

ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS

VERTICORDIA STUDY GROUP

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NEWSLETTER NO 45 -- January 2006.

MEMBERSHIP

The latest addition to our membership list is **Mr. Brett McDonald**

RMB 6327, Horsham, Victoria 3401

Brett joined our Study Group in July 2005 but as the last newsletter was photocopied and being despatched at the time this welcome to our membership is a little belated.

He is currently growing plants of *Verticordia mitchelliana* and *plumosa* and is seeking to greatly enlarge his range of species, but like many of us, he is not finding this as easy as he would have wished. After several conversations with him by telephone regarding the best times in Eastern Australia for propagation of some species from cuttings, he is currently following up a number of leads

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MEMBER REPORTS

John Edmonds-Wilson joined our Study Group in June 2004 and his description of his situation at Coonalpyn, south-east South Australia, was included in our Newsletter No. 42 (August 04) when he described his soil types and climatic situation, with predominantly winter rain and very hot dry summers.

In July 05 John rang me through to discuss some aspects of growing Verticordias and followed up our conversation with an interesting letter, some colour photographs and a video showing the progress of his extensive, very ambitious, developing garden, which was only commenced several years ago.

My first favourable impression was of the general garden structure, with built up beds of unmulched whitish sandy soil, as noted in his earlier letter, with plants generally well spaced, very well grown, and with very good plant density and lateral development. In conversation, he stated that plants were grown without use of added fertilisers. I was particularly impressed with his *Verticordia grandis*, one of a half dozen of which he is growing. It was a grafted specimen planted 2002 which he had pruned frequently from the early stages..It was hemispherical in shape, foliated to ground and with very many radiating, flowering branches.

In a later telephone conversation, John made a comment which I have since contemplated and in the light of my own experiences, (see later reference re *V. grandis*), I now feel could be quite significant. He said "Pruning of some of the round leaf species takes place at the end of winter once they have finished dropping leaves and before they have started new seasonal growth"

His video shows his use of a feature I have not seen elsewhere, viz. the use of semi-translucent, hard plastic, 'Grow Cones', to assist plant establishment. They are made in two sections, which lock at mid-height. The bottom section has three 300mm wire anchors to provide the necessary wind stability. The assembled cones are tapered from about 200mm at base to 100mm at top and as John says, provide great help in establishment of young plants, particularly in the very hot and dry summers experienced there. Study Group members may recall my earlier references to use, in my own garden, of 2 litre wine flagons with bottoms cut off, which I also have found very useful in the early establishment of juvenile specimens. I would say however that John's Grow Cones have features which would almost certainly provide even greater assistance in such early plant establishment.

I noted with great interest furthermore his use of these in efforts to germinate plants from seed. The following is from his recent letter:-

"In autumn 2004, after seeing what was able to be grown in my garden, and being unable to locate plants from nurseries, I decided to get slightly more adventurous in my seed propagating attempts. Amongst other things, I purchased seed of *Calytrix angulata*, *sapphirina* and *variabilis*. These seeds were then soaked in smoked water overnight and planted out into 6 inch pots filled with a freely draining mix, with a layer of gravel on top. This was done on Anzac Day. As it turned out, it rained a couple of days later and rain continued to come, so no hand watering was done. The pots were out in full sun and with reasonable air movement

Germination was 5-9 weeks later with *C. sapphirina* being the slowest. The seedlings were left in the 6 inch pots until September before separation and transplanting. Losses varied greatly depending on species, with *C. angulata* not missing a beat, to *C. sapphirina*, where losses of up to 90% occurred

Meanwhile back on Anzac Day, I had also planted four *Banksia Baxteri* seed directly into my sand patch garden. I then placed a Grow Cone over them, and as previously said, it proceeded to rain, so no hand watering was done. There was 100 % germination.

Later that year my good wife Jo gave me leave for a couple of weeks to slip over to Western Australia, where I concentrated my looking to mostly the sand plain areas of the wheat belt; similar climatic conditions to our own. There I saw amongst many other things, *Verticordia picta* and thought, not surprisingly, that *V. picta* would look pretty good in my garden.

How to get it there ? Having got confidence by growing the *Calytrix* species and after thoroughly consulting the Verticordia Book, I purchased from Nindethana some *V. picta* seed. This seed was 5 years old. I followed a similar pattern to the previous year by soaking the seed overnight in smoked water, then planting out on Anzac Day again.. But, instead of planting into pots, I divided the seed into eight lots. These were then planted directly into my sand patch. I simply scuffed up the sand's surface with my fingers, threw some seed down on top, and then scuffed the area around again. A quick pat down and then a thin covering of gravel on top; no much thicker than one layer. I suppose the depth of sowing varied from 1 cm deep to on the surface. These were then covered by a Grow Cone, except for one area that was left unprotected.

It then proceeded not to rain till mid June. I therefore watered by hand very sparingly once or twice a week. Seedlings started to emerge eight weeks later with anything between one and six seedlings per cone. Similar germination rate occurred in the unprotected area.. There were a number of twin seedlings as well. At this point in writing (7/05), they are just developing their first true leaves and I am trying to keep at bay, sap sucking insects such as red legged earth mite and lucerne flea and the other big pest we have here; Italian Snails. There has been no sign of damping off, but I will have to remain vigilant.

My reason for planting directly into the sand was that *Vert. picta* was a very widespread species and therefore could tolerate a range of soil types. Another was that *Vert. picta* germinates readily. The third reason was that by not having to transplant the seedlings there was one less stage I would have to stuff them up. The final reason was that by using the Grow Cones I could get the young plants through our hot dry summer.-----The top piece of the cone locks on to the bottom but can be easily removed when the plant reaches a decent size, and they are reusable.. These Cones have enabled me to grow some incredibly small plants safe in the knowledge that they are protected from frosts, animal predation, wind and very hot weather. They basically even out the climatic conditions by providing a micro environment around the young plant. The only genus which appears unhappy in them, in my experience, is *Dampiera*."

His letter, 7/05, included the following update of Verticordia species he has succeeded in acquiring to date, indicating year of planting and brief performance note.

<i>V. endlicheriana</i> var. <i>compacta</i>	March 2005	Small but healthy
<i>V. chrysanthella</i>	May 2004	Tough. Tolerates higher pH
<i>V. nobilis</i>	May 2001	Slow growing
<i>V. grandiflora</i>	April 2005	Healthy. Looks promising
<i>V. patens</i>	March 2004	Moderate growth. Healthy
<i>V. nitens</i>	May 2001	Moderate growth. Healthy
<i>V. cooloomia</i>	April 2002	Fast growth. Tipped by frost
<i>V. staminosa</i> subsp. <i>staminosa</i>	April 2002	Tough. Healthy
<i>V. plumosa</i> sp.	April 2003	Would like more water
<i>V. plumosa</i> var. <i>plumosa</i>	April 2003	Moderate growth. Healthy
<i>V. pityrhops</i> (grafted)	March 2004	Slow/moderate growth. healthy
<i>V. densiflora</i> var. <i>densiflora</i>	May 2001	Lime chlorosis at times in year
<i>V. brownii</i>	March 2004	Slow growth. Healthy
<i>V. eriocephala</i>	April 2005	Leaves dropping at purchase
<i>V. fastigiata</i>	March 2004	Slow growth. Healthy
<i>V. longistylis</i>	May 2001	Slow growth. Healthy

<i>V. dasystylis</i> subsp. (grafted)	April 2005	Healthy
<i>V. penicillaris</i>	March 2005	Moderate growth. Healthy
<i>V. brachypoda</i> (grafted)	March 2004	Slow/moderate growth. Healthy
<i>V. insignis</i> subsp <i>insignis</i>	March 2005	Moderate growth. Healthy
<i>V. insignis</i> subsp <i>eomagis</i>	March 2005	Moderate growth. Healthy
<i>V. monadelpha</i> var. <i>monadelpha</i>	May 2001	Lime chlorosis at times in year
<i>V. monadelpha</i> var. <i>callitricha</i> (grafted)	March 2004	Moderate growth. Mostly healthy
<i>V. mitchelliana</i>	April 2002	Moderate/ fast growth. Healthy
<i>V. pulchella</i> (grafted)	April 2005	Healthy
<i>V. mirabilis</i>	March 2004	Slow/moderate growth. Healthy
<i>V. picta</i>	April 2005	Seedlings. Healthy at the moment
<i>V. pennigera</i>	March 2004	Moderate growth. Healthy
<i>V. halophila</i>	April 2002	Moderate growth. Healthy
<i>V. lindleyi</i> subsp <i>lindleyi</i>	April 2002	Fast growth. Healthy
<i>V. lindleyi</i> subsp <i>purpurea</i>	April 2003	Moderate growth. Healthy
<i>V. drummondii</i>	April 2002	Fast growth. Prone to wind damage. <i>V.</i>
<i>V. pholidophylla</i>	March 2004	Moderate growth. Healthy
<i>V. hughanii</i>	March 2004	Slow/moderate growth. Healthy
<i>V. ovalifolia</i>	April 2005	Small but healthy
<i>V. comosa</i> (grafted)	March 2004	Moderate but open growth. Healthy
<i>V. lepidophylla</i> var <i>lepidophylla</i> (grafted)	March 2004	Moderate/fast growth. Healthy
<i>V. chrysostachys</i> var <i>chrysostachys</i> (grafted)	April 2003.	Moderate/fast. Some leaf drop, winter
<i>V. dichroma</i> var. <i>syntoma</i> Grafted)	March 2004	Moderate/fast. Healthy
<i>V. muelleriana</i> subsp <i>muelleriana</i>	March 2005	Moderate growth. Healthy
<i>V. muelleriana</i> subsp <i>minor</i> (grafted)	March 2004	Grown in partial shade. Botrytis.
<i>V. albida</i> pink (grafted).	May 2001	Moderate/ fast growth. Healthy
<i>V. fragrans</i>	April 2002	Moderate/ fast growth. Healthy
<i>V. etheliana</i> var <i>etheliana</i>	April 2003	Slow/moderate growth. Healthy
<i>V. grandis</i> (grafted)	April 2002	Moderate/fast growth. Healthy
<i>V. galeata</i>	March 2005	Moderate growth. Healthy
<i>V. acerosa</i> var <i>preissii</i>	March 2005	Moderate growth. Healthy

We will be very keen to have John's updated observations from time to time, of this very imposing list of Verticordias he is establishing. I also look forward to hearing of his experiences with his propagation efforts from cuttings, which he has embarked upon

Adrian Lamande and Mae-Lin Han, Donvale, Victoria, reported 9/05:-

"-----Most Verticordias are doing well-----A new grafted species, *V. brachypoda*, has now been included-----but because of lack of appropriate space it will need to wait a little until a place has been prepared.

Most of our spring flowerers look as though they are going to flower; in particular, *V. plumosa* which didn't flower very well last year, looks like it will be better than previously. Many of the new species I planted in autumn wintered well and most look like they are going to spring to life with much new growth.

Vert. grandis lost almost all its leaves in late winter after flowering so well and now looks just a few sticks. I have noticed however some new regrowth about to push through and if the snails don't eat it, (I found one eating a growing bud yesterday), it may survive yet" (*You would be interested in the comment above by John Edmonds-Wilson regarding his winter treatment of such round-leaf species. See also my own comments on V. grandis later in this Newsletter. H.M.H.*)

Adrian and Mae-Lin have also struck and hardened off cuttings of several species and wish to make these available to anyone interested. Please call or leave a message on (03) 8802 4767.

The species in question are:-

V. acerosa

V. huegelii

V. drummondii ? (Adrian believes the naming of this one correct as

it appears a little different from a *V. attenuata* they have been given. They are interested in what other members have in their gardens and would welcome opportunities to exchange cutting material.

Graham Eastwood, Batemans Bay NSW reports 11/05, that his Verticordias have weathered the drought in Eastern Australia reasonably well. I have noted however from weather reports, that his

area on the south coast of our state has scored a little more rain in early spring than here in Sydney, where we waited till November to receive any useful relief.

Graham said his *V. fragrans* had good flowering for a month, and that new growth was then starting, but with bottom leaves beginning to drop he had pruned it severely to mid height. His *Vert. mitchelliana* was still producing flowers while *V. pennigera* was a glory. Two *V. attenuatas* were showing flower buds, but one of them had several spots of rusty red colour, as had also *V. drummondii*, but this latter had overcome same. Three other *Verticordias* that were looking healthy and expected to flower were *V. blepharophylla*, *V. brownii* and *V. fastigiata*.

Graham also noted the recent appearance on the ABC program Gardening Australia of our member, Bob O'Neill, with his prizewinning Katandra Gardens. I certainly did see the program and we congratulate Bob and Dot on their achievement

Paul Niehoff, Blackburn, Victoria in a brief note says:-“ Both varieties of *V. monadelpha* have proved most reliable here in Melbourne, var. *monadelpha* being about six years old. I have grown and lost *V. densiflora* but it self seeded. They grew and flowered in pots so I have planted them out to see how they grow.

VERTICORDIA GRANDIS

In recent Newsletters I have commented on my own efforts to propagate and/or establish *Verticordia grandis*. While I have had limited successes in propagating from my aged garden specimen, which is currently showing drought effects, establishment, both from my own young plants or from purchased specimens, has resulted in failures after early growth results seemed to have been successful.

In culling through my old files recently I came upon an article which I had been given many years ago, and which I had put aside at the time and promptly forgotten about. It was written by I.R. Dixon from King's Park and Botanical Garden, West Perth and I have taken the liberty of reproducing it here.

Among other things it quotes results of earlier germination attempts dating back to 1976. There are however comments on this species which should still be very helpful for our members in their efforts to understand its characteristics and hopefully lead to better growing results. I have highlighted sections which might be worthy of special comment. Refer CULTIVATION NOTES.

It should be appreciated that it was written in Perth with a climatic pattern somewhat different to that in many other parts of Australia, and also that propagation procedures currently practised now might also be appropriate.

“THE PROPAGATION OF *Verticordia grandis*

I.R. Dixon

King's Park and Botanical Garden, West Perth.

INTRODUCTION

Verticordia grandis occurs naturally on well drained sandy to sandy lateritic soil, pH 6.3, on heathland between Dandaragan and Walkaway. This long lived shrub, (plants are known to have lived up to 100 years), regrows from a lignotuber after a bush fire. Although they are usually about 1m high and become straggly as they age, the largest shrub known measures 3m x 3m.

SELECTION OF PROPAGATING MATERIAL

Fortunately there appears to be no devastating natural pest or disease in the bushland populations, therefore selection for resistance to pests and diseases has not been necessary at this stage.

Generally there is little difference in the flower colour which is mostly scarlet, however pink forms have been recorded. The number of shoots or flowering stems per plant varies considerably therefore it is necessary to select a plant producing as many flowering stems as possible. Flowering appears to be throughout the year in all populations with main flushes in early spring and early summer

Unfortunately with the recommended vegetative propagation method it is difficult to select plants unless they are marked and selectively burnt.

SEED PRODUCTION

Generally very few viable seeds are produced in the plants' natural habitat. This may depend on the presence of nectar feeding birds, which are the natural pollinators and possibly the weather conditions prevailing during the best harvesting period from December to March.

Plants grown in cultivation usually produce good seed, about 20% viable, from December to March, as long as there are numerous pollinators present. However, some plants are known to produce viable seed most of the year. The best method to check the viability of the seed after you have removed most of the old flower parts, is to place the seed, (fruit), between the fingers as though looking at an inverted pyramid. If the top is convex the seed is viable

SEED TREATMENT

Several seed treatments have been tried eg, a light burning over the top of the seed, scarifying, as well as sowing the seed straight after harvest and baking out in full sun. This process alone appears to improve the germination rate.

GERMINATION RATES

The seed used in these experiments was checked by eye and was presumably viable.

1. Sown 16th March 1976. Seed treatment; a light burn using dry grass over the top of the pot. The seed pot was then placed out in the elements, sun wind and rain, then watered. Pots were checked every day to make sure they did not dry out.

Number seed sown 1976	Number germ. May 1976	Number germ. April 1977	Total % germ.
150	47%	5%	52%

2. Sown 18th May 1976. No seed treatment but a natural baking in the sun during the following summer.

Number seed Sown 1976	Number germ. 1976	Number germ. 1977	Number germ. 1978
100.	----	66%	No data

Other experiments indicate that seed should be sown before mid March as germination takes place in falling temperatures. No germination has been recorded in the spring.

The seed mix used for the above experiments was
7 parts clean (grey) bush sand)
1 part cladium peat)----Parts by bulk

RECOMMENDED PROPAGATION METHOD BY SEED

Sowing.

Sow as soon as possible after harvest, preferably no later than mid March, in the following mix.

7 parts clean (grey) bush sand)
1 part Compeat)----Parts by bulk

Use a topping of 2 to 3mm grist blue metal dust, covering the seed with its own depth of this material. Leave the seed pots out in the full sun and elements, Start watering at the end of March. Check the pots regularly to make sure they do not dry out

Alternatively in mid March place the seed pots in a cold frame, water and cover them with clear polythene with newspaper on top. Check the pots occasionally to make sure they do not dry out, however they should not require watering until germination takes place in about 4 weeks. Germination rate using one of the above methods is usually between 60 and 70%.

PRICKING OUT

Prick out the seedlings when 2 or 3 days old. This isolates the seedlings, immediately reducing the risk of damping off disease spreading through the whole pot of seedlings. Seedlings are best grown for 2 months in a cold frame, then potted up or planted out

VEGETATIVE PRODUCTION

CUTTING MATERIAL

Cuttings taken from softwood material on mature plants, semi hardwood and hardwood cuttings are generally difficult to strike. However very soft softwood cuttings with a stem which is green in colour, that is, without the typical red colouring, can strike reasonably well.

The best material to use is 3 to 7cm softwood **etiolated cuttings with the above ground part of the stem of the cuttings green in colour**. This material is only available after a bush fire, usually from June to August depending on the time of the fire and when the winter rains start.

STRIKING RATES

Various experiments using I.B.A. and N.A.A. as a quick dip and I.B.A. from 1000 to 10,000 P.P.M. gave very poor results when using softwood, semi hardwood and hardwood cuttings. The best striking rate was 10% on softwood cuttings using I.B.A. 8,000 P.P.M. in June

Other experiments using Seradix No 2 hormone powder on softwood cuttings between the months of April and September generally gave very poor results. The striking rate varied from zero to 60%.

Striking rates using the best etiolated material can be as high as 100 % but are usually between 80 and 95% when using Seradix No. 2. Fresh hormone powder usually kills the base of the cutting and rooting occurs directly above the dead tissue. Older, presumably weaker hormone causes the base of the cutting to swell to twice its normal size, occasionally producing roots through the swelling but usually above it. These cuttings take 3 1/2 to 4 weeks to strike.

All the above experiments were in a mist unit, controlled by an electronic leaf, with a bottom heat set at 25 degrees C. Cutting mixes used were generally mixes of sphagnum moss peat and perlite. Soil from around parent plants was initially tried in the mixes, but did not improve the striking rates. **For the best striking rates cuttings prefer to be kept fairly dry**, otherwise they rot off. **They also require as much sunlight as possible**, which involves removing the shade material from the glasshouse.

RECOMMENDED VEGETATIVE PROPAGATION METHOD

Take etiolated cuttings from burnt bushland areas from June to August. The cuttings should be pulled off the rootstock, dipped in Seradix No. 2 hormone powder and placed in individual pots or polystyrene cell packs in a 50/50 mixture of sphagnum moss peat and perlite. Place the cuttings in a mist unit with a bottom heat of 25degrees C. After hardening off for a few days plants may be potted up and **grown on for a year before planting out**. (use the same potting mix as for seedlings). Alternatively they may be planted out directly into the field situation, however **they are very slow growing in the first year** under field conditions"

CULTIVATION NOTES

In recent newsletters I have referred to my own efforts to establish new plants of *Verticordia grandis*, both in my garden and in my stock plant section. I have at times surmised reasons for repeated failures after achieving promising early growth and sometimes flowering.

Study now however of the comment by I.R.Dixon makes me wonder if the explanation for my losses might be found in some of the matters I have highlighted above. On the subject of propagation I have had some limited success as reported previously, but despite producing good root systems and apparent good early growth, specimens still failed after a year or so.

My first thoughts go to his comment that **they are very slow growing in the first year** and his suggestion that after potting **they should be grown on for a year before planting out**.

Perhaps the answer could be related to his observation that *V. grandis* is a **lignotuberous and long lived species** and that early planting out; despite the appearance of good early growth due to favourable nursery treatment, and obviously before development of lignotuberous growth, is not really to its liking.. Perhaps, the differing climatic pattern here in Eastern Australia might also be a factor.

If this lignotuberous characteristic is significant, the answer may lie in holding plants much longer at the nursery stage before planting out. This is contrary to my general garden concept, whereby early planting of most Australian plants is considered desirable to achieve better long term establishment, by avoiding the detrimental effects of rootbound conditions or necessity for root

trimming at planting. - In other words the development of a lignotuberous growth before planting may be an inbuilt safety factor we have been overlooking with *V. grandis* and possibly could be of assistance for better long term establishment. If so, this might suggest the longer holding of specimens at the nursery stage over one or two seasonal growth periods. Obviously, before planting, staging in larger pots would seem desirable unless of course, grafted specimens are being used.

The point he makes of **etiolation** of cutting material is also very interesting and I note an article in the recent Newsletter of the Wildflower Society of Western Australia by Hazel Dempster on the subject, discussing novel ways of developing this artificially, to aid in the cutting propagation of some species, normally found difficult to strike.

My other thought refers to the highlighted comment that **cuttings prefer to be kept reasonably dry.**

This is certainly supported by my most recent experiences in propagation of *V. grandis*, as noted in previous newsletter.

In Newsletter 44 I predicted that my heath section display should be at its all time best in spring 2005; even better than 2004, and this despite the continuing drought and without artificial watering. This prediction turned out to be correct and the early summer result was equally good, but by the end of 2005 a few adverse effects were beginning to show??

I have previously described the planting procedure I am trying out with introduced mix of quartz gravel and gravelly loam to a depth of from 450 to 600mm. The *Verticordias* that have done well were the earlier plantings, but a few later ones seemed to have reacted to the crazy conditions of 2005, despite having made very good early growth and having produced very good flowering.

I used the word crazy because not only did it fail to fit the pattern of dry summer regions with wet winters, but of wetter late-summer regions with dry winters. Not only has precipitation been a record low in Sydney for most of the year, furthermore, but temperatures have been all over the place. Winter here was warmer than normal and late spring was ridiculously cold for a few weeks until we did score a little rain in late November. Mild conditions then prevailed till Xmas when we were suddenly hit with heat wave conditions, (44 to 45 on New Years Day), and with some exceptionally high UV Index factors

I suspect that the earlier plantings, which had continued to perform well, had had time to extend their leader roots a little further down, whereas some of the more recent plantings, despite having grown and flowered very well last spring, may have suffered from dryness in the surface strata associated with the unseasonal temperature and humidity fluctuations. Where such adverse reactions have occurred after good early development, the plants in question have been left in position for the present, because, as Alex. George noted, (see NL 43), it is possible that it may merely be an indication of plant dormancy response to the fluctuating conditions of late 2005.

Following are the affected species and plant reactions.:-

V. acerosa var *acerosa* Two specimens planted 8/2003.

'A', in an exposed situation, died summer 2004. Root spread @ 45 degrees. Suspect drying out may be responsible.

'B' in an exposed situation, was tip pruned in early growth to produce a bushy specimen, 300 x 350mm wide by 7/2005. Only a few flowers were produced and immediately after the November rain the foliage turned brown. I am not optimistic about its survival

V. chrysanthella. Three specimens were planted 10/2003, 2/2004 and 7/2004

All made very good progress and flowered very well in 9/2005 comparable with five earlier plantings which continued to do very well; see above. These later three however have browned off since flowering and again it's a case of wait and see. Dormancy or death?

V. chrysantha Two specimens planted; 'A'- 10/2004, and 'B'- 3/2005

'A' in an exposed situation, grew multistemmed and quickly to about 600mm. It flowered heavily but the foliage browned off in 10/2005. Again, I am not optimistic.

'B' in a slightly more protected situation grew quickly, robustly and multistemmed, and by Xmas 2005 was 450 x 280mm diameter. It only flowered on one leader however last spring, but remains very healthy and vigorous.

V. fragrans 'A' planted 3/2002 and 'B'- 11/02

'A' in an exposed situation has been particularly sparse and slow growing. It has been tenacious however and did flower last spring on a few leaders but is still only about 300mm high.

'B' is situated in a position with some foliage company. (refer my comments in a previous newsletter, to the effect that I believed, from the natural occurrence of this species, such a position should be to its liking. It established well, but in 9/2005 suffered a wind break about 30mm above soil level leaving only about 10% of the stem holding on. Heeding a comment earlier by Dick Mills re wind damage, I put a vertical stake through the 90% lying horizontally and left it to its own resources. The lush broken piece which carried all of the plants foliage, did not loose a leaf or change its lush foliage colour. It still flowered lying down and recently I noted new shoots coming from the broken stem just above the break.

I should add that an earlier, nearby plant of this species, also with adjacent foliage association, is still doing particularly well.

V. drummondii Planted 3/2003 in an exposed situation.

It was tipped early to produce a low compact specimen. It flowered very well 3/2004 and reached 600 x 400mm diameter by 11/2004. before giving the game away and I suspect drying out of the root system. I do however have two other specimens carrying on well from earlier years in slightly more protected situations.

V. argentea 'A' planted 3/2003 and 'B'-1/2004

'A' was in an exposed situation. It was apparently dead by 10/2005 immediately after flowering. This specimen had always appeared a little chlorotic in the recent very dry weather periods, but greened up when it did get a little rain, responding usually with production of new flowering. I tried various treatments such as watering etc. to counter the poor foliage colour but without avail and I suspect lack of penetration of root leaders and the current extreme weather conditions may be responsible. I note the initial root development of cuttings at 45 degrees

'B'. This specimen is growing with a little low foliage association and has maintained good foliage colour with frequent flowering. As yet though, plant dimensions are much less than attained by 'A' above.

V. grandis This specimen, planted 1989, has been the subject of much previous comment, but at the moment, I am concerned about it. The near record NY Day heat has browned all foliage on its few leaders and it's a case of wait and see if the recent 'crazy' weather wins after all.

V. helichrysantha. 'A' planted 3/2003 and 'B' - 8/2003

'A', in an exposed situation on an elevated, northeren garden edge, grew rapidly in the first year or so and flowered well, but deteriorated over several weeks and died, 5/2005, after some rain. Root examination did not suggest any apparent pathogen attack but as the root development had been at approx. 45 degrees, and the plant very close to the elevated sandstone garden edge, I wondered if it had suffered unduly from the earlier and continuing very dry conditions.

'B' is located in a less exposed situation with some close, low, foliage association and remains very healthy and vigorous. It grew a little more slowly than 'A' at first, but by the recent spring it had made even better progress and flowering was superior

V. etheliana var *etheliana* Planted 1/2005

This specimen, in an exposed situation, had a few flowers recently with good foliage colour but has never been vigorous, despite having been watered as appeared necessary, during dry periods. With specimens of this large-leaved *Verticordia* section; many of which have proved more difficult, or at least slower to strike, as summer fades to winter, I now wonder; contrary to my earlier comments on planting generally throught the year, if same might be better deferred here with such species, until mid-spring. I note comment above on *V. grandis* by John Edmonds-Wilson in relation to seasonal vigour.

The above comments, together with the exceptionally dry year 2005, might also explain the failures to establish of several species despite regular hand watering

V. oculata Planted 5/2005 following rain

V. ovalifolia Planted 5/2005 following rain

MEMBERSHIP SUBSCRIPTIONS 05/06. If a cross appears in this square I have yet to receive your \$5.00 subscription for the current financial year, due 1/7/05.

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