# Australian Native Orchid Society - Macarthur Group

October 2013

Edited by Tony Asquith mail: aaasquith@bigpond.com. Phone 4625 9874





**Postal Address**:- **43 Strickland Cres**.,

**ASHCROFT . 2168**


**Next Meeting: THURSDAY , 17th October, 2013**



**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 Ross for a magnificent Dendrobium leicenastrum at the Spring Show, Champion Native Epiphytic Species, Champion Specimen and Grand Champion all in one plant. Ross also won Champion Terrestrial Orchid...really well done Ross! John English with Champion Epiphytic Hybrid and Reserve Champion. Carol Asquith with Champion seedling (editors note: and Tony), and Greg Steenbeeke with Champion Australasian Orchid. Well done to all the champion winners and all the members who entered plants in the show. The Grand Champion Plant that Ross won with is being considered for an award by the Judges..more on this later.

A very big thankyou to Dennis Wilson for his talk and demonstration at our last meeting..a good informative talk and lots of very interesting film shots, this was followed by a very lively discussion.

**October Show this month on Saturday 26th , 7.00am set-up and judging to start at 9.00am. Don't forget any sales plants that you have available**.

November is the tuber sale night and donations of any excess tubers will really be needed this year. Please help out if you can.

Christmas hamper donations are now being received...every year members donate to this and there is always very hampers to be won at our Christmas meeting/party night.

See you all at the meeting
Wally.

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Ross has arranged a guest speaker for our meeting.. see part of the email below.

**Dr. Ray and Elma Kearney (Ray is Professor Infectious Diseases at Sydney University**

They will speak on '***natural world of ground orchids and the interdependency of species, including mycorrhizal fungi'***

## Profiles

Ray and his wife, Elma, as amateur mycologists and executive members of the Sydney Fungal Studies Group Inc., were responsible in 2000 for the listing, under the Conservation & Endangered Species Act of NSW, of a community of fungi for the first time in Australia. In 2013, the Scientific Committee,

established by the Threatened Species Conservation Act, has made a Preliminary Determination to support another proposal by Ray and Elma on behalf of the Sydney Fungal Studies Group Inc., to list the Hygrocybeae community of Lane Cove Bushland Park as a 'Critically Endangered Ecological Community'.
Their interests in photography and recording rare events in the natural world, including orchid pollination and the interdependency of species, has been the subject of numerous public lectures - by invitation. They are recipients of numerous awards for their works. Elma was among the three finalists of the 2013 Australian Museum Eureka Science Photography Prize, winning 2nd place.
Their records of aspects of the natural world of ground orchids and the interdependency of species, including mycorrhizal fungi as well as the amazing mechanisms of orchid pollination dependent upon deception and mimicry will be the subject of the presentation and will include recent observations new to science.

Ray is Professor Infectious Diseases at Sydney University

### Contact

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**MEETING HELD 19 September, 2013**

1. **Meeting Opened: 8**pm**,** and the President Wal welcomed members.
2. **Apologies: Chris Munson, Phil Griffiths, Carol Asquith, Ian Lawson, Greg Knight, Alan Kneipp, Graeme Morrison, Richard Hanman, Peter Dowling, Don Roberts**
3. **Minutes from Previous Meeting:**
4. **Proposed by: Noel seconded by: Terry Cooke**
5. **Business Arising from the Minutes:** Nil
6. **Treasurer's Report:**

**Proposed by: Tony Asquith Seconded by: Terry Cooke**

**Inward Correspondence: Various Newsletters**

**Outward Correspondence: Newsletters**

**Delegate Report: nil**

**General Business:** Flyers and schedules for spring show at Narellan Town Centre Saturday, 28th September (Set-up 7am).

Peter Gibson gave an informative talk on how he grows his speciosums and Sarc's (in double pots in perlite topped with pebbles to prevent dispersing the light perlite.

The raffle was drawn, Noel, Peter Wise, John E. , Colin.

And the meeting closed.. about 9.40pm

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# The following notes are from Ken Russell, printed in ANOS CENTRAL COAST bulletin, October 2013.

## FERTILIZER REQUIREMENTS OF ORCHIDS

Orchids generally have low requirements for fertilizer. However, since they grow in low nutrient bark mixes, you do need to administer some form of fertilizer.

**Eggshells**: Orchids thrive on potassium and calcium and eggshells are an excellent source. Crush eggshells using a mortar and pestle and sprinkle on orchid bark. This helps to keep it from washing away during watering.

**Molasses**: Mix a teaspoon of molasses in 1 to 2 litres of water. Use the mixture to water the plant. Molasses is a rich source of potassium. You needn't worry about the molasses attracting bugs. The plants absorb the molasses instantly. Boom it's gone! The fruit trees just love it!

**Potatoes**: Cut unpeeled potatoes into small pieces and boil until well done. Cool and add periodically to the bark in the pot to provide potassium to orchids.

**Epsom Salts**: Epsom Salts provides magnesium for the orchid. This promotes healthier growth and stronger roots. Mix 1 teaspoon of Epsom Salts to the water and use as part of regular fertilizing.

**Molasses for Organic Pest Control.**
One final benefit of molasses is its ability to be used in the control of a couple of common pests encountered in gardening. The most commonly known use of molasses is its ability to help control Fire Ants. When Malcolm Beck was using molasses in the fertilizer spray for his fruit trees he noticed that the fire ants moved out from under the trees. We've also found an internet reference to the ability of molasses to control white cabbage moths in the UK. Mix a tablespoon of molasses in 1 litre of warm water and let cool then spray every week or every two weeks as required for white cabbage moth *they hate it* and I think it would be good soil conditioner as well if any drops on your soil. So molasses could be an effective deterrent in more ways that we are aware of.

**Why use molasses on Orchids?**
The reason nutrient manufacturer have "discovered" molasses is the simple fact that it's a great source of carbohydrates to stimulate the growth of beneficial micro-organisms. 'Carbohydrate' is really a fancy name for sugar and molasses is the best sugar for horticultural use. Folks who have read some of our prior essays know that we are big fans of promoting and nourishing soil life and that we attribute a good portion of our growing success to the attention we pay to building a thriving 'micro-herd' to work in concert with plant roots to digest and assimilate nutrients. We really do buy into the odd organic adage - 'Feed the soil not the plant'. Molasses is a good quick source of energy for the various forms of microbes and soil life in a compost pile of good living soil. As we said earlier, molasses is a carbon source that feeds the beneficial microbes that create natural soil fertility. But, if giving a sugar boost was the only goal, there would be lots of alternatives. We could even go with the odd Milly Blunt story of using Coke on plants as a child, after all Coke would be a great source of sugar to feed microbes and it also contains phosphoric acid to provide phosphorus for strengthening roots and encouraging blooming, hi our eyes though, the primary thing that makes molasses the best sugar for agricultural use is its trace minerals.

In addition to sugars, molasses contains significant amounts of potash, sulfur and a variety of micro-nutrients.

Because molasses is derived from plants and because the manufacturing processes that create it, remove mostly sugars, the majority of the mineral nutrients that were contained in the original sugar cane or sugar beet are still present in molasses. This is a critical factor because a balanced supply of mineral nutrients is essential for those "beneficial beasties" to survive and thrive. That's one of the secrets we've discovered to really successful organic gardening, the micronutrients found in organic amendments like molasses, kelp and alfalfa were all derived from other plant sources and are quickly and easily available to our soil and plants. This is especially important for the soil 'micro-herd' of critters that depend on tiny amounts of those trace minerals as catalysts to make the enzymes that create biochemical transformations. That last sentence was our fancy way of saying - it's actually the critters in "live soil" that break down organic fertilizers and "feed" our plants.

One final benefit molasses can provide to you garden is its ability to work as a chelating agent. That's a scientific way of saying that molasses is one of those" magical" substances that can convert some chemical nutrients into a form that's easily available for critters and plants. Chelated minerals can be absorbed directly and remain available and stable in the soil. Rather than spend a lot of time an effort explaining the relationships between chelates and micro-nutrients, we are going to quote one of our favorite sources for explaining soil for scientific laymen. "Micronutrients occur, in cells as well as soil, as part of large, complex

organic molecules in chelated form. The word chelate (pronounced "KEE-late") comes from the Greek word for "claw" which indicates how a single nutrient ion is held in the center of the larger molecule. The finely balanced interactions between micronutrients are complex and not fully understood. We do know that balance is crucial: any micronutrient, when present in excessive amounts, will become a poison, and certain poisonous elements, such as chlorine are also essential micronutrients. For this reason natural, organic sources of micronutrients are the best means of supplying them to the soil: they are present in balanced quantities and not liable to be over supplied through error or ignorance. When used in naturally chelated form, excess micronutrients will be locked up and prevented for disrupting soil balance.

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## Benching Results August 2013

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| **Dendrobium Species** | Den lichenastrum | R. Morrison |
| | Den speciosum 'Capricornia' | W. & M. Southwell |
| **Dendrobium Hybrid** | Den. Victorian Blush | W. & M. Southwell |
| | Den. Pink Charm 'Jumbo' | R. Morrison |
| **Sarcanthinae Species** | Plectorhiza tridentata | R. Morrison |
| | Sarc. Falcatus | R. Morrison |
| **Sarcanthinae Hybrid** | S. Aussie Dawn | J. English |
| | S. Melba | J. English |
| **Bulbophyllum** | B. Shepherdii | R. Morrison |
| **Aust. Species Other** | D. linguiforme | R. Morrison |
| | Dock. striolata | J. English |
| **Aust. Hybrid Other** | Den Duffy | I. Lawson |
| | Den. Schoeidum x D. Lingiformis | K.Hines |
| **Terrestrial Pterostylis** | P. rufa | R. Hanman |
| | P. baptisii | R. Morrison |
| **Caladenia Species** | Cal. Catenata | W. &. M. Southwell |
| | Cal. tentaculata | J. English |
| **Terrestrial Evergreen** | Nil | |
| **Diuris Species** | Dir. punctata | T. Cooke |
| **Terrestrial Hybrid** | P. Diuris Pioneer 'Big Ears' | W. & M. Southwell |
| **Terrestrial Other** | Chilloglottis formicifera | R. Hanman |
| | Gyrtostylis renifotmis | W. & M. Southwell |
| **Australasian Species** | Nil | |
| **Australasian Hybrid** | Den. Gumpy | R. Hanman |
| | Den. Becklerii x foretold x striolata "Neville" | R. Hanman |
| **Novelty Class (50% or more)** | Nil | |
| **Seedling First Flowering** | Den Speciosum Mackay x Jimmy | W. & M. Southwell |
| | Den. Kingianum Perina x speciosum etc. | J. English |
| **Growing Competition** | 1st Ross Morrison<br>2nd W. & M. Southwell | |

Plant of the night is Den. lichenastrum grown by Ross Morrison. Congratulations

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# Fertilizing Orchids - Is it Necessary By Halloamey

FACT : Orchids like all other plants, NEED water soluble nutrient elements like Nitrogen N. Phosphorus P. Potassium K, Magnesium Mg, Calcium Ca, Sulphur S, Iron Fe, Zinc Zn, Manganese Mn, Copper Cu, Cobalt *Co* just. to name a few.
Without such nutrient elements, all-plants will suffer from deficiencies, become susceptible to diseases and finally die out in the long run
Now.how these nutrients are provided to the plant is another point. You have to consider 3 parameters of culture when addressing this issue,

1 What kind of water is being used to water and spiny the plants?
2 What is the kind of media my orchids are potted in?
3 Where are my orchids grown, indoors or outdoors '

Let's start with the most important aspect WATER

This is the single most crucial aspect when it comes to providing the essential nutrient elements since all they have to be water soluble for the plants to be able to absorb it. So what different kinds of water can you use? Tap water, well water, rainwater, reverse osmosis water, rainwater collected in ponds are just a few sources that come to my mind.

1). RO water can be technically considered as pure H2O with no dissolved nutrients, and if you decide to water your plants with this water, then, most probably you will have to fertilize your orchids (not necessarily though ...we will come to it later ) The same will be true about collected rain water, except that it will have some dissolved elements dependent on the way the water was collected and the environmental conditions during collection etc

2) Tap water and rainwater, this is the type of water most people will be using. The parameters permissible for tap water are so broad and so variable that one cannot compare even water in two towns just a few miles apart. But what one can be sure of is that this water will most like have enough of the minor elements needed for plants like Fe, Zn, Mn, Cu etc and also of both major elements like Ca, Mg.. but will not have enough of NPK as the permissible level of these are far below (Nitrate 45 ppm, Potassiun ~ 100 ppm, Phosphorus 5 ppm) from what plants need so you may need to provide additional fertilizer or else just expect very slow growth, since the elements necessary are there, but just in insufficient concentrations

3) Well water is also used frequently and & also very variable depending on the locality, bed rock and rainfall. Such water will most probably have too much of elements like Ca, Mg and P but less NPK. Also the pH of such wafer and thus the availability of the minor elements will be limited The second decisive aspect of culture is MEDIA What kind of media you use will affect the need to fertilize considerably. Organic media like tree tern fibre, bark, coconut husk, leafmoJd and moss contain these nutrient elements which are slowly released to the plant as they start breaking down due to the action of microbes in the presence of sufficient moisture On the other hand, inorganic media like charcoal, lava rock, perlite, etc may have some minor elements but they lack the essential elements. So if you decide to grow your orchids in such inorganic inert media, you have to provide the essential elements in the right proportions with the water

And lastly the third element is the ENVIRONMENT your orchids are grown in If they are grown outdoors, there is more likelihood of the plants getting some nutrients like from falling leaf litter. fine dust in the air settling on the leaves and roots, birds, insects and small animals doing their stuff on the plants etc But if they are grown indoors there is very less exposure to the environment

So to fertilize or not is a very open question depending very much on your scenario. Have your water tested or just check out the water analysis from your local water provider. Generally they do have it available online, see what media you are using and how much interact ion your plants have with the environment and decide for vourself.

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## From the September Show 2013

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|---|---|---|
| Grand Champion | Ross Morrison | Dend. lichenastum |
| Reserve Champion | John English | Sarco. Aussie Dawn |
| Champion Native Species | Ross Morrison | Dend. lichenastum |
| Champion Native hybrid | John English | Sarc. Aussie Dawn |
| Champion Australasian | Greg Steenbeeke | Den. (fugilinos x Linguiforme) x facemosa |
| Champion Seedling | Carol & Tony Asquith | Sarc. Fizzy Dove x Cherie Snow |
| Champion Specimen | Ross Morrison | Den lichenastrum |
| Champion Terrestrial | Ross Morrison | Thelymitra Paunchiflore |
| | | |
| Aub Brunidges Perpetual Trophy For Champion Speciosum | Margaret and Wal Southwell | Den. Speciosum Dreamtime |

Congratulations to all!

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# Seedlings out of flask — Ian Walters

## The flasks arrive

Well, you've finally got your hot little hands on that hard to get orchid at long last. Only trouble is, it's in a bottle, and how do you get it out of that and flowering in a six inch pot?? Not so easily as you would hope.

The little babies are fragile and delicate, so check the bottle to see if they are big enough to come out. If not, place the flask in a well lighted area, near a southern or northern window, but out of direct sunlight which will cook the seedlings.

It is important that you DO NOT deflask seedlings too quickly after you receive flasks. The flasks should be allowed to acclimatise and the seedlings grow.

If flasks arrive shaken up, gently tap the flask until the seedlings are sitting on top of the media, then allow the flask some time to acclimatise and the seedlings will continue to grow. Even flasks badly shaken should be gently tapped to get seedlings on top and left alone until seedlings start growing again.

There is usually no need to deflask immediately, and seedlings are best left to stabilise and usually will continue to grow.

## Harden off and prepare

When the seedlings are large enough for you to handle, harden them off by placing the flask under about 90% shade, DRY, for several days, Again, closer to a window for the extra light will do. Prepare your work area with a sheet of clean newspaper on the bench. Make sure the pot is clean, and the potting media is sterile.

## Which mix?

A mixture of fine bark and shredded polystyrene (isolite), 4 parts bark to 3 parts polystyrene has given excellent results. If your conditions are dry, add half a part shredded sphagnum moss or perlite to the mix.

Sphagnum moss is used by many experienced growers, but locally (Townsvllie, Nth.QLD.), it tends to break down rapidly. Peat moss should be sterilised wet in an oven bag, 10 minutes in the microwave, if perlite and peat moss is your choice.

The biggest danger to flask seedlings is soil and water borne pathogens, so keep everything clean.

## Deflasking method

Remove the seedlings from the bottle, either by washing them out or breaking the bottle. Wash the seedlings in warm water, not cold, so that all agar gel is removed.

Place the seedlings on a clean sheet of newspaper and allow to dry to dampness. With a small pot well crocked, (we use 80mm basket pots), pot the seedlings together into a community pot.

They like to be together, and will do better this way than potted singly. About an inch of potting media is all that is required.

## Initial care

Water the pot well, and allow to drain. There is a product called "Envy, which can then be sprayed onto the seedlings. This coats the leaves and helps prevent the seedlings drying out. It is an aid, not an essential. To protect the seedlings, it is a good idea to use a humidity crib. A coolite box with two inches of wet sand in the bottom and a sheet of glass over the top will do, sit the pot of seedlings on the wet sand. Cling wrap can also be used, with a few holes punched in it to allow air movement. If a sheet of glass is used, ensure it is not sealing the top of the box, as some ventilation is needed. A few notches cut into the box will allow air in.

Most seedlings die from Too Much Water. For the next few days, very lightly mist the leaves. Keep the seedlings in heavy shade Frequent light misting will prevent dehydration and encourage new root growth, without keeping the media wet. After a few days, the cover can be partly removed and the seedlings watered so that they are just damp but not wet. Hormone formula and very weak fertiliser can then be used, and as the seedlings establish, the cover can be removed altogether.

## The importance of ventilation

For the first couple of weeks, fungicides should not be used on the Seedlings, as a growth inhibiting effect can be caused by fungicides. If there is a problem with fungus or mould, it means the conditions are too wet, so cut water, ensure ventilation is sufficient, and let the seedlings dry out a bit. in fact, most fungus problems in an orchid house can be fixed by reducing water and increasing ventilation.

## Growing on

Once the seedlings are established and grown to their second lead or new larger leaf, they can be potted singly into small pots. One local orchid grower whom I will not mention, leaves several seedlings in the one pot (or basket), and when Alf Steel's Barkerias flower, there is an instant specimen display.

Growing seedlings from flask is a technique to be learned, and once mastered, can be very rewarding, especially when YOUR babies start to flower.

This article is part of a series of articles published by Sutherland Orchid Society Bulletin in November 2012 about deflasking and is available on the internet under the Societies website.

GOOD GROWING