with more than a few of my Vireya dying. I hate to admit that because I care for them quite well, but I can see that I am not as good a caretaker as I thought. The species can be difficult for me. Also, a cross, Aleksandr Isayevich, died - while it looked perfectly healthy and strong. The leaves went limp. I think I know why these problems exist. Can you tell me if you agree?

I water regularly. The pots don't get a chance to dry out much. They aren't wet, but are evenly moist. I use clay pots with large holes drilled in the side for air. The mix is perlite, large/medium bark, and chunky peat. I fertilize as needed during the Spring to Fall with your (Bovees) fertilizer and some fish emulsion in between. I use a chemical on the mix that inhibits root fungus, but I don't think I use it on a consistent basis -- maybe two times a year. Although my Vireya don't need it, they get overspray of a systemic for mildew control. The plants get sun based on their preference -- so I look and see how the leaves are sizing up and see if it needs more or less sun.

I think the problems are: not enough sun for some cultivars and I move them too late. By then the plant has weakened and got used to lesser light. Next, I don't think I repot frequently enough. I think I should repot not necessarily to a larger size, but repot to get the mix more open again. I can repot up a size if I find the roots have extended themselves to the margins. Next, I think I should make my mix even looser, maybe with the addition of some of those Styrofoam popcorn packing things (as in the recent Vireya Vine). I think I should water less and apply the root fungus chemical maybe three to four times a year.

I guess I am especially frustrated because I find that I lose many more Vireya compared to other plants I grow. Not giving up by any means. I have Harry Wu blooming now and it is really something to behold.

Your thoughts are appreciated.

Steve Brickley 85 Waterside Circle Redwood City, CA 94065

From Bill Miller Hello fellow Vireyaphiles, Tacoma, Washington State December 28, 2008

E White is getting a little grumbly about no articles for the Vireya Vine. This is a once a year gripe and we often forget to put a little something in the Vine. I have only contributed once before and I guess it is time to give it a stab again.

My wife and I renovated our 60+ year old glass greenhouse last year. The dimensions are 24 wide, 26 long, and 14 feet high. It now has a twin wall polycarbonate roof which has saved many a sleepless night during windstorms. Our property is full of 100 foot tall fir trees and in the past falling branches wreaked havoc on the glass roof. Moving a couple of hundred tender plants into the house DURING a raging rainstorm while dodging branches and falling glass is a horror we no longer have to contemplate. We have endured a few windy rain AND snow storms this winter.

The only damage to the roof is a ¼ inch hole which was repaired with a clear silicone sealer. What a difference in the quality of our sleep! We have the vireyas planted in 18-24 inch high, three foot wide, raised beds in a horse shoe shape around the perimeter of the greenhouse. There is a center oval full of bananas, elephant ears, and vireyas. The pathways are three foot wide with used brick in a herringbone pattern. The beds are a mix of 20% composted sewage and 80% composted coarse ground sawdust. The sawdust is industrial grade and looks like smashed up toothpicks. Our main fear was not too much fertilizer but that the sawdust would hold too much moisture. The mix actually drains so fast that we mixed in some perlite to try and hold some moisture. Most of the plants seem to be in vireya heaven, only five decided that all the transplanting and change of soil was just too much. It was sad to see them go but that meant there was room for five more! I'm sure Bovees Nursery doesn't mind the business.

The vireyas are doing great but the maddenii are doing better. We prune heavily because if we don't they grow so fast they fall over. We may end up with the bushiest R. edgeworthii and R. lyi ever seen. The orchids won't bloom due to too much water and we may have to put them in their own area instead of spreading them around.

My wife and I try very hard not to spray much of anything and as a result we are battling a persistent mildew issue in the southwest corner of the greenhouse. This corner got a lot of shade due to the thirty foot tall Camellias and the twenty foot tall Rhododendrons growing outside. All of these received a heavy prune and they now stand fifteen and ten feet tall respectively. The Camellias have also been heavily thinned. E White refers to Camellias as weeds but we think they are pretty and feel that their roots don't compete much with the Rhododendrons. The SW corner is much brighter and we are keeping the mildew at bay inside the greenhouse with carefully applied bicarbonate of soda, compost tea, and our aspirin spray. We may add a small fan in that corner if this hasn't resolved by spring.

Bill Miller 806 S. Proctor Tacoma WA 98406 Co-President Tacoma Chapter ARS

From Paul de Jager Dear Vireya Vine, South Africa
December 2008

Once again, thank you for the Vireya Vine Issue #84. As usual I found it really interesting especially enjoyed the info about the history of the Vireya Vine and other Vireya publications and about Peter Schick. I corresponded with Peter a few years back and he most generously shared seeds with me, not Vireyas in that case but other warm climate rhodies. I was also interested in reading about David Fluharty's experience – not too much seems to get published about Vireya growing in warmer climates (and it is comforting to reflect on the absence of leaf-eating ants where I live! My mind was boggled by the scale of the operations Dennis Bottmiller described in the US and Germany. For bringing all of this together for us your work on the Vine is appreciated! It would be a poor show, I feel, if all of us subscribers just let the Vine die due to a lack of submissions. If you can see your way clear to keeping me on the mailing list, I will be grateful. Living where I do and being accustomed to mostly having to extract relevant information from horticultural publications aimed at people. I grow my plants under conditions which are extremely low-tech in relation to much that is described in the Vine. However, given Lucie's comment near the beginning of issue #84, maybe this fact might add to the appeal of anything I submit! I can't recall who said it, but I read somewhere that a garden is a process, not a finished object, and my experience, especially with Vireyas which are essentially new to horticulture (certainly in this country) very much bears this out. So I regard my effort as very much a work in progress.

I think it would be useful, first of all, to describe the physical environment here. Our garden is situated a little under 30 degrees S. in the eastern part of the country (where the rain

falls in summer, and winters are relatively dry), about 75 km from the nearest coast, and about 100 km from the Dahenberg escarpment and Lesotho, where the highest mountains in the country occur (over 3000m, 9843feet). Our altitude here is 800m (2624 feet) and we are part way up a steep southwest slope that rises several hundred meters above us, and has natural forest below its crest. We are located at the lower end of a mist selt.

We gardeners are not particularly prone to extolling the virtues of the climate in which we garden, especially if we strive to grow plants which are not naturally perfectly at home in such a climate! So I don't think anyone will be surprised when I say that the climate here is far from ideal for the cultivation of Vireyas! This climate in summer is pretty ideal – at least for the cultivation of rhododendrons originating at relatively low altitudes and latitudes, as we get a lot of rain and some misty weather, and the humidity stays pretty high (our) rainfall is over 1ml year, which makes this one of the wetter spots in the country while daytime temperatures vary from cool to warm to hot sometimes (over 30 C = 86F) and nights are, with few exceptions, pleasantly cool.

The big climatic bottleneck here, as far as rhodo growing goes, is the cooler season, which is too dry for the comfort of such moisture-loving plants. From April, usually to August, the humidity is low, and very little rain falls. To some extent, the cooler temperatures compensate for this dryness, but the management of such plants is rendered particularly difficult by the occurrence of 'Berg' winds---strong, hot, very dry winds which blow down from the high interior, usually all night but sometimes for a few days running. These occur from time to time, mostly during the dry season, and most frequently in autumn and spring. These winds can thoroughly desiccate the soil throughout the garden within 24 hours, so that the effect of the cooler temperatures during this time of year, and serve to reduce moisture loss, can be completely overridden. Located as we are in a thermal zone, we don't actually get frost here, though it occurs on top of the scarp and down slope of us, though overnight lows sometimes go close to 0 C. Mostly overnight minimums in winter are in the 5 to 10 C range (40 to 50F).

Dry season stress not withstanding, from the point of view of a would-be Vireya grower, this climate allows one to grow quite a few of them without recourse to artificial heating---the 'quite a few' being those tolerant of some heat. Thus one can pursue this interest without incurring the expensive and elaborate structures, or heating bills, and without making a very big carbon footprint. One just has to do a lot of watering.

The soil in our garden is mineral rich, clay loam, and it has reasonably high organic content. It seems to be too fine grained and rich in organic material to be well suited to rhododendron roots especially those of Vireyas species which are epiphytes.

Weeds are easily pulled during the rainy season and most plants including many rhododendrons do ok in it, but it dries out to concrete-like consistency in winter and takes an awful lot of watering to keep moist. So besides the need to provide a lot of water for almost half the year the

other big need, as far as rhodie culture goes, is to provide a suitable growing medium which will retain moisture and air in large quantities. Initially I experimented with Vireyas in clay pots, using mostly peat or palm peat and washed sand with a little gypsum added, but I didn't find this very successful. I think it is always difficult to supply a lot of oxygen to the roots of potted plants, and in our warm, wet summer weather the growing medium of potted plants tend to get sodden no matter what arrangements are made for drainage, and it also decomposes faster than I have time to replace.

I then planted some plants on the native soil, as it were, with a shallow (5 to 10 cm) deep layer of peat/sand mix or in a small pocket of humus-rich medium among rocks. Some of these have done ok – e.g. R. lochiae (flowering now) and R. notiale (just finished) planted in the pocket. Also a seedling which looks to be quite close to pure R. macgregoriae and generally flowers its head off in autumn. While these plants do flower I still feel that they are not doing the best they can. They need frequent watering in the dry season.

My most successful results so far have been in a structure which I erected to accommodate a bunch of seedlings, mostly rhododendrons and bulbs. The base is a concrete slab – actually an old bridge dating from when this plot was part of a farm – with a slight slope about 1 to 10 – and with a simple tent like structure comprising of scrap aluminum poles and light shade cloth (excluding about 20% of the sun light) over the top. On the concrete slab I layer down plastic sheeting to reduce leaching of alkaline chemicals into the growing medium, then a layer about the thickness of a house brick, of river sand and washed stones, then smaller gravel and some washed coarse sand. On top of this I laid some shade cloth (to make it easier to move plants around without digging into the drainage) then two inches of growing media. The whole thing is surrounded by three layers of bricks just stacked without mortar.

I have tried two types of media, first a 50/50 mix of sphagnum peat and washed river sand (I made sure to wash almost all of the clay faction out of the sand) with some gypsum added. Peat occurs very rarely in the southern African landscape and sphagnum is rarer still – so the peat I use is imported (from Canada I think), I was fortunate enough to be given it, though one can buy it here, at the cost of an arm and a leg). The other medium I have used for Vireyas has the peat component substituted by tree-fern trunk material which has been passed through a shredder. Both kinds have worked well, but I believe that the superb drainage provided by the layers of stones and sand adds to the success of the settings. The shade cloth overhead is possibly not essential, as trees immediately to the north do provide reasonable shade during the hottest part of the day (but it does keep leaves from a large plane tree off the small plants).

Besides watering often (practically every day) during the dry season, and hardly at all during the summer, I do try to provide minimal nutrition in the form of a fertilizer applied as a foliar spray. I aim at once a week but time constraints often lead to several weeks going. I have used

fairly low nitrogen orchid fertilizer and rose fertilizer without noting any difference in plant performance.

As far as the range of varieties I grow is concerned, my interest includes rhododendrons in general – R. chapmanii, molle subsp., spinuliferum, austrinum and some of the evergreen azaleas like simsii. They have done well here in the garden soil. Besides the three already mentioned, R. javanicum, christianae, jasminiflorum, Narnia, and Pink Delight do really well here while the clone of R. zoelleri which I have does grow and flowers magnificently but is not as vigorous as the others. All kinds of rhodies seem to find the conditions to their liking in the structure I have described – R. macrosepalalum flowers well, and a seedling R. excellens has just flowered for the first time and this past spring a seedling of R. decorum grown from seed collected at 3,000m (9800 feet) – rather surprising considering the low level of winter chilling in our climate. My rhododendrons and in particular the Vireyas, have grown a lot more vigorously and flower more freely in the open beds in the structure than they ever did in pots. The next challenge will be to try to create conditions out in the garden that will make their roots as happy as they are now. The down side of the structure which allows seedlings to grow like crazy is that the structure does not grow in size, it just gets full very fast. I hope my humble contribution may be found to be of some interest to readers of the Vireya Vine.

Paul de Jager 72 Warwick Road, Town Bush Valley Pietermaaritzberg 3201 South Africa

Very nice job, Craig, Stephen, Bill and Paul. **You guys really make a difference.** How about the rest of you Viners out there? Paul's comment about covering the old cement to keep the cement chemicals out is a very good point. Old cement does break down and gives off lime and things that plants do not like.

Lucie and I often think about people growing Vireyas in different locations. Maybe we have it too easy here in Portland, Oregon where we put our Vireyas in the greenhouse and turn the heat on. We just had 14 inches of snow and freezing weather for two weeks. BUT we are very careful - we even bought a new electric generator so that if the power went off we could still run the fans for our natural gas heaters in the Vireya greenhouse. The gas will burn but the fans won't run without electricity. We even had a chance to try the generator for three hours during the cold weather. Great Fun! And it is not all perfect when the summer weather gets hot and dry. We do have a spray system in the greenhouse to cool things down but even that is not enough sometimes for the small high altitude plants. We have one live plant of R. saxifragoides (native to PNG at 10,600 to 13,100 feet). When it gets really hot and dry outside Lucie sometimes takes a bit of crushed ice out and puts it the plant to cool it off. And hey, it is still alive and it even blooms. EWS

See Chris Callard's wonderful Web site at www.vireya.net (it has been redone and is very nice. Good job Chris.

## Get into this group and let's talk about Vireyas www.groups.yahoo.com/group/vireya

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