

Region ✓

ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS

## VERTICORDIA STUDY GROUP

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NEWSLETTER NO 33 -- MARCH 2000.

### MEMBERSHIP.

We are very pleased to welcome a new member to our Study Group :-

**Russell Dahms**, 13 Everest Avenue, Athelstone, South Australia 5076

Phone (08) 8336 5275. Russell seeks advice regarding sources of supply of plants.

Perhaps the best advice I could give at the moment would be to start enquiries for an initial range of species with some of the Nursery suppliers currently advertising in the Journal of the Australian Plants Society, S. A. Region Inc.. With increasing experience of growing and propagating, I am sure the follow up stage of species expansion will follow automatically. Russell also seeks information on growing data. In this regard I would refer him to "Australian Plants" Vol. 18. No. 145 dated December 95.

On a different note, I have to report that our friend, **Ernie Koch**, Matraville NSW, is to enter hospital in a couple of weeks for By-pass surgery.. We will all wish Ernie a very successful and rapid recovery and return to his Verticordias.

**Jeff Jones**, Banksia Park, South Australia, explains why we have not heard from him for some time. It seems Jeff has been involved in some extensive home alterations, but this is now behind him and he intends to resume his active interest with his Verticordias. In 1995, with Ted Newman, I had the pleasure, of visiting Jeff's garden. We were amazed at the size of his Verticordia *grandis*, certainly the tallest of the species I had ever seen. (Refer later under Member Reports).

### THIS NEWSLETTER

You will have noted a slight difference to the header information above viz., March rather than February. Unfortunately I fell upon hard times, ( a concrete footpath to be precise), in late January which left me with a broken clavicle, 2 cracked ribs and a bad dose of pneumonia from which I am still fighting to recover.. Fortunately all was not lost. I had started preliminary draft for NL33, so I hope you will understand that there will be continuing effort in future Newsletters to complete the species assessments I have started..

### DONATIONS

I am very pleased as always to acknowledge the following donations by members in excess of our nominal \$3.00 annual subscription:-

Gordon Curtis-----	\$2.00
Alex. George-----	6.00
Ian Otto-----	5.00
Graham Eastwood-----	4.00
S.G.A.P. Victoria -----	7.00

## GRAFTING OF VERTICORDIAS

Following the very useful earlier work on this subject by Doug McKenzie of Ocean Grove, Victoria, Dick Mills, Banjup W.A. has taken up the cudgel. The following report represents a very positive advance, particularly with regard to that very beautiful group of species in Verticordia Section Pennuligera.

You may recall his suppositions in NL 31 regarding the possible use of *V. fragrans* as a host. The following report certainly speaks for itself. From my own point of view, all I can add is that it is a pity his beautiful garden at Banjup, which Ted and I had the pleasure of visiting on our 1995 trip is so far away from Cherrybrook.

### Report dated December 99.

Notes re *V. fragrans* as root-stock for round-leaf Verticordia grafts. Also *Chamelaucium uncinatum* and *C. species*.

*Verticordia fragrans* has been tried with *V. albida*, *V. albida x chrysostachys* var. *pallida*, *V. oculata*, *V. 'Summer Glow'*, *V. 'Champagne Glow'* and *V. 'Wemms Find'*

A multiple *V. albida* graft on *V. fragrans* root-stock, which was growing successfully, made too much top growth for the rather thin *V. fragrans* to support and was lost in strong winds, fractured **below** the graft, as were also *V. 'Summer Glow'* and *V. 'Champagne Glow'* on *V. fragrans* root-stock.

At present, *V. albida x chrysostachys* and *V. oculata* are growing well. These surviving grafts on the *V. fragrans* root-stock indicate compatibility is good, with only the slenderness of the *V. fragrans* placing it in question for reliability. I will persist with this for a while, as it may be suitable for many soils.

Graft of *V. grandis* / *Chamelaucium sp.* appears successful, with the thicker stems of the root-stock making it ideal for this scion.

Graft of *V. eriocephala* / *C. uncinatum* commenced flowering October 29, 1999. This plant was grafted last year and has already outgrown the parent of the scion, making **50cm** of growth (from a 25mm start) in the 12 months. This may prove to be good for cut flowers as *V. eriocephala* has a reputation for disliking heavy cutting.

Further grafts include *V. eriocephala* / *V. brownii* which appears to go all right. I will try allowing the *V. brownii* root-stock to shoot with *V. eriocephala* on top, as they are of similar growth rates and may look good together.

I now have the following 'home made' grafts flowering in the garden:-

*V. 'Summer Glow' / C. uncinatum*

*V. eriocephala / C. uncinatum*

*V. grandis / C. species*

*V. 'Wemms Find' / C. sp.*

*V. 'Wemms Find' / V. fragrans.*

*V. 'Champagne Glow' / V. fragrans*

*V. oculata / V. fragrans*

*V. albida x chrysostachys* var. *pallida* / *V. fragrans*

*V. albida / V. fragrans.*

Also surviving in the garden are:-

*V. brownii / C. uncinatum*

*V. longistylis / C. uncinatum* from Doug McKenzie via Elizabeth George.

*V. 'Summer Glow' / C. uncinatum* from Kings Park via Pat Moyle.

Still in the poly-dome are:-

- V. dichroma var dichroma* / *C. sp*
- V. etheliana var formosa* / *C. sp.*
- V. monadelphica (dark)* / *C. sp*
- V. spicata* / *C. sp.*
- V. spicataX* / *C. sp*
- V. albida* / *C. uncinatum*
- V. argentea (white)* / *C. uncinatum*
- V. argentea* / *C. uncinatum*
- V. dichroma var. syntoma* / *C. uncinatum*
- V. luteola* / *C. uncinatum*
- V. pityrhops* / *C. uncinatum* (2)
- V. stenopetala* / *C. uncinatum*
- V. eriocephala* / *V. brownii* (4).
- V. albida* / *V. fragrans* (2).
- V. dichroma var dichroma* / *V. fragrans*
- V. dichroma var syntoma* / *V. fragrans*
- V. etheliana var formosa* / *V. fragrans.*

#### MEMBER REPORTS

**Dick Mills**, also makes an interesting comment (Dec. 99) on a matter I raised in the last Newsletter. He says:-

"Checking through the August 99 Newsletter, on page 9 you mention problems which you thought may relate to the Sydney Water supply. Some years ago, over here, Stephen MtJoy was virtually wiped out by over-chlorination of the water supply. Possibly Sydney has covered themselves' healthwise by a similar chemical usage. Of course, our local flora is not generally affected by *reticulated* water supplies, as it doesn't get any.

In my own experience, cold and humid is a problem, not cool and dry."

As noted elsewhere in this Newsletter Sydney has since had a radical change in weather pattern and with most supply dams approaching capacity, Sydney Water has announced that our water supplies are now free of the bacteria which was causing concern earlier. Coincidentally I am now having considerably more success with my cutting propagation. I hesitate to make the obvious claim that my current and recent results could relate significantly to the water quality, as many other reasons might be proposed. Nevertheless one cannot help wondering?.

I referred earlier to **Jeff Jones** and his *V. grandis*. Jeff adds "a second *V. grandis* I planted next to the other one about 1992 has taken years to grow to any size. It is now about 70cm and flowering. (the other grew relatively quickly and flowered in about three years). This would seem to give credence to the observation that they are not really suitable for close planting. (An observation also made by Pat Moyle a number of years ago)

A further comment by Jeff re propagation of *V. crebra* also interested me. When I took cuttings from his actively growing specimen in 1995. he commented that he had not been successful in re-propagating it himself. He now says:-" I did manage to propagate some. Autumn does seem to be the time". (I originally struck it from cuttings of the late Ken Newbey, s plant at Ongerup W.A. I succeeded in growing it satisfactorily for a number of years but ultimately lost the species from difficulty in propagation. HMH)

**Gordon Curtis**, Happy Valley, South Australia, referred (8/99), to my report in the last Newsletter regarding difficulty I had been experiencing with cutting propagation earlier this year.

Gordon says :” I was interested in your comment re cutting propagation as I also have had a similar problem. I use rain water in place of town water. I have had failures with three lots of cutting material with various strengths of hormone. The cutting material seemed to be excellent. I even had failure with Geraldton Wax which usually give 90% results.

Five *Verticordia* that I took out of the propagator three months ago are still green but are not rooted, having only formed small callouses.

My front garden has responded to the addition of grey acid sand and a course red sand that is available locally. I have two *Verticordia grandis* planted out that flower, but not as spectacular as in the wild. The *V. plumosa* varieties will be quite a show this year. An experiment with *Kennedyia prostrata* as a living mulch and soil improver seems to be showing promise”

**Graham Eastwood**, Batemans Bay NSW, also reports (1/00), strange things happening in his garden this year: “Some plants have dropped many leaves but are currently starting to put on new growth again. *Eremaea pauciflora* failed to flower for the first time but grew quickly with a lot of new foliage. *Regelia velutina* did the same except for a very few flowers and some *Verticordias* have also behaved strangely.

The *V. chrysanthellas* don't seem to know what to do but after all these years are lucky to be still alive. If any of them die a number of well-developed seedlings are ready to take their place. *Vert. huegelii var decumbens* plants defoliated and had only a very few flowers but are currently putting on new growth. One *V. densiflora var cespitosa* is barely hanging on. The other did not flower but has grown well and has been pruned severely. *V. mitchelliana*, as I noted earlier, died slowly from last autumn and *V. cooloomia* has remained absolutely static. *V. staminosa subsp cylindracea var erecta*, planted 1993, has died but has left a legacy of a number of seedlings which are growing into healthy plants. A seedling of *V. huegelii var huegelii* planted out last autumn has remained absolutely static and *V. plumosa var. plumosa* which had to be severely pruned after flowering is now putting on tremendous growth.

On the brighter side, *V. minutiflora* is well-developed and is nearly ready to flower. and *V. densiflora var densiflora*; and old plant is currently in full flower. *V. grandis* at the moment is the real gem. It is now starting to flower with 70 or 80 individual flowers or possibly more. It is green all over and has dropped no leaves for a few months. *V. fastigiata* is healthy and growing well and I am sure it will flower in the autumn. One *V. attenuata* though small, is healthy and has a few flowers. A grey seedling has shown up in the garden which is either *V. monadelphica* or *V. mitchelliana*.

Several other *Verticordias* have been planted this season but are too small as yet for comment”

## CULTIVATION NOTES

“*Verticordias* are certainly very beautiful wildflowers but unfortunately, very few, if any will grow in Sydney.”

During my tenure as ASGAP *Verticordia* Study Group leader I have frequently been affronted by this statement, sometimes directly and sometimes by snide inference. No one has ever explained to me however why this is so. Rather I so often hear the puerile parochial comment that we should be concentrating our energies on the local species that occur or used to occur in our respective localities. My answer to this is that many beautiful local species; (say for instance *Boronias serrulata* and *floribunda*), may have once grown a quarter mile from your home, but that does not guarantee success in your garden. In point of fact it is

often the case that garden grown specimens of such plants are often even more difficult to maintain than many species from other climatic regions.

What is the answer then? Does climate have much to do with it? I concede the answer must be 'Yes'. We have all heard from the media in recent years of the apparent enormous climatic changes taking place all over our world. Sydneys climate is certainly traditionally variable and that should constitute a very good reason for regarding our area as a good laboratory for research. During the last two years or so following several drought periods we have experienced a pattern, unusual for us, of wetter than usual winter, cooler and drier than usual late spring and early summer, and drier than usual late summer and early autumn. The above pattern surely is more in keeping with that of traditional Verticordia country. The above climatic comment however is purely academic. Everybody experiences climatic variation. The answer surely lies in discovering for each species;- What are its boundaries of response and reaction to climatic patterns at various times of the year? In other words, where unfavourable effects show up at certain times, what resistance does the particular species show to the various pathogens it may encounter? The answers of course may well vary from latitude to latitude or from altitude to altitude. With the above knowledge however we can start to design garden conditions for our plants most likely to counter or control the various pathogens which may do it damage in our particular climatic region.

So far as our Society goes, I am afraid I should be considered a traditionalist rather than someone trying to be all things to all aspects of conservation. It does not embarrass me to hear the early Society for Growing Australian Plants referred to as "Merely a Garden Club"

The Australian indigenous flora is surely the most outstanding in the world, which, as a patriotic Australian, I am very proud. When I see what has been happening to our beautiful and unique inland heath areas however I wonder how long it will be before it will only be available to see in old picture books. Governments of both major political persuasion, it's true, seem to pay lip service to the problem and set up departments to control it, but sometimes I wonder if these are not merely using their positions of authority to gain sufficient revenue to maintain their bureaucracies. In this day and age we are not only witnessing the rapid expansion of useless sterile saltpan over vast areas but even still contributing to continuation of the process. How long can our unique flora survive?

There are a multitude of various Conservation Societies. Some people like to demonstrate in front of media cameras, sleep in trees and sabotage machinery. That is fine by me but are they winning? Please let me continue with my "Garden Club" approach to increase our understanding of requirements of the various Verticordia species necessary to withstand climatic variation when it happens to the best of the individual species' potential. That has been the basis of my interest as a Study Group Leader and for which I make no apology.

I commented above that climate must certainly come into our considerations in researching successful cultural treatments. I would also concede that there will almost certainly be some Verticordia species which will defy all of our best efforts to establish in this area in particular.

As Study Group Leader, I have treated my own garden as a laboratory for working on a range of cultural approaches including trials in a number of different soil types and varying depths of rapid drainage facility, as well as various other horticultural treatments.

I have very much appreciated assistance in obtaining propagating material of many species through the goodwill of Norm and Pat Moyle and Elizabeth George in particular as well as a few contributions from some other Group Members. Earlier on, South Australian Nurseryman, Tony Clarke, a member at the time, sent me a generous consignment of rooted tubestock of a number of species, which was very helpful. Unfortunately however, I have not been able to maintain or replenish material of a number of these earlier species so am currently working on a reduced range. Occasionally of late I have been able to re-acquire a

few species from interstate nurseries but in many cases these have only been available in a more advanced stage than I would have wished and for some reason have proved difficult to establish or even to re-propagate from. Perhaps a change in latitude or altitude may be part of the explanation?

Currently then, although many species are currently doing well and have profited from the research to date, the range of species under trial is lower than I would have wished..

In recent Newsletters I have mentioned the developing garden of **Ted Newman** and **Pat Kenyon** at Dural, near here. Many plants in this garden are now reaching a stage of relative maturity and it is particularly interesting to be able to compare results with corresponding species in my own garden. Although there have been one or two exceptions, generally speaking the growth rates, flowering and overall plant appearance have been superior. You will recall my descriptions of planting and/or lack of, follow-up treatments, and of the soil type which is totally different from any of mine, viz. yellow loam with concretionary ironstone inclusions. You will also recall that once established, their plants are left entirely to their own resources without any additional watering or fertilising. Plantings generally are made following rainy weather. As in my garden plantings are on small individual mounds which are mulched with a quartz gravel. The dishings between specimens is considered to have several advantages. Firstly, surface scour during heavy rain is largely obviated. Secondly the dishings tend to track water into the soil away from the critical plant stem regions and furthermore, I believe, help to maintain soil moisture at the root perimeter regions at a more stable level.

There is one adverse effect of the mounding which has become evident in both our gardens. Plants are more wind affected and adequate staking must be maintained.

There are two basic differences however between our gardens and I am beginning to think that with some species at least, Ted and Pat's situation is contributing to better results. The first difference lies in the spacing available between plants. Their garden, being much larger than mine, allows for greater inter-plant spacing. The second difference is perhaps a little more subtle and relates to the site topography. While both gardens are in undulating terrain theirs is in or is on a slightly sloping hill situation whereas mine is in a hollow situation surrounded by higher ground. Under certain situations of temperature and humidity, particularly still, humid nights, I believe adverse effect on some species can eventuate with foliage attacks by mildews, moulds etc. Even with a few species to date these seem considerably more prevalent in my situation. It would be very worthwhile I believe to be able to try out such species as *V. aurea*, *V. patens*, *V. insignis*, and *V. nitens*, (all of which I have grown previously but no longer hold), in Ted and Pat's conditions.

The following species update is based on Sydney performances and is based to an appreciable extent upon comparative results from both our gardens. No effort has been made to identify specific pathogens, which have been referred to under the general terms. "Root Rot" "Collar Rot", or foliage attacking fungi (Mildews or Moulds).

Where it has seemed appropriate to make comparative or other comments, these have been highlighted.

The species are being treated in alphabetical order and do not cover species grown in earlier years but now lost, or newly planted specimens.

For purposes of comparison plants in Ted and Pat's garden have been referred to as "A" and in my own garden as "B"

#### **Cultural Update- Sydney Area.**

*V. acerosa var acerosa*. 'A'-After 2 years continues to make good growth. Flowered lightly spring 99 and currently bunching out from base with multiple new stems. Free of mildew.

"B"-I have found the species tenacious in various soils but new leader growth is continually attacked by mildew which I have not been able to control. As yet I have not flowered the species. **Soil 'A' has produced more vigorous growth. I believe my fungal troubles are caused by inadequate air movement**

- V. acerosa* var. *preissii* All specimens currently juvenile. but even at this stage I am having similar fungal problems as for the type species. An earlier specimen in 1994 grew mildew-free in heavy loam and flowered when my garden and surrounds were less developed.
- V. amphigia*. Has grown comparably and flowered in both gardens, but seems prone to mildew attack
- V. attenuata*. 'A'- Very good growth and flowering after 2 years. In my garden has been reasonable in various soils, but tends to be less bushy in the lower parts than 'A'. A very pot-bound specimen planted in my garden in soil similar to 'A' has proved very tenacious for 2 years since planting but has not been as vigorous as other specimens. Species is a tall grower and **appears to be wind sensitive, hence staking seems necessary**. It seems to resent curtailment attempts by hard pruning with plants failing in various soils following same. (The losses have generally indicated root-rot on inspection and seem to suggest reaction to root/foilage imbalance) following the severe pruning.
- V. blepharophylla* Currently juvenile but is growing well and comparably in both gardens. I grew the species well previously in a gravel wash bed.
- V. brownii* 'A'-. As noted in N/L 32 this species made considerably better progress than comparable specimens in my garden. **suggesting good acceptance of the soil type**. It flowered very well in Dec.99, the flower colour being a much deeper pink than mine. Since flowering however it has shown the typical defoliation of the lower section. In N/L 31 Dick Mills suggested overcoming same by pruning 1/3 to 1/2 of bush each season by cutting for vase flowers. Having noted this defoliation characteristic in previous years I was surprised in 1995 to see specimens in the wild in W.A. with foliage virtually to the ground. I wonder if this growth characteristic might relate to some mineral deficiency in our garden soils?
- V. chrysanthella* Much as been said in Eastern Australia regarding mildew attack on this and some other yellow *Verticordia* species. It seems to be adaptable to a wide range of soil types, but the Eastern climatic factor is perhaps the most significant cultural consideration. The specimen ('A' N/L 32) is currently progressing well. An earlier specimen of Ted and Pats', (planted 1993), failed after several years. This plant had shown good acceptance of the soil type but had finally succumbed to repeated mildew attacks despite its' open, well-aired location. My own experience would seem to confirm my previous suggestion that **its' most suitable situation is an elevated, north-facing, garden edge**.
- V. chrysostachys* var. *chrysostachys*. 'A'-As noted N/L 32 a badly root-bound specimen appeared to establish for a while but failed to carry on. I am without the species at the moment but earlier plantings did reasonably in both light and heavy soil types. Of the two the lighter soil seemed to produce better growth. Major cause of losses was from collar-rot. I believe the current growing method on small individual mounds mulched with sterile gravel offers the best chance of successful establishment in Sydney.
- V. cooloomia* 'A'-The specimen noted in N/L 32, which had made almost dramatic progress, **indicating good soil type acceptance**, died in spring 99. The cause seemed to be a piping of the main stem starting a little above ground level suggesting attack by *Sclerotinia* sp. A similar aged specimen in my garden, (also noted N/L 32), in light sandy conditions, was considerably poorer looking than the above until about mid-spring, when new growth started. On seeing small black ants on the plant I sprayed

with 'Pestoil' and the plant is now in perfect health and growing vigourously. Now, some 3 months after the first spraying, the ants have not returned. Previous growings of this species have all been lost in my garden after interest being taken by the same ants which I had had difficulty in controlling, so **I feel that the Pestoil treatment may well be a breakthrough.**

*V. densiflora var densiflora* 'A' - Specimen too juvenile as yet for objective comment. An earlier 1993 specimen grew well but was finally lost after heavy pruning of mature wood. My own experience shows good acceptance of the full range of soil types I am using, but **losses have also occurred following attempts to curtail plant height by pruning of mature growth. I have also noted adverse reaction when spent flowers have been removed early rather than by delaying until new seasonal growth has started.**

*V. densiflora var cespitosa* 'A' - Specimens have indicated good acceptance of the soil type. Plants have shown very good response to hard pruning of mature stems (to approx. mid-height), in order to produce bushier low development. Specimens in my own garden have shown good acceptance of a range of soil types and have responded similarly to hard pruning.

*V. drumondii* 'A' - Species has shown good acceptance of soil type, perhaps a little better than in my own garden. I have found the species reliable but with best results in the heavier soil types or same with sand dug in to spade depth.

**Review To be continued in subsequent Newsletters**

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