

A.S.G.A.P.

Australian Plants for Containers Study Group.

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EDITORIAL

Welcome to my first newsletter as Leader, hopefully you will all bear with me, as I find my feet.

I joined the Study Group to learn more about container plants and how I could improve mine, and here I am Leader. Well we can all learn together, so those of you who have greater knowledge than mine, (it wouldn't be hard) please help by sharing your experiences.

I've been heartened by many member's congratulations and encouraging comments when returning their questionnaires, which were a means of finding out what people were doing and how.

Thankyou to those members who took time out from their busy schedules to complete them for me.

I've certainly been encouraged to take better care of my pots. Some people have been surprised that we use water wells, but in the main they work for us and fit in with our lifestyle and work commitments. Rhys is President of our local group and a N.S.W. Vice President, plus secondment onto other committees with both jobs. I am Secretary of our local group, and my work involves shift work, including night shift, I'm also in the middle of doing a work related course. In between times we try to garden, which we both enjoy as a means to wind down and indulge our love for the beautiful native flora we have in this country.

Rhys has contributed an article to this issue on some of our plants "Prots in Pots".

Following our own annual show and display which is part of a much larger show called the "Flora Festival", I've decided to embark on my own project and pot up some local species for the "locals", & to use in future displays. Many of the general public are unaware of what's in their "own backyard" and whilst we do have a big test tube display of live local specimens, I think the entire plant would have more impact. Plus to date some of our local species don't do well where we live and this will be an opportunity for us to have them in pots instead of the ground, though some of the local species do very well here, I will pot them anyway.

I've written to 7 other study group leaders seeking information on species selection and cultivation requirements for you. So far I have had responses from the Rainforest, Eremophilia, and Hakea study groups. Also Kevin Handreck well known soil scientist and author has indicated his willingness to contribute some articles. See new reference list for some that are already available.

The Central Coast "Plants in Pots" group will also be contributing some articles.

I've also twisted the arms of a few local experts to contribute some articles, I'll open with one from Ian Slade who grows beautiful native orchids and belongs to the local Native Orchid Society.

ORCHID CULTURE BY IAN SLADE.

Repotting of orchids should be done in the warmer months and after flowering has finished. Any old and damaged roots should be trimmed off. Plants should be repotted every 2 - 3 years to maintain a good mixture, as even though the top of the mix looks alright, underneath has usually broken down inhibiting root development.

The essential requirements for a potting mix are :

1. It must retain a certain amount of moisture.
2. Water should moisten the mix then drain away as quickly as possible.
3. It should not breakdown too quickly - it should last at least 2 years.
4. It must have the correct of approx. pH 5 - 6.
5. It must support the plant.
6. The ingredients must be free of fine particles.
7. It should be moist when used.

DENDROBIUM CULTURE

Suggested potting mixes

1. 3 parts pine bark (medium size)
1 part charcoal (medium size)
2 parts tree fern fibre.
1 cup Dolomite & 2 cups Blood & Bone to a 2 gallon bucket of mix.
2. 3 parts pine bark (medium size)
1 part charcoal (medium size)
1 part gravel (medium size)
2 cups Blood & Bone to a 2 gallon bucket of mix.

General hints

Do not over pot, the smaller the better as otherwise the mix will go soggy and rot, then rot the roots.

Plant may also be grown on a slab of seasoned hardwood or tree fern fibre, and secured with strips of pantyhose or nylon fishing line.

Water plants regularly in summer, tapering off to weekly in winter. Ensure the plants are dry between waterings and by nightfall.

Fertilise fortnightly with 1/2 strength liquid fertiliser during active growth .

SARCOCHILUS ORCHIDS

General hints

1. Place in a pot which gives about 2 years growth.
2. Pot firmly without damaging the roots, if a plant is loose in the pot the roots can't take hold.
3. Ensure perfect drainage.
 - place the plant high in the pot.
 - crock the bottom 1/3 of the pot with pieces of hard sandstone, or place a small pot upside down in the bottom.
4. The potting mix should retain a certain amount of moisture. Don't allow plant to dry out.
5. Nothing should impede air flow through the mix.

Suggested potting mixes

1. Equal parts of gravel and pine bark (1-2 cms)
A small amount of peat moss.
2. Equal parts of good hard sandstone (smaller than a golf ball), fine bark .
A small amount of leaf mould.

Slab culture may be used by placing sphagnum moss around the base of the plants.

NOTE:

Dendrobiums need a lot of sun, whereas Sarcophilus require at least 50% shade.

TERRESTRIAL ORCHIDS

Grow in pots using a mix of 1/3 sand, 1/3 peat moss, and 1/3 leaf mould. Don't use straight soil as it goes hard.

Sieve mix after the plants have died down to save the tubers. These are repotted every year for best results. The tubers may be kept dry while they are dormant.

Recommended further reading

Australasian Native Orchid Society Vic. Inc.,
Cultivation of Australian Native Orchids (2nd Ed)
ISBN 0 9590161 1 2

Starting a Container Group

In the Central Coast Group there were members who spoke about their pot-plants - usually to grumble about the latest casualty (dead or wilting despite lots of TLC) or to wish they could nurture a plant to be a thing of beauty spied in a garden centre. "What am I doing wrong?" was the plaintive cry. Then the annual Floral Festival saw some of us, after a forlorn examination of our own pots revealed not one worth exhibiting, scurrying to a nursery to purchase a presentable specimen. What, indeed, was wrong?

So the suggestion was made that a group of interested pot-plant growers be convened to share knowledge, to bounce ideas off one another, to see if we could improve our success rate. From this beginning has come our "Plants in Pots" interest group and our joining the Australian Plants for Containers Study Group. We may not be a serious study group - yet - but we are learning and having lots of fun.

Our group has some 15 enthusiasts and others who come intermittently. We meet at a member's home approximately three times a year but often compare notes at other functions. We give a structure to meetings with an Agenda and subsequent report circulated to members. At the first meeting a list of Reference Material was compiled and it was planned to up-date this list from time to time. Also at the first meeting a list of "basics" for pot culture was suggested and subsequent meetings have been structured round these basic topics. Topics include containers (types, sizes), potting mixes, fertiliser use, watering techniques, pests and diseases, shaping and pruning, long-term maintenance of a healthy plant, life expectations for a potted specimen, root pruning, choice of plants (the right plant for a designated purpose). This may be a real "back to basics" programme, but it is surprising what hints and practices individuals have learned from each other and from discussions. These "basics" are constantly re-visited in one way or another and gradually a set of "golden rules" is emerging as guidelines.

A regular feature of meetings is for members to bring along plants in pots for examination and discussion. Pots may be stunning successes, abject failures or problems of the "what do I do now?" variety. This segment is proving to be both popular and a real source of assistance to each of us.

To date the group has made only tentative moves towards experimentation. One early "trial" was to test the suggestion that a small plant in a big container did as well or better as a plant in a container commensurate with its size and subsequently potted on. This was a very inconclusive and haphazard trial, but it is one we may re-visit now we are a little more experienced. A project in hand at present is to trial several plant species with a view to finding a desirable native plant Christmas tree.

Our "Plants in Pots" has started life as an interest and self-help group. It has had the benefit of the accumulated wisdom of long standing pot-plant growers and of members connected with the nursery trade. We are most appreciative of the time and assistance they have given. As members become more confident of their ability to maintain a healthy, attractive plant in a container, there is developing an interest in experimentation, in record keeping, in serious study of Australian plants in containers. After all, one has to start somewhere.

Lorna George

MEMBERS QUESTIONNAIRE RESPONSES.

I received 42% of the questionnaires back that were sent to members.

Of those received, 43% had special plant collections, including rainforest, Ferns, native hoyas, Malvaceae, Rubiaceae (native gardenias), Eremophilia, Prostanthera, and other dry area plants.

Hints for success: covered everything from automatic watering systems to obliging neighbours for when you're away. Most spoke of good drainage, mulching, not overpotting, use of slow release fertiliser.

Potting Mixes: Most members used commercial brands that complied with the Australian Standard.. 31% made their own. Kevin Handreck uses a commercial mix that was designed by him called Nu Erth "Trees for Life", (Unfortunately I haven't seen this in the Sydney area, has anyone else tried it - Ed.)

Fertilisers: 75% used Osmocote native, with some of those occasionally supplementing this with liquid feeds of seaweed mix, Aquasol, fish emulsion, worm casing liquid, especially if growing ferns.

Fertiliser regime: Majority fertilised once a year, or when repotting. Those with ferns used a fortnightly to 6 weekly regime.

Special containers: most used plastic pots, some use terracotta pots, 1 member uses fern tubs and stands.

Membership of other study groups: 56% belonged to other groups and in most instances more than one.

Suggestions for newsletter topics: This was far ranging and I will do my best to oblige. If anyone can help me with the topics listed below I would love to hear from you.

Book Reviews, Dramatic and colourful foliage plants, Hanging baskets, Bonsai, Rainforest plants, Bush tucker plants, Pruning, Tried & tested container plants including new hybrids, Successes & failures, Potting Mixes, Root pruning, Bird attracting, Insect pests, Watering techniques - particularly testing the need to water.

PRUNING FOR CONTAINER PLANTS by Thelma Wallace.

Maintenance of container plants is a little more important than those grown in the garden.

To form a pleasing appearance, pruning must be carried out from an early stage and can begin at potting up time. Start in early spring as the new growth begins and continue shaping through the summer. To form a bushy plant, tip prune the ends at the first or second node from the growing tip. It is vitally important to shape the plant when young to give a good foundation.

Some plants are grown for their foliage and coloured new growth like some of the rainforest plants, most of these can be pruned throughout the year.

Plants that flower on the ends need more thought, as continual pruning will be at the expense of flowering. They are best pruned after flowering so as not to remove the developing buds.

Plants with single trunks should not have the central leader pruned as this will destroy the character of the plant. It is important to prune the side shoots of some of these species to help thicken growth.

Knowing the characteristics of the plant you intend to grow in containers helps with the choice of plant and container.

Hard pruning on some herbaceous species brings on new growth. *Brachyscomes* when beginning to shoot from the centre of the plant, benefit from cutting back and fertilising. Some of the *Syzygiums* eg. *S. Francisii* & *S. Luehmannii* respond with a new flush of ornamental coloured foliage after pruning and fertilising.

I have used Dynamic Lifter long life on *Brachyscomes* and *Syzygiums* with good results.

For more information refer to *Australian Rainforest Plants Vol 1 - 4* by Hugh & Nan Nicholson.

BIG POTS, ROOT BINDING AND FRESHENING POTTING MIXES

BY Jim Thompson.

I asked Robert Miller once how he kept the big *Prostantheras* in large pots which constitute the *Prostanthera* Study Group Collection from becoming hopelessly root bound. He told me that once a year he takes the plant out of its pot and, using a sharp spade, cuts down beside the main stem on the side opposite where the name label is and removes the whole root system on that side, together with the mixture in which the roots are growing. The plant is then replaced in the pot and fresh mixture packed in to again fill the pot. The name label is then moved to the centre of the fresh mixture side to indicate next year which side has to be treated. In this way the problem of roots becoming too matted is overcome, while, over a two year period the potting mixture has been replaced.

The conversation reported above took place some few years ago and I have since used the technique with my own *Prostantheras* in big or biggish pots without suffering any ill effects. (I cannot answer for any other genera but there seems to be no reason why *prostanthera* alone can withstand losing half their root system every year. Cautious folk may, however, prefer to experiment with one plant rather than the whole collection.)

A word, in conclusion, about mixtures. Because the plants are well advanced, I tend not to be too fussy about mixtures. I normally use a light soil mixed with river sand for good drainage and with some beads of native plant *Osmocote* for nourishment. If the plant is lucky I will throw in some peat or cocopeat and a bit of potting mix. Robert's mixture was more conventional with sand, peat, and potting mix but no soil. Robert's recipe is probably better. Mine is cheaper.

** Has anyone tried root pruning their plants, I'd like some feedback on your methods and success if possible. - Ed.

"Prots in Pots."

The growing of Australian proteaceous plants, has been a major part of the McGregor container plant collection. This was necessitated for three reasons:

1. Firstly, the McGregor residence is situated within a rainforest gully with an overwhelming canopy of 25+m Eucalypts, which tend to shadow many areas of the garden during the day - particularly from late autumn to spring. Pot culture allows the plants to be located and displayed where they will receive the maximum amount of daily sunshine.

2. Secondly, living within 100 metres of the ocean, pot culture allows an attempt to control growing conditions, especially in relation to late summer humidity.

3. Thirdly, the desire to grow the spectacular dry and inland plants, particularly those from Western Australia.

Over the years we have had some success with the container cultivation of many arid region plants, despite the above problems. All of our plants are grown in "Waterwell" brand type containers, where the fixed water reservoir forces the plants to lay down deep roots to tap a fixed water supply, through capillary action. It has been our experience that plants using Grevillea robusta as root stock, tend to have a heavier water usage than other grafted plants.

This condition, of deep root development applies equally to both grafted and non-grafted plants. In fact, the plant with the greatest water use is Banksia grandis, on its own root stock.

We use a commercial potting mix, usually Yates Premium Blend with a small amount of osmocote or similar slow release fertiliser added. Mulching is done through the use of volcanic scoria. Scoria is preferred because of its ability to reflect light upon the foliage, reduce the potential threat of disease s introduced with organic mulches, and to act as a deterrent from brush turkey scratching.

The recent availability of many species of grafted grevillea has made the long term viability of these plants more encouraging for the east coastal seaside collector.

Currently, we are growing (in pots) over 20 species of Grevillea (all except 2 species are grafted); 5 spp. of Banksia; and 1 species of the following : Triunia, Petrophile, Adenanthos, Alloxylan & Hakea. All of these Non-Grevillea species are on their own root stock.

The growth of these plants has been successful, with the following species particularly thriving in cultivation: G. petrophiloides and G. leptobotrys. These two, notorious slow growing and difficult to cultivate plants have made excellent growth and flowering. G. petrophiloides, flowered within its' first year of cultivation and G. Leptobotrys has been flowering since April, 1996. G. kennedyi,¹⁹ from western NSW is one plant we are growing on its own root stock. We have had this for over three years. It has flowered regularly, during winter, and has withstood hard pruning.

Banksia grandis, (on its' own root stock) has been now growing for five years with successive potting on, three times into larger pots. Last spring, in order to control rampant growth and to develop a more branching form, it was pruned in half. It has responded well to this hard pruning.

We have found that the use of "Waterwell" type containers has promoted vigorous root development in most plants and allows the foliage to be kept dry This particularly important for those plants with very fine wiry or grey foliage. The only time our plants receive wet foliage is through rain.

Despite, many successes, we have had many plant losses. These have mainly been: Banksia, Dryandra and Isopogan spp. Unfortunately, even with healthy root growth and flowering the onset of autumn humidity can be often fatal to these plants. Many of these plants have tended to survive from between 12 to 18 months. Of the Grevillea species, it has been our experience that many of the northern tropical plants, particularly G. latifolia & G. formosa tend to die back with the onset of winter. Despite many attempts, we are now resigned to looking at these plants in books or in tropical gardens.

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JOTTINGS

From the Rainforest Study Group Leader: David Jenkinson.

Most of the plants tolerate container cultivation, He has many plants that are over 10 years of age and he doesn't fertilise or over pot his plants. He recommends Australian Native Plants for Indoors by David & Patricia Ratcliffe for further information. (Our group has a copy of it in our library and it's a good book on container cultivation of rainforest species particularly their use indoors.)

From the Hakea Study Group Leader: Hazel Blackney

Hazel has passed on my request to her members via their newsletter, and included the following "Hakea container story".

Many years ago after speaking to a local group she was presented with a well grown Hakea multilineata approximately 2 years old, as she already had a garden specimen, Hazel decided to put the new one into a container on her patio. There it stayed for about 8 years, flowered several times but got a bit tall and leggy. So out into the garden it went, where it has continued to grow and flower, albeit of a slender build and about 4m. Hazel also has a Grevillea nudiflora in a hanging basket that she says is "absolutely outstanding." She is currently trying the grey leaf Grevillea thelmanniana in a hanging basket with good results.

Hazel uses a good quality commercial potting mix and Osmocote, and waters only when needed.

From the Eremophila Study Group Leader : Colin Jennings

Colin has said that most of the shrub species and several of the prostrate species are suitable for container cultivation, and that some have also been used for Bonsai. Though he said he doesn't hold out much hope for the longevity of the Bonsai specimens. He suggests that the grafted eremophilas are worth trying in the wetter climates. The eremophila genus is an arid to semi arid plant and doesn't appreciate "wet feet" or over fertilising. They need a good open mix provided it has a gritty / sandy base ; they prefer good air movement, crowding into confined spaces is often fatal. They do very well and form a good shape if they are regularly tip pruned from an early stage until they are of a suitable shape and size. Flowering is enhanced by this. He has promised more detailed information at a later date when time permits.

Welcome to new member : Morton Kaveney, Ocean Shores N.S.W.