ISSN-0811-529X

Association of Societies for Growing Australian Plants

EREMOPHILA STUDY GROUP NEWSLETTER No. 86

October 2005

In sending this newsletter out to members I am mindful of the fact that it is almost half-way into the current membership year and this is the first Newsletter distributed; normally the first is in August/September, with the second as a 'Christmas' present! I will try to get out Number 2 for your membership year in early February – provided that I have the articles.

I am not sure where the past ten months have actually gone – Myrnie & I were away in March/April at a World Orchid Conference in Dijon, France, then we toured the UK with our son from the USA, whom we had not seen for almost six years. To add to the 'lost' time we went to the ASGAP Conference in Perth in late September, arriving about a week early so that we could travel north to Kalbarri and surrounding areas, finally arriving back in Perth on the Saturday prior to the start of the Conference.

Unfortunately I was not able to arrange a meeting of members in Perth, although a number who were in Perth on the Sunday were able to meet at Orange Valley Nursery, owned by two of our members Brian & Marlene James, in Kalamunda. From all accounts those who attended were very appreciative of their hosts' invitation to visit and to have a look at their collection of eremophilas, both as potted plants and as stock.

I have received a number of letters since preparing the last newsletter and have included extracts from those which have something of interest which can be passed on to you all. I do not have any lengthy reports on trips afar. I understand that several who usually make such sojourns to WA did not do so this year for various reasons. There were, however, a number who made the trip to WA for the conference and I trust that several will be able to report on their eremophila finds in due course. Some took very 'roundabout' and lengthy paths to get to Perth!

The last newsletter contained a page of colour pictures, kindly provided by Hans Griesser. Unfortunately I had only an inkjet printer to reproduce them by scanning and as a result they did not turn out as well as I would have liked. I do have a new colour laser printer now, but as I go to prepare this issue, I do not have it set up and linked to my computer. I trust that it will be operational for the next issue. In the meantime I will send out the colour page as I did last time! A special thankyou to Hans for this second page of colour.

Due to the lateness of this issue I have sent copies to all who were members in 2004/5, and have indicated in the usual way if you have not renewed, a red dot in the top right hand corner! If you have such a reminder and do not send a subscription this will the last newsletter sent to you.

TERMITES AND EREMOPHILA

(The following was received by email – I reproduce it here without comment. Perhaps there are some amongst us who have experienced similar situations. Please let me know if you have! Colin)

Subtitled: **Plant Extract kills termites**

A simple wooden fence post has led Australian scientists to discover a native plant extract that repels and kills termites.

Scientists from the University of Western Sydney (UWS) and Southern Cross University (SCU) were asked to investigate why the single fence post in a Queensland field still stood after all the others had been devoured by termites.

They found that post which was made of False Sandalwood (*Eremophila mitchellii*) had properties which termites hated. UWS Associate Professor Robert Spooner-Hart and his colleagues have spent the past year experimenting with the tree's sap. The tests showed that sap extracts repelled and killed the common termite.

"A number of the untreated control stakes had fallen over, totally eaten through, while other stakes, although still standing, had also been eaten." Assoc. Prof. Spooner-Hart said.

"However, not a single stake treated with the extract – even those treated with the lowest concentrations – had been eaten.

The researchers have isolated the chemical component which is unpleasant to termites and are trying to replicate it.

Assoc. Prof. Spooner-Hart said that the extract could be used as a barrier under homes, in direct application to the pests, or injected into wood. "The break through could revolutionize the building and pest control industries and potentially save millions of dollars spent protecting homes from termites." Assoc. Prof. Spooner-Hart said.

"It could also end the use of poisons and chemicals to treat houses and pine products," he said.

Currently the only chemical termite killer is chlorpyrifos – a nerve poison that also affects humans and other animals. Copper chrome arsenate, used to treat pine products, has been banned from areas such as children's playgrounds because of the health risks.

The research is in partnership with BioProspect Ltd. which hopes to make a product containing the anti-termite properties of the sap. More testing of the extract is being done, including its effectiveness on the giant termite, found in the Australian tropics. Assoc. Prof. Spooner-Hart said that this would be the "litmus test" to ascertain the strength of the extract, and whether it could be used on other termite species around the world.

FROM YOUR LETTERS

Marion James - Padbury, WA

I am sorry to have to tell you that Brian James died suddenly in November 2004. Brian loved his wildflowers and especially his eremophilas. The local wildflower society members feel robbed of someone who had and shared so much knowledge. I am afraid that I now have a house full of wildflower books, photos, slides, seeds, nuts etc, but my interests lie in embroidery and sewing.

Barbara Hannah – Armidale, NSW

Several eremophilas have managed to thrive, despite the severe frosts and drought, particularly various *E. maculata* plus *E. glabra*, *E. bignoniiflora* x *E. platycalyx*, *E.* "Summertime Blue", *E. racemosa*, *E. divaricata* and *E.* "Winter Gold". They are providing great magnets for Eastern Spinebills, White-eared Honeyeaters and assorted other nectar feeders.

Ian Mitchell – Ringwood, Vic

Not a lot of interesting eremophila news at the moment, however my *E. oppositifolia* is flowering heavily here, but it is shaded on the north side and leans to the south and the light very much.

At Stawell I still cannot grow *E. abietina*. I have admired several times, over some years the one growing in Darley Park, at Bacchus Marsh. I appreciate more and more *E. neglecta*, which is not eaten by the wild-life, which has shining green foliage and brilliant red flowers, followed by a long lasting red calyx. I have begun to doubt the identity of a plant which came to me (years ago) with the label *E. gibsonii*, but which I now suspect is *E. granitica*. It has good, pink flowers but the foliage is too fine and succulent for its own good.

Eremophilas for me do not readily set seed – except *E. longifolia* and probably only one clone of that. There are several clones of *E. latrobei* but I don't see fruits which look fertile or in fact are when cut open. Eremophilas appear to produce hybrids readily, according to the books, but I don't find any fruits with seeds. Perhaps I am not looking at enough fruits. *Eremophila maculata* produces seed here in Ringwood, but I cannot grow it at Stawell because it is not wet enough and it gets eaten.

Alec Hawtin – Irymple, Vic

Since I last wrote to you our control of the "Monistria' locusts has changed from the "Green Gard" meterisium fungus used to control them on the eremophila bushes.

While we were away for a weekend our younger son arrived home with a muscovy duck and a young feral goat. A few weeks later we again ventured forth, only to arrive home to see the goat being loaded onto a ute, thankfully to be taken away, but in its place were a pair of Peafowl.

After they had settled in we let them have the run of our fenced-in yard and to our surprise they cleaned up the locusts. Now I only see the very occasional insect around the bushes.

How's that for biological control?

Gwen Bakker & Ken Arthurs – Tower Hill, Vic

I have replanted the eremophila bed here in harsh, south-western Victorian conditions and watch with interest which species thrive and which dislike our high pH soil. We invite any avid eremophila travelers to stop and visit if they are passing through.

Keith Townsend – Oak Valley, Qld

Eremophilas have not been popular plants in our tropical area in the past, with only a few species - *E. mitchellii* and the next closest being *E. maculata* which occurs about 100km to the west.

We are, however, very much in a dry tropical area and are finding that several species seem to have some promise. The last few years have been exceptionally dry and it remains to be seen whether a couple of good wet seasons will give us trouble.

I have been propagating quite a few: *E. maculata* "Aurea", *E. glabra* (*carnosa*), *E.* "Summertime Blue", *E.* "Murchison Magic", and *E. maculata* var. *brevifolia* all seem to do well. Others such as *E. youngii* subsp. *lepidota* and E. "Yanna Road" give some promise. *Eremophila maculata* "Cerise" grew well, but young leaves died off and it has not flowered. The naturally occurring *E. maculata* has done well in a large pot, although it is only small: it flowers almost year round.

Lindy Lahn – Moulamein, NSW

This note is well overdue. I loved the colour pictures, *E.* 'splendens' and *E.* 'complanata'. Have both of these in my collection, but *E.* 'complanata' had been one of my unidentified till then. Both have been fabulous this year, but I should add that all of my collection, (approx. 65), have had the best show that I can remember.

Rain has been regular; mostly 5-15mm falls with an odd 25mm since summer. I am in an area of low annual rainfall (approx. 250mm.) I have a beautiful sandhill (18.6ha) beside the Wakool River and as you can imagine grow many inland natives. Mostly hand-raised from seed collected in my travels inland.

My concern is with *E. ovata*. It spreads so quickly given the right conditions. This was also noted in the Arid Lands Botanic Gardens at Port Augusta (SA) in August 2003. I have had to spray it over several years to eradicate it with Roundup® as it was going to be a severe problem. **Please advise other members!** If growing it, please grow it in a container – even then I suspect it would find its way out through the drainage holes. It has the potential to be added to our list of environmental weeds.

Alan Anderson – Monbulk. Vic

Despite many critics saying my Dandenong Ranges (Monbulk) Victorian garden is totally unsuitable for eremophilas I have succeeded with the following, without exaggerating, and I do admit to failures as well.
E. calorhabdos (own roots) – 4 years old – 2.7m high by 1.8m wide
E. nivea (own roots) – 2 years old – 1.2m high by 1.2m wide
E. pterocarpa (own roots – two plants) – 4 years old – 1m and 1.5m high
E. muelleriana (grafted) - two winters and unaffected by fungal disease – 1.2m high by 1.2m wide
E. bowmanii (grafted) – 4 years old – 1.2m high by 1.2m wide
E. 'lucida' (own roots) – 1 year old – 1m high
E. bignoniiflora (own roots) – 4 years old – 1.8m high by 1.5m wide
E. phillipsii (own roots) – 1 year old - 1m high
E. 'recurva' (own roots) – 1 year old – 1m high
E. oppositifolia (own roots – three colour forms) – 2 at 1.5m high and 1 x 1m high
E. bignoniiflora x *E. alternifolia* (own roots) 2 years old – 1.5m high by 1.5m wide
E. "Kalbarri Carpet" (own roots) 3 years old – 2.4m cover
E. 'mirabilis' (grafted) – 3 years old, nil fungal disease – 1.8m high by 1.5m wide
E. 'veneta' (own roots) – 3 years old – 1m high by 0.5m wide
E. purpurascens (own roots) – 4 years old – 1m high by 1.5m wide
E. virens (own roots) – 2 years old – 1m high by 0.5m wide
E. subfloccosa (own roots) – 3 years old – 0.5m high by 1.5m wide
E. alternifolia (own roots) – 4 years old – 1.5m high by 1.5m wide
E. ternifolia (own roots) – 4 years old – 0.5m high by 0.5m wide

Plus the very reliable forms of *E. maculata*, *E. glabra*, *E. racemosa*, *E. bignoniiflora* x *E. polyclada*, and many more.

It's time we spread the word on the genus! I still get blank looks from people when I talk about these wonderful plants when at my weekend nursery job. Eremophilas are more reliable, in my opinion, than many well-known plants.

REPORT FROM THE SYDNEY GROUP'S ACTIVITIES

Charles' cutting trials with Perlite, Esi-Root® and Clonex®: Charles reported he was continuing trials using Perlite as a cutting medium and Esi-Root® and Clonex® as alternative cutting hormones. He had put down the last cuttings in March.

He said that he was cutting the plant material on an angle just below a node and then splitting the cutting's stem vertically some 2cm. He was placing the prepared cutting in Esi-Root® or Clonex® for 30 seconds before placing it in the medium in a square tube. He placed the tube in a box with a little water covering the bottom sand to ensure the cutting medium would remain damp. The box is then covered with glass or clear plastic.

Charles reported he was achieving a higher success rate with the split stem but had noticed no difference between the results with Esi-Root® and Clonex®. He had given some cuttings fertiliser and lost them.

Ian stated that Peter Abell had reverted to using coarse sand rather than Perlite as the cutting medium.

Andrew said that, in his experience, some plants struck more quickly in Perlite and others in sand. He added that fertiliser performed more effectively when mixed with the medium than simply sprinkled on top. Any small plant was likely to prefer a slow-release fertiliser than one which offered too much chemical too quickly.

Charles hoped to resume preparing cuttings in late August. He had seen a reference to the use of an antibacterial solution prior to the preparation of cuttings and grafts. Andrew agreed that this was a wise procedure. A few drops of Dettol® or similar in water could kill any lingering "nasties". Andrew said that some used methylated spirits. Gordon mentioned that some used methylated spirits when the cutting material was resinous and sticky – dip it for 5 seconds, wash it and then proceed in the usual way.

Noel: Noel too would resume placing down cuttings about mid-August. He described his cutting boxes as being modified broccoli boxes. He uses blood and bone and Paton's Native Plant Food as fertiliser.

Ian: He had not put cuttings down and only grafted some material that became available in mid-June. He is not optimistic about the latter. He is preparing a glass house and plans to put in bottom heat and automatic misting for future winters.

Janelle: Janelle said that she had done little since the last meeting. She asked how soon after taking material members put down cuttings. There was general agreement that they put it down as soon as possible but kept it in the refrigerator if a delay occurred. Tamara recommended the use of green bags if the material had to be stored.

Janelle stated that she had tried some seed but had had no success. Ian had reviewed past ESG newsletters and found nothing that appeared significant. Andrew and Colin both spoke of the help offered by smoke machines. Andrew suggested that a very simple solution was to make a small fire in a basin, cover it with green material and place a cardboard-box over the lot with the relevant seed exposed underneath. Janelle had seen Russell Wait's smoke machine.

Gordon: Gordon had attempted to graft *E.* 'warnesii' after a dog or a bird broke a large section off the plant. He is not optimistic about grafting in mid-winter. Gordon had lost *E.* 'citrina', *E. georgei* (mauve), *E. margarethae*, *E. muelleriana*, and an *E. platycalyx*, probably due to root rot, notwithstanding the dry weather. An *E. maculata* died from borer attack and an *E. tetraptera* was accidentally trodden on. An *E. georgei* (pink), an *E. platycalyx* and a couple of *E. tetraptera* are growing well. The others may be difficult in Sydney.

Gordon said that his *E.* 'lanceolata' was still growing well but that continuous flowering made pruning difficult. He had brought back from Queensland *E.* 'jucunda', *E. maitlandii* and *E.* (*glabra* x *georgei*). He hoped to get cutting material to other members in the spring.

Other comments:

Andrew said he was interested in eremophilas but was just starting. He asked whether members were using tape when grafting. He was trying tomato clips. Ian suggested that members most commonly used Nescofilm® and Parafilm®. He was using *Myoporum insulare* as stock material. Gordon said that *M. acuminatum* and *M. montanum* were probably more widely used and some chose *E.* 'Big Polly'.

Andrew was asked as a nurseryman whether there was any demand for eremophilas. He stated that little was known by the average gardener about the hardiness of eremophilas in and around Sydney. More proof and promotion needed to be placed before the public. If they had to be grafted the price would be too high for the average gardener. Noel agreed that starters

were unlikely to buy expensive grafted plants. Tamara suggested that notwithstanding the higher cost, grafted plants were likely to be more cost-effective over time.

Andrew asked whether members had had any experience with overhead watering of eremophilas such as was likely to happen in a nursery. Ian and Charles suggested this was possibly a field for experimentation although generally overhead watering is kept to a minimum, certainly with grey-leaf, hairy species which are likely to suffer from fungal attack.

Email from David Wood:

Answers to your questions:

1. How much awareness is there in the market place for eremophilas?
   a. Before the drought - for general retail nurseries, the ones that specialized in native plants seem to be really aware of cutting grown *E. maculata*, plus grafted *E. nivea*, *E. glabra* and *E.* "Murchison Magic". We seem to have been the main suppliers of the grafted plants so far, and have worked hard to promote them. Nurseries are interested because they are different, but we find we have to show them plants and give them lots of growing information before they will give them a go.
   b. After the drought, unfortunately, I believe that nothing has changed. The facts of life in a consumer society are that environmental concerns do no have the effect that good marketing and effective advertising have. Drought-proof plants are a great idea, but the general buying public have yet to be converted to that point of view. Also remember that Australia is a multi-cultural society and many people still connect strongly with and want to grow exotic plants that grow where they came from.

2. How does this compare with the more familiar species: e.g. grevilleas?
   It's difficult to compare eremophilas with grevilleas for the following reasons:
   a. There have been many years of breeding grevilleas with many excellent hybrids resulting. These are heavily promoted very effectively. There is no contest here with eremophilas and breeding programmes need to be undertaken. Tougher species need to be hybridized with the really spectacular ones that are generally touchier.
   b. Usually grevilleas are much longer lived plants east of the great Divide than are eremophilas, grafted or not. Grevilleas will generally survive in a wider range of soil types and environmental conditions. Unfortunately straight species eremophilas from WA and the desert are still suspect on the humid east-coast; in fact some may be only perennials in these conditions. Fixing root problems by grafting will not fix climate problems that can stress foliage.
   c. If they were more adaptable the nursery trade would have more eremophilas well and truly entrenched in their regular lines by now. At the moment *E. maculata* forms are the only ones seen to be reliable enough by many nurseries to be sold.

3. How do you as an industry professional do eremophila cuttings?
   a. Type of cutting material used:
      Tip cuttings of firm material, not woody, done in July-September
   b. Type of potting medium:
      Propagation mix that works for us in our set-up (not guaranteed to work anywhere else*.)
      Perlite : peat moss : vermiculite - 20:4:1
      Potting medium
      Composted pine bark : coarse river sand – 5:1
   c. Type of rooting hormone:
      Esi-root® used at the recommended rate as on the label.
   d. Type of fertiliser:
      Nutricote® for Natives N:P:K – 18:2.6:5.7 + trace elements

4. How do you graft eremophilas?
   Wedge graft in the less humid time of the year. This possibly is the easiest part of the whole process.

5. What is your success rate with grafted eremophilas?
   90-99%; depending on the species being grafted.

* Everyone's microclimate, growing conditions and horticultural skills are different, so this means that what works for someone won't necessarily work for someone else a few kilometres away. This is particularly important for the after grafting care - the 'intensive care ward' part of the process.

While you may think you can save time by replicating others' techniques, these can be discouraging red herrings. The real art of horticulture is working out what works for you in your conditions, by patience, observation and record keeping. This is where all you can do is experiment until you get it right for your situation.

To give an example of this: in 2002 we moved our nursery about 12km and found we had to re-invent all of our growing-on techniques. The grafting techniques remained the same. It was a hard and expensive lesson about doing your own research for your own situation.

(I have included much of the material which was reported in the most recent communication which I have received from Charles Farrugia re the work being done in Sydney by a few, keen enthusiasts. They formed a group, mainly to gather more information about growing eremophilas in the Sydney region and to help them with their growing of the genus. Colin)

EREMOPHILA CUTTINGS

Oops! I have slipped up for some of you! My apologies for not sending cutting material to you as promised. I have not forgotten your requests (I think I still have the intact list here to work on) however, time seems to have run away from me recently. I was hoping to pick up a range of material at the recent APS (SA Region) Plant Sale & Show, which was on during the weekend after we returned from Perth, but, alas, there were very few eremophilas displayed. In addition the collection in my garden has been affected by the dry weather earlier in the year and it is only now showing signs of recovery and good, new growth. I hope to be able to collect some material in the next fortnight or so and post it off post haste.

EREMOPHILA PUBLICATION(S)

This has become an on-going saga and Bob Chinnock is no closer to being able to advise me of the release date, let alone the printing schedule. He is very frustrated! At this stage it is not possible to say who will be printing it or when the contract will be let for the printing to take place. Sorry but this is the reality!

I understand that there is a publication dealing with Plants of Inland Australia by Philip Moore. I also understand that it will include approximately 70 *Eremophila* species: which ones I cannot say. This book was referred to in the minutes of the Sydney Group's activities. If I receive further information I will pass it on.

I have been asked if it would be possible to produce another publication along the lines of the *Eremophilas for the Garden*, but dealing with another 70 or so species. The original was financed by the SA Region of ASGAP. It also involved a lot of personal time by three people, and I am not sure that any of them is in a position at present to commit such an amount of time in the near future.

STUDY GROUP COORDINATOR

Jan Sked has, after a number of years as ASGAP Study Group Coordinator, retired from the position. Jan has been a very dedicate worker for the cause of Study Groups and has ensured that the future of this important aspect of the AGAP organization is on a solid footing. Thankyou Jan!

The new Study Group Coordinator is Dr. Nita Lester. Nita is a Lecturer at Griffith University, in Queensland and is also the Director of the Myall Park Botanic Garden, the property previously owned by the late Dave Gordon who was an active member of the Eremophila Study Group until just before he passed away.

Nita has been in contact with me in recent weeks to ascertain the identification of a number of eremophila plants growing in the Myall Park collection. Thanks to Bob Chinnock, who did the determination!

ASGAP Eremophila Study Group Leader
Colin Jennings, 4 Kinnaird Crescent, HIGHBURY, SOUTH AUSTRALIA 5089
Email address: colmyr@senet.com.au