ASSOCIATION OF SOCIETIES FOR GROWING AUSTRALIAN PLANTS

VERTICORDIA STUDY GROUP

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NEWSLETTER NO 34 -- AUGUST 2000.

MEMBERSHIP

We extend a welcome to Dr. J. Ben-Joacov
P.O. Box 6 Bet-Dagan, 50250
Israel.

Members are reminded that subscriptions for year 2000/01 are now due, the nominal rates remaining at $3.00 and $10.00 overseas..

A red tick ☐ indicates you are **financial until 30th June 2001**. This takes account of some members who have made advance payments, reciprocal Study Group membership and recognises special contibutions,(other than Donations as noted separately) to our Study Group.

Prompt remission of 2000/2001 subscriptions will be appreciated

VALE ERNIE KOCH

I am very saddened to have to report that **Ernie Koch** passed away in early July. As foreshadowed in the last Newsletter, he underwent by-pass surgery during March and appeared to have recovered well, but unfortunately suffered a relapse recently which proved fatal.

He joined our Study Group in 1989 and his continued enthusiasm for, and keen observation of the Australian bushland and Verticordias in particular, has been an inspiration to all of us who have had the privilege of associating with him.

At his home at Matraville he maintained a very wide range of Australian Plants. and he was at the forefront in experiments to improve his growing performances, as noted from time to time in our Newsletters.

We extend to his wife Eve our sincere sympathy.Ernie will certainly be missed but for my own part, I have lost a very good friend.

FINANCES 1.7. 99 TO 1.7. 00

Credit Balance 30.6.99---------- $426.00
Receipts 99/00---------- 176.30
Expenses 99/00---------- 175.84
Nett debit---------- 0.46
Credit Balance30.6.00----------$425.54

DONATIONS

The following donations in excess of nominal subscription are gratefully acknowledged and have helped us to retain our low nominal annual fee :-

Nich. Derera----------$4.00
Michael Mattner----------4.00
Ernie Koch----------5.00
Dick MacFarlane----------4.00
S.G.A.P. Queensland Inc.----10.00
S.G.A.P. Canberra Region --- 2.00

PROPAGATION UPDATE ***Verticordia grandis***

In Newsletter, August last year, I referred to some poor results in cutting propagation reported from the Sydney region at the time and also by me. One of my recent successes however is, I believe,worthy of special mention.

Many members, (including myself), have often found *Verticordia grandis* very difficult to propagate.You may also recall a comment by Dick Mills in the last N/L to the effect that he had found propagation of the species difficult except during the warmer months of the year. Perhaps my experience this year; even given the facility of a small glass house with bottom heat, warrants particular mention.

On 27/2/00 I put down one cutting from the young specimen noted elsewhere in this Newsletter. The parent plant appeared healthy and vigorous at the time, but as noted in the Sydney Area Update, it has now defoliated and appears lost.On 19/6/00 however I was pleased to be able to pot up a well-rooted cutting.

It is currently being kept in my glass house under occasional mist.From previous Sydney experience, warmer conditions about middle September seem to be a catalyst for commencement of a vigorous growth with this species. I would expect then that middle spring would be a suitable time to plant it out.. .

I suspect this propagation success may have been influenced by the procedures I adopted. The prepared cutting was stood for 24 hours in a solution of Hormone 20, at the rate of 5 drops per litre of water. The bared stem was then dipped in 8000 ppm Clonex and allowed to dry in the sun for about 15 minutes. As the terminal growth of this species tends to droop during rain periods and so to throw off excess water from the rounded leaves, it was set in the propagation pot at an angle of approx. 25 degrees to the horizontal, the growing axis sloping to the north.The angle of placement appears to have achieved the object as no water has remained in the leaf axils or on the leaves themselves during the propagation period, or in fact since, the slope as noted, having been maintained at potting on. Furthermore, during the total process to date, no leaves have been lost or adversely affected...

This species is predominantly a summer grower so it may also be of interest that, in the two or three weeks prior to the strike becoming evident, Sydney registered some exceptionally cold late autumn weather, in fact the coldest for more than 10 years. Overnight and early morning air temperatures in the glass house were repeatedly around two or three degrees Celsius, despite the bottom heating facility of the propagation box.

MEMBER REPORTS

A very interesting update from **Elizabeth George,** Alexander Heights W.A. (April 2000) The range of species being maintained (which leaves me very envious), both grafted and otherwise; in containers and in her garden is quite substantial.One comment however, I find of particular interest. It relates to *Verticordia grandis* and would seem to confirm a propensity of this species, once established to a reasonable degree, to recover from defoliation caused by adverse climatic conditions. In 1995 I had the pleasure of seeing her then flowering plant in full vigour. I can imagine her alarm (see later), when confronted with a very sad and defoliated specimen.

Elizabeth reports :-"I currently have 45 taxa established in various sized pots from about 9cm to 30-40 cm across, the oldest being a little over 7 years- plus there are about another 7 cultivated hybrids.

Four grafted plants (on *Chamelaucium uncinatum* rootstock),received from Doug McKenzie in March 1994,viz.*V. albida,V. dichroma* var. *dichroma, V. galeata* and Vert. Wemms Find, having grown well, are now in fairly large containers

Also ungrafted plants of *V. fragrans,V. grandis* and *V. fragrans x spicata,* (V. Baby Fagrance), are doing well in larger containers.

Unfortunately, in November 1999 I lost my 7 year old potted plant of *V. staminosa* subsp. *staminosa* when it was overwatered during my absence; and in February this year my 6 year old plant of *V. staminosa* var. *erecta* appears to have died, either from over- or under-watering. During our consistently very hot weather it was difficult to gauge just how much some of the plants in pots required.

In March, one 5 year old potted plant of *V. lindleyi* subsp. *purpurea* and another planted in the ground seem to have died from similar causes. I have not removed any of these, in case they might revive with winter rains-although I don't hold out much hope.

Of the 13 plants grafted onto *Darwinia citriodora* rootstocks sent in May 1993, (all of which were planted out in the garden) specimens of *V. fastigiata, V. galeata, V. monadelpha* var. *monadelpha* (White form), *V. monadelpha* var. *callitricha, V. pritzelii, V. staminosa* subsp. *staminosa* and *V. staminosa* subsp. *cylindracea* are still growing well.

Plants of *V. brownii, V. densiflora* (white form), *V. lehmannii* and *V. mitchelliana* failed to establish and 1 plant of *V. pritzelii* survived only 2 years- I think most of these losses were due to the fact that many of Doug's plants were damaged by Quarantine Officers because he had sent them in an apple packing box, (at the time of the coddling moth scare).

My original (1990) large plant of *V. grandis* was so badly burned in October 1998 (by the only 1 degree C of frost experienced here in my time) that I thought it was dead. The long branches (some almost 1m in length) covered in blooms, were burnt back almost to the main stems. During the summer months I pruned them back a few at a time once I had discovered that the wood was still alive. I was afraid to cut them too severely but now I feel I should have taken them back further than I did. The plant began to shoot again during last winter and spring but growth has been fairly slow (possibly due to the unusual weather pattern) and while the new branches are quite strong, more have grown horizontally than vertically. I suspect it will take a couple of seasons to redevelop its earlier vigour and prolific flowering. The potted specimen was also pruned back by about one third at the same time and has not been as vigorous or flowered as well either.

Of the other Verticordias in the garden, the varieties and forms of *V. monadelpha, V. plumosa* and *V. staminosa* as well as *V. chrysanthella, V etheliana* var. *etheliana, V. galeata. V. halophila, V. longistylis V. minutiflora, V. mitchelliana V. pennigera* and *V. picta* have proved the most tenacious in my particular growing conditiions, some plants being now more than 10 years old."

Graham Eastwood, Batemans Bay NSW, reports as follows:-

"There is not a great lot to say about my Verticordias at the moment, except that most seem to be fairly healthy.

One *V. huegelii var decumbens* died while its companion is putting on new growth again, after losing the earlier spurt of activity mentioned in the last Newsletter.Whether or not it will flower this year seems doubtful.

A seed grown *V. huegelii var huegelii*, planted autumn 98, remained static at about four centimetres until last autumn, but has since very slowly come to life.

Three *V. staminosa subsp. cylindracera var erecta* are flowering for the first time This species seems to like this environment as seedlings pop up in the garden in a number of places.

The same could be said of *V. chrysanthella,* one specimen having eight seedlings nearby. Three older plants are just showing flower buds while two ex seedlings are expected to flower for the first time.

V. fastigiata is a very healthy plant and had a few flowers last autumn for the first time

V. densiflora var. cespitosa is also healthy and similarly had a few flowers late last summer for the first time.

V. grandis however, is one that I feel sure will flower profusely again.As mentioned previously, it produced close to 300 flowers last summer with some stems reaching to one metre. As I wanted it to remain healthy and not leggy I pruned it back to 35 cms. Currently 95% of stems are active; some with 2 or 3 growth points"

This latter report of *V. grandis* is especially interesting as Grahams specimen was obtained at the same time and from the same source as those of Ted Newman, Ernie Koch and myself. As noted later in this Newsletter, Ernie's was lost, and mine, I suspect, has suffered the same fate. Ted and Pat's specimen appears to be hanging on but is not currently vigorous.Perhaps a few points may be worth repeating regarding Graham's cultivation procedures. When he acquires a special nursery plant, rather than plant it out straight away, he firstly repots it discarding the existing potting mix and replaces same with soil similar to that in his garden; in his case a fairly heavy dark brown loam. Any contorted roots are removed and the plant is pruned back to compensate. The specimen is then staged in a warm situation until new growth recommences, before planting out, which at times, may take up to 6 months or so,

Perhaps also his coastal situation which might be expected to provide a little warmer winter night temperatures than for gardens further inland, where frosts are more common,. could possibly also have contributed to the winter recovery he reports..

CULTURAL REVUE- SYDNEY AREA-(Continued from N/L 33)

The following notes continue the comparisons, commenced in Newsletter 33, of Verticordias growing in Ted Newman and Pat Kenyon's developing garden at Dural and my own.. As before, plants in the former garden are referred to as 'A' and in my own as 'B'.

V. etheliana var. etheliana

'A'- The specimen noted in N/L 32 made particularly good progress in both growth and flowering until late summer this year, when it defoliated It currently appears lost, but examination of the root structure has been delayed in the hope that it may yet recover, as in garden 'B', some specimens have previously regrown following autumn/winter defoliation

'B'-In my garden plants have been tried in several soil types and drainage conditions, My sole surviving specimen is in a heavy soil section with compost dug in to spade depth.Plants grown in lighter soil conditions did fairly well early, but eventually failed, generally showing evidence of root rotting.

As yet it is difficult to draw conclusions regarding long term establishment of this species. Examination of previous losses disclosed medium depth, spreading, rather than deeply penetrating, root structures. Perhaps my sole survivor, which grows in a bed of heavy clay loam with compost dug in to spade depth, might have benefited during our recent very dry, late summer, by the good moisture holding capacity of the heavy base soil Having the compost dug in to spade depth may perhaps have opened up the heavy soil sufficiently to

encourage and restrict root development merely to the upper stratum, thereby tending to counter root rotting troubles in the later, wetter conditions
Plant 'A' certainly indicated very good early growth acceptance of the gravelled medium textured, loamy soil during the earlier, dryer than usual, summer conditions. The plant failure however, if in fact this proves the case, might perhaps be attributed to deep drainage inadequacy.during the more stressful later and wetter, post-flowering phase.
Further test growing will obviously be required before more conclusive assessments can be made.

V. fastigiata

Has grown well and comparably in both gardens

V. fragrans

is another species for which the jury is still out, although growth rates have been comparable in both gardens.
'A'- Of two fairly young specimens which made good early growth, one has yellowed considerably with the onset of winter, while the other has maintained good leaf colour.
'B' Leaf yellowing during the colder part of the year has occurred with some specimens in various soil types and I have wondered if this could be due to some a soil mineral deficiency. On previous occasions treatment with Iron Chelates has had little if any correctional effect, but with the advent of warmer mid-spring weather prior to flowering, good leaf colour has returned.
Under Sydney climatic conditions this species has shown some vulnerability to pathogen attack to both lower stems and leader roots, the latter appearing to be the more serious hazard. From my experience, deep light soil conditions seem to be the most desirable, although growth acceptance of various soil types is reasonably good. An important consideration seems to be the provision of adequate wind support, both during early establishment, as well as later in the mature growth stage, as the wood seems to be rather brittle. Even when wind rocking during establishment has had no apparent serious effect at the time, plants have been lost later,after flowering and examination of the root structures have disclosed earlier below ground damage.

V. galeata

'A'- One attempt to establish this species was not successful and further trial growing will be required.
'B'- A grafted plant is still carrying on reasonably after 6 years. The species is an early flowerer, **after which it assumes a fairly long dormancy,** new growth recommencing about May. This specimen, grafted on to *D. citriodora* grows in heavy clay loam in a rather dry location, the latter condition probably influencing it's rather open foliage development. My experience with the above host species suggests that it does best when good soil moisture is available.
Two other 2-year old specimens,(one grafted), are progressing slowly in sandy situations. **I have found this species very difficult to propagate, my only successes being from very short material, taken in late autumn.**

V. grandis.

'A'- The specimen planted 4/98 (refer N/L/32) made reasonable growth and flowered well. Since last summer however, it has lost considerable leaf vigour.
'B'- A similar specimen, planted by me at the same time in deep sand with compost dug in to spade depth, grew and flowered well, but with the onset of wetter autumn conditions it completely defoliated (See separate comment in this N/L re this species). In the hope that it may yet stage a spring recovery, it has been left in

position. A second specimen , planted 3/95 into a bed of gravel wash, continues to do reasonably well, is currently 900mm tall.and carries a few flower buds.
Ernie Koch, Matraville, in Sydney South, reported that a specimen also obtained by him from the same source as 'A' and 'B' above, grew comparably at first, but was later lost.

V. huegelii var. decumbens.

'A'-Has established and flowered well.
'B'-Has been reliable in heavy clay loam. **This species has not performed satisfactorily in light soil conditions, growth being very spindly, slow and chlorotic. I suspect the better moisture holding capacity of medium to heavy soils ia more appropriate.**

V. hughanii

'A' A plant is barely holding on.
'B'- A specimen grew well initially in a deep sand bed enriched with compost in the surface stratum but growth is currently only just restarting (late July) after autumn and early winter dormancy..**The species has been tried in several soil types, but has done best in lighter conditions. It has generally tended to adopt a fairly long dormancy period after flowering, as noted.**

V. longistylis.

Has been reliable in both gardens. A well established specimen 'A' however, in a very open situation, has been more attractive in foliage than 'B'

V. minutiflora

Has proved reliable in both gardens.
'B'-Best results have been in heavy clay loam, although the growth has been a little less compact than for 'A'

V mitchelliana

'A'- In Newsletter 32, I referred to the very good early establishment of this specimen. It has continued to thrive, but as yet it has not flowered I will certainly continue to monitor it with interest.
Should it continue satisfactorily and ultimately flower well, **I could only surmise that the local topographical situation and aspect have had significant influence.** For further comment on Ted and Pat's garden and cultivation practices see N/L 33
'B'- After numerous attempts, including with a grafted specimen, to establish this species in various soil types, I must admit to failure.My most encouraging results were with specimens cutting grown from material obtained from a South Australian Study Group member. Although they survived for about four years, flowering was very poor, and also slow to start. I suspect these habits indicated a clonal characteristic as probably also, the fact that I was able to maintain them for 4 years, as with many successive attempts in various soil types from different source material, my specimens have made good early growth and even flowered well, but have lasted little, if at all, beyond the first year. The failure pattern with all, including the first-mentioned, has been similar.After producing very lush,(almost succulent).leaf growth, from middle to late summer, sudden leaf drop occurred in mid autumn, leading quickly to complete defoliation and loss of stem sap. As examination of root structures and lower stems have not disclosed any apparent fungal attacks to these plant parts, I suspect the losses have been triggered, in our humid autumn climatic stuation, by fungal attack to the leaf peduncles, although this has not been readily apparent.

V.monadelpha var monadelpha.

'A'-has grown and flowered reasonably but to date,perhaps not as well as might be hoped for this species.

'B'- I have found it difficult to maintain over the long term.Best results have been where lighter soil has been built up over heavy clay loam base.**Experiences to date suggest that drainge is a critical consideration our climatic situation affecting longevity and that deep light sand or light sandy loam would probably be the most satisfactory soil type. Earlier efforts by Study Group member Col Thorley at Baulkham Hills, where special provision for deep drainage was provided, would support this observation**

V. monadelpha var. callitricha

Specimens in both gardens grew well early and flowered beautifully, but were lost in the first post flowering period.

V. pennigera Has grown well in both gardens although growth and flowering of 'A' would be a little superior to 'B'.An exception might be where I have grown it in a bed of gravel wash. **I have found it tends to resent hard pruning, particularly during early establishment.**

V. plumosa var. plumosa

'A'- Several forms of this species are being grown. The 1993 plant (refer N/L 32 for earlier comment), is still the most robust specimen I have seen, far exeeding plants in their natural W.A.habitat More recently planted specimens are also progressing well.
'B'-The same clone of this very variable species has proved adaptable in my garden to a range of soil types, but no specimens have approached in performance, the plant 'A'noted above..
Another form of this species is of particular interest. It was cutting grown originally in 1993 from a plant in the south of W.A. Further propagation has produced a number of specimens which have been grown in both gardens 'A' and 'B' and which have maintained the usual erect growth form. One specimen however in garden'A' has grown in a spreading and ground hugging habit.Furthermore, it has grown very profusely, Ted claiming it to be the best looking Verticordia in his garden during winter.Cuttings taken from this specimen are also maintaining the prostrate growth form??? Perhaps you may be able to explain this to me.

Revue Conclusions

The above comparative revue, based primarily on plant performance in Ted and Pat's garden at Dural and my own, some 8 or so Kms away at Cherrybrook, both districts being approximately 200 or so metres above sea level, discloses better early development of many Verticordia species in the gravelled medium textured loam of the former.

In the case of a few however, inadequate speed of substrata drainage of this loam would appear to have proved a factor adversely affecting longer term establishment, with root rotting problems later showing out. It remains to be seen with subsequent plantings of these species, if this characteristic is consistent. If so, it might be appropriate to try out specific ways to overcome the problem.

The small mounded, quartz gravelled, planting treatment in both gardens, combined with interplant dishing, seems generally to date, to have proved a successful counter to problems of collar rotting, a hazard which can adversely affect some plant species, particularly in summer-wet areas.

The greater interplant spacing in Ted and Pat's garden and possibly also the local topography, (refer N/L 33), appears to have been iinstrumental in obviating, at least to some extent, problems associated with foliar fungal attack.

Perhaps this revue may serve as a basis for cultivation efforts by Study Group members generally. Feed-back would be very welcome.

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