

## Vireyas: the Not-So-Tropical Rhododendron

Graham Snell

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Isn't it amazing in this modern media-dominated society in which we live, that gross inaccuracies can so easily become the accepted norm! And so vireyas have become "tropical rhododendrons". Rather than call vireyas "tropical", which to my mind is misleading, a far more accurate title would be the "milder climate rhododendron".

Climate, by definition, relates to *temperature, moisture, wind* and *light*. By combining these definitions with the definition for "milder" (i.e. gentle, moderate, not harsh), I came up with the following:

*Milder temperature* implies gentle, moderate warmth with no extremes. When relating this to plants, this would refer to conditions, both above ground and to the root zone.

*Milder moisture* means moderate rainfall and humidity, and this must relate to no extremes of wet or dry in the root zone also.

*Milder wind* means gentle air movement, protection from storms, but open to the breezes just the same. Equally, a well aerated root zone.

*Milder light* indicates good gentle light, not harsh, i.e. no hot summer sun, but no heavy shade either.

I maintain that the vireya rhododendron, of all the *Rhododendron* genus, has adapted the best to take advantage of a "milder climate". Vireyas do not cope well with the extremes of cold or wet, especially when they are combined, or the combination of hot and dry. Nor do they cope well with *hot, humid, sultry, torrid*, or in other words, *tropical* conditions.

I must admit that latitude has an influence here also, thus a mild climate in Tasmania combines the cooler weather with the wetter weather, and the warmer seasons are usually the driest. Closer to the equator, nature has provided a much more sensible arrangement, combining the cool with the dry and the warm with the wet.

Fran Rutherford, in a letter to *The Vireya Vine* in December 1993, quoted the maximum and minimum temperatures at different altitudes in Papua New Guinea. Excluding the subalpine regions, the average monthly minimum temperatures ranged from just under 4°C (39°F) at the higher altitudes, and to little under 14°C (57°F) on the lower ranges. Maximum temperatures were quoted as varying very little, usually about 23°C (73°F), no matter at what altitude the observations were taken.

Vireyas are put under stress by prolonged temperatures close to freezing and also at much above 24°C (75°F), if that, too, is for a prolonged period.

High humidity in the wild does not seem to be a problem, no doubt due to the free air movement that would prevail there. It only becomes a problem, to my mind, in our artificial habitats - green houses, shadehouses, crowded and enclosed gardens - or indoors. Similarly, low humidity is a more frequent and serious problem at higher latitudes and in our contrived habitats.

I was interested to read in the latest *Vireya Vine* the comments of the Editor in relation to the effect of short day length and poor daylight intensity on vireyas during the winter months in high latitude regions. There is no doubt in my mind that vireyas appreciate the higher light intensity and more even day length of the regions closer to the equator.

Ingenuity, planning and design can overcome most of these problems if we are prepared to take the trouble and this is a point I wish to make: *we do need to go to some trouble in most instances to get vireyas to realise more of their true potential.* Most if not all vireya growers around the world are growing their plants in less than ideal climatic conditions. Vireyas are adaptable or forgiving

to a degree, but precautions have to be taken to provide protection from extremes of heat and cold, wet and dry, too strong or inadequate air movement, excessive sunlight or heavy shade.

Then, once again in the root zone, precautions have to be taken to avoid too much moisture with too little aeration or too open and too dry a mix.

I would personally add to this avoiding too hot or too cold a root zone as I feel root zone temperature can be an important aspect of successful vireya growing. While in Papua New Guinea in 1981, I made a few observations on soil temperatures and found the range to be between 18°C (65°F) and 22°C (72°F). Later in our Melbourne nursery, I grew a few plants on in a hot bed set at 25°C (77°F). Irrespective of the air temperature, the plants in the hot bed grew faster, bushier and even budded up earlier than anything I had experienced before - or since for that matter.

It certainly would be nice to be able to afford heating the garden beds, rockeries and all our glasshouse benches. If we were able to control the precipitation, have really good drainage and maintain a steady temperature in the root zone of between 20 and 25°C (68-77°F), we could really begin to see what the true potential is with the vireyas we grow.

At the time of the Wollongong Conference six years ago, interest in vireyas was not very general within the gardening public here in Australia. Rather, it was restricted to the enthusiast, be they a rhododendron enthusiast or plant enthusiast who wished to grow something new. Retail nurseries began to get on the bandwagon about that time and for the next couple of years there was an upsurge in demand within the nursery trade which could barely be met. Informed, sound advice to the gardening public who were caught up in this upsurge for such an exciting range of new plants and knowledgeable, practical help on how and where to grow these plants hardly existed. In fact, at the time a lot of bad advice was actually given out. As these plants were spread around, many fell proverbially by the wayside, planted in clay, full sun,

dark fern houses or left in their original pots for a year or two. Others were over-watered, over-fertilised, over-pruned or not pruned at all. However some did fall on good ground, thrived, bloomed and thus more enthusiasts were created and more obsessions formed. The high level of general interest was not maintained for long, due largely, I feel, to the recession and the drought in our eastern states, both of which affected the nursery industry in general, not just the sale of vireyas. Mind you, the poor advice or lack of advice would not have helped the vireya cause either.

It must be a coincidence, but, with the coming of another International Rhododendron Conference here in Australia, also has come another surge of interest in vireyas and the demand is once again outstripping the supply. This time hopefully the nursery trade is more knowledgeable, the customers more informed and those successful or otherwise in the past may have learned from their experiences.

I am hoping a greater degree of success by the home gardener will be achieved this time round, which should lead to a more consistent demand for the plants and so encourage the regular commercial growers to develop their range and techniques, thus providing a better quality product. There are already some growers producing very good quality plants in a wide range of varieties, but overall there is still much room for improvement in both quality and the data bank of knowledge that can be disseminated to the general public.

One of the major aspects of our work in Queensland over the past six years has been to select, develop, build up stock and finally market new hybrids. We have had, and still do have, a huge pool of material with which to work from Australian hybridists as well as imported material from the USA and New Zealand. Coupled with my own hybridising efforts, this has produced a fascinating range of new material. We have been selecting to increase size and colour range of flowers initially, plus the introduction of as many scented hybrids as possible, as this is one attribute that is in great demand at present.

Bush type is now becoming increasingly important, to try and get away from the tall straggly form that characterised much of the early material marketed. We, and others like Os Blumhardt, Bob Withers, John Rouse and Brian Clancy, have worked on miniature vireyas, but I believe that at present these plants will have appeal only to the enthusiast as the cost of producing miniature vireyas to a marketable size is too high for the average retailer to be interested in handling them commercially. Also the majority of these miniatures need even more care and attention than their bigger blowsier sisters.

It takes a long time from the initial seedling stage to flowering, selecting, bulking up stock, naming, registering and getting pictorial labels printed, to get to the stage of launching a new hybrid - seven to ten years in fact. At the same time, much material must be discarded, so it is quite time consuming, space consuming and, if you care to count the cost, an expensive process. Disappointingly there is little or no commercial advantage to the process. We have found that we cannot sell a new release at a price much above that of an established hybrid, nor is there potential at present for any volume sales of a new release. Plant Variety Rights is far too expensive an exercise for the presently existing modest vireya market.

Commercially, it would make much more sense to sit back and let someone else do the selection work, buy up half a dozen plants as soon as they are released and within a couple of years you have a ready made new line to sell. This in fact would appear to be the approach that most of the producers are taking and I have no doubt they are, in consequence, more successful from a commercial point of view.

The naming and registration of new lines is another problem area. There have been a number of new hybrids introduced over the past few years with no attempt at registering the name. Once again, commercially there is no advantage to it since a registered name has no rights attached to it and the home gardener knows no difference and does not usually care anyway.

Also, if you do go to the trouble to register the name of a new hybrid, the description and parentage are published and any grower with a similar cross could be tempted to use the name on his own material whether the material is identical or not. This is happening quite frequently, hence the wide range of flower forms of such plants as 'Bold Janus', 'Arthur's Choice' and 'Fireplum', to mention just a few.

Since we moved to Queensland six years ago, we have observed that the colour of many of our hybrids has changed. We often have much deeper or richer colouring in the blooms, so much so that catalogue descriptions, pictorial labels and even the descriptions used when registering the hybrid names can be quite inaccurate. We should have expected this, since we had already observed in Melbourne that light intensity, fertiliser and temperature can all have an effect on bloom colour.

Another difference for us further north is that we have been miraculously free of both the fungal problems, rust and powdery mildew. In fact, until a few weeks ago I had not observed either of these problems in Queensland at all. However, on a collection of vireyas growing in the grounds of the Princess Alexandra Hospital in Brisbane, I have recently seen probably the worst case of powdery mildew infection I have ever seen. The plants, which incidentally consisted largely of the Veitch Hybrid 'Princess Alexandra', were being absolutely decimated with powdery mildew, due, I am convinced, to the heavy shade of a dense planting of *Ficus* and the stress of a watering system that was obviously never turned on.

It has not been all plain sailing up north, however, as we have experienced a much higher incidence of petal blight, which can be, fortunately, relatively easily controlled with Bayleton. Another problem we have encountered is a mite which can play havoc, especially in the propagating bed. This can greatly disfigure young foliage in dense populations of plants and high humidity situations as found in propagating nurseries in particular. I have had reports of

this problem in Melbourne and New South Wales as well. However, it can be easily controlled by the regular use of sulphur, either as a dust or spray application.

Much has been written recently about incorporating wetting agents into potting mixes. This can improve the distribution of moisture within a pot after it has been inadvertently allowed to dry out and, to facilitate the drainage of excess moisture, both of which are desirable attributes in a vireya mix. It is a standard practice in our nursery now, to incorporate Saturaid, a product from Debco, in our mix and also to apply it as a top dressing annually on all our larger pots.

One of my main concerns for the future is the preservation of collections of species and hybrids. I suppose it is quite normal for collections to be built up by an enthusiast, be shared around, or not, as is the wont of the particular collector, and finally the collection dwindles with the waning enthusiasm, interest, energy, or time available. If it were a collection of vintage cars, paintings, or stamps, the collection would probably be sold, transferred and preserved or broken up and spread around, maybe forming the nuclei for new collections, and stimulating new enthusiasts. Whichever way, little would be lost. Plant collections seem to suffer a far more ignominious demise.

My own experience of trying to support a species collection under the wing of a commercial enterprise has not worked particularly well. The commercial pressure of trying to keep going has led to the neglect of the species in no uncertain terms.

I suppose I will be treading on several sets of toes if I were to suggest that at present there is no public organisation here in Australia that has the knowledge, resources or desirable location to maintain a comprehensive collection of vireyas. Whether that public organisation be a botanic garden or an organisation similar to the Olinda, Wollongong or Emu Valley gardens, I believe it is time Australia had a centralised collection of vireyas.

One of the stated goals of the Pukeiti Rhododendron Trust is "to coordinate a national collection of the genus *Rhododendron* with international significance". This would obviously be a goal also for the American Rhododendron Species Foundation and the Royal Botanic Garden in Edinburgh. Originally, I have no doubt that the Victorian Branch of the Australian Rhododendron Society had this in mind for the Olinda Garden and they have gone a long way towards achieving this aim with the temperate rhododendrons. However, here in Australia the vireyas are missed out.

Spread around Australia must be one of the best collections of vireya species and hybrids in the world, and for that no small thanks is due to the likes of Doctors Bob Withers, John Rouse, George Argent and many others, who have been so generous in their efforts and their sharing. I believe it is time for this material to be gathered together for preservation, but I also strongly believe that this collection should be sited in a climate more suited to vireyas than that of the southern states. To my mind no matter how much expertise and enthusiasm were applied to the task, vireya species would not thrive in a climate that combines wet with cold and hot with dry. These are the extreme climatic conditions I referred to at the start of this talk. Vireya species do not adapt to them and that can only be overcome by the use of a multi million dollar temperate glasshouse such as that used for the vireyas in the Royal Botanic Gardens, Edinburgh. I have seen vireyas growing in South Australia, Victoria, Tasmania, New South Wales, Australian Capital Territory, New Zealand, United Kingdom, Japan and Papua New Guinea, and, other than Papua New Guinea, none of these can compare to the climatic advantages that parts of Queensland can provide. Unfortunately, I know of no such organisation in Queensland that could coordinate such a collection at present but I hope that at some time in the future this will eventuate.

A couple of weeks ago we received a telephone call from the gardening editor of a glossy high class magazine published in southeastern Queensland. Could they visit our nursery as they wished to write an article about vireyas? Nothing unusual about that. We are used to being used by journals and

magazines as a source for material, and it is all good promotion for vireyas, as long as they get it right. But the young editor was having difficulty finding plants in gardens suitable for photographs. They were not after individual blooms but attractive garden plants showing good colour and shape in attractive settings.

We had a few that fitted the bill, plants that have been in the ground for four to five years, but most of our garden is still young and the vireyas have yet to fill out and settle down to regular flowering. The magazine editor had to settle for what we could offer, because we could think of no other garden in southeastern Queensland where they would find what they were after. We could have resorted to subterfuge and temporarily planted out some pot plants which were both bushy and colourful, but that is not the point. Few Queensland gardens have well established in-ground vireyas as yet.

While I was talking to John Rouse later, I posed the same question to him. Where in Victoria are there good garden plantings of vireyas that could grace the pages of a quality magazine? Other than a few plants in his own garden and possibly some in Bob Withers' garden, he also drew a blank. And all this after thirty years of the growing of vireyas in Australia!

There must be many gardens in Australia containing a vireya or two that can put on an attractive at odd times, but I have yet to hear of a garden where vireyas have been a major feature or where an award has been given due in part at least to a display of vireyas.

One possible candidate for this accolade would be a beautiful garden in Woolgoolga, NSW, where Neil and Kathryn Puddey are blending vireyas in very well. This garden has been part of the open garden scheme for a couple of years now and Neil is really hooked on vireyas, so I am expecting great things there in the future.

It is a sobering thought that after such a long period growing vireyas in Australia, these plants which we enthuse over, extol and prize have yet to gain a regular place in our garden landscapes. Do they really need such special care and treatment? Are they that difficult? There are a lot of garden shrubs that good gardeners around the country prize, and, despite the fact that these shrubs may require special attention, they still find a regular place in the general garden landscapes. Will vireyas eventually fit into this category or are they so difficult to grow outside the regions that have natural milder climate, that they are destined to remain the plaything and treasure of the enthusiast only?

Maybe so.

*(This is the text of a paper delivered at the 1994 Pacific Region International Rhododendron Conference).*