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Dear Members,

1994 is well underway and I hope it is kinder than 1993 was to many Queenslanders at least. Much of Queensland had well below average rainfall for 1993 in some cases for the third year in succession. Although some areas received good rain in early 1994 good seasons need to persist for a few years to allow the country to recover fully. My sympathy, and I am sure that of all other members of the group, goes out to those who suffered in the disastrous fires in New South Wales.

At present there is not a great deal in flower although *Mel thymifolia* in its various forms has been flowering well. We have a *Mel thymifolia*, standard colour, in our garden which obviously didn't read the books and is an upright shrub about 2.5m high. Our plant was cutting grown from a plant of similar habit but I have been unable to trace the origin of the original plant. The broad-leaved form of *Mel leucadendra* is starting to flower. *Mel quinquenervia* in both white and red forms is again flowering well and providing a useful food source for nectar-feeding birds and insects. Bees also like this species. "Tea-tree Honey" has a distinctive flavour not liked by some people as it is fairly strong in flavour although very light in colour. The red form is becoming fairly widely distributed in Brisbane gardens and does provide an eye-catching display.

New Species

Two new species have been named since last Newsletter - *Leptospermum namadgiensis* and *Callistemon forresterae*.

Brief details are given below. Should you require copy of the full description please advise and I will forward a copy to you.

Leptospermum namadgiensis

The species was first brought to botanical attention by Phil Gilmour who, in the summer of 1987/88 had collected two samples of the taxon from Mt. Scabby and Kelly Spur, both part of the Scabby Range that forms a southern part of the ACT-NSW border.

Leptospermum namadgiensis Lyne, sp.nov.

Shrub 20-50cm high in exposed sites, to 1m high in sheltered sites, or occasionally procumbent. Bark firm and close, shedding in strips or flaky layers, younger stems silky pubescent, glabrescent. Leaves 3.5-9mm long, 1.5-3.7mm wide, divergent, lamina narrowly oblanceolate to elliptic, both surfaces usually covered in white silky hairs. Flowers 6-10mm in diameter, occurring singly or two together on short shoots in leaf axils. Hypanthium c. 2.5mm long tapering to pedicel, villous, with spreading white hairs. Sepals c. 1.5mm long, persistent, long-deltoid, red-brown villous, the margins infolding. Petals white or sometimes flushed pink, 2.5-3mm long. Stamens 7-11, irregularly distributed around hypanthium rim. Style not tapering, base shallowly set into ovary summit. Ovary 3-locular. Fruit 2-2.5mm in

diameter, villous, with spreading white hairs, widest round the middle and erect hypanthium rim which bears erect persistent sepals. Mature Seeds c. 1.5mm long. Main flowering period Dec- Jan.

Distribution: To date *L. namadgiensis* has only been found on and near Mt. Scabby, on and near Mt. Kelly and on a knoll on a ridge between these two mountains in Namadgi N.P., ACT and Scabby Range Nature Reserve NSW.

Habit and Ecology: The new species occurs on shallow, gravelly soil in crevices on rock or on deeper humic coarse sands. The parent material is of undifferentiated granitic rocks. The species grows on exposed rocky ridge tops or mountain summits in low shrubland, low woodland at 1500-1820m altitude.

Callistemon forresterae

This species is described from material collected or subsequently propagated from a single specimen collected as "an unusual form of *C. subulatus*".

Callistemon forresterae W. Molyneux sp.nov.

Shrub, erect, compact, $\frac{1}{2}$ 1.2m tall and 1m wide with a single straight main stem; branches erect; new growth sericeous pink with short, mostly reclining hairs, soon becoming green. Bark hard, papery, grey. Leaves moderately dense, lamina flexible, coriaceous, broadly linear to linear lanceolate, mucronate, often falcate, 22(33-43) 55mm long, 2.5(3.0 & 4.0)5mm wide, mid vein slightly raised and discernible on both sides. Conflorescence usually distally frondose, held above horizontal or drooping averaging 74 flowers per head, 60(90-120)120mm long, 38(42-46)50mm wide. Stamens 16(20)26 per flower, 12(13-15)17mm long, filaments free, mauve; anthers 0.8m purple. Ovary trilocular. Fruit squat, often truncate, 5-8mm wide, 4-6mm deep. Flowering time: Mid Oct to mid Jan, possibly autumn.

Distribution and Habitat: Known with certainty from one collection by W.M. Molyneux and S.G. Forrester found growing on a rock bar on the west bank of the Genoa River in East Gippsland less than 1m above autumn water levels.

New Logo

You have probably noticed the new logo on Page 1. No, I didn't draw it as my drawing skills are virtually non-existent. Thanks go to Beth McRobert, a devoted member of S.G.A.P., who is very talented at drawing and sketching among other art and craft activities.

Vale Mrs Jessie Morgan

It is with regret that I record the recent passing of Mrs Jessie Morgan of Glasshouse Mountains. Mrs Morgan was the originator of the "Glasshouse" series of Callistemon - 'Glasshouse Gem', 'Glasshouse Country', 'Glasshouse Beauty' and 'Glasshouse Ngun Ngun Red'. Some of her other cultivars were 'Supreme', 'Pink Sensation' and 'Dainty Lady'. In Mrs Morgan's garden every cultivar was named as it flowered although the majority were never registered nor did they become available to the nursery trade. Mrs Morgan obtained lots of pleasure from finding out what colour forms her seedlings produced. Her death constitutes a considerable loss to the native plant production process.

Plant Register

I hope to produce a register which lists Callistemons, Melaleucas and Leptospermums being grown in gardens etc., the conditions they grow under and how they perform under conditions which differ from that of their natural habitat. I enclose a proforma which I would like you to complete and return. I realise that, for many of you with large numbers of plants, a fair amount of time and effort will be involved but it will be appreciated if you can complete these forms for me. In a number of cases some columns will require only one entry e.g. where soil type is constant over a whole property. Some of you have already forwarded comprehensive lists of plants.

Don't duplicate these unless it is necessary to do so to relate plants to soil type, aspect, drainage etc. Should you need further forms please arrange to have them photocopied or contact me and I will forward extra copies to you.

Book Review

"Bottlebrushes Paperbarks & Tea Trees and all other plants in the Leptospermum alliance" by John W. Wrigley & Murray Fagg is now available. Each species described is accompanied by a distribution map. The description includes the distribution and ecology for each species, a reasonably detailed description, cultivation notes and in many cases the conservation status. Cultivar descriptions provide details of origin, plant description and cultivation notes. The majority of plants listed in the book are accompanied by a colour plate of a flowering specimen. A section in the front of the book lists botanical history, uses and propagation and cultivation. This book is recommended to all who may be interested in learning more about these interesting genera within the family Myrtaceae.

Breakthrough in Plant Germination

Reprinted below is an article which appeared in "The Australian" on February 23 1994. As stated in the article, if plants can be grown in gardens and nurseries the wild provenances may be protected from some of the harvesting pressure currently imposed on them. It will be interesting to follow the results of further research.

Smoke key to growth of plants by Brendan Nicholson

Kings Park scientists have made a dramatic breakthrough with the discovery that bushfire smoke - and not heat as was believed - is the trigger that makes many native plants germinate.

Now they are trying to track down the chemical, or combination of chemicals, among the 2000 components of smoke which causes germination.

They have already used the smoke to germinate all of the seeds used in tests on a range of rare and endangered WA plants which have never been propagated from seed in laboratories or nurseries before.

One plant which has previously proved extremely difficult to grow from seed, though it has been grown from cuttings, is a species of smoke bush containing a chemical which has stopped the AIDS virus reproducing in laboratory tests.

US and Australian scientists are co-operating in a program to test and possibly mass produce the chemical as an anti-HIV drug.

Environment Minister Kevin Minson said yesterday the smoke technique may provide an alternative to controlled burning as a means of propagating plant species.

Previously, the belief fire was needed to crack open tough pods of buried seeds provided a strong argument for those who believed fires were a vital part of the regeneration of Australian plants.

Mr. Minson said the research would have a significant impact on the conservation of rare and endangered plant species.

The research team was headed by assistant Kings Park director Kingsley Dixon, who said last night the initial idea came from botanists in South Africa.

The breakthrough meant that many plants which had to be picked in the bush could now be grown in nurseries and home gardens.

"The real bonus is that we have got germination in 30 species of plants which we

were previously not able to propagate apart from tissue culturing them in the laboratory," Dr Dixon said.

One example was the shrub producing the popular flowers commonly known as yellow bells in the Eneabba region, which had resisted five years of effort to germinate its seeds.

Other plants which responded well were feather flowers, commonly known as orange morrison and the Wyalkatchem foxglove, which was officially down to its last two plants in the wild.

Late yesterday, the team discovered its most spectacular success so far. Barely a fortnight after being exposed to the smoke technique, all of the test seeds from the rare and endangered vanilla lily germinated.

"Previously we had not been able to make it germinate no matter what we did," Dr Dixon said.

Members Reports

Henri Debono, who lives on the outskirts of Paris, France forwarded me a copy of an article from the newsletter of the Australasian Plant Society in England which lists *Melaleuca*, *Leptospermum* and *Callistemon* being grown in Corsica by M.G. Courtois. The species being grown in open ground without winter protection are *Callistemon brachyandrus*, *citrinus*, *paludosus*, *pinifolius*, *violaceus* and a number of species of *Leptospermum*. In spring of 1992 M. Courtois sowed seed of some 23 species of *Melaleuca*, 4 species of *Callistemon* and a number of *Leptospermum* species. These plants are now 10-40cm high and ready to plant out. Henri also owns a house on the Riviera and is trying to sell his Paris house so he can move permanently to the Riviera and devote more time to the cultivation of Australian plants.

Ian Waldron from Jimboomba, south of Brisbane took a trip south in spring 1993 and from the tone of his letter had a great time visiting nurseries, National Parks, Botanic Gardens etc along the coastal strip as far south as Sydney. As most of you probably already know it is not possible to come away empty handed from a nursery. One of the plants purchased was a *Callistemon* 'Tassil Pink'. No description was available. Does anyone know of its origin and/or its habit of growth. The plant was purchased from Wirrimbirra Nursery in the Camden/Campbelltown area. Thanks Ian for your donation of \$15 towards Study Group funds.

Kerry Rathie has forwarded a comprehensive list of *Melaleuca*, *Leptospermum* and *Callistemon* species and cultivars being grown on his property at Greenbank on the southern outskirts of Brisbane. There are too many to list but suffice to say there are 55 species and cultivars of *Melaleuca*, 24 *Leptospermum* and 38 species and cultivars of *Callistemon*. Kerry has offered to provide cuttings of a number of these plants as per the following list:

Melaleuca decussata, *diosmaefolia*, *diosmatifolia*, *filifolia*, *fulgens* ssp *steadmanii*, *megacephala*, *nesophila*, *quadrifaria*, *tamariscina* (all ssp), *thymifolia* (most forms), *viridiflora* (burgundy and red).

Leptospermum attenuatum, *liversidgei* (white and pink), *petersonii*, sp. 'Mt Spec', *semibaccatum*, *variabile*, *wooroonoran*, *brachyandrus*.

Callistemon brachyandrus, sp 'Guyra', sp 'Injune', *pinifolius* (green), *polandii*, *polandii* (broad-leaf form), *phoeniceus*, sp. 'Malawi Giant', Cedar Creek, *salignus* (white, pink, red, lilac-pink), *recurvus*, *linearis*, *rigidus*.

Should you require cuttings of any of these please let me know and I will arrange for them to be forwarded to you.

Ivan Tiley writes from Beaufort, Vic. that his favourites are *Melaleuca coccinea*,

stypeloides (for its symmetrical shape and attractive paper bark), ericifolia (for its versatility) and elliptica (for its value in supplying food for birds). At the time of writing his letter (Nov 93) Ivan said his *M. violacea* was covered in flowers. Some time back Ivan cut a plant of *M. armillaris* and one of *M. elliptica* back to a 0.6m high stump and both have come away again. I wouldn't like to try that sort of treatment on those species in Brisbane. I think there is a fair chance you would end up with a dead 0.6m high stump.

John Turrell of Parkes writes that he has found a ready outlet for the plants he grows through a chance encounter at the local Credit Union Office where he now has a permanent stand and from which customers can collect plants. I hope I can still be propagating and growing plants at 85!!

Barbara Buchanan writes fairly regularly to keep me up to date with the goings-on in her garden. She has a *M. linariifolia* which is now 20 years old but has remained short and dense. It gets frosted occasionally which may help to keep it short but it may be one of the smaller growing forms of that species.

Leptospermum Collection

Denis Tricks is establishing a *Leptospermum* collection and has requested advice as to where he may be able to obtain *Leptospermum* seed, seedlings etc.

I can supply him with seed of a number of species from the Study Group Seed Bank and have given him the name of a seed supplier who can supply seed of many other species.

Does any member know of nurseries or private individuals who may be able to provide seedlings or struck cuttings. I don't know, at this stage, whether or not Denis is set up to strike his own cuttings.

Should you be able to assist Denis in any way please write to him at 35 Gordon St Hampton Vic 3188.

This appears to be a worthwhile project and should be encouraged as much as possible.

Seed List

A current seed list is attached. I have purchased seed from Nindethana Seed Service with some of the money generously donated by John Turrell. This seed has replaced deleted stock.

Please keep in mind that plants grown from seed of cultivars may not be the same as the parent and should not be given the name of the parents.

Feature Garden

For this issue I have decided to feature our own garden here in Bracken Ridge. We moved from Rockhampton to here in June 1979 although I had started work in Brisbane in the previous January. Because we had known for some time that we would be moving we had been able to grown on a number of advanced plants for our 'new garden'. Between January and June 1979 Verna did a number of weekend trips with trailer to bring down plants which were stored at her parents' home.

Our block here is 609m² in area and slopes towards the west. The original soil profile comprises about 1.2m of well-drained red-brown sandy loam underlain by a thin layer of red gravelly clay which is in turn underlain by heavy grey clay with red mottling.

Of course, the excavation for the house foundations wrecked the soil profile. The back yard wasn't disturbed very much but the front yard ended up having an upside-down soil-clayey material on top and sandy topsoil below. However, plants haven't seemed to mind and most species planted have done well. There has been a number of

failures over the years due mainly to our attempts to grow plants far removed from their natural habitat and now the taller trees have grown up there is more shade which has taken some toll of the smaller plants.

All plants with the exception of *Tristaniopsis suaveolens* and the footpath plants - *Callistemons* 'Western Glory', 'Endeavour', 'Guyra Hybrid', *polandii* and *Euodia elleryana* are enclosed in gardens. We have not purchased any mulch but cut-up and put back on the gardens any prunings and trimmings. Many of the plants are large enough now to produce a considerable leaf fall as well.

The northern side of the back-yard is a fairly large fern garden shaded by a tall tree fern - *Cyathea cooperi* and a *Eucalyptus shirleyii* and *Eucalyptus ptychocarpa*. Within this fern garden are two large plants of *Angiopteris evecta* (the King fern from Nth Qld which can produce fronds up to 5 metres long), some smaller *Cyathea australis* and *Cyathea rebecca* as well as a number of small growing Australian and exotic ferns.

There are ferns scattered round the rest of the garden with a number of Birds Nests - *Asplenium nidus*, Stag horns - *Platynerium superbum*, Elkhorns - *Platynerium veitchii* and *hillii* and native orchids growing happily amongst the other plants.

We have a total of 39 *Callistemon* species and cultivars growing. I won't list all them but will give brief details of some of the unusual ones which some of you may not be familiar.

Callistemon 'Glasshouse Gem' - dense pink brush grows to \pm 4m. C 'Glasshouse Country' - medium dense pink brush grows to \pm 3m. C 'Glasshouse Beauty' pale pink open brush grows to \pm 2m. C 'Glasshouse Ngun Ngun' - carries a heavy crop of dark red brushes with gold anthers grows to \pm 2.5m.

Callistemon seedling - identified by Qld Herbarium as *C viminalis* x *C pachyphyllus*. It has grown to 5m high and produces bright red flowers with black anthers for most of the year.

Callistemon 'Western Glory' is 14 years old and has maintained a height of 1.2m for many years now. It produces masses of mauve/pink flowers each spring.

Callistemon seedling (we call 'Eldorado' for ease of ID) from Nth Qld. The flowers are dark red with an open form. Its unusual feature is that each flower has prominent red petals. It is now about 6m high.

Callistemon 'Wollumbin' - The original of this plant appeared in the gardens of Wollumbin Caravan Park near Mt. Warning NSW. It grows about 3m. The orange coloured flowers are produced in spring and summer with occasional flowers throughout the rest of the year. It can be grown from cuttings but they are very slow to strike.

We have a number of *Melaleucas* - *M quinquenervia* (bought as a green form of *M viridiflora* and which may have to go eventually). *M viridiflora* - burgundy and red forms, an unnamed *Melaleuca* bought as *M cuticularis* but isn't and which I haven't been able to positively identify, *M teretifolius*, *M tamariscina* subsp *pallescens*, *M thymifolia*, *M thymifolia* 'White Lace', 'Pink Lace' and 'Cotton Candy'. A second *M thymifolia* has developed into an erect shrub 2.5m tall and which flowers off and on throughout the year.

We have a number of *Leptospermum* species and cultivars such as *Leptospermum flavescens*, *L speciosum*, *L 'Pacific Beauty'* and *L 'Pink Cascade'*. All flower heavily each spring. *L 'Pink Cascade'* also usually carries a few flowers for rest of the year.

What else have we got growing:

There are a number of *Grevilleas* including grafted plants of *G dryandri* (flowering for the first time), *G formosa*, *G vestita*, *G thelmaniana* ssp *fililoba*, *G dielsiana* and an unnamed species with grey leaves, bright yellow flowers and dark maroon new growth.

We have a number of native and exotic cycads in pots. There are Hoveas (acutifolia and longipes), Calytrix, Baeckea, Euc ptychocarpa (dark pink), Euc phoenicea (orange) and Euc collina (bright lemon/yellow) all three eucalypts being native to northern Australia, Acacia complanata which is now 14 years old and still doing well, a couple of Syzygiums - S wilsonii subsp wilsonii which produces large clusters of deep burgundy coloured flowers followed by white fruit and S leuhmanii (white flowers followed by red fruit). Syzygium fruit is edible but in my opinion, in most cases, one would need to be very hungry before it tasted good. Most of the fruits have an astringent taste. Eugenia reinwardtiana likes a shady spot and will grow to about 2m. It does produce very tasty fruit similar to the commercial cherry. Other plants include Melastoma, Zieria, Brachysema, Backhousia, Banksia, Darwinia and ground cover plants such as Viola hederacea, Hardenbergia violacea (Clarence River form), Bulbine bulbosa, Brachyscomes and Scaevolas. I think that's enough about our garden so on to other things.

Problem Corner

A number of members have said in their letters that, although they don't have difficulty getting seed to germinate there are instances where they have difficulty getting seedlings to move past that early stage. I have had that problem and have had limited success by watering weekly with a weak solution of soluble fertiliser - Thrive, Zest etc. What has been your experiences? Do you have any pet formula to keep seedlings moving after germination. If so, please let me know so I can pass the info on.

Biodiversity Series

The Department of Environment, Sport and Territories has published Paper No. 1 in its Biodiversity Series. The paper covers subjects such as Biological diversity, Genetic diversity, Species diversity and Ecosystem diversity. It discusses subjects such as "Why is biological diversity important", "The value of biological diversity's components", "The value of diversity" and touches on subjects such as water resources, soil formation, nutrient storage, pollution breakdown, micro organisms, maintenance of systems, food and medicinal resources and a number of others. It is a very interesting paper and is available free of charge from:

Biodiversity Unit
Dept of Environment, Sport & Territories
G.P.O. Box 787
CANBERRA ACT 2601

Membership

Just a reminder that membership fees are due on 1st July. Fees will remain at \$5 for the next financial year as our finances are in a healthy state.

Regards,
Col.

FINANCIAL REPORT

Receipts

Balance 27/9/93	\$564.93
Membership	\$185.02
	<u>\$749.95</u>
Less expenditure	65.55
	<u>\$684.40</u>
Less SGT	0.30
	<u>\$684.10</u>
Plus O/S cheque	6.40
	<u>\$690.50</u>

Expenditure

Photocopy (N.L.No7)	\$28.00
Postage (N.L.No7)	\$31.15
Seed	<u>\$ 6.40</u>
	<u>\$65.55</u>

Balance 2/2/94 as per Bank Statement \$690.50

Plant	Location	Aspect	Soil Type & Colour	Planting Date	Plant Health	Flower Colour	Flowering Time	Drainage Conditions	Average Annual Rainfall & Incidence	Pests & Diseases	Fertiliser Used	Frost Yes/No
<i>viminalis</i>	Brisbane Q	West	Red sandy loam	1983	good	red	spr/sum	good	1100 mm summer	Sawfly (occasion)	Osmocote	No.

SEED LIST APRIL 1994

MELALEUCA

acuminata
 acerosa
 alternifolia
 armillaris
 arcana
 argentea
 blaeriifolia
 bracteata
 brevifolia
 calycina ssp calycina
 calycina ssp dempta
 cardiophylla
 citrina
 coccinea
 conothamnoides
 cordata
 cuticularis
 dealbata
 decora
 decussata
 densa
 diosmafolia
 diosmafolia (yellow)
 diosmatifolia
 elliptica
 ericifolia
 filifolia
 foliolosa
 fulgens ?
 genistifolia
 glabberima
 globifera
 glomerata
 groveana
 halmaturorum
 holosericea
 huegelii
 huegelii (purple bud)
 hypericifolia
 incana
 lanceolata
 lanceolata (pink tips)
 laterita
 laxiflora
 leucadendra
 linariifolia
 linariifolia (Snowstorm)
 macronychia
 megacephala
 micromera
 microphylla
 minutifolia
 neglecta
 nervosa
 nesophila
 nodosa
 pauperiflora
 pentagona
 platycalyx
 polygaloides

MELALEUCA

pubescens
 pulchella
 pungens
 pustulata
 quinquenervia
 radula
 rhapsiophylla
 scabra
 sp aff cornucopia
 sp aff microphylla
 spathulata
 spicigera
 squamea
 squarrosa
 striata
 stypheloides
 tamariscina ssp tamariscina
 tamariscina ssp pallescens
 teretifolia
 teretifolia var "Georgiana Molloy"
 thymifolia (mauve)
 thymoides
 tricophylla
 uncinata
 undulata
 viminea
 violacea
 viridiflora (red)
 viridiflora (burgundy)
 wilsonii

CALLISTEMON

"Adina"
 chisholmii
 'Austraflora Firebrand'
 'Emu Creek'
 'Endeavour'
 flavo-virens
 'Guyra Hybrid'
 lineariifolius
 linearis
 pallidus
 pearsonii
 phoeniceus
 pinifolius (green)
 pityoides
 polandii
 polandii (broad-leaf form)
 polandii (The Pyramid form)
 recurvus
 rigidus
 rugulosus
 sp (ex Malawi)
 teretifolius
 viminalis (Malawi Giant)
 violaceus
 viridiflorus

LEPTOSPERMUM

continentale 'Horizontalis'
 coriaceum
 epacridoideum
 erubescens
 glaucescens
 grandiflorum (grey foliage form)
 grandiflorum
 lanigerum
 laviegatum
 leuhmanii
 macrocarpum
 minutifolium
 neglectum
 nitidum
 obovatum
 polygalifolium
 polygalifolium (Blackdown Tableland)
 polygalifolium (red form?)
 rotundifolium
 rupestre
 speciosum
 spinescens
 squarrosus
 turbonatum