

Newsletter No 58

Programme of Events in NSW 2001

Any member of the Australian Plant Society is invited to attend any the activities of the Grevillea Study Group during the coming year. Please advise your intentions to the Leader Peter Olde by phone on 9543 2242, by fax on 9541 0796 or by email to petero@australians.com.

There will be plants for sale and a plant raffle at each meeting.

Sunday, March 4, 11 a.m.

Venue: University of Western Sydney, Hawkesbury Campus.

Speaker: E. Charles Morris

from the Centre for Biostructural and Biomolecular Re-

search.

Subject: The Use of Smoke in the Germination of Seed.

(See page 2 for directions)

****Note change of date

Sat & Sunday April 7 & 8

Autumn Plant Expo, Mt Annan Botanic Garden

Set-up Friday April 6

***Note change of date

Sunday, May 6 ..9.30 a.m.

Venue: 138 Fowler Rd., Illawong.

Speaker: Peter Olde

Subject: New Species of Grevillea.

Discussion and preview of new species in the Flora of Australia and new species in the process of description. A new and updated key to the genus will hopefully be handed out. The meeting will be followed by a garden visit. Many new species and hybrids will be on show.

Sunday, June 10 9.30 a.m.

Venue 19 Shortland Ave Jannali

Speaker: Ken Arnold

Subject: Simple Propagation by Cutting

Ken has been a successful home propagator for many years and has offered to give us a hands-on demonstration of his knowledge.

tion of his knowledge.

Sat - Sunday, July 21-22.

Garden visit and field trip

Saturday: Hunter Region Botanic Garden and local gardens. **Sunday:** Two wildflower farms on the Central Coast.

Sunday, August 12 9.30 a.m.

Venue: Don Burke, Kenthurst Subject: New Grevillea Hybrids

Visit to Don Burke's Hawkesbury Sandstone Garden featuring new hybrids. Limited numbers. You must book with Peter Olde 9543 2242 if you wish to be on this

Sunday, September 9 9.30 a.m.

Outing to Georges River near Wedderburn.

Leader: Bruce Wallace.
Fri Sep 28 - Mon Oct 1

Field Trip Wagga and Riverina District.

Sun Nov 11 9.30 a.m.

Venue: Grevillea Park, Bulli

Subject: The Art of Pruning Grevilleas

Speaker: Ray Brown

QUEENSLAND REGION

MEETINGS FOR 2001: All meetings commence at 9.30 am unless otherwise notified. For further information contact Merv. Hodge on (07) 5546 3322.

Sunday, 25th MARCH 2001

Venue: Home of John & Pat Morse 10 Smiths Rd, Wights Mountain

Phone: (07) 3289 1431

Subject: Discussion on new hybrids and their registration

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MILENNIUM MESSAGE

by Peter Olde

The Future Looks Bright

The dawning of the 21st Century has brought with it numerous new Grevillea cultivars and hybrids for the delectation of all horticulturists, not only those of the Grevillea Study Group. Some of the new offerings have recently been released while many others are still undergoing trials.

There is no doubt that, as with the 1980's and '90s when Grevilleas led a great surge of interest in native plants in the general community, Grevilleas are about to repeat their successes in the new millenium.

Long-flowering, colourful and environmentally useful, this genus and its progeny of hybrids and cultivars is far and away the most visually exciting in the Australian flora. At least I think so.

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Annual Plant Sale

The annual plant sale which raises funds for more research into the genus kicks off again on April 7 & 8. Please note the change of date. This is our fourth plant sale and may be the last. Interstate visitors and members are welcome. In fact, we really need your assistance. Unlike Queensland, the study group in New South Wales operates with very few people and is really desperate at times for assistance.

The recent retirement from active participation by Betty Rymer is keenly felt. Betty has been a stalwart of the Study Group and has organised the displays for us at Mt Annan over the last three plant sales. Recently she has not enjoyed the best health and being over 80 we reluctantly wish her well in her retirement from active participation. This means someone needs to step forward. But will they?

Thanks also to Ian Cox who has decided not to participate in the plant sale as treasurer this year. He has been a close personal friend and more than capable and trustworthy treasurer. We will miss his quiet ways.

I have begun to advertise the Study Group programme in Native Plants for New South Wales in an attempt to give the study group a bigger active base in this state. Because our meetings are all day time ones, they may have some appeal to a wider group.

Riverina Field Trip

Matt Hurst from Wagga is currently organising our Riverina field trip this year. It will be another combined Victorian and NSW event. Hopefully more people can join us this year. A report of last year's trip, organised by Neil Marriott, will be published next newsletter.

Seminar Report

Congratulations to the Victorian chapter, Neil Marriott in particular, and the Grampians Group, Australian Plant Society (Victoria), for the excellence of the Fred Rogers Seminar that was held in November.

What an outstanding success! The event was attended by almost 200 people and was extremely well run over two days, one of lectures and papers followed by a great evening and after-dinner speaker (Trevor Blake) and the second of garden and nursery visits.

Copies of the papers and proceedings entitled 'Grevilleas' can be purchased from Neil Marriott PO Box 107 Stawell Vic 3377 for the sum of \$5 plus postage. The whole event was followed by a most interesting field trip. The weather at times was a little warm and the last day was washed out by a tremendous overnight thunderstorm with following early morning rain. However, it was still excellent and we located numerous interesting plants.

ANNUAL AUTUMN PLANT SALE

April 7 & 8 Mt Annan Botanic Garden

TELL YOUR FRIENDS (Helpers also needed to set up on Friday)

STOP PRESS...STOP PRESS...

AUTUMN PLANT SALE midday APRIL 7th to be opened by DON BURKE

NEXT NSW MEETING LOCATION

University of Western Sydney, Hawkesbury Campus

Hawkesbury Campus is opposite RAAF Base, Richmond.

Enter campus from Londonderry Road entrance (main gate off Bourke St will be shut). The entrance off Londonderry Road is called Vines Drive. It will have a security barrier across it - parking is available on the left hand side just before the barrier.

After parking, continue walking along Vines Drive to the Science Precinct Building (Building K12, next along from Building K16). We will meet outside Building K12 at whatever the agreed time is, and I will have a meeting room arranged (indication of numbers closer to the event would help).

As buildings are locked up at the weekend, the admission of latecomers will be difficult.

TAXONOMY

New Hybrid Grevilleas for Horticulture

a review of new release hybrids and those in the waiting

Merv. Hodge - November 2000

I joined the Society for Growing Australian Plants in 1960 and although I was impressed with a number of genera, it was the grevilleas that had the greatest attraction. There was a very limited range available then, and we had very little knowledge of their requirements. Grafting would not be considered for a couple of decades, consequently losses of plants unsuited to our climate were high.

There were a small number of Poorinda hybrids available in early days but these rarely lasted more than a couple of years in our conditions. As a matter of interest, it was some years before I discovered that they were originated by the late Leo Hodge and, whilst we shared the same surname, we were not related at least within several generations. Unfortunately, I did not have the opportunity to meet him.

There were a number of other hybrids that originated in the south and also appeared in S.E. Qld in early days. Their sustained popularity was proportional to their reliability. A few that are still to be found in Queensland nurseries are G. "Boongala Spinebill" (produced by the late Sid Cadwell), G. "Poorinda Royal Mantle", G. "Red Hooks" and G. "Ivanhoe".

- G. "Royal Mantle" is a very good ground cover in well-drained soils but it can be grafted to G. robusta in less suitable soil conditions. I don't consider it good enough to be considered as a rootstock for grafting.
- G. "Ivanhoe" is a very robust aned attractive large shrub but it is susceptible to blowing out of the ground in strong winds possibly grafting it onto a stronger rootstock would solve that problem.
- G. "Red Hooks" was incorrectly known as G. hookeriana for many years. It is a sterile plant and was long suspected to be a hybrid but that is now confirmed. It is only moderately reliable in S.E. Old.

Our early collections mainly consisted of the above-mentioned hybrids plus *Grevillea rosmarinifolia*, *G. juniperina* and their hybrids and *G. banksii* var. *fosterii*. The latter was the only tropical grevillea around for some time so there was no possibility of tropical hybrids. Eventually *G. whiteana* (then named *G. pinnatifida*), *G. sessilis* and *G. pteridifolia* appeared in collections and all that was required was for these to be grown with *G. banksii* to trigger a range of spontaneous hybrids.

However, before that was to happen, a hybrid occurred in the large species collection of David Gordon. This, of course, was G. "Robyn Gordon". There were small numbers of cutting grown plants available at first, but when it became known, there was a tremendous demand for it. It was reputed to be the top selling plant in Australia for a time. Not only was this a beautiful hybrid,

but it was the first with one parent being an eastern Australian tropical grevillea and the other parent from Western Australia.

- G. "Robyn Gordon" was followed by G. "Coconut Ice", G. "Honey Gem", G. "Misty Pink", G. "Moonlight" (originally G. "Edna Ellen"), G. "Ned Kelly" (originally G. "Mason's Hybrid"), G. "Pink Surprise", G. "Sandra Gordon" and G. "Superb". All were F1 hybrids. With the exception of G. "Sandra Gordon" (G. sessilis x G. pteridifolia) all of the tropical hybrids mentioned had G. banksii as a common parent.
- G. "Superb" and G. "Coconut Ice" are a result of deliberate manipulation by me and are sister plants from the same batch of seed (about 1978). They may have been the first to be manipulated. Two others from the same batch of seed are still in my garden. One is identical to G. "Superb" and the other is a similar colour to G. "Robyn Gordon" but has a yellow tip on the style. This is a characteristic of G. "Superb", making it easy to identify them from G. "Ned Kelly", G. "Robyn Gordon" and G. "Coconut Ice".

It is amazing how these still become confused in the nursery trade, i.e. the wrong labels attached to plants of these four hybrids. Only recently I found *G*. "Ned Kelly" carrying the label of *G*. "Superb". Is it cynicism, ignorance or carelessness?

Apart from *G*. "Superb" and *G*. "Coconut Ice", all other F1 hybrids mentioned were spontaneous hybrids. I suspect that most of the other hybrids now appearing in nurseries are F2 or of a greater order and are spontaneous.

One F2 which is a striking colour and has potential for cut flowers is G. "Majestic". This is a seedling of G. "Pink Surprise" and occurred in the garden of Graham Nosworthy. Another F2 is G. "Sylvia" (a seedling of G. "Pink Surprise") produced by R. Dawson of the Utingu Nursery in Queensland. it is a very good plant and is still popular.

New hybrids that have occurred in recent years include: G. "Billy Bonkers", G. "Butterscotch", G. "Coastal Sunset", G. "Cooroora Cascade", G. "Dot Brown", G. "Firesprite", G. "Flamingo", G. "Geisha", G. "Golden Lyre", G. "Golden Yul-Lo", G. "Goldilocks", G. "Honey Wonder", G. "Jester", G. "Joy", G. "Lime Spider", G. "Pink Ice", G. "Sunset Bronze", G. "Simply Sarah", G. "Strawberry Blond", and G. "Tango".

- G. "Butterscotch" is aptly named because of its flower colour, is a seedling that occurred in the garden of S.G.A.P. member Arnold Sandell. It is of unknown parentage but I suspect G. "Misty Pink" and G. pteridifolia to be in its lineage. It flowers for most of the year and grows to $3m \times 4m$.
- G. "Honey Wonder" and G. "Lime Spider" are variegated sports arising from G. "Honey Gem" although they may not carry as many flowers. G. "Honey Wonder" is protected by PBR.

TAXONOMY (cont.)

- G. "Dot Brown" is a shrub to about 3m x 4 m and has greyish red flowers. It is protected by PBR. It has not proved to be very popular.
- *G.* "Golden Lyre" and *G.* "Coorora Cascade" are two hybrids originating from Fairhill Nursery in Queensland. Unfortunately "Golden Lyre" is an illegitimate name as there is already a *G.* "Poorinda Golden Lyre" registered with the Australian Cultivar Registration Authority.
- G. "Golden Lyre" is a manipulated hybrid between G. formosa and G. "Honey Gem". It grows to 3 m x 5 m. It flowers during late summer and autumn and has yellow flowers very similar to its parent, G. formosa.
- G. "Coorora Cascade" is an F2 seedling of G. "Golden Lyre". It is a smaller plant about 1 m x 2 m and has potential to become very popular. The flowers are yellow and similar to G. formosa. The foliage is less inclined to spoil in humid weather than G. formosa.
- G. "Billy Bonkers", G. "Flamingo", G. "Geisha", and G. "Jester" are hybrids produced by Richard Tomkin at Gin Gin, Qld.
- G. "Billy Bonkers" is a hybrid between G. nana ssp. abbreviata and G. "Sid Cadwell". It requires grafting to survive, at least in Queensland, and has enjoyed some popularity. It tends to become rather stiff and woody but it is rarely out of flower. Perhaps grafting onto another rootstock (i.e. not G. robusta) might improve its growth habit. This has certainly improved other grafted plants. G. "Billy Bonkers" seems to grow only to about 1 metre high, making it a good plant for small gardens. Its claimed parentage would indicate it would do well in southern states.
- G. "Flamingo" is a shrub 2-3m x 3 m. It has beautiful pink flowers and should enjoy a sustained popularity. It was shown briefly on TV by Don Burke and provoked a number of enquiries at retail nurseries. The name is very appropriate.
- G. "Geisha" is a hybrid between G. "Superb" (seed parent) and G. whiteana, and grows to $3m \times 4m$. I have not seen this plant at this stage. Its main importance seems to be that it is the parent of G. "Flamingo".
- G. "Jester" is a hybrid between G. "Honey Gem" and G. "Coconut Ice" and produces orange flowers. It grows 3m x 5 m and has a long flowering period.
- G. "Tango" (1m x 3 m) is a hybrid between G. bipinnatifida (glaucous form) and G. formosa. The originator was Chris Nikolic of Queensland. It has much going for it easy to propagate, very good foliage, prunes well and has beautiful 150 mm long tangerine flower spikes (hence the name). Unfortunately it carries very few flowers. It seems to grow in a wide range of conditions. If it was not for the poor flowering it would be one of the best ornamental grevilleas. I have tried to manipulate a sumilar hybrid, using another form of G. bipinnatifida, but unfortunately the result was a very poor plant that had a complete lack of vigour.
- G. "Golden Yul-Lo" is a spontaneous seedling of G. "Sandra Gordon". It has yellow flowers over most of the year. It seems to be popular with many growers and was one of the cut flowers used in the Olympic bouquets.
- G. "Coastal Sunset" is a recent release and has a colour not seen in most tropical grevilleas. It is distinctly orange and plants in flower generally sell quickly. G. "Golden Yul-Lo" and G. "Coastal Sunset" were originated by Mr Owen Brown of Queensland. Both plants are protected by PBR.
- G. "Sunset Bronze" is a bronze-red flowered hybrid. It occurred as a spontaneous hybrid in the Loganholme district of S.W. Qld.

- Fortunately cuttins were obtained before the original plant was destroyed. The plant tends to be very untidy and is difficult to maintain in good condition. However, the flowers are spectacular and it sells well. It is a tropical grevillea, probably having *G*. "Honey Gem" in its lineage.
- G. "Strawberry Blond" is a spontaneous hybrid from my garden with G. "Sandra Gordon" being the most likely seed parent. The nearby possible pollen parent is either G. caleyi or G. aspleniifolia. Cuttings were given to Fairhill Nursery who produced and named the plant. The flowers have a pale yellow style with a red perianth. it grows to $3m \times 5m$ and has maintained moderate popularity for some years but I don"t know why.
- Another spontaneous hybrid in my garden is G. "Firesprite", the parentage being G. longistyla (seed parent) and G. venusta. It has been released for about 3 years and has maintained an increasing popularity. It grows to 3 m x 5 m in Queensland but it can withstand very hard pruning which makes it a denser shrub. In my garden its peak flowering is June to December, with scattered flowers throughout the rest of the year. It is very popular with birds, particularly the small honeyeaters, i.e. Brown Honeyeater, Scarlet Honeyeater, Eastern Spinebill and others. It makes a good screen or specimen plant. I rate G. "Firesprite" as one of the best of the recent introductions because it is attractive, has a long flowering period, attracts birds, is normally reliable and is very different to other tropical hybrids. A second seedling of the same cross has occurred in my garden and differs only in the foliage, having up to 7 segments on each leaf instead of 5 for G. "Firesprite".
- G. "Pink Ice" is another spontaneous hybrid of mine that is worth mentioning, the seed parent being G. zygoloba. It grows to 1.5 m x 3 m, flowering mainly in late winter and spring. The fragrant flowers are very small and are carried on vertical terminal inflorescences up to 75 mm long. The flowers are initially pink, changing to white. The pollen parent is either G. crithmifolia pink or G. levis. The former is the most likely candidate. In Queensland it needs grafting onto a reliable rootstock to survive. I have grafted it onto G. robusta and G. barklyana hybrid quite successfully. It needs pruning to improve the shape of the plant.
- G. "Goldilocks" is a manipulated hybrid of mine between G. bipinnatifida (seed parent) and G. juncifolia. It grows to 2-3 m x 2 m. The divided foliage when new is very attractive and grey. In humid climates the foliage tends to become dirty-looking and unattractive. This can be overcome by pruning. The flower spikes are orange/yellow and attractive but suffer with bud drop. This problem doesn't show up in either parent. This plant would be more suitable for less humid regions.
- G. "Simply Sarah" is a manipulated hybrid by Grevillea Study Group member, Bryson Easton. The seed parent is G. longifolia and the pollen parent is G. beadleana. It produces burgundy-red toothbrush flowers throughout the year, but peak flowering is late spring, summer and autumn. It grows to 3 m x 3 m, is drought tolerant and is reliable in all but waterlogged sites. It attracts birds and can be pruned heavily, making it useful for hedges and screens.
- I have a seedling of G. "Long John" (G. "Elegance" in Queensland) which is similar to the parent plant but has slightly larger but paler flowers. It is not as good as G. "Joy", a seelding of the same parent produced by the late Edgar Burt. That plant is also similar to G. "Long John" but with beautiful red flowers. I believe it will have a good future. In sub-tropical regions it will probably need grafting.

TAXONOMY (cont.)

Some grafted plants do enjoy a great deal of popularity but production limits and increased costs handicap competition with non-grafted plants. The after care i.e. removal of sideshoots from the rootstock if G. robusta is used is a further problem. The use of reliable rootstocks that do not shoot below the graft can eliminate that problem. Also better production methods can help keep costs down

I have seedlings of G."Misty Pink" in my garden and they range from a deep red to various shades of pink to white. We will release three of these in the future under the names of G. "Cardinal Red", G. "Rosy Pink" and G. "Pink Ballerina". These all have a long flowering period. There are a number of others, including reds, yellows and gold that have much potential but need monitoring to see how they perform in flowering, size and reliability to see if they are commercially viable.

Because of the great range of hybrids now available we can afford to be ruthless and select only the best of those which are obviously different. I believe they should be reliable over a wide range of conditions, they should flower for a long period (preferably all year) and should be easy to propagate. Small size is another distinct advantage.



I believe that, in Queensland at least, it was the tropical grevillea hybrids that triggered a public interest in Australian native plants, particularly because of the attraction of birds to the garden. Unfortunately, there was a widespread belief generated that native plants required no maintenance, hence the myth "Grow native for a no maintenance garden" Unfortunately, after some time there was some reaction against natives because of second-rate landscaping. We now advise people to plant judiciously and prune when required, check size, do not overplant and give attention to drainage and fertiliser.

Whilst I have my own production nursery I have worked most weekends for the past 3 years at one of Australia's busiest native plant specialist retail nurseries. This has given me some insight into customers' requirements and has also helped me with my priorities for the output of my own nursery. Currently, the most popular plants are those which have long flowering periods and have proven reliability.

In S.E. Qld. some of the older hybrids are still the most popular. They include, *G*. "Honey Gem", *G*. "Misty Pink", *G*. "Robyn Gordon", *G*. "Superb" and *G*."Sylvia". *G*. "Moonlight" is fairly popular but its potential size deters some.

Other good sellers are G. "Firesprite", G. "Austraflora Bon Accord" and G. "Long John" but the latter two need to be grafted.

Most plants will sell well if display plants carry good flowers. Prickly foliaged plants do not sell well in the nursery trade although they may appeal to some collectors, for example the species *G. dielsiana* and *G. georgeana*. In the long term it is the market place that will sort them out no matter how much hype is involved with their introduction.

The future for grevilleas looks promising because of better hybrids starting to appear with all or most of the parameters I mentioned previously. Also grafting has increased the range of good species available and better results will be achieved with better production methods and a greater genetic variation for the production of hybrids.

Parentage of some hybrids:

- G. "Austraflora Bon Accord" G. johnsonii x G. wilsonii
- G. "Billy Bonkers" G. nana ssp. abbreviata x G. "Sid Cadwell"
- G. "Boongala Spinebill" G. bipinnatifida x G. caleyi
- G. "Butterscotch" Unknown
- G. "Coastal Sunset" G. banksii (red) x G. "Golden Yu Lo"
- G. "Coconut Ice" G. banksii (white) x G. bipinnitifida (green foliage)
- G. "Cooroora Cascade" G. "Golden Lyre" F2
- G. "Dot Brown" G. banksii x G. pteridifolia
- G. "" G. longistyla x G. venusta
- G. "Flamingo" G. "Geisha" F2
- G. "Geisha" G. "Superb" x G. whiteana
- G. "Goldilocks" G. bipinnatifida x G.
- G. "Golden Lyre" G. formosa x G. "Honey Gem"
- G. "Golden Yul Lo" G. "Sandra Gordon" F2
- G. "Honey Gem" G. banksii (red) x G. pteridifolia
- G. "Honey Wonder" Variegated sport of G. "Honey Gem"
- G. "Ivanhoe" Unknown
- G. "Jester" G. "Coconut Ice" x G. "Honey Gem"
- G. "Joy" G. "Long John" F2
- G. "Lime Spider" Variegated sport of G. "Honey Gem"
- G. "Long John" G. x G. longistyla
 G. "Majestie" G. "Pink Surprise" F2
- G. "Misty Pink" G. banksii (red) x G. sessilis
- G. "Moonlight" G. banksii (white) x G. whiteana
- G. "Ned Kelly" G. banksii (red) x G. bipinnatifida (glaucous foliage)
- G. "Orange Marmalade" G. glossadenia x G. venusta
- G. "Pink Ice" G. crithmifolia (pink) or G. levis x G. zygoloba
- G. "Pink Surprise" G. banksii (red) x G. whiteana
- G. "Red Hooks" Unknown
- G. "Robyn Gordon" G. banksii (red) x G. bipinnatifida (green foliage)
- G. "Poorinda Royal Mantle"
 - G. laurifolia x G. wilsonii
- G. "Sandra Gordon" G. pteridifolia x G. sessilis
- G. "Simply Sarah" G. beadleana x G. longifolia
- G. "Strawberry Blond"
- Possibly G. asplenifolia or G. caleyi x G. "Sandra Gordon"
- G. "Sunset Bronze" Unknown one possible parent G. "Honey Gem"
 G. "Superb" G. banksii (white) x G. bipinnitifida (green foliage)
- G. "Sylvia" G. "Pink Surprise" F2
- G. "Tango G. bipinnatifida (glaucous foliage) x G. formosa



IN THE GARDEN



Cultivation Shock or Fire & Ice

We bought "Clearview" at Yeoval, situated on the central western slopes of NSW (about 50 km due west of Burrendong) at the end of 1995. It is a property of 2.73 hectares, granite country, with a coarse, well drained, very acidic granitic soil which goes as hard as concrete when dry, and is practically humus free. Essential statistics for the area are - average rainfall 614 mm, average maximum temperature 31°C, average minimum 1°C, hence the alternative title "Fire & Ice"!

The previous owner had fenced off 0.81 hectares around the house and had developed garden areas containing mainly dry country species of eremophila, acacia, eucalypts etc. We fell in love with the place at first sight.

We did not intend to take up permanent residence there, so we have used it as a weekender. We quickly realised we had a steep learning curve in front of us - conditions were so different to the well watered, comparatively frost free temperate Sydney scene.

A manually operated watering system, using the town's non-potable water supply, was installed to the garden areas, but it was a plumber's nightmare of mixed fittings of iron, brass and plastic, of varying sizes.

It had to be upgraded, extended and automated if plants were going to survive for us.

We had bought the property just at the end of a dry period and we had quite a few losses in the early days simply because we were not there to water when plants required it.

Everything is bigger in the bush - the storms, the weeds, the spiders and the problems. It took us about twelve months to get a feel for the area.

We visit about once a month. If it had rained we would be flat out "grass" cutting and weeding - if it hadn't we would be madly racing around with hoses to water the trees and shrubs not in gardens and thus outside the watering system.

As to the "grass" - apart from some patches of Kikuyu, the ground cover consists of whatever comes up at the time - barley grass, clover and many other monstrous things we had never seen before!

Finally, in early autumn 1997, after the expenditure of litres of blood, sweat, tears and insect repellent through the preceding summer, the automatic watering system was finished. It was worth the effort to have peace of mind that plants were being watered in our absence.

There are eight separate garden areas, and except for one garden that is watered by a couple of large overhead sprays, all watering is carried out by drippers or small spray jets. We are limited to a maximum flow rate of about 800 L/h because of supply and piping limitations. We dream one day of having a pressure-boosted system but that is a long way off in the future.

Keeping the weeds down appeared to be a huge and never ending problem. Mulching proved to be the answer, but we could only get it in $2m^2$ loads in our box trailer from either Orange or Dubbo, and that chore effectively disposed of one day.

A load of 2m² disappeared very quickly on the large areas we needed to mulch. Finally, after several loads, in spring 1998 we located a carrier who would bring us a big load - 23m² in fact!

Such is the tyranny of distance in the bush; cartage cost three times as much as the cost of the mulch! It was worth it though, both financially and in its practical benefits. We have spread about 80% of our big mulch heap of callitris chips, and we feel that we are finally getting a little bit in front of the weeds.

Winter 1997 was interesting - the district had a "thirty-day frost"-frost every morning for 30 days and no rain in this period. Strangely, it was the larger shrubs and trees that were most affected. Trees that had been established in the district for years were either badly burnt or even killed.

The winters of 1998 and 1999 were reasonable, with only some tip damage to shrubs, and rainfall was fairly consistent, with a couple of short dry spells. But the winter of 2000 was a killer! Not a lot of frosts, but some really deep ones - an adjoining hamlet about 20 km away recorded -8° C! I'm sure we had just as bad, as we have lost quite a few robustly growing shrubs, killed stone dead!

Frost is a funny animal - you never know quite what the effect will be from year to year. What gets hit one year will be untouched other years - some plants can be completely defoliated and yet still bounce back, whilst others will struggle through a couple of winters until finally succumbing. A plant in one area will be badly affected but the same plant elsewhere will be untouched!

We are still refining our planting techniques, but generally follow the same procedure with all plants, grevillea or otherwise. A planting hole about 3 or 4 times bigger than the plant container is dug and a good handful of gypsum is incorporated into the soil, with possibly some coconut "peat" if the site is a particularly miserable one. All holes receive a dash of water retaining crystals before soaking with water containing root hormone and Aquasol, together with wetting agent if the soil is particularly dry.

Even though the soil is very acid (pH 4 to 5), we have been reluctant to use any lime (dolomite) unless we have definite evidence that the plant being planted prefers a high pH. However, this is a factor that we will experiment with in the future.

When the plant is settled in its chosen spot, it is well mulched with chips and largely left to its own devices. We have had some success rescuing sick plants by spot watering with Seasol. It is expensive, but seems to do a good job.

What have we learned? Mulching is essential - we could write a separate article on the finer details of mulching! We have a fair idea of which areas of our property are worst for bad frost effects. We don't plant in autumn now unless we are really confident of the frost resistance of the species and the situation.

As keen grevillea fanciers the majority of our plantings have been of this species. We know we can forget about most tropical grevilleas; hybrids appear, generally, to be more resistant to frost than pure species. Available data on frost resistance is sketchy and not really reliable, so we have been prepared to take a chance!

IN THE GARDEN (cont.)

Our disappointment over losses is tempered by unexpected successes. The natural occurrence of species of any genus is not necessarily a guaranteed indicator of frost performance, so we give it a go!

The sub-title of this article is "Fire and Ice"- we can deal with the Fire part with water, but Ice can take a lot of beating and we are still learning!

The following list of grevillea species that is growing, or have been grown, at Yeoval is given an arbitrary frost rating of 1 to 5. I do not assign temperatures to these ratings as I do not have the means to accurately provide the hard data, but nevertheless it can be a handy guide to grevillea growing in colder climes. Some plants may be given more than one number and this probably reflects the variability of winters and growing situations, rather than variable response in the plant itself.

Explanation of the rating scale-

- 1 excellent, little or no effects
- 2 slight effects such as tip burn, no permanent damage
- 3 moderate foliage & structural damage, requiring pruning clean-up when growth restarts
- 4 extensive defoliation, stem or limb splitting, recovery doubtful
- 5 death

A rating of 5* indicates death in the killer frosts of 2000, but otherwise OK.

The 5** for *Grevillea pimelleiodes* is an interesting case. We had four plants of this species, one graft and three on their own roots. One of the plants on its own roots was a chance purchase made locally, and it was planted autumn 2000. Winter 2000 killed it stone dead very early in the winter period, and the three other plants were untouched, so obviously provenance, hardening off etc, has a big influence on frost resistance.

An upper case "G" after a species indicates a graft.

Species		Rating	Species		Rating
alpina		1	leucopteris		2
aquilifolium		1	longifolia		1
amigera		1	"Little Thicket"		1
annulifera		5	leucoclada	G	1
annulifera X leucopteris	G	2	levis		4
beadliana	G	2	manglesoides		1
buxifolia		2	magnifica (x4)		2
bronwenae	G	2	masonii (x2)		1
candellabroides	G	1	mccutcheonii		2
caliantha	G	1	maxwellii (x2)		1
corrugata		1	nana	G	2
confertifolia		1	nudiflora	G	1
curviloba (x6)		1	oligomera	G	5*
deflexa		1	plurijuga	G	2*
dryandroides	G	1	pinaster		1
decora		5	pythara	G	5
dielsiana		5*	preisii ssp glabrilimba		1
eriostachya	G	4 &5*	pilosa ssp pilosa	G	1
"Ellendale Pool"		2	pimelliodes (x4)		1&5**
flexuosa	G	1	rhyolitica		4*
filipendula		2	rigida ssp distans	G	2&4*
"Forest Rambler"		1	salcata		1
gaudichaudii		1	scortechinii		1
georgeana	G	1	synapheae ssp synapheae		1
glauca		5	"Sid Cadwell"		1
"Honey Gem"		2&5*	spinosa X juncifolia	G	2
insignis ssp insignis	G	1	thyrsoides (both ssp)	G	1
juncifolia (both ssp)		2	treueriana		5*
juniperina		1	wilsonii		1
leptobotrys	G	2	"White Wings"		1

PRODUCT NEWS

Phosacid, An Anti-Rot Product.

Yates have introduced a home garden formulation of the famous Phosacid used on commercial Macadamia plantations to prevent root-rot. Phosacid is a long-acting, fast-acting, systemic fungicide with low toxicity, so low that there is no withholding period required when used in the food industry on products such as citrus and grapes. The promotors of the product claim that it breaks down in contact with soil and does not harm mycorrhizal associations. In solution, the product has a neutral Ph.

Phosacid is a phosphoric acid formulation known as phosphonic acid in solution that travels rapidly to the roots through the plantÕs sap and water systems and is absorbed into the plant via spray application onto the foliage. The product is registered for the control of phytophthora root rot, collar rot and

grape downy mildew and is already one of the largest volume fungicides used in Australia for this purpose. It has a complex mode of operation, directly inhibiting the growth of the fungal pathogen in the plant and supporting the hostÕs natural defence mechanisms. Phosphonate also inhibits spore formation resulting lower secondary infections. The site of action is the point where the spore germ tube penetrates the leaf or root tissue and comes into contact with the solution.

Because some crops retain effective levels in their system for long periods, the product can be used as a preventative as well as a cure, regular applications (every 5-6 weeks) promoting long-term plant health. Larger trees can be treated by injection rather than foliar spray. The product should retail for approximately \$10-\$12 for 500 ml.

CHEMISTRY

Nectar Sugars in Grevillea

P. Olde

I became interested in nectar during a study of specimens of G. acuaria. I found that specimens that had been dried and stored for up to five years still had nectar in the liquid state within the dried flowers. This may have been due more to its entrapment in sealed conditions rather than its intrinsic viscosity or non-evaporability. There have been a number of recent papers on the subject of nectar in Proteaceae, many of the most relevant originating in South Africa. This article is based around the research and published papers of Susan Nicolson and co-authors. Their research is relatively first-step and much needs confirmation using larger samples and a wider range of species. However, some interesting facts have come to light.

Previous analyses of the composition of nectar sugars had shown that floral nectars had only three major sugars (sucrose, fructose and glucose) and that the ratios between them are of ecological and taxonomic significance (Nicolson 1998). Recently, a new major nectar sugar, the pentose sugar xylose, has been found to occur at concentrations of up to 39% in two genera, Protea and Faurea (Proteaceae) So far it has been found to be absent in Grevillea. While many Proteaceae including Hakea and most genera of the Grevilleoideae have hexose dominant nectar sugars, that of Grevillea is sucrose-dominant, with a balance of glucose and fructose in relatively equal proportion. The presence of similar levels of both glucose and fructose is thought to result from the partial break-down of sucrose by activity of the enzyme invertase (Pate et al. 1985); the resultant nectar is then composed of all three in some proportion. The level of sucrose in nectar was species consistent and was considered to be of taxonomic significance and may be of some importance in determining overall relationships between species and ultimately genera. Grevillea had both high and low sucrose species. Multiple samples from different plants and different populations of different genera showed that nectar sugar ratios are surprisingly uniform within species and that only a small part of the variation could be ascribed to population and individual plant differences.

Samples of nectar were collected mostly from cultivated plants using micropipettes; relatively few were from plants in natural habitat. Specimens were mainly from larger ornithophilous (bird-pollinated) flowers; small-flowered, low-nectar species were not tested. The nectar was analysed by mixing with distilled water and using a refractive index detector; the components then were measured as percentages of total sugars.

Although little experimentation has been done (in fact, using only *G. robusta*), a pattern emerged that was associated with the age of the flowers. Older flowers of *G. robusta* showed increasing levels of sucrose whereas the reverse might be expected as invertase activity continued to break the sucrose down. Comparisons with other genera showed that the activity of invertase appears to be genetically determined, resulting in either low sucrose or high sucrose taxa and that flower age was relatively unimportant.

It has also been shown that *G. robusta* re-absorbs nectar under field conditions. Each flower secretes nectar for only 2 days, and the relatively constant nectar composition suggests that all three nectar sugars are re-absorbed. The nectar reward is determined by a balance between secretion, re-absorption and evaporation (Nicolson 1995).

Another interesting pattern also emerged that was associated with phylogeny (study of the ancestry and relationships between plants). High sucrose concentrations appear to be convergent in various unrelated groups of Proteaceae. The discovery of xylose as a major nectar sugar confined exclusively to *Protea* and *Faurea* supports other evidence (e.g. Johnson & Briggs 1975) that they have a sister-group relationship. Because xylose is poorly utilised as an energy source even when ingested by passerine birds and bees (Lotz & Nicolson 1996), it is thought that the presence of this sugar is related to biochemical (enzymatic) processes rather than to selective advantage in terms of pollinator preference. The overall pattern at the generic level suggests that nectar sugars are generally conservative.

The lack of sucrose in *Hakea* (only 4 species studied) also points to its monophyletic nature as a genus distinct from *Grevillea*. It has assumed that *G. robusta*, a highly derived rainforest species, is basal in *Grevillea*.

Flower size and nectar sucrose levels are not logically correlated, suggesting that high sucrose nectar overall does not have adaptive significance in terms of pollination, but that the nectar sugar composition is perhaps a physiological necessity related ot the plant's sugar economy and sugar metabolism. However, it remains possible that higher sucrose levels may have evolved to increase the reward per flower in small flowers. Nectar sugars in *Banksia* do not seem related to pollination or other characters. The lack of any preferences for sucrose- or hexose-dominant nectars in sunbirds and sugarbirds suggests that pollination is not the primary selective force driving nectar sugar composition in South African Proteaceae. Hence the much of the variation may be of genetic origin and may be of great phylogenetic importance.

Infrageneric variation in *Grevillea* nectar sugar levels mostly supports morphological groups accepted in recent revisions. However, the nectar composition of *G. deflexa* is widely divergent from *G. lavandulacea* and *G. rosmarinifolia*, two species with which it has been grouped on morphological grounds. The species tested come from relatively few groups. No species in what has been speculated elsewhere (Makinson 2000) as the basal lineage (Group 3&4 sensu Olde & Marriott) was tested. It should be noted that *G. pythara* seems widely divergent from *G. saccata*, to which it has been informally linked by some.

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Nicolson S.W. (1995) Direct demonstration of nectar reabsorption in the flowers of *Grevillea robusta* (Proteaceae). Functional Ecology 9:584-588.

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Pate J.S., Peoples M. B. et al. (1985) The extrafloral nectaries of cowpea (*Vigna unguiculata* (L)Walp.). II. Nectar composition, origin of nectar solutes, and nectary functioning. Planta 166:28-38.

Van Wyk B.-E (1993). Xylose is a major nectar sugar in *Protea* and *Faurea*. South African Journal of Science 91:151-153.

CHEMISTRY (cont.)

Table 1Reproduced in part from the Appendix (Nicolson & Van Wyk 1996)

Taxon			(% of total	sugars
Grevillea		X	F	G	S
banksii	sample 1	-	3	3	94
	sample 2	-	4	5	91
	sample 3	-	6	3	91
barklyana		-	2	2	96
bipinnatifida		-	1	1	98
calliantha		-	2	3	95
deflexa		-	50	47	3
depauperata		-	-	1	99
fistulosa		-	-	-	100
insignis		-	1	1	98
jephcottii		-	trace	2	98
juniperina		-	1	1	98
lavandulacea		-	1	1	98
nana		-	1	1	98
obtusifolia		-	tr	1	99
olivacea		-	1	2	97
petrophiloides		-	47	49	4
pinaster		-	1	1	98
pinifolia		-	1	1	98

Taxon			% of total sugars		
speciosa		-	tr	tr	100
pythara		-	41	42	17
ripicola		-	3	3	94
robusta	1 floret	-	44	46	10
	1 floret	-	44	46	10
	1 floret	-	40	42	20
rosmarinifolia		-	3	3	94
saccata		-	tr	1	99
tripartita		-	2	2	96
wilsonii		-	1	1	98
Hakea					
bucculenta		-	50	50	tr
coriacea	sample 1	-	50	50	tr
	sample 2	-	52	48	tr
cucullata		-	48	52	-
petiolaris	sample 1	-	48	52	-
	sample 2	-	49	51	-
	sample 3	-	49	51	-

EDGAR BURT 1919 - 2000

It is with both sadness and joy that I am recording the passing of Edgar Burt, long time S.E. QLD group member of the Grevillea Study Group.

For more than a decade Edgar had battled ill health although not many people were aware, such was his cheer and vigor.

Even though he was 81 when he died in late 2000, Edgar was a relative youngster to the world of Grevillea. He retired from management in 1982 and in 1987 with his wife Pat, moved from Kingaroy to Landsborough near the Glass House Mts. With one acre of disused pineapple farm they bought an adjoining 1 acre in 1988. Here they set about establishing 2 acres of wonderful native garden with a collection of over 200 species of grevilleas and numerous more hybrid sp.

Edgar's new found enthusiasm for grevilleas led him to master and teach the grafting of grevilleas. From early visits to Harvey & Pat Shaw he quickly became proficient and very productive, remaining so for many years. He like all grafting exponents, tried his hand a numerous other genera. In this way, he filled his garden and many others with his generosity of swapping and giving away plants.

During the late 80's to mid 90's, the S.E. Qld group and Grevillea enthusiast all over, used Edgar as a very reliable propagator and garden source for all the newly collected species (old & new) coming into cultivation. If you gave him material you would always be rewarded with interest.

Having a very jovial and personable nature Edgar would invariably greet you with his hand, a big, big grin and a loud "Bryson, my boy, how are you going?- got a plant for you!!!!!" He did, like all of us, have his grafting failures. In particular, *Grev. cirsiifolia*, a delightful prostrate small shrub from W.A. which he would always call *Grev. "Curse"iifolia*. "So sad my boy!!!" he'd say.

Grev. "Joy" a seedling of *Grev.* "Long John" found in the garden of Joy Hermansen of Peachester (beautiful deep red flowers) was produced and promoted through Edgar's keen eye. Definitely an outstanding hybrid.

So it is with real *sadness* and real *joy* that we smile and remember Edgar Burt and pass on our warmest sympathies to Pat and his children. VALE.

NEWS FROM THE NET

Grevillea Study Group Web Site

I have just started to get the Grevillea Study Group web site together. Please let me know what you want in the way of a spiel to introduce us. We need an emblem of some kind on the first page. I have started this with Grevillea "Superb" but let me know if you want a particular Grev. or Grevs. on the first page. You can view what I have done as I go because I have published on a free site. I will update this site as I go, this is only a trial thing until I feel I have it right. Any feedback eagerly received. I have not advertised this so no one should view the site unless accidentally.

The address is

http://grevilleastudygroup.homestead.com/first.html

"Bruce Wallace"

bruwal@ihug.com.au>

Free Web Site Offer

We would be happy to host a web site for the Grevillea Study Group. I can register a domain name, maybe set up a database etc for submitting collection information etc.. you can also have different password / access levels.. we should talk a bit more about what you would want on the site etc.

"Andrew Brown" <abrown@itdirect.com.au>

Grevillea Email Group now operating.

This email group was begun by John and Ruth Sparrow from Queensland. Free membership. To subscribe go to groups.yahoo.com and register, using the cyber-form provided. You must provide a user name and password as well as your email address to enable continuing access to the site which houses all emails and discussions to date. You will receive a confirming email back and then you are able to access the site wherein you can select the groups you would like to subscribe. In this case search for "grevilleas" and then subscribe. Following this you will receive the latest emails regularly in your email to which you can respond. This is a good way to encourage new growers and those interested in the genus.

Post message: grevilleas@yahoogroups.com Subscribe: grevilleas-subscribe@yahoogroups.com Unsubscribe: grevilleas-unsubscribe@yahoogroups.com List owner: grevilleas-owner@yahoogroups.com URL to this page:http://groups.yahoo.com/group/grevilleas

Ground Fungus Killing Our Grevilleas

Here at Myall Park Botanic Garden, Queensland, Dave Gordon's once private arboretum, ground fungus is killing our grevilleas. Parts of the living plant die at a time and once dead and removed, root tissue is all soft and sand or dust-like. Can anyone tell me what the problem is? We want to plant back into the display beds but are wondering whether there is a fungicide that we can use to kill the fungus off and then plant back into the same hole? In the past we simply planted somewhere else but now that we have raised display beds just for grevilleas and they are being ruined. There were only a few species left when we took over here. We now have over 90 species back in the garden. We would like to slowly continue our grevillea increase but we need to know what to do to keep our beds looking full and healthy.

Nita C. Lester nita@bigpond.com

Subject: Missing cultivars

1220 Bacchus Marsh Road BULLENGAROOK Vic 3437

Tele: (03) 54 289 369 Email: pye@ssc.net.au

In response to information requested by the Grevillea Study Group Leader in "Gumnuts" about a population of *G. rosmarinifolia* from Lara no longer thought to be extant.

G. rosmarinifolia "Lara Dwarf" was under cultivation at Melbourne Zoo in Parkville, and probably still is. In addition, Ian Taylor (Western Plains Flora) and John Mahoney (Geelong propagation) both have stock plants.

Regards "David Pye" <pye@ssc.net.au>

Ed: Thanks David. We are still looking for anyone cultivating Grevillea "Pearl Light"



Grevillea "Pearl Light"

Grevilleas local to Sydney.

Dear all,

Now I'm doing the webpage for the inner Sydney Group of the Aust. Plants Society,

I've started a webpage on local grevilleas to Central Sydney here: http://www.homepages.ihug.com.au/~bfing5/ISAPS/localgrev.html

feel free to comment.....

Cas Liber

Warren & Gloria Sheather write

We live on the Northern Tablelands of NSW at an altitude of 900m & have a number of WA grevs., surviving & thriving in our garden. We find that they take kindly to our situation & are certainly easier to cultivate than western banksias. At present we have *G. crithmifolia, curviloba, endlicheriana, manglesii (syn. glabrata), hookeriana, stenomera, teretifolia, thelemanniana & triloba* all doing well. Also having success with some "tropical" hybrids. *G. fililoba* "Ellendale Pool", *G.* "Winpara Gem" & *G.* "Ivanhoe" are also some of our favourites.

We have a webpage describing our horticultural activities. http://home.bluepin.net.au/yallaroo

NEWS FROM THE NET

From Western Australia.

I know how much trouble you Eastern Staters go to in order to grow our W. Aussie plants and I take my hat off to you......grafting, rubble drains, raised beds etc. I think so many West Aussies don't know what a wealth of treasures they have at their feet.

Being fortunate enough to live on a farm, and one in a high winter rainfall area I can grow almost anything my heart desires! If there isn't a place for it in the garden [I have2] then there's always a spot in a windbreak or wildlife corridor...it's my energy that runs out!

In the garden areas that are irrigated, I plant the natives that either enjoy or will tolerate summer water. In the Grevillea department mostly the "tropical" ones [they have taken to calling them that in the nurseries] ie the large flowered hybrids such as G. "Superb" and G. "Moonlight". Also G. barklyana and G. brachystachya. In the areas which must endure the full summer drought, the Grevilleas really come into their own, they come through even their first summer without water, sometimes that's 5 months.

Some of my favourites are *G. fililoba* "Ellendale Pool", *G.* "Winpara Gem", *G.* "Ivanhoe", *G. pinaster* and *G. olivacea*.

I'm still feeling my way with many Grevilleas, I was initially unsure how many would withstand our very winter wet soils [50" rain, falling in 5 months mostly]. I tended to stay with Callistemons and Melaleucas, both of which I love. But gradually I'm finding that the grevilleas are being extremely successful.....not all perishing immediately of Phytophthora as I had feared!

Cheers, *Margaret and Peter Moir*, Olive Hill Farm, Margaret River, WA www.wn.com.au/olivehill

Mike asks a rhetorical question...

Dear Peter, My wife and I live mostly at Margaret River south of Perth on a 40 ha block. We are members of the WA Wildflower Society. I am a retired physician. We have been establishing a native garden and have among others planted over 40 of the locally available varieties of Grevillea.

Having enjoyed my copy of your 3 volume book I am aware of how many more beautiful grevilleas would flourish here. Would membership of your study group further my ambition to form a significant collection that would encourage others to grow grevilleas here?

"Michael McCall" <mgmccall@iinet.net.au>

Grevillea "Scarlet Sprite"

Although I am not (yet) a member of your study group I hope you can help me.

I have two Grevillea "Scarlet Sprites". The largest is probably 5-6 years old and for the first few years flowered beautifully. I pruned them fairly well every year. Now the bush seems to be dead in the centre with only the tips green and no flowers at all.

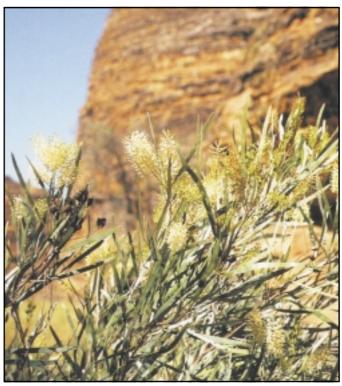
The second bush which is about 4 years old is not in as bad condition but headed that way. No flowers this year, only a few last year. Any suggestions as to what I can do?

This is not only a problem for me but the Australian Plant Society here in Glen Innes, of which I am the president, has planted the medium strip on the highway through town with natives and we have quite a few "sprites" along this strip. We would like to save these in the future if possible.

From: "Peter Fairy" <pjfairy@northnet.com.au> Time to replant methinks (Ed).

Bungle Bungle grevilleas

Whilst in the Bungle Bungles recently I was very interested to see *Grevillea wickhamii* flowering prolifically (at the end of July). The bright red flowers clustered around the stems were quite startling amongst the green & brown landscape.



Grevillea psilantha Bungle Bungle NP, WA The Grevillea Book Vol 3, Olde & Marriott

Near the Piccaninny and Cathedral Gorges, I was particularly thrilled to see *G. psilantha* with lemon flowers growing in the rugged walls of the gorges and amongst the rocks at ground level. Apparently it is only found in this area. Also encountered the Sandstone grevillea, G. miniata, with vivid yellow/orange flowers and grey/green toothed leaves, found only in the Kimberley region, and silver leafed *G. refracta*.

The Bungle Bungle is a wonderful area and seeing the Grevilleas was just one of the highlights of walking there.

Margery Stutchbury, Bundaberg, stutch@widebay.net.au ?Grevillea "Amethyst Gem"

I have a cultivar in my garden called "Amethyst gem". I've only had a small flowering so far(it's very young) but the flowers that have come out are spectacular. Well maybe in a delicate small way. The flowers aren't large but they are a light mauve with a very interesting curly structure.

Brenda.Galey@nre.vic.gov.au

QLD ACTIVITY REPORTS

by Elaine Jell

On Sunday Nov 26, the GSG Qld Region met at the home of Ralph and Margaret Hickling. Situated on the outskirts of the small town of Kilcoy 94km NE of Brisbane, the Hicklings have a small acreage predominantly native garden. Naturally grevilleas abound, and among them some interesting seedlings. A spontaneous discussion arose on the future of our group, where we are headed, what we can do to improve our image, how we can attract new members, fresh venues and interesting subjects for our meetings. It was a lively fruitful discussion thanks to the wholehearted contribution of attending members.

Finally, the subject of the day "Fertlisers" Most members have fairly large gardens and find fertilising to be not greatly beneficial once plants are established, and also quite costly. Fertilising is mainly carried out on cuttings and seedlings. While plants are in pots, slow realease fertilisers is the popular choice. Seaweed, kelp etc products were discussed at length and have been used with success by some members. The wonders of Seasol were raised by one of our Toowoomba members and she is testing this product further and will report to a future meeting.

Our first meeting in 2001 was held at the home of Merv Hodge on 25 January. As members arrived they were met by the grim news that a robbery had occurred during the night and several large potted plants had been stolen. Fortunately, a neighbour driving by noticed the suspicious behaviour, took note of the registration number of the vehicle and no doubt was responsible for the fact that the thieves left shortly after without a fully loaded truck.

As the meeting began late due to Merv's involvement with the finer details of the the robbery (checking out local flea markets, police etc.,) and the temperature for the day was expected to

reach 37°C. Merv guided us around the garden sooner rather than later following the meeting. The garden, along with everyone else's is showing signs of the extreme heat and little rain we have experienced this summer. Nevertheless in true Merv Hodge fashion there is always plenty to see.

The day's subject was grafting and of particular note were two *Grevillea hodgei*, growing side by side, but on different rootstock the result of which was a notable difference in growth habit.

Reference was made to these two plants during the meeting emphasising the effect of rootstock on growth, habit, colour of foliage and ability to flower. Grafting techniques were discussed the splice graft being preferred. Cutting material should be in good condition. Care should be taken when taping the cutting to the rootstock ensuring a smooth finish. Nescofilm is the preferred tape, however Parafilm or plumbers tape may also be used. A certain amount of humidity is necessary for the graft to take, and Merv uses small snap seal plastic bags for this purpose. It should be noted that not all plants can be grafted successfully at any one time of the year — experience and patience needed here. The benefits of stock other than Grevillea robusta were discussed in depth. Some grafting material wih not take on G. robusta. Alternative rootstock experiments have indicated more branchy growth, and a better looking plant. No doubt Merv will announce his findings once he has concrete information to pass on.

There was some discussion on meeting venues and attendances. Venues should be of secondary importance. Provided the host has sufficient space for people and vehicles and grows grevilleas, we should focus on the meeting rather than the variety of venues. Attendance has fluctuated over the years. the first meeting on 21/9/86 at Merv's home attracting 8 people. Average attendance increased to 46 in 1995, slowly decreasing to 26 in 2000.

OFFICE BEARERS

Leader: Peter Olde, 138 Fowler Road, Illawong 2234. (02) 9543 2242

Treasurer and Newsletter Editor: Christine Guthrie, PO Box 275, Penshurst 2222. Phone/fax (02) 9579 4093

Curator of Living Collection & Herbarium: Ray Brown, 29 Gwythir Avenue, Bulli 2516. (02) 4284 9216

Seed Bank: Judy Smith, 15 Cromdale Street, Mortdale 2223 (02) 9579 1455

FINANCIAL REPORT

	Income	JULY 2001	Expenditure	
Subscriptions	\$259.40		Newsletter Publishing	200.00
Donations	25.00		Postage	121.00
Interest	331.59		Victorian Conference	1,000.00
Plant Sale	6,337.28		Stationery	18.70
			Mulch for Grevillea Park	500.00
			Bank Charges	81.81
	\$6,953.27			\$1,921.52
\$10,441.89 in Int	erest Bearing Deposit f	or 6 months		
Balance in Curre	ent Account		\$6,968.89	

If a cross appears in the box, your subscription of \$5.00 is due. Please send to the Treasurer, Christine Guthrie, PO Box 275, Penshurst 2222. Please make all cheques payable to the Grevillea Study Group.

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