VIREYA VINE ISSUE # 11 OCTOBER 1986

AN INTERNATIONAL GROUP OF "VIREYA BUFFS" - PUBLISHED BY THE EDUCATION COMMITTEE OF THE RHODODENDRON SPECIES FOUNDATION

From Tom Tatum B.C. Canada Dear Vireya Vine, July 22, 1986

Big beautiful plants, but they seem reluctant to bloom? I think that's a situation most of us have seen, experienced, or hashed over all too often. Nothing new here, but too much TLC could well be the problem.

A long time ago, Pete Sullivan told me that vireyas thrive on neglect. I've certainly got to agree. If you don't want to see color, just keep watering, feeding and using lots of shade. Plenty of strong light, periods of water stress and timely absence of nitrogen-containing fertilizer are long established methods used in the florist trade to encourage flower bud formation in favor of more top growth. Here's what's worked best for me:

- 1. Start with a vigorously growing plant that's putting out full sized leaves and branches.
- 2. Strongest possible light is a must. Especially in winter. A good many of my plants have taken full outdoor sum with temps over 90', day after day. The only two that began to burn were R. lochae and R. intranervatum both were moved with minimal damage. Maximum light also seems to encourage sturdier, more colorful leaves.
- 3. Fertilizer is most beneficial at the onset of new growth (I use fish). Flower buds are much more likely to form if no more is applied following this.
- 4. Water much less often as new growth approaches full size. This stress is well known to encourage flower formation in favor of leaf development. It's time to water when soil media becomes very dry and light. Early signs of wilt are not harmful to the plant, but are an excellent watering signal. Water very thoroughly when you do. Pete Sullivan sometimes went several weeks without watering. Remember, most vireyas are inclined to be epiphytes and are now and then subjected to long periods of drought in their natural habitat.

There seems to be at least three solid pushes of growth behind flower buds in most cases. No use trying to encourage buds if the plant is not ready. This approach has worked well with all of the hybrids that I've grown, as well as with most of the commonly distributed species. Some species, R. konori for example, take many years under any conditions. Others of course, simply want to be difficult. Finally, it's a good idea to keep an eye out for any plants, species especially, that may be suffering too much from drought or strong sunlight.

Ton Tatum

I have had trouble with sun burn in the spring when I first put the plants outside. Also if they are in a real exposed spot in the greenhouse. I he had plants sun burn so had that they have died. But I must agree with Tom that high light levels is important for flower bloom. I use fellizer only when the plants look like they are hungry. B. White (ed)

From Tom Tatum,

B.C. Canada

Dear VV

July 25, 1986

Have you had any experiences with vireyas as houseplants? I'd very much appreciate any comments you might have. I'm getting a Vireya book ready for Timber Press. It will include a short but very important section dealing with indoor use. There seems to be a lot of interest in this area. Plenty of input besides my own experiences is needed. Among the rather few that I've handled this way, (indoors) the euvireya/javanica types have generally done best, while poorest results seem to be with some of those with strong phaeovirea influence. R. lochae and Valentine have done very well. R. laetum, aurigeranum and their hybrids with such things as mac and zoelleri have also succeeded. R. jasminiflorum X Pink Delight was another good one. Maybe dry indoor air was the problem with failures. In many cases, my plants were only kept in when there was a risk of frost. Even then they were occasionally placed outdoors in winter during mild spells. Because of low household humidity, more frequent watering was needed.

Tom Tatum 5285 8a Ave.

Delta, B.C. V4m 1T8 Canada

VV Editor's Note;

I think that most vireyas well do OK in the house if they get used to the inside air. Tom is sure right about some of the small species and hybrids. They are fine in the house, but take more water and care like keeping them away from heaters, but that is the rule with almost any house plant. I put all of my plants out in the spring. Many times I have tried to bring plants in flower in from the greenhouse to have on a table to look at. This is often hard on plants and causes the flowers to quickly kick off. I have learned to keep the plants in for only a day or two and then back out to the greenhouse. I must say that my greenhouse is not really a greenhouse, but an heated growing house. I do not get the real greenhouse type conditions that are needed for vireyas to do real well. The Vireya plants growing in the greenhouses at the Species Foundation do much better. Some times I think too good. They grow too fast and too lush for my liking.

B. White Smith

AND THEN::: It seems that when we get Tom Tatum going he can't be stopped.

And you people send Tom your ideas that he can use in his book about Vireyas. He is doing one for sure, I can feel it in my bones and he told me so to. B. White So some more:

From Tom Tatum

B.C. Canada

Dear Vireya Vine,

July 25, 1986

In a Vireya Vine earlier this year, Dick Cavender was asking what happened to R. Herklotz #5. He said that I had it at one time but thought I had lost it. He'd seen a picture of it at the Western regional Conference at Seaside last fall. Maybe it was the same picture I saw at the National Convention (ARS) in the Spring of '85'.

Well Dick, I've got news. It's alive and well right here in

Tsawwassen!

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-99.

This 12 year old plant was grown from a cutting from Strybing Arboretum where it was growing outdoors in the ground. It's a rather sprawley phaeovireya. New wood and leaves are very heavily covered with large brown scales. It blooms and sets seed rather freely. When several buds are open at once it can make quite a show. The tubular flowers are pendant, maybe around 5cm long, and come 4 to 6 together. They start out looking yellow, but develop a curiously pinkish tone as they mature. Dr. Bob Withers, as I recall, thought it was R. schoddei when he saw it out of bloom. There seems to be some fairly significant differences, especially in the flowers, when this plant is checked against Sleumer's description.

This plant is a little shy on cuttings right now, but I'll send seed to anyone whose interested next time it's available.

Tom Tatum

From Tom Tatum

B.C. Canada

Dear VV,

July 28, 1986

Which is R. hellwigii? A year or two before 1975, Pete Sullivan started some seedlings marked R. hellwigii. I grew a few of these on. When one bloomed a few years a it turned out to be white and fragrant; likewise for one belonging to Dick Cavender. He anyone else had similar experience with plants from this batch? I strongly suspect that they may be R. phaeopeplum. Next time one of these blooms (anywhere), a close inspection, especially of the style, may answer the question.

Dick (Cavender) and I also have plants marked R. superbum, c/w Kores, 2,700m, Finisterre Mts. We grew these from seed that came in around 1977. When one of these plants bloomed last year, it was deep red with no fragrance. Sure sounds like hellwigii. Now one of mine is budded, so maybe we can get a closer look.

Tom Tatum 5285 8a Ave. Delta, B.C. V4M 1T8 Canada

From Rev. Norman Cruttwell

Papua New Guinea

Dear Vireya Vine,

June 23, 1986

I still enjoy receiving the VV and hearing what others are doing with our PNG Rhododendrons. I was especially interested in Graham Smith's remarks and look forward to welcoming him to PNG soon. Very glad to hear of some of our Mt. Gahavisuka specials succeeding in cultivation. But no, we have not trained the pigs but are still trying to restrain them.

We have quite a number of natural hybrids now besides the R. mac X rarum (putative). One of the finest is the R. mac X zoelleri hybrid which occurs at Litipinage in the Eastern Highlands together with magnificent red margined forms of R. zoelleri. I am still looking for R. dielsianum X zoelleri, but they don't seem to cross.

Mt. Gahavisuka Provincial Park and Botanical Sanctuary is going ahead, albeit slowly because of the tempo of PNG and the weather. We have had a exceptionally long wet season 1985 to 86, and we are still getting a lot of rain up top. The Park runs from 2000m (app. 7000ft) to 2600m (app. 8500ft). It is part of what is called the Mist Forest zone. (Mid Mountain Rainforest) This has held up building and road improvement but has been ideal for planting and propagating Rhodos.

In fact we are able to break all of the rules and instead of fussing with pots, mist and devices etc. I have discovered that if you just hack off a piece of Rhodo a foot or two long and stick it in the ground it (at least 50 % anyway) grows! I discovered this quite by accident by sticking a throw-away fragment of R. konori in and it immediately struck and is now a strong plant.

Of the set of 28 rooted cuttings brought up to me by the Australian Rhododendron Society in 1983, 25 are still surviving (I lost 1 R. leucogigas, R. phaeopeplum and the only R. truncicolum which is sad as it is one of "my" Rhodos.) The first to flower came out recently, the beautiful gong like flowers of R. laetum X gracilentum. Some others are in bud, but they are still young and immature yet.

One Rhodo which seems to be growing well, though surprisingly since it comes from 500m is R. atropurpureum. So far I have failed with R. saxifragoides, probably because of insatisfactory specimens brought down from Mt. Giluwe. I hope to try again if I can get any material. I am now trying R. womersleyi. (ed note; I had womersleyi in bud last May but the flower buds fell off and I don't know why because the plant grows good for me. Now there are flower buds again so I may see it yet. E. White)

Unfortunately we all get older. I am approaching my 70th birthday and have just completed 40 years in PNG. I don't find it quite so easy to get up to the heights as I did. It is very good to see many of my friends writing in the VV and hope I may see some of them in PNG in the next year or two, before I have reluctantly to leave this fascinating country.

PS. I think that someone recently was inquiring about the habitat of R. christianae. Sl. It occurs only in the Daga Country between Mts. Simpson and Dayman in the Milne Bay Province, S.E. Papua. Altitudinal limit c. 500m. Most abundant at c. 1000m (3200ft). It tends to grow on steep cliffs or gully sides, with sharp drainage but fair amount of moisture. Sometimes on sloping hillsides where there is seepage. But never on the flat and never epiphytic. Rainfall c. 125 ins P.Y. (3125mm).

Rev. N. Cruttwell/ab Post Office Box 348 Goroka, Papua New Guinea

Editor note; It certainly not my intention to say how other people should act or react to plants in the wild or to introducing none native plants to an area. I do want to ask Norman if he thinks that there is a chance that introduced plants could get loose and establish themselves? I would think that nature would take care of that kind of thing over the long haul. But Norman is there and has been looking for a long long time. I should think much longer than any one before or in the future will spend. It would sure be nice to just break off stems and stick them in the ground to root and grow. That is somewhat what we do anyway. Don Stanton told me well over ten years ago when he was passing through the American North West and was staying with us for a few days, "use a clean clay pot full of sand and peat, and put the Vireya cuttings around the edge of the pot to root" "easy, nothing to it really". Don was a true friend to me and one of the very early growers of the Vireya type Rhododendrons. I wish that someone would tell the story of Don Stanton and his Rhododendron work someday. Don sent me a cutting of lochae I macgregoriae one time and it grew and bloomed but it is not to much to shout about, but then I seem to remember that his plant of this same cross was 4-5 foot high and has over 200 trusses in bloom at one time. That would be a real sight to see. Don went to PNG at least once that I know of and sent me a cutting of what he called DS 25. This he thought at the time could be a new species but I think that it has turned out to be the natural hybrid listed in Sleumer's 'New Species and Noteworthy Records of Rhododendron in Malesia' (1974).

It is hard for me in Washington State USA to get a feeling about how much real interest there is in the Vireya section of Rhododendron around the world. But then on September 28th of this year at the Western Regional Meeting of the American Rhododendron Society held in Monterey California this happened. The very last session of the meeting (which is often skipped by people wanting to get started home early) on Sunday, I had the pleasure to sit at the front table with Bob Badger, Peter Schick and Bob Stanley and talk about Vireyas for over 1 1/2 hours. Peter and Bob S. had just returned from PNG where they, and Fran Rutherford spent about a month with Graham Smith looking at Rhododendron's and other things. We had at least 80 people asking questions and reacting with what we had to say. These people were very interested and we could have gone on for a long time more. We talked about potting mixes, fertilizers, watering, shade, hybrids, and most anything else that came up.

I will not tell anything about what the boys saw and did in PNG and hope that each of them writes a letter to the WV so we all can share. I must conclude from the Monterey Meeting that there is limited interest amongst most Rhododendron people but very strong interest amongst people who have been really exposed to the Vireyas. Some areas of course can grow these plants very well, out side and in the ground while most of us must use pots and greenhouses to feed our wants.

I must tell one thing that Peter Schick told me because I think that it is very important. I asked Peter if the Hill or Highland Towns were clean or dirty. He said that as a whole they were not too bad at all, BUT now that plastic bags are being used it will get much worse. The plastic of course just stays in the grass or brush line and never rots away (very slow). Before the people could just throw out their leftovers and they would not away fairly soon and be gone from sight, but not plastic. My job is with the City of Tacoma Park Department and we spend a very large amount of our time picking up other peoples litter. We find that the plastic bags that end up in the brush line or the wooded areas are a real mess. They can still be there after five years if we don't pick them up. And for the people reading the Vireya Vine from other countries that the USA, we have lots of plastic bags now. NOW I MUST GET OFF OF THE SOAP BOX FOR A BIT. R. White Smith

Also I had R. phaeochitum bloom in September and it was very nice with shell pink flowers of nice size. I should think that this would be a good plant to use in hybridizing. Different foliage type, good color, 3-4 flowers, smallish plant, blooms young, etc.

From John Rouse

Victoria, Australia

Dear VV. Sept. 28, 1986

(Editors Note; Before you read this letter I want to tell you that John is with the School of Physics, University of Melbourne. In the September 1986 issue of "THE RHODODENDEON", the Journal of the Australian Rhododendron Society, John has a eight page article about "Raising Vireyas from Seed". This article is well worth looking up and reading.)



Currently, we are investigating the effect of relative style length on the sexual compatibility between two Vireya species, and find that if the ratio of the style length is 5 or more either way, the chance of obtaining a successful cross is low. Our extreme success are R. anagalliflorum X R. gracilentum, Male style / female style = 6, and R. macgregoriae X R. rubineiflorum (Sleumer book #137A ed.), male style / female style = 0.2.

If anyone has made pollinations within Vireya between plants with very different style lengths, I would be most interested to hear of their successes and failures.

Some Vireyas take a long time to flower from seed and one that is very slow for me is R. perakense in subsect. Pseudovereya. I have only flowered it on a graft onto stock with which it appears to be long term incompatible as the stock is not developing. Currently seed pods are ripening and, with luck, seed may be obtained prior to the collapse of the combination. DO grafted plants flower earlier than rooted cuttings? And do grafts that are only temporarily compatible flower even earlier???

> John L. Rouse House 8, Stonehaven Court Toorak Victoria, 3142, Australia

Question from B. White--- John, I do not understand your ratio #s. Both R. anagalliflorum and R. gracilentum are about the same size in flower and my Sleumer book does not list style sizes when I try to look up the differences. I do understand the difference in the R. mac X rubineiflorum which could be quite different. R. rubineiflorum is not even in the Sleumer book but is in the Subsection with very small plants.

John has worked with grafting Vireyas for a long time and I hope that other people will answer his questions about sooner blooming and incompatible stock plants

From Richard Chaikin Dear W.

Boston, Massachusetts October 9, 1986

To E. White,

When I spoke to you at the Western Regional ARS in Monterey Calif, you asked me to write of my experience and plans. I mentioned that I had never grown Vireyas before 1985 and so, am completely new to this game and the VV.

I am in the process of building a greenhouse for my 25 camellias which have been in my high rise apartment for 3 years now. My bloom is not very high in numbers, but I have been able to grow them in a 64' bedroom.

For that reason, and because Bovee's Nursery says that if you have house plants, you can grow Vireyas, I have decided to expand. I recently saw a greenhouse with a northern wall of lathe set horizontally from which an entire collection of orchids is hung. Each pot has it's own hanger and the lath is an excellent way to support ties for flower stocks.

I plan to do the same thing with heavier lathe strips to hold Vireyas. In addition, attempt will be made to grow some of these plants from tree ferns. The only problem is that I wonder how the fern will take to drastic pruning after it reaches 12 ft or so. The greenhouse will be on Cape Cod, and not in Boston (where the exposure is fantastic full sun till 11AM and then open shade cast by the building).

If any readers can help me with the tree fern problem, I would appreciate it. I am looking for a naturalized look, especially with the plants that are labeled as "hanging basket plant".

> Dr. Richard W. Chaikin Seven Whittier Place Boston, Massachusetts 02114

From Bob Badger, Kent, Washington USA Dear W, October 14, 1986

Starting last November we moved to a new retail nursery site in Kent, diagonally Pross from the Gnome Botanical Gardens. We built a new 10,000 square foot metal-framed, polyethylene film covered greenhouse at the retail site.

Our Vireya collection spent the winter in the older greenhouse at the Botanical Garden. I would like to report about the hardiness of my Viryeas at this location. On November 11, 1985 the Pacific Northwest was hit by perhaps the coldest winter in thirty years. For 48 days untill December 28th, the outdoor morning low temperatures ranged from the mid +20's F. to +5degrees F. with the coldest mornings ranging from +7 to +15 degrees F. Three feet of snow fell between November 17th and November 21st. In contrast during January, there was only one morning with a temperature of 32 degrees F. It was much warmer. February had eleven days of morning frost, the lowest was 19 degrees F while the rest were 27 to 32 drgrees F.

The Vireyas, many species, named hybrids and unnamed hybrid seedlings were in an older double-roofed and double-walled, air inflated "cool" greenhouse of 2500 square feet, ie, the only heat other than solar, came from the dirt floor or a single small, kerosene heater sitting in the middle of a bench. Temperatures inside this old greenhouse followed two distinct patterns:

- 1. Any clear cold morning (after I ran the small kerosene heater during the night) when the inside morning temperature was 33, 34, 35 or 36 degrees F. the solar heat gain quised the house to 44, 46, 48, 50 and 56 degrees F. A gain of from 8 to 20 degrees F. a day--an average of 14 degrees F. a day.
- 2. For 20 days (November 17th to December 6th) there was anywhere from 2" to 20" of snow on the roof darkening the interior of the house and keeping out nearly all of the solar gain. The Following are the coldest four days with snow on the roof:

Inside temps.

32 to 40 degrees F. 8 degrees gain, mostley between 11 AM & 2 PM

4 degrees gain, " " " " " 32 to 36 degrees F.

" mostley between 11 AM & 2 PM 32 to 36 degrees F.

32 to 37 degrees F. 5 degrees gain, "

I could not pay much attention to the Vireyas, as the business required ny time. What happened is amazing to me but now I think that I understand why, since I have talked to many West Coast Vireya lovers who have been to New guinea and on Mt Kinabalu in Sabah to collect Vireyas, as well as long discussions with collectors and botanists such as Pieter van Royen, Herman Sleumer, John Womersly, Paul Kores and Keith Wade who have been there. I also have to remark that others here, have had much similar experiences to mine. It must be like the winter of 1982 in Australia during their unusual temperature of 27 degrees F. in Melbourne as reported in Issue # 4 of their Vireya Vine by Arthur Hedlam.

Some of my plants in November were too dry or to wet, and my watering was uneven last winter. The large 3' tall by 2' wide R. laetum was in bloom with 10-12 trusses, as were several other large plants such as three R. retusum's, two R. dielsianum's and a pink form of R. macgregoriae, the hybrid Valentine and others. The damage to my plants, as I look back on it was predictable. New growth that was not "hardened off" yet was killed outright. All tender new growth was "frost burned", i.e., the cell walls were ruptured by ice crystals and the shoots and leaves turned to mush on thawing. Most but not all, Vireya species and hybrid seedlings growing in 4" pots with new growth were killed (frosted) outright in the same manner.

The larger and older Vireya plants behaved like Maddenii's growing outdoors here in Washington State. That is that the brown bark and "old growth" was rarely damaged -- only the most tender new growth was killed.

My conclusion from all of the above experience is that the major damage occured when the afore mentioned four coldest days occured during the low light period when the snow was on the roof. On these days the diurnal (daily) spread of temperatures was only 4, 4, 5 and 8 degrees F. The period of 15 to 20+ hours each day in a row at or just below 32 degrees F. allowed the frost crystals to grow, penetrate and rupture the leaf and stem cells of the plants. Following those coldest days there was a tremendous spread of botrytis fungus throughout the collection on all of the damaged plant tissue areas, which would not easily kill with the use of the fungicide, Triforine. As the snow melted on the roof and the house warmed to near 50 degrees F. I easily controlled the botrytis with to same fungicide, Triforine, but the damage was done. Simply stated, those 4 or more coldest, darkest days must have exceeded the normal ecological and climatic conditions under which Vireya Rhododendrons thrive in the wild. I suspect the diurnal range of temperatures was too small and the daily high temperatures was too low.

The graft which I made, from what few temperature records that I could find in atlases, books on Paupa, encyclopedias and published rhododendron Journal literature followes:

I used Australian weather records for the eastern half of the Island of New Guinea from Port Moresby, Lae, Madang, Wewak, and Mt. Hagen. I computed the average lapse rate (cooling) of 3.44 degrees F. for every 1000 feet increase in elevation. It is interesting that the average diurnal range (spread) between high and low temperatures is 13 degrees F. at Sea Level and increases to an average of 21 degrees F. at Mt. Hagen at 5,350 feet on the plateau and projects to around a diurnal range of 30 degrees F. at 12,000 feet in altitude. The graft also indicates a 32 degrees F. of radiation frost is possible on any clear night at 7,000-8,000 feet (as all the collectors report). It indicates that if the morning temperature is at or below freezing for several hours, there should be a daytime heat gain of at least 15 to 20 degrees F. in order for the Vireya Rhododendrons to exist in their ecological niche.

I would certainly appreciate comments from other Vireya Vine members who have been in New Guinea or Sabah and who have more first hand knowledge.

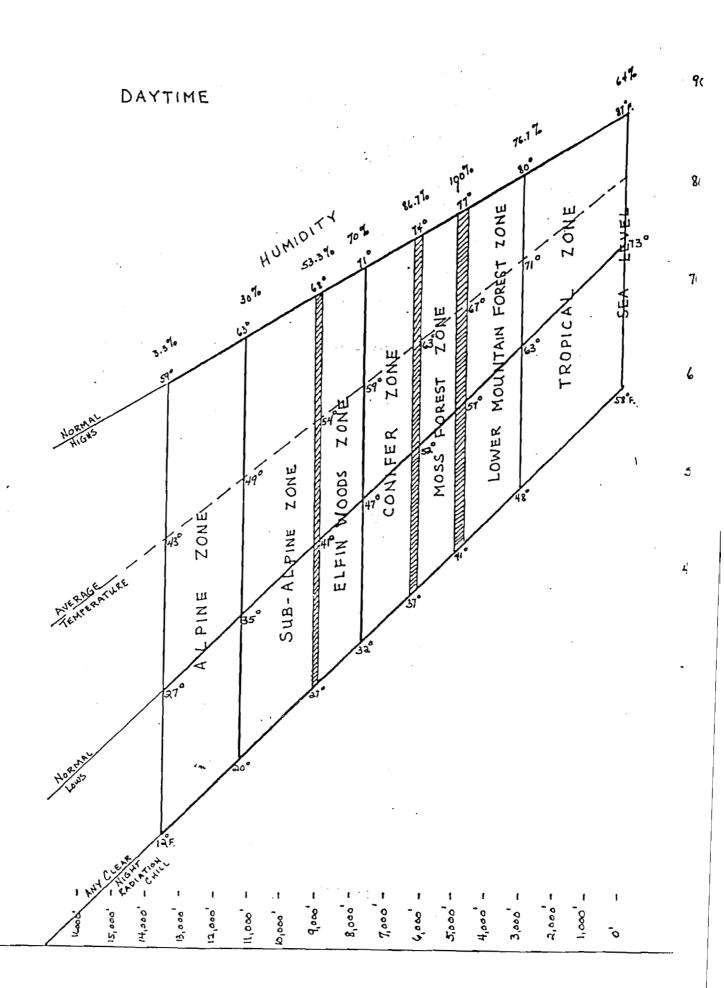
If we get favorable responses to the above, I have more data etc. if you wish it later.

Bob Badger
P. O. Box 6486
Kent, Washington 98064-6486

ON THE NEXT PAGE IS

Graft showing average daily high and low temperatures related to approximate Vergatation Zones on the Island of New Guinea. Subject to local variations.

A guide for growing Vireya Rhododendrons. Bob Badger, Kent, Wa. USA



NIGHT TIME

From Bill Jenkins

Los Angeles, California

Dear W.

October 20, 1985

Since I first glimpsed Vireya 10 years ago, the flirtation has developed into a genuine love affair. Much physical work, expense, and thought is equired to see this capricious subspecies, but if I can please her she responds with sensuous color, forms and fragrance. Others bloom up a storm for a ew weeks, then stop to vegetate or go dormant. Vireya yields exotic buds, voluptuous new foliage and jewel flowers every day of the year.

The Vireya subject foremost on my mind today is Tom Tatum's Vireya Handbook. The rough draft, containing approximately 350 pages, including 100 color lates, some black and whites and a not-too-technical text has been approved by Tember Press, which will pay all cost of publication.

Started 5 years ago, the work was halted in 1983 when Tom suffered kidney failure. He and the book seemed doomed. A kidney transplant produced iraculous results. Work is again in progress, but Tom lacks the strength to both earn a living and work on the book. The Stanley Smith Horticultural rust, in Scotland is considering a grant of up to \$10,000 to match funds donated by individuals here at home. I thought it would be a simple matter for en Chapters to donate \$1,000 each. It isn't simple. It is very difficult to get majority approval at a Board meeting when it comes to spending money. So, am appealing to individuals for help, starting with myself. Instead of attending EXPO 86 in Vancouver, I decided I would rather donate the money to the ffort of producing a Vireya handbook. How about you? Can you contribute \$10? Better still, are you willing to forego a dinner for two at your favorite estaurant; or more? Please believe me, giving until it hurts is a good feeling.

ARS President, Bill Tietjen has written to the Stanley Smith Trust to say that the ARS Board unanimously approves the Qualifications of Kr. Tatum. The 38 Vancouver B.C. Chapter agrees to handle donations from the Stanley Smith Trust and from you and to distribute the money for expenses. This includes a reat deal of work in securing better color plates, re-working the text and providing a stipend for Tom while working full time on the manuscript. Please ct today. Make your check payable to; Harold Johnson (Vireya Handbook)

Bill Jenkins 12311 Texas Ave. Los Angeles, California 1370 111th Ave. Surrey, B.C. V3R 2B9

Canada

Editors note, I had this space filled but Bill Jenkins got his letter to me in time and Tatum does need the help) Also I had to print some of this issue very small to get it all in. SUCH a deal, to much copy, RWS)

If you know someone that would like to be on the Vireya Vine mailing list let us know. The cost is \$10 US. Checks should be made out to the hododendron Species Poundation. The cost of putting out this "World Letter" is for paper, stamps, envelopes for outside the USA, and a little bit of copy achine time at the RSF. I (B. White Smith) use my Kaypro II Computer at home and my new Epson LQ-800 printer at no cost to get the copy into the form that ran Rutherford spends almost a full day at the Species Foundation copying. Fran also gets them into the mail.

The Halls who have a Mursery on Long Beach, Washington called me this summer and had me bring their Vireyas to Tacoma. Because we have so many to sell nd they grow so well at the Rhododendron species Foundation, I had to find a way to put these plants to good use (about 60 plants). I did keep a few, but ook the rest to the Park Department Greenhouse for them to grow. They will and already have moved some of the plants to the Wright Park Conservatory for isplay when in bloom. Most people have never heard of tropical Rhododendrons.

VIREYA VINE RHODODENDRON SPECIES FOUNDATION P. O. BOX 3798 FEDERAL WAY, WA. 98063 U. S. A.

