Regions

ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS

VERTICORDIA STUDY GROUP

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I am pleased to acknowledge the following donations in excess of our nominal $3.00 annual subscription:-

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A few members have as yet, **not** remitted their annual subscription, **(due July 1998).** If a cross appears in this box ☐ you have fallen into this remiss group.Failure to bring subscriptions up to date before 30th June 1999 will result in cancellation of membership.

Our Study Group takes pride in its prime object of developing the understanding necessary to be able to grow successfully, the many species of this spectacular genus of Australian wildflowers. With membership scattered across Australia,our *modus operandi* must necessarily be kept largely at an individual level. Fortunately I have been able to keep our head above financial water, *('liquidity'?),* with a minimum annual subscription rate..This has been helped in no small way by the generous donations, as above, by some members and by Groups or Regions, as acknowledged from time to time.

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CULTIVATION NOTES

The following comments, (August 98), from **Dick Mills,** Banjup W.A. on a number of species, in response to some of my comments in the last Newsletter regarding plant performances in Sydney, are of particular interest:-*(Refer especially to highlighted comments which I believe, could be particularly significant)*

Dick Says:-.
"First, re Ted Newman's rabbit infestation.- I found the local rabbits don't like Verticordias and after one or two bites they left them alone.

Re the *V.* ***galeata*** on *D. citriodora* stock.-Maybe the combination,although compatible, is not a good one. I find *D. citriodora* a very good survivor.In my deep white sand, several get no water supplement at all and still flower well, although growth is very limited. Their deep dormancy may not suit *V. galeata,* although I assume it has its own dormancy period in the wild.

Next, re Study Group Garden at Cherrybrook.
V. ***attenuata,*** being a tall bush, **would probably respond to planting in close company with other plants.** Mine are 1200mm tall and have no problems.
V. ***brownii*** **appears to require early pruning** to encourage new growth,then prune 1/3 to 1/2 of bush each season by cutting for vase flowers. This seems to work, whereas unpruned bushes lose their bottom growth and are hard to rejuvenate
V. ***cooloomia*** I find subject to frost damage; some even died
V. ***fragrans***- One plant 2 metres high had two main stems broken by strong winds 18 months ago. I left it as it lay and they continue to grow, upwards from the horizontal and flowering quite normally.*(Refer to separate comment on this species elsewhere in this N/L)*
*V.****galeata***- Try your cuttings at about 50-60mm, from February to May, when they have that 'waxy' look. They can take 3 months to strike but give good rates at times.
V. ***mitchelliana***- With this one being such a problem in Sydney, have you thought of using plastic tents in summer to keep the leaves dry? *(Refer to separate comment on this species elsewhere in this N/L)*
V. ***plumosa var. vassensis***- **I find this requires summer water to survive**. A couple not watered are really struggling, while *V. plumosa var. plumosa* takes it in its stride
V. ***pulchella***- I believe this one is **very intolerant of lime. It also suffers severe leaf drop in winter**, particularly young plants, which die on a regular basis.
V. ***staminosa subsp. cylindracea var. erecta***- Seedlings left in situ with no water survive quite well though with only minimal growth. Older plants on trickle tend to die back at times; usually only one side of the bush being affected; the sunny side.

Page 6, reference to cats digging out newly planted Verticordias.- I don't mulch, but I think planting in sections of plastic pipe would enable mulch to be spread thickly to within cms. of stems.
I have used Borax and Castor sugar with reasonable success for discouraging ants

Finally, my efforts at grafting onto *V. fragrans* rootstock seem to be meeting with satisfactory results so far. They are a bit difficult, due to *V. fragrans* being so slender, but compatibility appears to be no problem."

Such observations and suggestions are what our Study Group is about, so that we can expand our knowledge and documentation of requirements for the many Verticordia species, under the widest range of conditions, both climatic and physical,(soil type, texture etc).and also for cultural treatments such as watering, fertilising, mulching, pruning etc.

It should be noted that Dick hails from a winter-wet, summer-dry region and that his garden is on deep,freely-draining,white sand. His observations however may well be applicable to differing climatic and soil conditions. What can you add to the observations raised by him, to boost our understanding of growing requirements for this particularly desirable genus of Australian plants?

The following update,(1/99), from **Graham Eastwood,** Bateman's Bay, N.S.W, should be read in conjunction with reports in previous Newsletters 21, 23 and 25. In these I have covered in detail, aspects of Graham's garden situation and growing methods Two points however could be especially significant and bear repetition:- **His basic soil is a quite heavy loam and his home is adjacent to a cliff edge, overlooking the sea.** From general evidence to date, both of these conditions might be expected to mitigate against the satisfactory growing of many, if not most Verticordias, but as the following report indicates, he must be doing something right. Those who have seen his garden will surely confirm this.Where special comment seems appropriate, I have included same with highlighting.

V.mitchelliana.

From a nursery specimen - 13 cm pot- purchased Victoria 7/95

Acclimatised for 1 year by placing,(still in pot), into well-drained situation near house which gave some shade for part of day.During this period it did not grow at all, nor did the roots emerge from the pot.

Planted out 7/96 in year-round sunny spot, the only shade being early morning and late afternoon.First flowering 10/96 followed by new growth. Flowered well 10/97 and 10/98.

By 10/97 it was 54cm high x 54cm diam. By 1/99 it was 75cm x 80cm diam with some flowers still persisting

It has never been fertilised or watered, even during the recent drought periods, but does get run-off from surrounding concrete paving. It is 3 metres from a brick wall but is exposed to wind having a westerly component.

(In light of many longevity difficulties with this species in Eastern Australia, except in inland situations, this report seems to have particular significance. I would suspect that the plant location, where it is subjected to westerly,(dry), air movement, could be a factor in obviating foliar fungal attack. Perhaps the slow development, with prior acclimatising, and the basic soil type, (heavy and therefore not quick-draining), have produced a root system better able to withstand rotting pathogens?)

V. grandis

I acquired this plant 9/96 potted into artificial medium.After bare-rooting and repotting into 17cm pot, using my basic soil, it was buried into a heap of pebbles, in full sun, until 7/97, and then planted out near the above *V. mitchelliana*

First flowers appeared 12/97. By 5/98 it had six healthy 52cm stems

In 10/98 some flower buds started to fall off. A few leaves had also fallen, while others had turned from green to purple.It was then pruned to 22 cms, which stopped the leaf dropping

By 1/99 all stems had grown slowly to 40cms and a few flower buds appeared .I am confident the current healthy growth will continue. It has never been watered or fertilised

(I suspect that the foliage troubles in 10/98 were caused partly by the dry, but more particularly by the unseasonally cool mid-spring conditions experienced in 1998. See separate comment on *V. grandis* elsewhere in this Newsletter The plant response to the heavy pruning under these conditions, is interesting?.)

A second specimen degenerated to one 24.5cm stem, but in the last few days, one flower has appeared.

V. chrysanthella (3)

All flower very well. A fourth is battling but is now recovering from die-back.A seedling just over 2 years old is going to be a beauty.

V. cooloomia

It has been relatively dormant fot 3 years but flowered nevertheless. It is currently developing many new growth tips for the first time ever.**(I suspect the slow growth could be attributed predominantly to his basic, heavy loam, soil type).**

V. densiflora.

An old specimen.I did not think much of it in previous years but this season has matured to a beautiful pink.

Two other specimens planted 8/97 both growing very well. Will flower for sure next season.

V. etheliana var. etheliana

Acquired 2/97.First flower 8/98, but very many flowers since and remains healthy.Waiting to see its next move.**(It will be interesting to follow up the case history of this specimen).**

V. fastigiata

Acquired 11/97. Very healthy, but is only a smallish species and going along steadily.**(From evidence to date this species does well in heavier based soils).**

V. helichrysantha

An old specimen but a real battler. It has flowered, and this season is maturing to a nice plant. A second specimen, acquired 8/97, has remained healthy, but is only now starting to make new growth. **In Eastern Australia, this Verticordia has shown some susceptibility to attack from Powdery Mildew? This makes the above report of special interest.**

V. huegelii var. decumbens (2).

Both healthy and flowered last season.

V. minutiflora

A large plant Remains healthy and currently flowering, but will be pruned when same has finished.

V. plumosa var. plumosa

Acquired 9/96 and remains very healthy. Flowered heavily 1998. Taller stems were pruned back to produce bushy appearance. I expect this to be the best of this species I have ever had.

V. plumosa var. pleiobotrya.

Acquired 11/97. Healthy and currently putting on ample new growth. I expect it to flower next season.

V. staminosa subsp.cylindracea var. erecta.

Planted 1995. has dropped all of its older leaves this season and is now growing a new lot. Two healthy seedlings transplanted elsewhere, one of which flowered last season.

In a brief note, (July 98), **Paul Niehoff,** Blackburn, Victoria says:-

"So far I have four Verticordias growing very well, *(V.chrysantha, V. cooloomia, V.mitchelliana* and *V. plumosa)* and two grafted Verticordias, *(V monadelpha* and *V. brownii)* also growing well.

They are planted in about 30cm of either half propagating sand / heavy clay loam or equal parts propagating sand / potting mix / heavy clay loam.

The *V. mitchelliana* trunk looks quite old at only about three years.
I have yet to plant *V. grandis* and *V. polytricha* this coming weekend."

When someone in Eastern Australia living in a coastal zone, reports on satisfactory performance of *V. mitchelliana*, I prick up my ears and take notice. Keep me posted Paul. I lost my own prize specimen again recently, age 2 years and just about to burst into a second good flowering. The root leader was rotted below about 150cm. It had been growing close to *V. chrysanthella (C). Refer separate mention later in this Newsletter.* Perhaps the plant location in an area with reduced air circulation may have had some significance? See also later comment on this species from Graham Eastwood, Bateman's Bay, NSW.

Ted Newman and **Pat Kenyon's** garden at Dural, N.S.W. is still developing remarkably well. You will recall my earlier comments in Newsletters 29 and 30 concerning soil type, aspect, planting treatment etc.with particular attention to plant positioning to allow for full development upon maturity. Because of the open situation, particularly with specimens at the juvenile stage, they have found it necessary to ensure that plants are staked adequately to obviate wind rocking. I believe that the plant spacing however is paying dividends, particularly with regard to free air movement. *(Refer separate comment later in this Newsletter).*

The soil type also, (yellowish loam with concretionary ironstone inclusions), has to date, proven to be highly satisfactory. I noted earlier that it had been necessary to hold many specimens, before planting, in small nursery pots, to the stage that they had become thoroughly root-bound. In many cases I had wondered if it was not a waste of time putting them in the ground. Not only have there been very few losses, but the growth of most has been surprisingly good. Those that did not make it include *V.s Chrysostachys* var. *chrysostachys, fragrans,* (died after flowering. See also comment on this species in this N/L),. *plumosa* var.*vassensis* and *plumosa* var.*brachyphylla*

VERTICORDIA GRANDIS

A recent comment by **Ernie Koch,** Matraville, NSW prompts me add to the many observations,from time to time, re favourable growing conditions for this species.

In Newsletter No.28 I referred to a particularly vigorous specimen he was growing, at that time in a 450mm long piece of 150mm diameter pvc piping. It has since been repotted into a larger piece of pvc piping, (200mm diameter). He recently commented, (December 98), however, that although it was currently carrying about a dozen flower spikes, it was not making the usual seasonal spring progress.Tip foliage growth had started in spring, but had then stalled. Ernie asked my opinion as to whether he should subject it to a fire treatment to see if active new lower growth could be encouraged. While I would personally be a little apprehensive of taking this drastic course of action, I note the result of heavy pruning by **Graham Eastwood**. (*See separate report above*).

My own specimen, initially planted out in 1989, and referred to in Newsletter No 29 as having made a good recovery after I had corrected the soil pH from alkaline to neutral, has registered a growth halt similar to Ernie's this time around. New seasonal development started in middle September 98 as usual and was followed by a little flowering, but late spring follow-up growth almost ceased. My first reaction was to re-check the pH of the soil near the plant. This was still at the neutral value of 7, so I tried fertilising with a little Multicote and watering in dry periods, but all to no avail.The older foliage nevertheless retained healthy appearance.

I noted above, the start of seasonal development in mid-September This seems to be the usual performance of established plants of *V. grandis* in Sydney. It seems to be triggered by a distinct and often contrasting change to warmer springtime conditions. Last September

was no exception, except that perhaps the temperature change was a little less pronounced than usual. Nevertheless a rather short change did come through and growth did start.

The follow up weather in Eastern Australia however has been far from what we have come to expect, with below average temperatures virtually to the end of the year, except for a further brief 3 or 4 day spell in late spring. November registered the coldest Sydney average for 50 years..Furthermore the season generally had become very dry, with the occasional rain that did fall being quite light.

These growth performances of *V. grandis* would seem to suggest that it depends heavily upon warm to hot weather conditions to trigger and to maintain good growth throughout the summer period. I have also observed that the foliage takes extended, very hot summer conditions in it's stride.I note also a report from **Dick Mills**, Banjup W.A., that he propagates it successfully from cutting, between late spring and early autumn but that it is very difficult during the balance of the year.

In Sydney it responds well to summer rain, providing drainage of subsoil is adequate.I should add here that although it comes from a winter-wet region, the wetter than usual weather in Sydney during winter and early spring of 1998 failed to encourage appreciable new leader growth on my specimen, as I had expected would have occurred.Summer finally arrived in Sydney with the start of 1999, and with some good rain in late January, my main specimen is currently responding well.

Perhaps I could conclude with the obvious inference:- **For Eastern Australia especially, select a garden situation as hot as possible??**

VERTICORDIA FRAGRANS

Verticordia fragrans has often been considered one of the easier Verticordias in subsection Pennuligera to establish, showing early acceptance of a range of soil types.

In Eastern Australia particularly, it strikes readily from new leader growth from middle summer through to mid-autumn and grows on quickly without apparent fungal problems with the foliage, such as can beset some others of the genus.

A few characteristics however are starting to show out. As reported earlier, **Pat Moyle** noted that the taking of cuttings from juvenile plants can be risky, often resulting in loss of the parent specimen.

In summer-wet areas it has shown some susceptibility to collar rotting, unless adequate precautions are taken, such as maintainance of sterile surface conditions near plant stems. Slight mounding in this region has proved advantageous in throwing off excess moisture, and use of a gravelly surface mulching, which tends to form a crust, has also proved beneficial.

During this last year I have been unpleasantly surprised to lose three apparently well-established specimens.In all cases I have come to suspect that the loss could have been triggered initially by earlier foliage damage. The first died in early June.The main leader had been almost broken off 75mm above ground during spring 1997 by careless dragging of a garden hose. It was straightened up and staked and the fractured stem bound immediately with grafting tape. It seemed to make a very good recovery and grew well to 1050mm, but died after a weather change to colder conditions.. Investigation of the roots indicated rotting of the leaders below 200mm.

The other two specimens died in late spring 1998, immediately after very good flowering, each having grown to more than 600mm. In both cases however, they had suffered earlier rocking by wind,but after staking, continued to make good progress.In both cases also, investigation showed leader roots had rotted below 200mm.

The species occurs naturally in deep, white sand. It could be argued that the rotting of the roots as noted, is an indication that, notwithstanding the species apparent acceptance of a range of soil types, including heavier conditions, a very freely draining soil is highly desirable

for long term establishment. I do wonder however about the coincidence that all three specimens died some months after suffering damage to foliage, or wind rocking,(which may possibly have damaged the roots), earlier in the establishment period. Perhaps this could be in line with Pat Moyle's comment re foliage interference during early growth.

If the above conjecture is correct, it may point to a close inter-reliance, and consequent necessity, to maintain balance between root and foliage development, at least in the development stage. I have had the experience of killing even hardier species, *(V. plumosa var. plumosa),* relatively early after potting up, by taking the active leader for cutting material. If perhaps, this root/foliage ratio is thrown out by accident or other conditions as noted above, perhaps then an increase in root moisture content may leave the roots more vulnerable to attack by root-rotting pathogens?

As **Dick Mills** has noted, *V. fragrans* is naturally a rather slender species.The stem wood can also be a little brittle His report that a specimen had survived well after having been broken over by wind, and then allowed to remain in the horizontal position, might seem to counter my thoughts regarding wind damage, but I would guess that the survival in his case, might have been influenced in part by his light sandy soil base, which may have yielded sufficiently at the time to obviate actual damage to the root system. Perhaps also a climatic factor may have been involved. In his summer-dry climatic situation as opposed to our summer-wet, and perhaps further, by growing in deep, freely-draining soil, conditions likely to encourage development root-rotting problems might be expected to be minimised .

It should also be noted that it grows naturally in reasonably dense heath where other plant species might be expected to give it a fair degree of wind protection. In more isolated, specimen type, garden culture, perhaps extra attention to staking should be given from the early stage.I am currently trialling it in a freely-draining deeper sand section. We will see how we go this time around.

.A TALE OF THREE VERTICORDIAS.

With apologies to Charles Dickens. I hope he doesn't sue me for plagiarism?

The Verticordias in question, in my garden at **Cherrybrook**, are of the species *V. chrysanthella,*often regarded as one of the more adaptable of the genus,especially in the climatic conditions of Eastern Australia.

The three plants were all propagated at the same time using new growth from an older garden specimen.

At planting, mid February 1998, they were all 50mm high and starting to throw new branchlets In all cases the roots had just reached the sides of nursery pots

They were all planted on small individual mounds, watered in with Maxicrop and mulched with decomposed granite. They were all sited into my basic garden soil;lightened to shovel depth with compost and course river sand.The garden bed is elevated above surrounding paths.

By the end of March 1998 they were all 80mm high with good healthy development. At this stage they were all given a dressing of 10 grams of 18.0 /2.6 /9.9 eight months Multicote. On several occasions since, under seasonally dry conditions, the garden has been given general watering.

By Xmas 98, specimen A was a very healthy 200mm tall x 180 mm diameter, very dense and with multiple branching.

Specimen B was then 250mm tall x 300mm diameter. It was also particularly healthy and vigorous, but the growth was rather more open in character, being only about half as dense as A.

Specimen C on the other hand, despite good early indications, had suffered badly in late spring from attack by powdery mildew. It was about 150mm tall, of similar diameter, and had grown more compact, but with considerably less overall development than A and B.Since

Xmas the mildew has been corrected with fungicide,(Saprol + Nimrod), and it is now much healthier in appearance, with good new tip growth.

Consideration of the three specimens, which as noted, had been given identical early treatments, leads me to suggest that the answer to the varying performances lies,in no small degree, on the availability of free air movement in their respective garden locations.

Specimen A is in a newly replanted section and would enjoy good air circulation in all directions..

Specimen B, on a north garden edge, is shielded to some extent in the south by adjacent low shrubbery, but is exposed to wind from other directions, particularly the north-west, a frequent and dry wind in Sydney.

Specimen C is also in a newly replanted section but is sited 3 metres north of a garden shed and 3 metres east of a tall brick wall. As well as restricting air m[illegible]ments from the south and west the proximity of these two shieldings might perhaps be expected to influence air flow from the other directions,in that such winds would tend to be sucked up to flow over the shieldings,leaving the specimen relatively more wind protected.It could also be expected that the microclimate, temperature-wise, would vary from the others, being a little warmer, not only due to reduced air movement, but from radiation.Drainage of all three specimens would have been comparible.

To experienced horticulturalists,the comment that good air circulation should be provided, may be merely stating the obvious, but until particular species of Verticordia are test-grown, and results noted of a number of trials, we will not be in a position to document such growing parameters with confidence Other Verticordia species, which have shown some susceptibility to foliage fungal attack might perhaps show comparable responses.

From advice on some proprietory fungicides, incidence of powdery mildew attack on soft new growth of susceptible plant species is most likely to occur under overnight conditions of high humidity with the temperature range between 21C and 25C.

Earlier member reports have noted that many yellow Verticordias have shown some susceptibility to this fungal attack, and various treatments, have been suggested to alleviate the problem. On occasions, when the mildew attack has been ignored and the new growth consequently destroyed, reasonable plant recovery has occurred later in the season, with advent of lower temperatures. Perhaps then, when conditions are particularly hazardous, as evidenced by the start of attack, it might be appropriate to prune back susceptible new growth, and so carry plants through the danger period by delaying development a little?

The above experience would suggest that garden siting could be a critical factor for the establishment of *V. chrysanthella,* particularly in wet summer areas. It should be acknowledged however, as the wise guys used to tell us:- "it takes more than one swallow to make a summer", and further testing by members will be required to support or counter this conclusion. Perhaps you may be able to suggest some other significant factor which I may have overlooked?

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