## **Bundaberg Orchid Society Inc.**

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Newsletter

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### Office Bearers.

President Robert Shield Phone 0414 366 601
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We are currently holding our New and Interested Growers Group Meetings, and our Monthly Meetings. The Secretary will advise if the situation changes.

### **Orchid News for Meetings**

The next **NIGG Meeting** will be held on 3 July 2022 at Ian and Carolyn Nielson's place. Their address will be sent by separate email. There will not be a BBQ Sausage Sizzle provided as the Bus Trip is the following Weekend? There will be a raffle and members can bring plants for sale. Ian will provide a fascinating talk on using chemicals and fertilizers.

Feel free to bring an Orchid plant/s along to talk about, seek advice or merely have the opportunity to share your success. Everyone loves an Orchid. Our next **Monthly Meeting** is 21 July 2022. We will be having supper so please bring a plate and Tea, Coffee and Biscuits will be provided.

## MONTHLY GENERAL MEETING 16 JUNE 2022

Our recent Monthly General Meeting was well attended with 37 people in attendance.

Len Johnstone gave an interesting talk on Zygopetalum Orchids and suggested that we should be able to grow them successfully in the Bundaberg Region.

We also had an interesting talk by Bev Heidke on Dendrobium Roy Tapanaka.

Rick Emmerson gave a very informative talk on the nights winning Orchids from a judges point of view. I never knew that you had to have at least 50% of the flowers fully open on a flower cluster such as in Vandas and Dendrobiums etc to be a valid entry.

The Club merchandise is available only to BOSI members not the public.

Please phone Bev on **0427 667 706** or Email <a href="mailto:aheidke@bigpond.com">aheidke@bigpond.com</a> to arrange a suitable time for you to collect any merchandise you require for your Orchid Potting. If you want to collect Items from Bev at the monthly meetings please let her know a few days prior of what you need. **Please do not ask for more than what you have ordered when collecting your items as this places our magnificent merchandising lady in an awkward position.** Also if you call use her mobile number above, not the home phone.

While the Bundaberg Orchid Society Inc. endeavours to ensure reliability and accuracy in this Newsletter's editorial content, responsibility for advice and views expressed is not assumed by the Society or the Management Committee.

Bulk Booklet Orders and/or Enquires: John Hughes

Phone# 0418 782 937 Email: jbhughes4@bigpond.com

Members, please note that next year is our **50**<sup>th</sup> **Anniversary** so let the **good ideas fairy** visit and let the Secretary know if you come up with a cunning idea to commemorate our 50<sup>th</sup>. One suggestion already made is to grow Yellow/Golden coloured Orchids to adorn the 2022 Show photo arch for our Golden Anniversary.

### **Bus Trip Update**

Our bus trip on 9-10 July 2022 is almost fully subscribed and Carolyn had to cut off nominations as the payments for accommodation etc were due. The cost per couple covers accommodation, entry to the Nambour Garden Spectacular, lunch on Sunday and the bus ride throughout the weekend. All other meals are at own expense. Breakfast options are, bring your own, or take a short walk to a nearby café. Please advise Carolyn Nielson if you plan to use the café option so that she can give numbers to the Café as they usually do not open on a Sunday. We will also visit Robinson's orchid nursery on Sunday morning and maybe somewhere else time permitting.

The plan is to leave Bundaberg Coaches Depot at 20 Verdant Siding Road Thabeban at 6.15am. You can leave your car at the depot. The depot is fairly secure but they take no responsibility for your vehicle. Plan to be at the depot by 6am.

# NEW AND INTERESTED GROWERS GROUP MEETING COL AND EVA LINDERBERG 5 JUNE 2022

Our recent NIGG Meeting was well attended with 55 people in attendance. We also handed out a four more of our 'Grower of the Year' Competition Orchids.

Eva gave a great talk on how she manages to keep her orchids and all her other plants in such great condition. Her garden is amazing well-done Eva (and Col). Who would have thought that aspirin was such a helpful additive?

# NIGG MEETING AT COL AND EVA LINDERBERG 5 JUNE 2022





Our Hosts for the day



Some of the Attendees





### **More Attendees**





The Gang of 3



The Gang of 2





### Some of Col and Eva's wonderful Orchid Collection









Their very busy bush houses





Not to forget the amazing gardens



### MONTHLY MEETING ORCHID COMPETITION WINNERS



Cattleya and Popular Vote Winner

Rlc John Morrison

M & C Smith



Vanda Winner Popular Vote Winner

V. Viboon Sunset

E Cross



Dendrobium Winner and Judges
Champion Orchid
Den. Adrian Lonne
A& B Heidke



Dendrobium Winner for Popular Vote

Den. Pink Butterfly

D & V Trudgian



Species Winner and Popular Vote Winner

Bulbophyllum fascinator

R & B Emmerson

**No Novice Entries** 

## An Introduction to pH Problems

(Treat the cause, not the effect)

By Barry Walker

#### Firstly, what is pH?

From Princeton Dictionary; pH (from potential of hydrogen) is the logarithm of the reciprocal of hydrogen-ion concentration in gram atoms per litre; provides a measure on a scale from 0 to 14

of the acidity or alkalinity of a solution. (where 7 is neutral and greater than 7 is more basic and less than 7 is more acidic.

The pH factor is one of the most important influences on sound plant culture. It is possible to look at the factor in a simple way to gain useful information about the basic fundamentals so that growers may understand and control the pH of their orchid collection. It is a better strategy to eliminate the cause of pH problems rather than treat the effect of sour potting mix.

Having the knowledge to correctly identify pH problems are often misdiagnosed as over watering. Plants have an optimum pH range in which they grow best and orchids are no exception. In fact, orchids may suffer severe root damage which in some cases which may lead to the death of the orchid. The most sinister aspect of ph problems is that the problem sneaks up on growers over time. The problem may only be apparent when the plant is re-potted. In some cases, the occasional black tips indicate trouble; the lack of vigour in plant growth and the formation of many back bulbs are sure signs of a problem. Damaged roots turn black on the tips and develop an amber appearance before they finally die.

The sad part about pH problems is that a grower might well be dedicated to the proper culture of the plants and, since the issue of pH is out of sight, it is often out of mind. This was my experience when I first encountered the problem. I received a huge wake-up call when presented with a disturbing number of damaged and sick plants and faced with the prospect of ether giving up orchid growing or fixing the problem. I chose the latter.

Looking back with hindsight at my original attempt to grow orchids I often think how stupid and naïve O was in thinking all that I needed to do was buy an orchid, plant it in orchid bark, fertilise it with fertiliser, water when needed, place in a good environment and enjoy the flowers. It's easy really, I soon learnt that unforeseen pH problem severely affected my plants and that I had to address the problem. One saving grace is that if pH is recognised by a grower as a potential problem, it can be easily monitored, measured, managed and eliminated as a culture problem.

Often a plant is so severally damaged the grower would be better off to bin it, then correct the problem. Buy a new plant and start again. Recovering damaged plants is all too often a futile exercise because recovered plants seem to lose their vigour. When the potting medium becomes very acid, say pH14, it is about the level that damage seems to occur and can be corrected as far as pH is concerned. I have not enjoyed much success in recovering this kink of potting medium. The bark at such a low pH4, seem to adopt some form of toxic property and in this event a better strategy would be to re-pot the plant in new bark.

#### Starved Plants

Fertilisers are designed to supply orchids with correct nutrient in a particular pH range pH 6 - 6.5. The pH has a radical effect on nutrient uptake. If pH accidentally drifts from these values,

nutritional problems will develop, presenting themselves as toxic or deficient levels of nutrition. Nutrition problems can be masked when the pH is in the wrong range and the plant shows perhaps all the symptoms of iron deficiency even though iron is supplied at adequate levels. The only way to correct this problem is to fix the pH. Plants can starve when the pH is wrong, even though they are supplied with the correct amount if fertiliser.

#### Strategy to Manage pH

It must be understood that aged pine bark in nugget form has a pH of 4.5 needing liming agents to correct it to pH 6-6.5. I use from 3 to 5 grams a litre of 50% dolomite lime and 50% agricultural lime to correct it, making sure these liming products contain both small and large particles. Most suppliers provide an analysis of different mesh sizes to which the particles have been screened. Apply the mixture to a slightly wet bark and mix thoroughly, the object to make the liming material stick to the bark surface. Finely ground particles will give an immediate change in pH and the larger particles will be held in reserve and give longer term control over pH. Let the mix stand for three weeks before using it so that the pH stabilises.

Soaking bark in water with liming agents will give only limited, superficial control. The larger liming particles will be washed from m the bark to accumulate at the bottom of the container. They are lost. The smaller particles are diluted and lost as the water drains from the container.

An alternative to nuggets is composted pine bark, an excellent product with a pH of around 6-6.5 and ideal for orchids, it needs no treatment.

Orchids are long lived and it is not uncommon for plants to grow in the same medium for three or four years (or even longer) Adding line to bark when orchids are potted should be considered as short-term control. Lime is used and leached from the medium over time, and remedial control could start when the lime material is exhausted. In my situation I have no need to add additional liming material because I control pH by a different means – to be mentioned later.

Another handy strategy is to use additives with your potting mix material with neutral or alkaline properties to neutralise the natural pH of bark and increase the pH. Such material includes perlite, charcoal, stone, rice hulls, coco peat and polystyrene. Make sure the potting mix drains well and allows good air exchange in the pot. Poorly designed mixes encourage anaerobic decay in the pot which sours the mix.

Acquire a pH test kit as supplied by Manutec, test the potting mix when potting your orchids and regularly test a representative sample of your orchids, say three monthly. These kits come with instructions and give an accurate enough result for orchid growing. The pH meters leave much to be desired. They need constant calibration, are delicate and expensive. These instruments are handy if you are doing laboratory type testing.

Fertiliser plays a major role in pH control Most elements in fertilisers are made from basic salts, each of them producing their own pH reaction when taken up by plants. These salts are blended in the correct proportion to achieve the correct balance between nutrients. Nitrogen is the exception; it comes in three forms and many manufacturers blend nitrogen salts any way they wish. I guess economics may have something to do with it. The three forms of nitrogen are nitrate, ammonium and urea. When plants take up nitrate an alkaline reaction takes place in the pot. If they take up ammonium an acid reaction takes place, likewise urea is converted by microbial action to ammonium causing an acidic reaction also. It follows that the ratio of nitrate to effective ammonium will play an important role in determining the combined pH reaction in the pot.

A generally excepted theory states that a fertiliser should have four times as much nitrate as ammonium, a ratio which in ideal conditions will produce a balanced pH reaction. Another issue that needs to be considered in a process known as nitrification, which simply means the conversion by microbes of ammonium to nitrates in the pot. These microbes prefer warm conditions. In cod conditions the plant can be over supplied with ammonium, causing an adverse acid reaction. It is wise to reduce or stop using ammonium in winter. If nitrogen is required in winter, use a nitrate form. Personally, I avoid urea-based fertilisers. I find them hard to control. It must be noted that small plants cause small pH changes and larger fast-growing plants will change the pH to a much greater level.

Measuring the pH of applied fertiliser is misleading because Ph will only change as the plant takes up the fertiliser. Keep in mind that it must be applied at the correct pH. Examine the fertiliser label and determine whether it will produce an acidic or alkaline response. Acidic fertilisers may be supplemented by extra nitrates. The addition of a separate calcium nitrate feed at half to one gram a litre will go a long way towards correcting the problem.

From a nutritional point of view providing extra calcium will also help to balance your fertiliser. Calcium nitrate is not blended into concentrated commercial fertiliser because it is incompatible with sulphates and phosphates, and will precipitate out. Calcium nitrate may be mixed into diluted fertiliser at the strength we would normally use. I mix all my basic salts including calcium nitrate, in diluted form in hot water. The resultant fertiliser produces a stable pot Ph at 6 -6.5 all year round. Problems might develop during winter when pH may drop and you do not want to apply fertiliser. Other strategies are available to the grower, such as top dressing with dolomite lime. Limil slurries may also be used but be care full and seek expert help before using these products. It is easy to overshoot your desired pH. Water quality can present a problem. When I use town water supply, I do not correct Ph, I simply add a little more ammonium salt to my fertiliser to neutralise the alkalinity.

This paper started out looking at pH and moved to plant nutrition. The two are closely linked and it is impossible to separate them. Plant nutrition is dealt with very simply with the object of

explaining basic principles and the effect on pH. Fertiliser and their use is a complex subject and needs more security. My work is directed at anyone who has run out of ideas and is at wits end finding out what's wrong with their orchid culture. It might steer readers into investigating pH as a possible problem. If your culture produces satisfactory results, don't change. It is unwise to fix something that's not broken.

## Logan & District Orchid Society Annual Orchid Show

August 27th & 28th 2022
Springwood Road State School
94-120 Springwood Road
Springwood Qld
Admission \$4
Saturday 8.30am to 4pm, Sunday 8.30am to2pm



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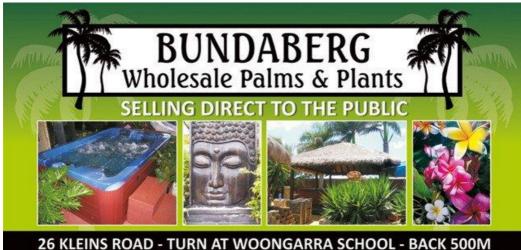


































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