The Vireya Venture

Issue No. 66 December 2007

Editorial

The issue of garden design suitable for Vireyas has recently come to our attention because of a visit we made to the National Rhododendron Garden (NRG) at Olinda in Victoria, about 50km east of Melbourne. We were there after the Annual Show of the Australian Rhododendron Society and toured the garden in their small bus.

The garden looked wonderful despite the long-lasting drought we are suffering in SE Australia. However, the issue that stuck us most was the difference in overall appearance of the majority of the rhododendron beds (mostly Asiatic, European and Nth American species and hybrid 'temperate climate' rhododendrons) and those beds filled with Vireyas. The temperate climate beds were full and dense and luxurious but in comparison the Vireya beds were thin, spindly and looked like they needed a good feed. (Yes, the climate here is so mild all the Vireyas are planted directly into the ground where they do better than in pots.

This is not to criticise the Society volunteers who work at the NRG tirelessly and who have done a marvellous job creating vireya beds as a feature of the garden. They do a wonderful job and we congratulate them all. It's just that the vireya beds are relatively new and certainly not the 30-40 years of some of the temperate-climate rhodo beds. The Vireya plants just haven't had time to bush-out and the beds to fill in. Also, we suspect its partly because Vireyas are naturally more 'spindley' than temperate-climate rhodos.

So the question arises - What is the best layout design for garden beds that predominantly feature Vireyas?

In a large garden the people putting in the plants must keep in mind the objective of how the garden will look at some time in the future and space out the plants accordingly. They cannot plant them too closely or they will be forever having to return and prune them back or dig some out and replant further apart. The gardeners must have a timeframe about 6-10 years out. From what we saw it looked like the plants had been planted about 1 metre apart, perhaps a little less in places.

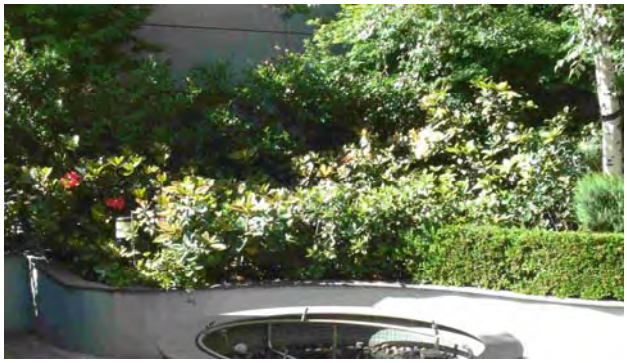
Photo of R. rhodoleucum at the Royal Botanic Garden Edinburgh; taken from Richard Currie's excellent website (www.vireya.net). This is a beautiful vireya and we just cannot wait to get our small cutting up to flowering stage.

The photo below shows a patch of new vireya seedling that we provided to NRG which have been planted out with a mulch of broken fern fronds. We are sure you will agree that at this stage there is not much that is attractive about this garden bed.

A new bed of Vireya seedlings at NRG, Olinda.

An often adopted solution is to put companion plants between the Vireyas to fill-in the gaps and provide groundcover until they fill out. Things like bulbs (daffodils, tulips, etc) or rock garden plants are often chosen for this job. The problem is, we think that many of these companion plants aren't really companions to Vireyas in that they don't look good together, either when the groundcover plants are flowering or when the Vireyas are flowering. The colours and foliage shapes of the companions just seem to clash with the leaf colours and shapes of Vireyas.

Photo of the new garden bed of Vireyas in 2005



The garden bed of Vireays now, at 2 years old.

Some of you readers will think we are wrong and that there are some excellent ground-covering plants that compliment Vireyas (or, bite-our-tongues, even that the Vireyas should compliment the groundcover plants – never!). Others out there will suggest that there are many tropical plants that do compliment Vireyas, with bolder-shaped and coloured leaves and similarly bright, multi-colour flowers. Here we would have to agree, yes tropical plants do seem to be better matched with Vireyas. But we cannot all grow tropicals around our outside garden beds.

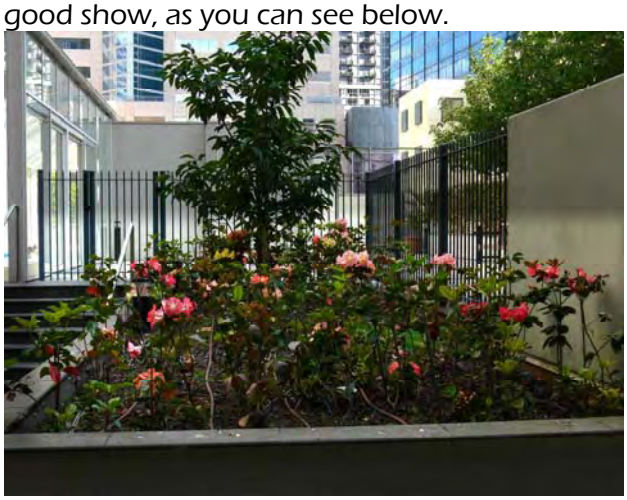
In a smaller garden we choose to place Vireyas much closer together so they can reach that luxurious stage sooner. We certainly prefer this approach and we also prefer not to put companion plants between the vireyas. We like the denser-look and the more subtle contrasts between different leaf shapes and colours that can be achieved with Vireya-only garden beds. We prefer to manage such beds and keep everything in balance by judicious pruning.

The only problem is that the wait between planting and achieving the bushiness we desire can sometimes be frustratingly long and certainly not compatible with modern concepts of 'living-in-the-now' and 'worry-about-the-future-then'. Do any of us really have the luxury of waiting 6 to 10 years for a garden bed to reach its best appearance?

We have been able to quickly achieve a nice balance in one of our garden beds where we planted only Vireyas. We showed a picture of this bed in T V V Issue #60 in April 2006 when it was about 1 year old. The photo above was taken when first planted in May 2005 with individual plants about 0.3 – 0.5m apart. The second photo shows the same bed today, December 2007, when it needs a light prune.

We very much prefer this dense, 'jungle-like' appearance where there is virtually no sign of soil or mulch between the plants and one's eye can focus on leaf colours and sizes and contrasts in shape and texture. It was achieved quickly simply because plants of different sizes were planted close together and we don't mind that from now on they will need an occasional light prune to keep them all in balance.

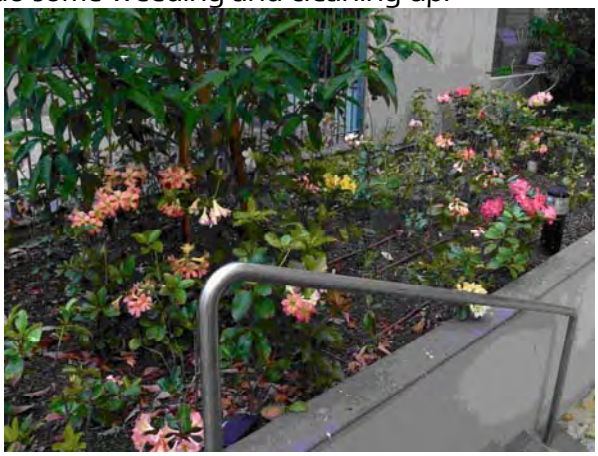
We are having a more difficult time in trying to achieve the same mature look in another garden bed – again one we have written about previously. We planted 140 Vireyas in one bed over a year ago but have experienced quite a few deaths because of drainage problems. They are now flowering for the first or second time and when viewed horizontally they give a good show, as you can see below.



New bed of Vireays around our apartment block.

However, when viewed close up or from above (see photo below) there are many open gaps and the soil/mulch is very prominent. The problem is first that most plants were about the same size when they went in, and second that they are more exposed and less sheltered than the other bed so they haven't bushed up as much. What this means is that we will have to wait another year or so before we get that jungle-look that we like.

And in the mean time we have to worry about weeding and tidying up, which we never did with the other vireya bed. We will now have to go and organize a working bee of residents to do some weeding and cleaning up.



Oblique elevated view of the new vireya bed – lots of gaps between plants with weeds, mulch and bare soil.

You will probably say – "be patient, good things will take a little longer". However, it's a public garden in a public place (next to the complex's swimming pool) where everyone sees it every day. If we had the resources and the time we would have prepared plants with different sizes and degrees of maturity. We guess this is what commercial nurserymen and gardeners do to create instant displays.

We think Vireya-only garden beds are good for mass displays but it means that different tactics need to be adopted in different situations. In large public gardens the plan must be for a longer timeframe and so plants must be set further apart. One just has to wait longer to reach that mature garden stage. In private gardens one can set a shorter timeframe and plant things much closer together and so achieve a result much quicker.

We personally think the effect of massed plantings of Vireyas is well worth the effort, whatever the timeframe. It's just that we are impatient and want it now. What do you think?

The number of contributions to T V V has stabilized at an almost imperceptible trickle, so please write and let us know what you are doing with Vireyas. And please send photos.

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Email from Mitch Mitchell in Hawaii

October 2007

Dear Graham and Janet,

I so enjoy the Vireya Venture and had good intentions to write to tell you so, but we all know what frequently happens to those good intentions. However, your "desperate" request in the last issue motivated me to write something.

I'll bet that I am not the only Vireya enthusiast who wonders from time to time what will happen to his plants when it is time to leave this planet. Well, recently my wife and I did more than just wonder - we signed an irrevocable trust leaving our home and garden to the Kimalia Trust and Foundation. Rather than bore those of you who aren't interested let me just quote the Preamble to that document.

Preamble

In the twilight of our lives we find ourselves discussing more and more the future of our home and garden. It really hurts when we think about new owners destroying the ohia and other trees not to mention the giant tree ferns plus other native flora and then building on the cleared land. The irony is that this is entirely possible within a short distance of the Hawaii Volcanoes National Park, the core area of a 1984 international designation (UN) as a Biosphere Reserve and World Heritage Site.

Some of the 482 Biosphere Reserves world-wide have attached to them a buffer zone where concerned people are guiding human use to be least impacting. For example, our Community Association is behind the efforts to create such a buffer zone adjacent to Hawaii Volcanoes National Park. Our property could be considered a part of that Zone, and hopefully be one of the examples for others to follow.

In addition to preserving the native forest surrounding our home we like to think that our garden will also be preserved. Not only have we planted native trees and shrubs but interspersed

them with Vireya rhododendrons. These forest plants with their strikingly unusual flowers are being destroyed in some of the countries where they are native. Lumber interests are deforesting large areas and in that process destroying the Vireyas as well.

Over the past 25 years we have collected hundreds of hybrids plus about 150 species, about one half of the known total. Hybrids and species are planted in the ground along paths that the natural terrain designed and which lead to spots conducive to meditation and reflection. As one might suspect our aim has not been to build a show place, but a private garden for our personal enjoyment. This might also explain the narrowness of the paths which are ideal for several people, but certainly not large groups.

Graham, if you should find that some of your readers would like to know more about this I'll be glad to write again. Aloha to all four of you,

Mitch

Eds. Thanks for the message Mitch. We are sure there are many other vireya collectors, and gardeners in general, who wonder what will happen to their love once they are no longer around. Your solution for your garden is quite inspiring. Congratulations.

Emails from Gareth Shearman on Vancouver Island, Canada

1. Hi Graham and Janet. September 2007

Thank you very much for sending me issue #65. I enjoyed it very much. As I indicated in my previous post, I received several issues a while back and then they stopped coming. I should have enquired, of course, but you had indicated how hard it was to get material and after thinking that one would finally come, I just sort of decided that you had ceased publication. Silly me!

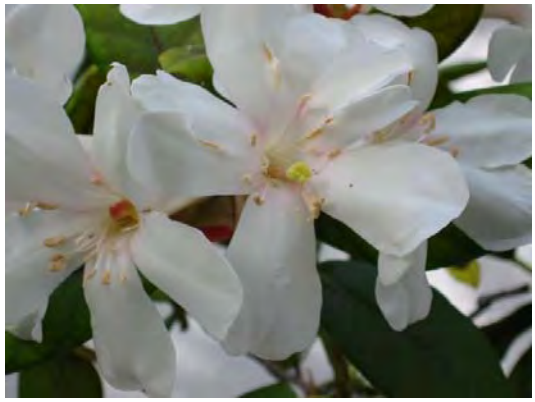
I have checked and I have issues 57, 58 and 59 but I didn't received any after that. Any chance you could send me issues 60 through 64?

There is getting to be a fair amount of interest in growing vireyas here on southern Vancouver Island. There are several members of the Victoria ARS chapter who enjoy growing them. Of course we have to grow them in containers and shelter them during the winter, but they can be very rewarding even so.

Here is a picture of blooms on my *R. christiane* that I took a while back.

2. Graham. Thanks very much for sending the back-issues that I missed - they arrived just fine and I have enjoyed reading them. I have been having some issues with mildew, so the comments about "home" remedies were timely.

In the most recent issue of T V V you had an article about konori - here is a picture of my *R. konori var phaeopeplum*.



In my last email I mentioned that there are several of us growing vireyas here. The chapter's annual show in the Spring has a vireya section. Following are pictures of some of the entries.

Regards, Gareth Shearman, Victoria, BC, Canada

R. Sunny x R. rubiniflorum

R Kawakamii (top)

R. Silver Thimbles (above)

R. Hansa Bay (left)

Eds. Thanks for the emails Gareth, and the photos. We are not sure why the emails we send out with the issues of T V V attached sometimes don't get through. Sometimes its because people change their email address without telling us - we always get one or two bounces back with each issue. At other times the address is correct but it just doesn't get through and doesn't bounce back with a message of failure to deliver. We are sorry if this happens to anyone. If you ever don't receive T V V when you expect it (eg once every 3-4 months or so) please let us know.

Email from Bill Moyles in California USA

December 2007

Graham:

In the early 90's when I was handling the Vireya Seed Exchange I was fortunate in receiving from John Rouse (and distributing) seed of a cross of Lyn Craven's: *R konori* 'White Giant" x *R. leucogigas* 'Hunsteins Secret'. Strybing Arboretum grew on a small population and in time one was selected and named 'Karen Morebeck' in memory of one of Strybing's unsung Vireya saviours. Mitch Mitchell in Hawaii grew and selected 'Sweet Marni' and a photo of this can be seen in Chris Callard's Vireya Website. Both plants are outstanding in foliage and in flower.

An unselected seedling from this cross came to me from Strybing and is now growing vigorously at the Lakeside Vireya Display Garden in Oakland, California and it is also a fine plant. It is now reaching 6 feet. In November 2007 it had 6 huge trusses and now in December still has two to open. I have attached a photo taken in 2006.

My paper describing the Lakeside Display Garden appeared in the Journal of the American Rhododendron Society several years back along with a photo of its first flowering. The Lakeside clone is as yet unregistered and unnamed.

It would be difficult to choose between these three selections, but of course I would choose the Lakeside clone! And yes, they are intensely fragrant!

Bill Moyles, Oakland, California

Bill Moyles' photo of Lyn Craven's cross R. konori 'White Giant" x R. leucogigas 'Hunsteins Secret' at the Lakeside Vireya Display Garden in Oakland, California

Eds. Thanks for the message Bill and nice photo. There certainly seems to be an on-going interest in *R konori* and its progeny. One imagines this is partly because of their deep white colour (though some have a flush of pink or yellow), but also because they are consistently deeply perfumed.

Email from Anne O'Connor, Mornington Victoria, Australia

September 2007

Dear Graham,

I'm a member of the Australian Rhododendron Society and receive T V V which I find very interesting. I am a botanical artist and love specially to paint vireyas. In 2000 I entered eight vireya paintings at the RHS London Flower Show (Oct/Nov) and won an RHS Gold Medal. That project is what started my passion for vireyas. I've now painted 21 of them.

While I was studying and painting the first eight I was directed to John Rouse for information. He was truly wonderful and gave me the privilege of a tour of his garden after which I came away with bags full of species cuttings. At the time unfortunately I was thinking Painting rather than Propagating and today I'm greatly regretful at having not taken advantage of the great treasure I'd received. He gave me a whole bunch of cuttings from his *R. konori* which seemed to be almost a tree over 2 metres tall and beautifully perfumed. The flowers perfumed my house for a month as I painted them. I have attached a small version of the painting, the original of which was purchased by the RHS Lindley Library and now lives in London.

John Rouse shared some of his passion with me. He showed me many of the photos he'd taken of vireya flowers under ultra-violet light which revealed to me what the butterflies could see - the clear path to the nectar, which we can't see, was lit up in the ultra-violet light.

He studied my konori painting later and asked if I thought I had the leaf scars at exactly the correct position? (Botanical art needs always to be botanically correct.) When I told him I'd painted exactly what I'd seen he explained that leaves occur on a spiral around the stem at intervals of 137.5°! I was amazed.

From that experience I began to discover more and more of the mathematical patterns that are abundant throughout nature and to realise the relationship between mathematics and beauty. I have a great debt I owe to John Rouse and am sorry I met him so late in his life. He was a treasure.

With best wishes,
Anne O'Connor, Mornington.

Anne's painting of R. konori

Eds. Anne, thanks for the information about your paintings (congratulations on the success) and about John Rouse. He definitely was a treasure and is missed by all who knew him.

Eating and Cooking Vireyas – A Warning and a Tale of Woe

By Graham Price

I can just hear you all thinking – "*Now that's an unusual title.*"; "*I didn't think you could cook and eat Vireyas.*"; "*What parts does one eat?*"; "*I thought Vireyas were poisonous just like other Rhododendrons.*" Well, the replies to those thoughts, in order, are: *Yes; You could - but don't, None;* and *Yes*.

To be more expansive; **Yes**, its an unusual title for an article and its aimed at getting your attention and making you smile. **You could** eat Vireyas, if you really wanted to, **but don't** even try. **None** of the parts of Vireyas are worth eating, they are too tough and stringy. And **Yes**, vireyas are poisonous so don't try to eat them and don't even let any sap get into your mouth or in your eyes. Let me explain.

Its something of a folklore that rhododendrons are poisonous, or at least some rhododendrons, some of the time and to some people/animals. But this folklore appears to be true. If one searches the Web there are many references to and warnings about poisonous rhododendrons. So, I'll start with the most important thing first.

Warning: Little children and grazing animals should be kept clear of all azaleas and rhododendrons, including Vireyas. Don't ingest nectar from rhododendrons, including vireyas.

Type of poison: Andromedotoxins (grayontoxins) - water soluble volatile resins chemically related to turpentine which burn the mouth and so discourage potential victims from consuming large quantities of the leaves. Also occurs in flowers and nectar and honey made from flower nectar.

Toxicity: As little as 3ml nectar /kg body weight or 0.2% of the body weight as leaves may be toxic or lethal.

History: The effect was known by the Greeks and Romans since 401BC. Apparently around 30BC something bad happened to Pompey's army crossing the Caucasus after they feasted on local honey made from rhododendrons. Acute cases of honey poisoning have been reported from Nepal and Turkey producing severe cardiovascular problems with very low blood pressure and slow pulse rate (1). A Scottish case records how a man licked *R. ponticum* nectar from his hands and rapidly experienced loss of coordination and an inability to stand (2). J Clyde Smith in Wollongong, Australia, reported strange effects after nectar from a vireya accidentally fell onto his tongue.

Honey made from rhododendrons has been reported to cause cardiac arrhythmias, emesis, mild paralysis and convulsions in humans and is known as "mad honey".

However, rhododendron honey remains toxic for only a very short period. Honey that is stored in the comb will probably have lost it's toxicity before the first extraction. Also, the bees themselves will consume most if not all of this honey for brood rearing during the spring and early summer build up. Whilst the bees may build up well on the nectar and pollen of *R. ponticum* and most other rhododendron species, and appear to come to no harm themselves from the toxins, there are one or two species on which they do not fare so well.

A study of the species that produce nectar toxic to bees was carried out on the Isle of Colonsay in the Hebrides in the late 1950's (3). Nectar from different rhododendron species was collected, their toxins analysed and also fed to

Photo of R zoelleri at the Royal Botanic Garden Edinburgh. From Chris Callard's website: www.vireya.net

Eds. This is one of the forms of this spectacular species. We would be interested to know if anyone out there has the Bayer River form of R. zoelleri?

(Eating and Cooking Vireyas - continued)

bees and injected into mice and cats. Species found to be especially poisonous to all victims were *R. thomsonii, R arboreum* and *R. pratti.*

Now you have been told! So don't do eat rhododendrons. So what's this about "Cooking Vireyas". I'm actually talking about your vireya plants 'cooking' when they are kept in black plastic pots and left directly in the hot sun. Here is my tale of woe.

For several years I had a problem with vireya plants occasionally slowly loosing vigour, wilting and dying - sometimes many at the same time, like an epidemic. It was pretty obviously a problem with the roots. When the pot was watered there might be some recovery, but at other times there was no recovery. When examined I couldn't find any new young roots – they were all brown and rather sparse. If an affected plant was put in the shade and kept damp, but not overly wet, it might show some weak recovery over a long time, but generally speaking it was doomed.

I though it might be phytophthora, which is a soil/water born fungi that kills roots and stops plants from taking up water, so that the leaves loose turgidity, wilt and turn dry and crisp. At one time I had my pot soil tested by the local agricultural department but it came back as indeterminate. I tried drenching the pots in a soil fungicide and also tried spraying systemic fungicides. Neither produced any improvement.

I abandoned the idea of root fungus and next thought the problem might be nematodes – microscopic worm-like critters that live in soil and eat plant roots (they also infest animals, including humans). Some nematodes are considered as beneficial and soil-friendly but many can severely damage plants.

I studied up on nematodes and tried to buy the latest nematicide. However, it comes only in huge quantities, is expensive and is very dangerous to humans. I read that preparations from Neem seeds would effectively fumigate the soil, kill nematodes and fertilize the plants so I bought a bag of Fumefert (crushed neem seeds and shells). It only came in 40kg bags but since it is also a fertilizer I thought I could use it elsewhere, maybe! Well, I scattered some on top of the soil in my vireya pots and watered them. All I got was a horrible fungus growth across each pot which people in adjacent shadehouses complained about so I had to scrape it all off. The plants didn't improve.

I decided to think rather than act. I realized that the problem never occurred with vireyas planted in the ground – it was only with those in black plastic pots. I decided to measure the temperatures of these pots on a hot summer's day when they were fully exposed to the sun. I was astonished. Even when the air temperature was around 38°C the temperature of the plastic pot was near, at or over 50°C, depending on pot size and location. The soil and plant roots must be around these same temperatures. On really hot days of over 40°C (and we get these in Melbourne) I think the soil and roots could even get to around 60°C, maybe even more. And these temperatures are likely to remain high for quite a few hours – as long as the sun is striking the pots.

Well, I've slow-cooked a leg of lamb at not much higher temperatures (70-80°) so its not surprising that what I was really doing was cooking the roots of my Vireyas. It wouldn't even matter if the soil around the roots was damp – all this means is that the roots would be steamed rather then baked! Once cooked the roots have problems taking up water (wouldn't we all) and its only to be expected that the plant doesn't recover. While some plants might be able to take this sort of treatment its clear that Vireyas cannot.

So the lesson is, if you keep your Vireyas in black plastic pots (or maybe any colour of pot and made of any material) then make every effort to keep the sun from shining directly on the pots. Use shade cloth (reasonably dense), shade from trees or whatever you can get.

The conclusion of this tale – don't try to ingest any parts of Vireyas and if you want to keep them growing nice and strong don't cook them by leaving their pots in direct sunlight on hot days.

References.

1. *Newsletter of the WHO Surveillance Programme for Control of Foodborne Infections & Intoxications in Europe 1996 49/50 6*
2. *Cooper, Johnson; Poisonous Plants & Fungi: an illustrated guide. HMSO 1991*
3. *McLeod-Carey, Lewis, MacGregor and Marin-Smith, 1959 Pharmacological and Chemical Observations on some Toxic Nectars. J. of Pharmacy and Pharmacology 11, Suppl. 269T-274T*

Eds. It is fascinating how things come around again and again. We wrote this article back in June this year. Then in September Lyn Craven sent out a message to the web chat rooms:vireya@yahoogroups.com and rhodo@vireyagroups.com about an article that had just appeared on the same topic. The reference is:

Title: Poisoning by mad honey: A brief review
Authors: Koca, I; Koca, AF
Source: FOOD AND CHEMICAL TOXICOLOGY, 45 (8): 1315-1318 AUG 2007

Well, that's the end of another issue of The Vireya Venture newsletter. We hope you have enjoyed it. The next issue, #67, should appear around March 2008.

Our very best wishes for a happy New Year to all readers. Graham and Janet Price

And its another goodnight from YumYum and Buster. When they go for a walk their harnesses are joined by a yoke so they pull more against each other than against us. They look really cute trotting along together.