

Bundaberg Orchid Society Inc.

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Newsletter

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Volume 9/17

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Ed. Graham Price

Office Bearers.

President	Robert Shield	Phone 41550783
Secretary	Rene Thompson	Phone 41521619
Treasurer	Glenda Coster	Phone 41527980

Meetings are held at 7.30 pm on the third THURSDAY of each month at the Avenell Heights Hall, Thabeban Street.

Visitors and past members are especially welcome to attend.

Date Claimers

Sunday 1st October 2017. New and Interested Growers Group meeting at Bob & Deborah Shield, 7 Hutchins St. Branyan – 9am. Please bring plate of goodies for smoko and a chair and hat.

Thursday 19th October 2017. BOSI AGM Nominations for positions must be with the secretary by Thursday 5th October 2017. If there are no nominations positions can be filled from the floor.

Saturday/Sunday 28/28th October 2017. BUS TRIP - North Coast. Put your name in the book.

Meeting Duty Roster:

September: B Group

October: C Group November: D Group

November:

Raffle winners: 1st Prize: Bill Newton

2nd Prize: Carolyn Nielson

Lucky Door: R. Riemer

Exhibitors Prize: C.Dawson

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

Please phone Bev on 41593291 to arrange a suitable time for you to collect any merchandise you require for your Orchid Potting. Bev can bring a small amount of merchandise to the monthly meeting, however, if you know there is something you would like to buy at the meeting could you PLEASE phone Bev with your requirements. This will enable Bev to not have to hire a pantechnicon to bring in merchandise.

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: Jean Williamson and Tony McGarry,
Phone# 0448879969 Email: jw.484@bigpond.com**

FOR THE NOVICE

Calcium and Magnesium

by Sue Bottom/images by Terry Bottom

The Other Macronutrients

My understanding of what should be in the fertilizers we use for our orchids has evolved over time. First you learn that the three letters on the fertilizer container represent the percentages of nitrogen, phosphorus and potassium present in the fertilizer. Then you get treated to a missive on the nitrogen forms, the nitrate and ammoniacal nitrogen that are available to your plant and the urea nitrogen that is not easily used by your orchid. Then you learn about micronutrients, the trace elements of iron, copper, boron and all the rest.

The current buzz is about the calcium and magnesium required for your plants to thrive. They may be present in your water supply in adequate amounts although you will only know this if you have your water tested or if you learn to recognise the signs of their deficiency. Calcium and magnesium are considered macronutrients along with nitrogen, phosphorous and potassium. If

you remember your high school chemistry, calcium and magnesium are both listed in the second column of the periodic table so they tend to react similarly in chemical reactions. However, they are absorbed and used in your orchids very differently.

CALCIUM AND YOUR ORCHID

You know that we people require calcium for healthy bones. Orchids use calcium: to build cell walls, among other things. It is absorbed through the root tips and pulled through the plant via the xylem during the transpiration process, being transported from the roots to the leaves and newly growing parts of the plant. It is phloem-immobile, so it cannot be translocated from older leaves to



Figure 1

newer leaves. Thus calcium deficiency will first appear at the most rapidly expanding tissue: new growths and leaves (Figure 1).

Calcium deficiency occurs when there is rapid plant growth in the absence of sufficient calcium. If you like fresh tomato sandwiches from your garden, you've learned that calcium deficiency is what causes blossom-end rot in tomatoes. Cattleyas are the orchids most prone to calcium deficiency (Figure 2 – *calcium deficiency*), particularly those that grow very rapidly during the warm, sunny, moist summer season. You may mistake the

symptoms of calcium deficiency for the dreaded black rot that can plague your cattleyas during the hot season. But this tissue damage is not from water molds, it is caused by insufficient calcium to produce new tissue. Roy Tokunaga of H&R Nurseries reports that supplying sufficient calcium to your plants will not only reduce the incidence of black rot but may even protect the plant from infection by the water molds that cause black rot (figure 3 – *Black rot. Infections involve both leaves and pseudobulbs; both newly developing and mature in contrast to calcium deficiency which is localised near the apices of developing growths The lesions are soft and exude fluid clearly visible here*).

(Continued Page 6)

POPULAR VOTE

Cattleya



Ctt. Varut Startrack

R & B Emmerson

Any Other



Cym. Radiant Ruby

C & G Symonds

Vanda



Unknown

D. Trudgian

BUNDY MULCH & CHIP

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- Full Insurance
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- Free Quotes
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Jamieson Webb
0422184240
Terry Webb 412946608

Servicing Bundsberg & Surrounds

Dendrobium



Den. Nobile

E. Linderberg

Novice



c.mem. Robert Strait, Island Delight

N & G Sargent

Over Judges Choice



Rth. Egret Heaven

D. Barnes

(Continued from page 3)



Figure 2



Figure 3

MAGNESIUM AND YOUR ORCHID

Your plants use magnesium to produce chlorophyll, which is used in the photosynthesis process as well as in other metabolic processes. Like calcium, magnesium is absorbed by the roots and carried through the plant in the xylem during normal transpiration. Unlike calcium, magnesium can also be carried in the phloem that transports organic nutrients like sucrose throughout the plant wherever needed. This means that magnesium can be translocated from older leaves to newer leaves. Thus magnesium deficiency will first occur in the older leaves that are sacrificed for the new growth.

CALCIUM AND MAGNESIUM SUPPLEMENTS

There are lots of options for supplying additional calcium and magnesium to your orchids, from pre-packaged fertilisers to special additives. You can also top-dress pots with powdered dolomitic lime, which will supply both calcium and magnesium to your plants although it may raise the pH of your potting mix. Gypsum (calcium sulphate) is an alternative for supplying calcium without raising the pH of the mix. There are controlled-release fertiliser formulations that can also contain calcium and magnesium. You can add water-soluble

supplements such as calcium nitrate and Epsom salts, though you would never add the calcium and magnesium supplements concurrently because they will react and precipitate into a sludge. *Next month will discuss a number of possible solutions to these problems – with some tables for several supplements. Editor*



Figure 4



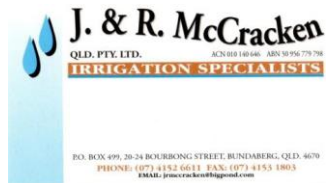
Figure 5

Figure 4: Cattleyas grown in bright light with insufficient magnesium may exhibit mottling indicative of chlorophyll damage.

Figure 5: Leaves may turn reddish purple after exposure to cold if they are magnesium deficient. Correct this with a megadose of Epsom salts.

(Continued in October Issue)





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