The Vireya Venture

Issue No. 67 April 2008

Editorial

During a recent visit to Auckland on the North Island of New Zealand I was pleasantly surprised to find two reasonably prominent displays of Vireyas at suburban retail nurseries.

One of these nurseries was very small and only consisted of 5 plants. The other was at a large nursery with 7 branches around Auckland. I assume they sell Vireyas at all their branches but I will have to check to make sure. They had a reasonable selection of different varieties that were in flower, mostly hybrids but a few species as well. The different coloured and shaped leaves and their bright flower colours made an eye-catching display near the entrance to the nursery. You can imagine my surprise on seeing our favourite plants on such public commercial display.

On a subsequent visit, when the flowering peak had passed, the plants had been returned to their usual sections – see the photograph. One of the gardeners told me they get them from three local wholesale suppliers and gave me their names, but I didn't recognize the names. The plants were mostly quite small, mostly less than 0.5m high, and in black or green plastic pots. There were about 20 varieties in total and the recent flowering had produced many bunches of seed pods poking proudly to the sky. They were in good condition and growing vigorously.

The reason I mention this is because of the contrast with the situation in Australia where most retail nurseries don't have any Vireyas for sale, let alone an attractive display and a reasonable selection to choose from. I know there are several individual wholesale/retail nurseries in Victoria and in northern NSW that carry vireyas but they are not on the same scale as a widespread retail chain of nurseries and Vireyas cannot be described as 'common'.

We suspect that Vireyas are not common in suburban gardens around Melbourne because they have acquired a reputation as delicate or

Rows of Vireya plants on sale in a retail nursery at Silverdale north of Auckland, New Zealand.

difficult specialist plants that need the attention of experts and are not for the casual gardener.

As we have said previously we don't think Vireyas should be regarded as specialist plants as they are well suited for the artificial garden beds commonly found around apartment buildings. The soils in these beds is designed to be relatively free-draining, drip irrigation systems with timers are commonly installed and Vireyas offer a good range of sizes for these smaller garden beds.

We suspect that the problem is that commercial landscape gardeners who get the jobs of setting up these gardens haven't heard of Vireyas – or anything else that flowers and cannot be used to form frequently pruned hedges. There needs to be a campaign to educate landscape gardeners of the prospective uses and benefits of Vireyas and it needs to be proactive. We will be looking for opportunities to develop such a campaign and would welcome ideas.

If you can write something (anything) about Vireyas that we can use in this newsletter, and photos too, please send it to:

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One of the many different flower colourations from our crossing, X99-07: [(*R. phaeopeplum* x *R. zoelleri*) x *R. superbum*] x [(*R. laetum* x *R. aurigeranum*) x *R. zeolleri I S*}.

Email from Graham and Wendy Snell, Highfields in southeast Queensland

March 2008

Dear Graham and Janet,

Many thanks for your letter, Graham. Yes, certainly much of Qld. has received more than enough rain so far this year and this will auger well for the farming community in general. However, it seems there always has to be an exception, and guess what, Toowoomba and the Darling Downs where Highfields is located, missed out on the really heavy falls.

Although gardens and farmlands have had a great lift the dam catchment areas have not received enough to lift the reserves more than 1%, from 11% to 12% Our water restrictions remain at level 6 which has prompted us to put in rain water tanks for the house supply as the mains water quality is not good. As you might guess, within a few days of completing the installation, the tanks were full. One of those little miracles that seem to happen to the deserving, or undeserving, as the case may be.

On the strength of this and a bit of extra plumbing, we now have rainwater for watering our Vireya collection, in addition to the propagating bed, so we might be able to overcome some of the problems we have been experiencing up until now with leaf scorching and white deposits (silica?) on the upper surface of the leaves.

It has not rained since we made these changes and the tank level is dropping at an alarming rate, so we may have to alternate between rain and bore water for the plants. The ground growing plants have not shown any adverse reaction to the bore water, which is a relief. Local lab tests place the bore water at only just below potable standard, with a higher than average silica content.

We are both keeping reasonably well, persistent head colds being our main complaint. However the dogs, well specifically 13 year old Asuta, the Shiba Inu, has caused us a lot of concern. Firstly was a problem some three months ago with a paralysis tick which lead to heart damage and now there is a reaction to the necessary medication. This is causing us a lot of worry and disturbed nights, so I guess you could add those to our head colds to make up our list of complaints!

The R. konori seed you sent in October last year produced 9 seedlings which are now at the 4 to 6 leaf stage. Surprisingly, I have just noticed that some more seeds are germinating, after 5 months. Strange! The seed you sent last month looked very clean and healthy. I did not get them sown straight away, but they are in now, and should do well.

I used to water my seedlings with a very weak solution of fertiliser, *a la* Dr. John Rouse. I used to use "LANE'S Formula 20" at the rate of 1 drop per litre. Formula 20 was a combination of vitamins and the hormones IBA and NAA, but dropped out of the market quite a while ago. I then used an aloa vera based liquid foliant spray "Supreme 750", just 3 drops per litre.

I used to use these products for all watering, and as a folia application. This seemed to keep the seedlings growing without their getting too soft and skinny, however the remnants I still have of these products are 20 to 30 years old now and I hesitate to use them. Using currently available products in the same manner does not seem to be as effective as the seedlings are much slower and inclined to get mouldy and ultimately lose the battle!

John Rouse used to be able to keep his seedlings growing continuously and develop really big root systems. So could I once, but more recently, although I can achieve good germination, I am lucky to keep many of them alive (sometimes none). Development is slow, and the root systems are nothing to be proud of. I would be interested to hear of some success stories from other subscribers to T V V and how those successes have been achieved!

Many thanks for the seed. If you can be bothered there is lots of room in my seedling box, so if any seed of interest comes you way, I'd be keen to give it a go.

Best regards to Janet and yourself, from Graham and Wendy.

Eds. Thanks for the email Graham and Wendy. Good to hear that you are getting germination of the seed I sent – recently sent another packet. I have no magic fertilizer for small seedlings but I remember having some success with root stimulants (seaweed fertilizer) and using Condy's Crystals (potassium permanganate – a very weak solution) to kill fungi without harming the plants. I agree that keeping the seedlings moving and not letting them stagnate is the secret to success.

Another flower from the same cross, X99-07.

Email from Dick Chaikin in Florida

December 2007

G'day Graham and Janet,

Thanks for this (the last issue of T V V) - the very best V V I have read, by far!

I was most amused by your discussion of pots. E White (Smith) and I have had many arguments over the years. He says it makes no difference. I say that my white plastic pots were better for the plant, especially when I was growing them in my greenhouse at Cape Cod Massachusetts. All vireyas, from 4 inch pots up to the largest sizes were in white plastic pots and were of the taller variety of pots. We have here what is called an azalea pot, which is shorter than usual. I used the regular size.

Before having all my trouble with Florida condo grass cutters who fertilized my freshly rooted cuttings, killing them all, and a few hurricanes here in Florida, I did make an attempt to have a garden rather than a collection of vireyas. I had one very long raised bed of orange and yellow and variations of those with a couple of whites mixed in amongst them, for I feel strongly that every bed of colour needs white as well. Another raised area, in front of the house, was mainly red, pink and variations of hose, along with the required white.

Now, sadly, I have to report that my vireyas are slowly being killed. If not the gardeners who fertilize when I am not here in the summer, to the water restrictions here - 1 cycle per week, to the extreme heat, to the dropping of the Royal Palm fronds which will break any plant below it, and on and on.

I have to confess that I am rapidly getting discouraged. When I take a cutting, I cannot get it far enough before I must go north for the summer. I am then left with the choice of leaving them in Florida, or taking them north to Cape Cod. This year I will try to take the small potted vireyas north.

I also just got a shipment of maddeniis from the RSF which I will try here with the heat. Since it is an experiment with temperature I hesitate to send them north. I just have not decided yet. I will report to you and the RSF as they grow.

Again, thanks so very much for such a fine issue.

Dick Chaikin

Dick, thanks for the compliments about the last issue of T V V.

Many collectors in Australia use the shorter style pot for Vireyas on the basis that only rarely do the roots extend to the bottom of deep pots. We like your idea of a bed with a limited colour range mixed with a few whites. Do you ever consider leaf shape or colour or is it all about the flowers? Eds.

Another flower from the same cross, X99-07.

Emails from Sherla Bertelmann, Pacific Island Nursery, Hawaii

December 2007

Aloha Graham & Janet,

Just received and enjoyed the latest T V V issue.

Following from your article about cooking Vireyas (T V V issue #66); we, too, learned about the black plastic pots. Our experience went this way. I decided to space out our 3 gallon planted vireyas into the garden in full sun. They really went through a rough time - sunburnt leaves, smaller and faded flowers and rather leggy. They also fell down a lot when the wind picked up.

So, I gathered them up and grouped about 5 of them in a close, tight circle. I used large rocks to hold the group together. It didn't take long when we noticed new growth breaking from the bottom, better foliage and flowers. I reasoned it to be that they shaded each other's pots. The rocks also seemed to help keep them cooler and moist at ground level.

We took the idea into our 'test garden' beds. We sink the pots about ¾ way into the ground. This works very well, provided there's good drainage. Keeps the pots cool and the roots cool and moist. We also add mulch to the pots which does make a difference.

There was and is a lot of rock here - lava rock. I used to tell people that we grow rocks. Sometimes it seems that way. They just keep coming up. Anyway, all our vireya garden beds are raised beds, lined with lava rock. We mix our homemade compost with cinder (lava pebbles) for our growing media.

Here are a few photos. The first is Bob's Crowning Glory in a grow bag. We had them made for us from the material used for weed barrier. These bags really work well in keeping the roots both cool and moist - notice the moss starting to grow on the outside of the bag.

The second photo shows a plastic 3 gallon-sized pot sunk into the ground. This is a 'composite pot' with about 7 plants growing in the same pot which has been sunk into the ground. We sometimes do this with seedlings to save space. The third photo shows one of our vireya beds - the mossy rocks and the border grows Xmas cactus (zygocactus) and orchids.

R. Bob's Crowning Glory in a 'grow bag'. Apology for the oversaturation of the flower which was in direct sunlight.

7 Vireyas growing in the same pot.

Sherla's Vireya bed with mossy rocks zygocactus and orchids.

The fourth photo (next page) shows another vireya bed that we refer to as our 'center garden bed'. It shows our use of layering. The tallest is plant is a gardenia tree, then hapuu ferns, vireya, and on the borders mostly different kinds of bromeliads and orchids. Another bed has strawberries growing all throughout the vireya who don't seem to mind them at all. So far, the only 'companion plant' we had to remove from a vireya bed was a honeysuckle.

Sherla's 'Centre Garden Bed'.

The last photo (below) shows the wall installed at the local zoo for our vireya species & test garden bed. The young girl in the photo is my grand-daughter, Chevelle.

Sometimes a "pot-in-a-pot" is the way to go. We had a tall plant in a 3 gallon container that got top heavy and kept falling over. So we put it in a 5 gallon pot with media on the bottom and half way up the sides (top photo opposite). The second photo shows the results. The roots came out of the first pot and totally filled the media in the second pot. The extra medium gave the base just enough weight to keep the plant standing and to kept those roots cool.

Bye for now, Sherla

The Hawaii Chapter will be hosting the ARS Western Regional & Board Meeting here in Hilo in September 2008. We would love to get more international visitors, especially from Australia & New Zealand where vireya are known and appreciated. Kaye Hagan from Tasmania will be one of our speakers.

Eds. Thanks for the emails Sherla. Some Vireya growers may not endorse your "pot-in-a-pot" strategy - why not simply re-pot the plant into the larger 5 gallon pot. The roots growing through the bottom holes of the inner pot could block water drainage. Also, when to re-potting it or putting it properly in the ground you would have to remove both the inner and outer pots and so would have to cut or at least severely disturb the roots.

However, we think there might actually be a distinct advantage with this "pot-in-a-pot" method. Collectors of *R. lochiae* from the tops of several mountains in north Queensland describe how the plants were found growing almost exclusively in cracks between large boulders of volcanic rock – growing in leaf litter with a small amount of rock debris and in narrow cramped spaces. The roots were down at the bottom of the crack with leaves/flowers poking out the top.

Clearly this was an ecological niche that Vireyas were exploiting better than other plants, possibly because of their wind-distributed seed and their

ability to support leaves and flowers on the ends of relatively long barren branches. No doubt there are other reasons also. The roots of such plants would receive lots of low nutrient run-off water from the boulders which quickly passed away and probably not much competition from the roots of other types of plants. The plants would have adjusted to this environment and adopted strategies to cope.

We wonder if your "pot-in-a-pot" method is a reasonably close reproduction of that "crack-between-boulders" environment and you have brought out the evolutionary advantages that this type of plant has adopted.

We know that Vireyas are 'early pioneers' into new areas (eg. after fire, landslip or road construction) and this probably arises from their wind-blown seed. However, one could consider cracks between boulders to be 'virgin territory' because the cracks probably only develop from thermal expansion and contraction on the exposed tops of mountains. OK, we know that many Vireyas don't come from such environments; they in fact have been found across many different environments. But this doesn't exclude them from having come through such a specific environment.

This whole issue of the ecological evolution of Vireyas is a fascinating one. As a geologist one of us (Graham) understands about changes in geography because of plate tectonics and changes in sea level and climate over time, and specifically over the time period in which Vireyas have evolved and been dispersed over many lands. But so far a well-founded synthesis of the interrelations between these factors and the ecological environment of different species hasn't been developed.

We think that this could make a good topic for a research student in botany/geology. We wonder if any readers have insights or observations relevant to Vireya habitat, geography and evolution?

Another flower from the cross X99-07.

Letter from Hans Vissers, Amsterdam, The Netherland

March 2008

Hello dear Graham and Janet,

Thank you very much for all the most wonderfully detailed information on Vireyas that appears in The Vireya Venture. I read the newsletter over and over until the paper is just about torn to shreds.

I would like to make contact with all the people who contribute to T V V to obtain seed and cultural information. Neither this type of specific data nor the plant material is generally available over here.

I enclose a copy of our leaflet of the Botanical Garden of the Free University of Amsterdam. If you are ever around here please drop in and have a look at our collections.

Regards Hans Vissers

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Eds. Thanks for the letter Hans and for the leaflet about the Botanic Garden. We also looked at your website (including the link to a small section in English). It certainly looks very nice.

For getting Vireya seed we recommend that you contact Sherla Bertelmann at the Hawaii Chapter of the Amer. Rhodo. Soc., who we think is still in charge of their seed distribution scheme. Her Email address is: vireya01@hawaii.rr.com We will also send you some seed whenever we next do some hybridising or self any Vireya species.

Graham Smith has Retired !

From Pukeiti news, Vol 58 #1, March 2008

Some of you will already know this, but for those that don't :- Graham Smith, Director of the Pukeiti Rhododendron Trust Garden at Taranaki, New Zealand, has retired after 39 years. We wish him the very best for a happy and enjoyable retirement.

The new Chief Executive of the garden is Josh Cleaver who has a background in management and sales. On the Pukeiti website Josh said:

... I am confident that I can take Pukeiti forward to an exciting new era, where the gardens continue to flourish and our other fantastic resources get developed to further entice more visitors to this hidden gem under the mountain.

It is my desire to have Pukeiti referred to as "THE GARDEN OF NATIONAL SIGNIFICANCE" rather than just be one of many. With the assistance of the fantastic staff we have and our enthusiastic Board of Trustees, we will not only be the best garden in this fine country, but a world leader.

To celebrate Graham's retirement and Josh's appointment, we reproduce here the article on Pukeiti that Graham wrote and which was published in the Amer. Rhodo. Soc's Hawaii Chapter newsletter, Viva Vireyas!, in September 2005.

"The Pukeiti Rhododendron Trust Garden, close to the western slopes of the Egmont National Park, Taranaki, North Island, is one of the major cultivation centres of vireyas. Surprisingly, the climate is marginal in that it is colder and wetter in winter than vireyas really like and that makes outside cultivation tricky. Hence, we have gone indoors to do our thing and after experimenting for more than 30 years have evolved a 'roof only' building that works very well. We have had snow on the roof but the plants are cold and dry underneath and suffer no damage.

Over the thirty-year period Pukeiti has amassed a collection of 125 different species and nearly as many hybrids. This means we are not yet half way with the species collection which has to remain our collection goal. We will only maintain a hybrid if we have room for it and it is a top-class plant.

Many of you will be familiar with the names: 'Simbu Sunset', 'Flamenco Dancer', 'Gilded Sunrise', and 'Java Light'. These hybrids were all named at Pukeiti and have been great stock plants for the past 30 years, finding their way into commerce in many countries. Pukeiti did not breed these. They came as seed from Tom Lelliot in Australia. We grew a range of seedlings and from these selected what I thought were the best. That they still grow and repeat flower spectacularly at Pukeiti and in many other gardens around the world indicate we got it right! They are proven 'good garden plants', which is more than can be said for some named hybrids which may have spectacular flowers but poor growth habits.

Species are a different matter in that some can be much more temperamental and demanding of special conditions to perform well. As a garden manager, this makes a species collection much more challenging and exciting to grow, particularly if you have been fortunate enough to collect the material in the wild.

Many species are not 'good lookers' in that they are leggy, open growers, or can take a long time to settle in and flower. Because they are species, we tolerate this, recognizing that this is where they all started and without them the man-made spectacular hybrids would not exist. Having seen vireyas growing wild in Papua New Guinea, some of which you would not give a second look at for your garden, it is pleasantly surprising to have them settle into cultivation as better-looking specimens. You then learn how to manage their idiosyncrasies to produce exciting plants that really do earn their keep.

Does it really matter that your species takes fifteen years to produce its first flower? Not if you have a passion and patience for them and realize the stories behind the collection of such plants. If you have limited space and want quick results then hybrids fulfil the role admirably. But often a few species sneak in when cultivation techniques and experience develop.

Perhaps I can best illustrate the point between a difficult species and its hybrid progeny by looking at R. saxifagoides. This species occurs on the tops of the highest mountains in New Guinea, usually in glacial bogs where it has adapted to the harsh conditions by becoming a cushion plant.

Unusually, for a rhododendron it develops a tap root in these situations and has single flowers that stand up on long pedicels clear of the foliage like a lot of small periscopes. Braving extremes of temperatures, occasional snow, frosts, and high UV levels it hunkers down in its little hollow and grows ever so slowly. Trying to reproduce these conditions is impossible and it becomes a challenge to create other ways of pleasing the plant. We grow it in an orchid basket sitting on top of a boggy area beside a pool in a glasshouse and it flowers every year. It is prone to branches dying back and we regularly take a cutting or two to bring on young plants so as not to lose it.

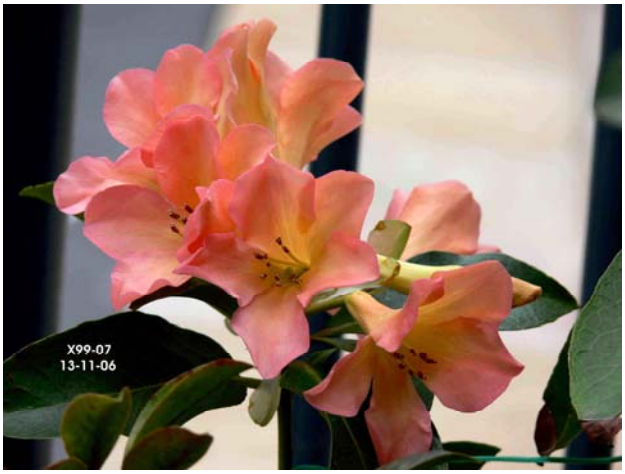
Os Blumhart, from the north of New Zealand, recognized the potential of having a dwarf bun-shaped rhododendron for warmer climates and R. saxifragoides fitted the bill except for its temperament. Pollen, obtained from plants introduced at Pukeiti and flowering in their first year, was used by Os to cross 'Hot Tropic', which is R. laetum x zoelleri selfed. The end result was a line of mounded plants, rather than bun-shaped, with upstanding flowers in light reds, pinks, and creams and importantly easy to grow.

The best two were named 'Saxon Glow' and 'Saxon Blush' and they have become popular pot and garden plants. I have even seen them used as an alternative to box-hedging! The thinking of Os Blumhart has been realized and we now have excellent small plants that emulate R. saxifragoides, albeit on steroids! They do not have that unique bun shape or diminutive stature but neither do they require sun, snow, frost, or UV factor 30 all on the same day to grow well!

There is a vireya for almost every warm garden and if the climate is too cold then conservatory cultivation can be tried. After all, the first vireyas were introduced into England in the 1800s, and the Veitch Nurseries in Exeter, Devon, grew them in hot houses and in a relatively short time produced large numbers of hybrids for the wealthy estate owners to fill their conservatories.

The wheels have turned full circle but we now have a wealth of information on cultural matters and have a vast number of species and their hybrids to work with and enjoy. Above all, we are all able to talk to each other and share our experiences and successes, getting together at vireya seminars and discussing the latest species to be discovered or what new hybrid is going to be the next big seller. We are also aware of the fragility of many species in the wild. I like to think that Pukeiti's species collection is an insurance policy for the future a gene pool that might never be seen again.

That's why I am a Species Man!" Graham Smith



Another flower from the cross X99-07.

Double Flowers

The following is an extract from an article in The Vireya Venture newsletter #6 of January 1992. We think that Wendy Snell wrote the article.

"In issue # 4 there was a reference by Mark Vowles to the Nambur Garden Show, when 'Rosie Posie' was featured, showing its unusual petalloid flowers. He commented that this vireya might be a first step towards developing a double flower.

Double flowers were produced only once in the Veitch nursery more than a hundred years ago, when a group of semi-double and double flowered vireyas were raised and named 'Balsamaeflora' after the double flowers of some balsams. This was achieved when a single in a truss was seen to have one anther and only one anther slightly petalloid.

The pistil of this flower was impregnated with pollen from the other anthers of the same flower and some twenty seedlings were raised from this self fertilization. There was considerable variation between these in form and also in colour, from white and pink to dark red and crimson, as well as pure yellow and various shades of orange.

The name of the original parent plant is not known but it is thought to have been one of a group with the parentage (R. jasminiflorum x R. javanicum) x (R. brookeanum var gracile, ie. a white with a red-orange and a yellow.

So, if you have a plant with a petalloid flower, try selfing it – you could be fortunate and a double flower would be a real winner."

Eds. A good strategy for people to follow – even home gardeners and novices.

If you see a Vireya flower whose anthers are slightly deformed and look like small or twisted petals, try selfing that flower (not other flowers on the plant). Take pollen from the petalloid stamen, or other stamens in that flower, and put it on the stamen. If the abnormality is caused by incorrect genes or gene expression that is heritable you might be lucky and get that characteristic in the offspring. If you are really lucky you might even get the characteristic doubling up, so that all the stamens are turned into petals and you get a 'double' flower. Be patient though, seed from such a selfing often has a poor germination rate and seedlings grow very slowly. In fact, if germination rate is normal and seedling growth vigorous you probably won't have captured the genetic abnormality.

Well, that's the end of another issue of The Vireya Venture newsletter. We hope you enjoyed it. The next issue, #68, should appear around June-July 2008. Graham and Janet Price

And its another goodnight from YumYum and Buster. Here they are waiting patiently for us to give them what Pugs love more than anything in the world – Doggie Chockies (or indeed any sort of food).