



Australian Native Orchid Society - Macarthur Group

February 2015

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President: Mr. W. Southwell (Ph. 46818589)

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Secretary: Mr. J. English (Ph.86262934)

PARRAMATTA. 2150

Treasurer: Mrs. C. Asquith (Ph. 46259874)

Next Meeting: THURSDAY , 19th March, 2015

Life Member: Mr. J. Riley, M. T. Cooke.

Conservation Officer: R. Hanman

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Venue: BIRRAWA HALL

FITZPATRICK ROAD

Mt. ANNAN. ,

Doors open 7.15pm, benching closes 7.45pm, meeting starts 8pm

President's Message. Hi to all.

Congratulations to Don Roberts for Plant of the Night and Popular Choice at our last meeting. Well done.

Tony and I visited Rosemeadow Shopping Centre and discussed putting on the May show with Centre Management.. More details and discussion at the next meeting. Schedules for this show will be available.

Ross has asked for any assistance he can get to contact speakers at future meetings, please help if you can.

More tubers were sold in January, this system of November and then January tuber nights will continue in the future..

WALLY.

Minutes of MEETING HELD 15th January, 2015.

Meeting Opened: About 7.30pm, and President Wal welcomed members.

1. **Apologies:** Terry Cooke & Graeme Morrison
2. **Minutes from Previous Meeting:**
3. **Proposed by:** Ron **seconded by:** Tony Asquith
4. **Business Arising from the Minutes:** Nil
5. **Treasurer's Report:** Moved Carol Asquith Second: Don Roberts

Inward & Outwards Correspondence: Various Newsletters, sent & received.. Wal received a letter from ANOS

Delegates Report: Anybody can support Greg and the Orchadian, is quite welcome.

General Business Ross looking for Guest speakers. Autumn show in Rosemeadow?? May???

Raffle : Ross M, Alan K, Ian L, Don R, John E.

.... And the meeting closed.. about 9.30pm

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Successfully growing Australasian Terrestrial Orchids

By Neil Anderton

You have arrived home from the ANOS Geelong tuber day, with a good selection of different tubers – now to plant them. What mix is best for the tubers, when do I start watering them, and how do I care for them over the coming months? Hopefully this article will help you to manage this.

One of the most basic factors to consider for successful cultivation is the orchid species itself. What is its

natural habitat? How does it differ from your location? Can the plant adapt to your conditions? Can you adapt your conditions to suit the plant? Whether you are in the Dandenong foothills in Melbourne's east, to the west of Melbourne, with its much lower rainfall, or in hotter, drier country areas north of the Dividing Range, you will need to tweak the basics to suit local conditions – modifying potting mixes and altering watering regimes are two most common.

Labelling

I cannot over-emphasise the importance of proper labelling and record keeping. Labelling plants and tubers as they are potted up is vital. I've never heard of pots having too much information accompanying them – there are a multitude of cases where there is too little.

If known, include the provenance of the orchid. The same species from different provenances may differ slightly in form, and different forms may well be raised to species level in the future. If the provenance is always on the label, changes in taxonomy can be easily catered for in the future. The other concern is that if provenances are ignored, what appears to be a simple pollination of a species may well be the creation of a hybrid.

An area that can also cause problems is repotting. If you have many small heaps of tubers scattered on a bench with poor or no labelling you are asking for confusion. A light breeze can scatter scraps of paper with abandon, leaving a very confused grower.

Another problem is the removal of labels from pots by birds and mammals – including pets. Some growers overcome this by putting another label in the bottom of the pot at potting time, others by writing the plant information on the pot using a paint marker pen or similar.

Pots



Pots have to provide good conditions for the orchid, but also need to address human concerns such as ease of handling and aesthetics. A good display of a common species such as *Pterostylis curta* in a hollow log, wooden planter or 20-30cm display pot can be a great specimen.

The pot has to provide the right moisture conditions for the orchid. The top layer will be too dry, the bottom too wet and (hopefully) the middle layer just right. Our aim is to make the 'just right' layer as wide as possible while minimizing the other layers.

Pots need to have excellent drainage – either large holes or many small holes (6mm or so in diameter). If the holes are large, the drainage holes need covering to prevent loss of potting medium. Fly wire or shade cloth works well. Smaller holes do not require covering.

Clay or plastic pots work well, usually 130-150mm in diameter and 130-150mm high. Some Victorian growers are moving to 140mm square pots for their ease in organizing on benches.

Potting mix

The potting mix is one of the most crucial parts of the equation. The mix needs to:

- Support the plant and flower
- Provide nutrients for the orchid and the fungi
- Allow oxygen to the roots and fungi

- Retain and provide moisture to the plant
- Protect the tuber from dehydration during dormancy

The original ANOS Victoria 'basic mix' consisted of:

- coarse sand/ small gravel 2 parts (3-6mm diameter)
- rich loam 1 part
- buzzer chips 1 part
- leaf mould 1 part
- blood and bone one dessertspoon full per 9 litre bucket of mix
- * garden lime or dolomite one dessertspoon full per 9 litre bucket of mix

*Today this is only added for orchids endemic to limestone country

While this remains an excellent mix, sourcing the components has become more difficult.

In some areas of Melbourne, suppliers of bulk coarse sand are getting harder to find, as is a consistent quality rich loam. Buzzer chips are also hard to find today.

Orchids grown for reintroduction at the Royal Botanic Gardens (Melbourne) must be grown in a non-soil mix for phytosanitary reasons. Good results have been obtained using a pine-bark based potting mix mixed with perlite to attain the correct water retention. Some Victorian growers have adopted this mix as is, while others have incorporated it into a modified basic mix.

Adapting the basic mix to suit the requirements of different genera is extremely important. Spider Caladenias and Rufa group Greenhoods prefer a more open mix, which is achieved by increasing the proportion of coarse sand or perlite (an extra part to start with), while Corybas prefer a more water retentive mix with increased leaf mould (an extra part).



Pine bark – perlite potting mix as used by the Royal Botanic Gardens (Melbourne) – an open, free-draining mix

Low phosphorus native potting mix, sieved to remove particles larger than 6mm, with perlite or coarse sand added to increase drainage can also be used. Start with 3:1 potting mix: perlite (or coarse sand), and increase the perlite/coarse sand for a more open mix; reduce the perlite/coarse sand or add an extra part of leaf mould for a more water retentive mix (as for the basic mix).

Fertilizer

We need to be aware that our main aim is to meet the nutrient requirements of the accompanying mycorrhizal fungus. Most terrestrial orchids derive the majority of their nutrients directly from the mycorrhizal association between their roots and the fungus. In orchids without roots (e.g. Caladenias), the exchange of nutrients is through the collar region of the orchid.

The need for and amount of fertilizer to add is a hotly debated question. Once again, the genera and species

grown has a strong bearing on the need for fertilization. The general consensus is that colony formers such as *Pterostylis*, *Chiloglottis* and *Corybas* benefit from a periodic light application of native plant fertilizer at about quarter strength.

The consensus for non-colony forming terrestrials is not to fertilize, apart from the initial Blood and Bone fertilizer at potting. Breakdown of the organic leaf litter and Casuarina needles by the mycorrhizal fungi is believed to provide the entire nutrient required by the orchid.

Planting the tubers

Planting is quite straightforward. The main point is to plant the tubers at a depth of about 3cm, ensuring the eye or emerging shoot faces up. If you are unsure which end is which, hedge your bets and lay the tuber on its side. You can either fill the pot to within 3cm of its final level with damp potting mix, place the tubers on top of the mix then add the remaining 3cm of potting mix, or fill to the top and use a dibber to make holes 3cm deep to plant the tubers. Both are equally effective, though the first method is quicker. Place a layer of litter on top of the potting mix then lightly water.

Litter layer on top of pot



Different litter (mulch) layers on pots: gravel, Casuarina needles and bush moss

A good practice is to place a litter layer on the top of the potting mix. This layer can be inorganic (fine gravel, up to 5mm in size), or organic (Casuarina needles chopped into short lengths, tea tree leaves) and even living matter (bush moss). This litter layer serves several purposes – it protects the surface of the potting mix from disturbance when watering, reduces evaporation of water from the pot, increases humidity around the plant and provides protection (and a more stable microenvironment) for seedlings. An organic mulch also provides nutrient for the mycorrhizal fungi. A layer of chopped Casuarina needles is very beneficial in the survival of deflasked seedlings.

Growing conditions

In the wild, most orchids grow in filtered sunlight, filtered by trees, shrubs and grasses. There is good air movement around the plants, and the plants growing around the orchid provide an increase in humidity. Excess water is usually not a problem as the deep soils ensure that the tuber zone doesn't stay wet for too long. Unfortunately they are vulnerable to disease and predation from insects, birds and mammals.

In cultivation, we need to provide protection from heavy rain, excessive sunlight and pests. Many growers use eaves, verandahs or trees with varying degrees of success, but the best results come from housing the orchids in a bushhouse.

The ideal bushhouse has a solid roof, a solid wall (or two) to protect the plants from the prevailing winds, rain and strong sunlight, and shade cloth walls to filter the sunlight and exclude pests. Shade cloth over the roof is usually required, with two layers being necessary in many areas over spring and summer.

In most shadehouses there is a variety of microenvironments which can be utilized for different species - Corybas in a shadier, more humid area, Diuris (*D. punctata*, *D. chrysiopsis*, *D. alba*) in a sunnier area with good air flow, and Rufa

Greenhoods and Caladenias in dryer areas.

Watering

Watering is a critical aspect for native orchids in general and terrestrials in particular. More orchids are killed by overwatering than any other cause. As with epiphytes, watering varies depending on the time of year and stage of growth of the orchid, the main difference is that the majority of terrestrial orchids (with the exception of species such as *Cryptostylis*, *Spiranthes*, *Calanthe*, *Phaius* and other tropical rainforest terrestrials) are deciduous. The evergreen orchids need to be kept well watered all year.

Deciduous temperate terrestrials

Watering frequency varies over the growing cycle of the orchid. Commencement of watering also varies with the flowering season of the orchid.

Commencement of watering

Generally speaking, watering commences in mid-February to early March. Vary commencement of watering with flowering time – commence watering autumn flowering orchids earlier than winter – spring flowering orchids. Commence watering Spider Caladenias and Rufa Greenhoods in early March, whereas commencement of watering of colony forming Greenhoods is earlier but varies with the flowering season. *Pterostylis robusta* is an exception to this. It occurs naturally in areas with hot, dry summers and a later autumn break, so watering should not start till mid-March. Terrestrials from summer rainfall areas (Queensland) should begin to be watered late December – early January (Wild, H, 2013)

- For summer flowering, colony forming Greenhoods, water all year, but dry off a little after flowering
- Early autumn flowering – commence watering late December
- Late autumn flowering – commence watering mid-January
- Winter – spring flowering – commence watering late February

When commencing watering, the entire content of the pot needs to be wetted. If the pot has become too dry, the mix may have become hydrophobic (water resistant) and difficult to re-wet, with water forming channels through

the mix rather than wetting it evenly. If this is the case the pots can be immersed in water to thoroughly wet the mix

(1-2 hours is sufficient). Some growers give light waterings over a couple of weeks until the pots are evenly wet through, mimicking the effect of autumn rains.

Watering during the growing season

The aim of watering is to saturate the potting mix at each watering – you cannot overwater, as the water retaining capacity of the mix is essentially fixed. All excess watering does is waste water.

Overwatering occurs if the frequency of watering is too high, with the zone where the tubers sit in the pot being too wet for too long, leading to rotting of the tubers. As a general guide, watering in autumn and spring will be every 1-2 weeks, and every 2-4 weeks in winter or during cool periods.

Watering frequency should be based on the needs of the orchid, not a fixed timetable. The best indicator is to check the pots – as a general rule, if more than 1cm of the top layer of mix is dry, the pot needs watering. You can also have one (or more) pots containing mix only (or samples of each mix you use) to use instead of digging into pots with orchids present.

Other indicators to consider are: The weight of the pot. If the water forms channels and runs through the pot without thoroughly wetting it, the top layer appears to be well wetted but the pot feels too light.

Check the plant tag (assuming it is embedded 3-5cm into the mix). If the bottom of the tag is damp, there is enough moisture in the pot.

If you are very familiar with your plants, you may notice the plants develop a greyish colour if they are too

dry – this needs good observation skills (and a good memory). Watering as plant begin to senescence (senescence = The state of growing old)

After flowering (before in the case of Rufa Greenhoods), the leaves begin to yellow and wither. Watering is reduced until the leaves have fully withered and the plants become dormant. Watering suitable for dormancy then continues until the following growing season. With Rufa Greenhoods, watering continues at about half the normal frequency until flowering finishes (in most Rufa Greenhoods, the leaves are withered before flowering).

Watering during dormancy

When I began growing terrestrials, this was the point of greatest confusion and conflicting advice. The fact that most orchids are killed by overwatering, and the admonishment to ‘not water when dormant’, led to me losing many tubers to dehydration in my first year of growing terrestrials. When I complained about this, I was told you don’t water, but give them a light spray ‘when needed’. Not very helpful for a novice!

Once again, the book, Cultivation of Australian Orchids, 2nd edition, gives guidance. A light spray, once a week (more in hot conditions) should suffice. Too much water will rot the tubers, especially in hot conditions, but too little water will desiccate the tubers, and also lead to dry, water repellent potting mix that is difficult to re-wet the following season.

This terrific article is from the February, 2015, ANOS Geelong Newsletter and written by Neil Anderton.. It allows a follow on for information regarding terrestrial growing, to be distributed..

Editor’s note.....

I was able to include pictures for this article because:-

A) I am fabulously, computer literate?

B) I looked up my operating system books and was able to absorb all the computer rules? or

C) I called a very clever and beautiful lady who was able to convert the newsletter easily?

Thanks Mary-Anne, as usual, it worked really well when you addressed my problem.

Benching Results October Meeting 16/10/2014.

Dendrobium Species	Den. Lichenastrum	R. Morrison
Dendrobium Hybrid	D. Pinterry	R. Morrison
Sarcanthinae Species	Sarc. hirticalcar	D. Roberts
	Sarc. Hirticalcar	D. Roberts
Sarcanthinae Hybrid	Sarc. Velvet	G. Steenbeeke
	Sarc. Riverdene	D. Roberts
Bulbophyllum	Schillerianum	R. Morrison
Aust. Species Other	Cymbid. Madidum	C. Long
	Cestidris coelogynoides	R. Morrison
Aust. Hybrid Other	Little Black Sambo	W. & M. Southwell
	Dockrillia linguiforme	N. Wheeler
Terrestrial Evergreen	Spiranthes Australia	R. Morrison
	Calanthe triplicate	G. Steenbeeke
Terrestrial Other	Cryptostylis erecta	G. Steenbeeke
Australasian Hybrid	D. Waverly x racemesa	R. Morrison
	D. Airey Big Pink Stripe	M. Warner
Seedling First Flowering	Sarc. Velvet ‘Cool Dude’ x Self	I. Lawson
Novelty Class (50% or more)	Sartylis Blue Knob ‘Toowoomba’	M. Warner
Growing Competition 1.	1st N. Bates 2nd. R. Morrison	
Growing Competition 2.		

Plant of the night is Sarc. hitricalcar grown by Don Roberts and the Popular Choice was also Don’s plant..... Congratulations

GOOD GROWING..