

Far North Coast Bromeliad Study Group N.S.W.

Study Group meets the third Thursday of each month

Next meeting 21st May 2015 at 11 a.m.

Venue: PineGrove Bromeliad Nursery
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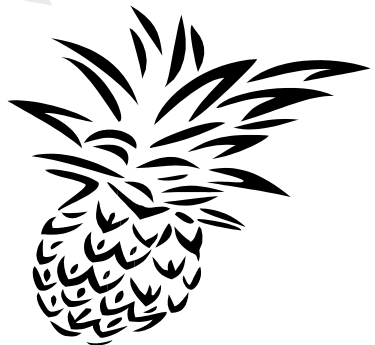
Discussion: April 2015

General Discussion

Editorial Team:

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Trish Kelly
Ross Little
Helen Clewett

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Meeting 19th March 2015

The meeting was opened at approximately 11.00 am
The 26 members and three visitor present were welcomed.
A total of two apologies were received.

General Business

Ross showed *Neo*. 'Pinegrove Tiger' and *Neo*. 'Lilac Prince' that he registered this month, both can be found on the BCR at <http://registry.bsi.org/index.php>

Jeanette spoke about the Gold Coast Bromeliad and Succulent Expo to be held at the Carrara Community Centre (Neilsons road) on Saturday 11th April at 9am. There will be many plants for sale and entry is a gold coin.

Ross and several other members will be attending the Australasian Bromeliad Conference 'Bromsmatta' on 16th-19th April in Parramatta, Sydney, NSW.

There was a discussion about our funds not really being adequate to cover costs of Newsletter, books and other necessities. Gary and Coral in particular donate lots of goods to the Group such as cleaning materials, coffee etc. but **everyone** needs to contribute a little. We are not here to make a profit, just to cover costs. The Newsletter can cost as much as \$120 for 30 printed copies per month and as attendance has been down a little we are not getting as much raffle money which used to cover our costs plus some savings. The group agreed to raise the attendance fee to \$3.00 a month per head, this may have to be revised if this is not enough. Back issues of the Newsletter will be raised to \$4.00 a copy, no longer to be subsidized by the Groups funds (was \$2.00). Remember our Group does not hold annual shows for sales etc. to gain funds, it is funded only by its monthly raffle and donations, so a **HUGE THANK YOU** to those who donated funds at our March meeting to help us continue meeting our running costs. Meg suggested having a annual plant auction among members to help raise money. If each member donated one or two plants with all monies raised going to the Group. Gloria suggested several people bring a choice plant each month which could be auctioned. Another idea was a Group sales table of donated plants with all funds going to the group. This will all be discussed further next month.

Ross and the Team were thanked again for all their work on the Newsletter.

Show, Tell and Ask!

Dawn showed the difference position makes with two *Neo*. 'Blushing Tiger' plants, one which had been grown in the sun was very red and the other which was grown in the shade is quite green. They looked like two different plants.

Ross showed a typical *Tillandsia cyanea* and a *Tillandsia* 'Triflor' which has a three sided inflorescence. He got 2 out of 3 pups with this three sided paddle from the original plant. It is hanging high in the shade house and growing well. The plant seems to prefer dry weather and good air flow. (photos etc. p.6)

Also shown was a *Quesnelia lateralis* with the flower coming out from the side of the plant, hence its name — lateral flowering. The flower spike can come from the side 'lateralis' or from the centre 'centralis' or sometimes both on the one plant. Grow this plant hard to get a nice compact plant, the brilliant blue colour of the petals makes this a very desirable plant well worth having in any collection. Gloria grows hers on a post in full sun for best colour.

Ross also showed a *Vriesea* 'Orange Sword' with two inflorescences coming from the side (lower leaf axils) and another from the centre of the plant. The cause is possibly that the plant had initiated pups, then had an upset and changed its mind and decided these pups should become flower spikes instead.

Also discussed was *Vriesea* 'Eric' which was showing signs of quilling. It was thought that plants showing quilling were not getting enough water but plants are still showing this even with lots of rain. It is considered these days that the effect comes after storms when the plant gets excess nitrogen and has a growth spurt. You can pour water into the leaves and use a label to gently pry the leaves open or use your finger or a pencil to try and loosen up the leaves.

You could also try putting some detergent in lukewarm water and pour this into the plant then gently try and pry the leaves apart then flush out soapy water. Alternatively put the whole plant in a bucket of water for 24 hours. Sometimes a severely quilled plant can resemble a cigar, the best way of treating this is to cut off the top of the plant and allow the new growth to come through unrestricted, hopefully the new growth will be back to normal. However remember sometimes you can get some new and interesting plants off a stressed plant.

Marie showed her *Guzmania* 'Candy Corn' which had died back, it had almost rotted and had no roots. She packed it in sphagnum moss and although it still has no roots it has thrown 5 pups so it will be interesting to see the progress over the next few months.

Meg discussed her two shade houses one of which was professionally made but she feels is too dark and plants do not get good colour. The other one is a tunnel open at both ends with lots of air flow, the colours are magnificent in this one. Ross suggested adjusting the plants to suit the shade house, putting *Guzmanias* and *Vrieseas* in the darker one, plants needing more light such as *Neoregelias*, *Aechmeas* etc. in the other one.

Les spoke about collating our growing experiences in Northern NSW with the original articles and a compilation of articles from previous Newsletters. He has made a request for contributions and volunteers for an editorial committee. Members were very interested and it generated lots of discussion. It was suggested workshop groups could start next meeting while some of our members are away at the Conference in Sydney.

A Bromeliad Cultural Booklet Suggestions by Les Higgins 2015

We could produce a professional booklet:

Bromeliad Culture in Northern N.S.W.

We pay \$2.00 (now \$4.00) for a 16 page Newsletter with more than 25 colour photos. For \$10 we could have 80 pages and over 100 colour pictures in a 5mm thick, stiff cover version of our Newsletter.

Inside the booklets front cover a list acknowledges the contributors. The first page is an index, second page would be an Introduction to be followed by pages of Cultural notes. Then separate sections of essential information detailing: Nutrition, Potting Mix, Watering, Housing and Shade Cloth Colours, Pests and Diseases, Trouble Shooting and a Glossary.

If desired, the booklet could extend well beyond 20 pages to include information such as Photosynthesis, Seed growing, Propagation techniques, Location, Morphology, Genetics and --?

An ideal way to provide Cultural information is by simple sentences. February Newsletter has, Cultural Note for Cryptanthus which could be included in the Cultural section. Each heading in that article could suggest a simple sentence.

I would like to suggest that May's meeting be "Decision Day".

Included in our next Newsletter could be a request for simple sentences to be presented at the following month's meeting.

My simple contributions will include: "How I grow Bromeliads Outdoors" and questions such as "How can I keep good colour in my Bromeliads?"

Provided you are prepared to write simple sentences, or a cultural note, an Editorial Committee can be formed. I would suggest our Newsletter Editorial Team plus Don, Lesley and Les. The task for them is to compile your sentences, Newsletter articles and personal knowledge into Cultural Notes. Les volunteers to compile the Glossary.

It is all up to YOU !

Billbergia 'Helen of Troy' grex

Don showed a group of plants from the *Billbergia* 'Helen of Troy' grex - meaning collectively a group of species or hybrids from the same seed pod. This grex was the result of the crossing of *Billbergia* 'Hallelujah' and *Bill.* 'Trojan Tiger' with the seed being put down circa February 2008 by John Catlan in Queensland.

Don purchased his *Bill.* 'Helen of Troy' being the creamy white on green specimen in 2011. ▶



◀ Ross purchased this red *Bill.* 'Helen of Troy' from John Catlan on the same day as Don.



Since this time several others of the grex have been acquired, as can be seen in these photos they are different looking plants, however each seedling appears to be quite stable. Only a couple from the grex have been named: 'Achilles' and

'Trojan War' but not yet registered. It has been suggested that this may be the way to go with this grex is to keep the names linked to Trojan by using names from the Greek mythology e.g: Trojan Horse, Priam, Paris, Astyanax, Troy etc. as keeping the grex linked may be a good thing. They're beautiful plants and it's a shame they are not registered as yet. The great amount of variation seen in this grex is due to using two hybrids as parents which gives a greater number of genes to mix in the pool.



Billbergia 'Helen of Troy' grex mates by John Catlan

photos by Ross Little



Tillandsia 'Triflor'

This cultivar, which seemingly has come into our collections only fairly recently, was named by Dennis Cathcart of Tropiflora Nursery (Sarasota, Florida) and described in the BCR (Bromeliad Cultivar Register) as a tristichous flower of *cyanea*, meaning that it looks like a 3-pointed version of the more usual 'flat-paddled' (distichous) *Tillandsia cyanea*. (This description possibly comes from "tricorn", a hat with its brim turned up on three sides, making three points, worn by men in the 18th century.) (taken from: Illawarra Newslink July 2011)



◀ **Tristichous**
arranged in three
rows

Distichous ▶
arranged in two
rows



Herb Plover from New York informs me: "This form of *Till. cyanea* has been around at least since 1996 when two different plants were displayed at the WBC (World Bromeliad Conference) in Orlando. One of those plants is the first one in the registration photos. The second was displayed by Herb Hill".



Note the four
petal flower
on our
Tillandsia
'Triflor'



Photos this page by Ross Little

Quilling

Some quilling can be gently pried open or loosened up using lukewarm soapy water. (Be sure and rinse plants out afterwards)

Some quilling is so severe/tight, the centre is cigar like as pictured here. If this were a prized plant needing to be saved, it's best cut off as low down in the centre of the plant as possible allowing the new growth to hopefully grow out normally. (generally toss it is best) At best hopefully get good pups from it.



Quesnelia lateralis

from S&D

Wawra, Osterr. Bot. Zeitschr. 30: 149. 1880.

Quesnelia centralis Wawra Osterr. Bot. Zeitschr. 30: 150. 1880.

Plant grows to around 40cm high as a cylindric or funnel form rosette. Occasionally it flowers centrally but most often the inflorescence emerges laterally from the base of the plant. The petals are bright (pale) blue toward apex, white at base with bright red sepals.



Tillandsia complanta is another species that produces axillary /lateral inflorescences. It prefers to grow in a very humid environment. Distribution: Greater Antilles, Costa Rica to Bolivia and North Brazil. It grows as an epiphyte in forest, 750-3600 metres altitude.

Quite often we see these lateral inflorescences on some hybrids like this *Vriesea* 'Orange Sword' that suddenly decided its pups should become flower spikes.





Vriesea 'Forrest'
1st Open Gloria Dunbar



Neoregelia 'Skotak's Tiger'
1st Novice Kevin Jones



Neoregelia 'Painted Delight'
grown by John Crawford



Vriesea 'Tachete Gold'
grown by Flo Danswan



'Dish Garden'
1st Decorative and Judges Choice
Helen Clewett



Tillandsia duratii
grown by
Laurie Mountford



Cryptanthus 'Black Magic'
grown by Les Higgins



Tillandsia 'Cape Town'
grown by Laurie Mountford



Aechmea 'Del Mar'
grown by Marie Essery

Photo's supplied by: Ross Little

Bromeliad Taxonomy for Beginners by Aaron Smythe 2015

My reasons for writing this document was firstly, I love bromeliad species and secondly, I wanted something other than drawings to help differentiate the various parts of the bromeliad as described in situ. I have attributed different botanical terms to photos of the three main components described by botanists. These components are;

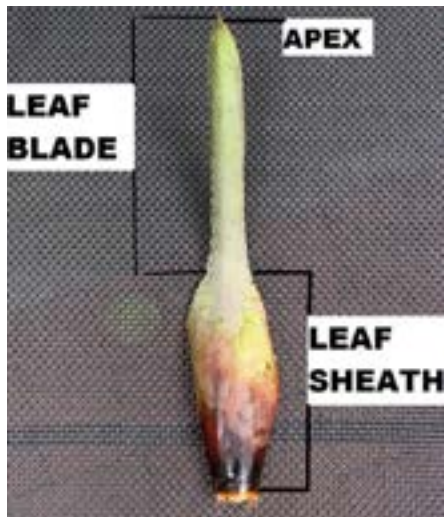
1. The "plant itself". Usually the leaves, sheaths and blade are commented on.
2. This next one is the inflorescence (the fertile part of the plant) and contains such features as peduncle of the inflorescence, bracts and rachis.
3. The flower which involves petals, sepals, ovary, pedicel, floral bracts anther, stamen and stigma.
4. The implements that I use

There are also various Latin terms to describe diverse components of those listed above such as colour, shape pattern etc. I will not go into these here but can be researched in the link below-

<http://fcbs.org/articles/Glossary/Glossary-plus.pdf#page=1&zoom=auto,0,800>

When identifying a bromeliad these terms can be used to rule "in or out" for a species

1. The "plant itself"



The plant structure of a bromeliad is formed by a rosette of leaves radiating from a crown. The focal parts of the leaf are the leaf sheath, leaf blade, apex and margin. The leaf sheath is the wider bottom part of the leaf that wraps around the base. The leaf blade is the upper part which protrudes from the blade. The apex is the tip or end of the leaf and the margins are the outside of the leaf. A bromeliad plant can be arranged alternately (distichous) as well as rosette (polystichous).

2. The Inflorescence



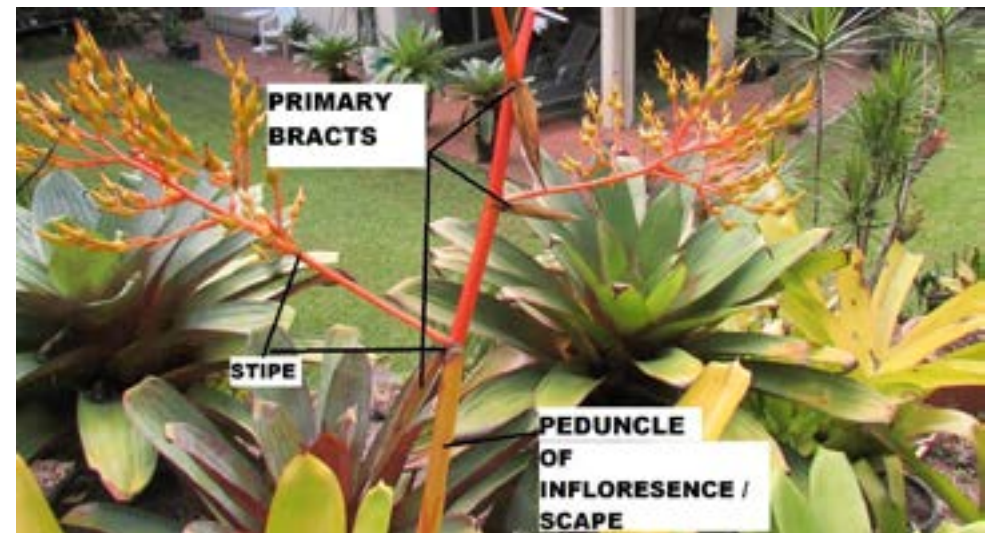
Only the non-ambiguous fertile section of the inflorescence is marked here.

The section considered to be the inflorescence for the plant is thought of differently amongst botanists but should mean all parts for displaying flowers including peduncle.

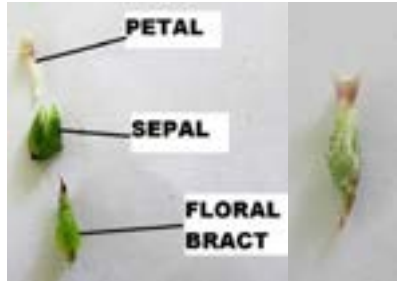
The area holding the inflorescence is the "peduncle of the inflorescence" which is the stalk of the inflorescence.



The "stipe" is a term used to cover the bottom part of a branch.



3. The Flower Itself



The flowering structure has 3 main external parts which are the petal (leaf like structure), sepal (contains the petals) and floral bract.



The internal components in this picture are the anther (the pollen bearing part at the top of the stamen and the stigma (the top of the female portion of the flower that receives pollen). There are 6 x anther, 1 x stigma and 3 petals in bromeliads. The stigma is the terminal section of the female organ, which is called a carpel. The anther is the terminal section of the male organ, which is called a stamen.

4. The Implements that I use.



From the left- Tape measure for the larger measurements, tweezers, a sharp scalpel type knife, a digital calliper for the smaller measurements and a magnifying glass as I am not as young as I used to be.

I have been told by those who have been doing this sort of thing for a long time that I am very brave as taxonomy will drive me insane and that all taxonomists argue! I have tried to keep this simple for myself and others who are venturing down the road of deciphering species and their descriptions.

All you will need to do now is learn the Latin (link to glossary above) that describes colour, pattern, shape etc and take your measurements.

Have fun and as Lyman Smith said "**Botany is an art as well as a science.**"

A Winter Cover-up

by Ann Boon

As soon as the nights start to get cooler it is time to make sure your plants are comfortably "bedded down" for the winter.

Firstly, clean any foreign matter out of the cups. I use a small paint brush which I find ideal, but buy a new one and use it for no other purpose. Gently turn the brush around in the cup. If you spread the fingers of both hands out and over the top of the pot, you will find that you will be able to form a "web" over the soil and at the same time get a grasp of the pot and use the tips of the fingers to support the plant at the base. In this way, when tipping the pot on its side to empty the water out of the cup, the soil loss is cut down to a minimum and the plant is not disturbed.

Cut away any dead or yellowing leaves by cutting the leaf down the centre from tip to base. Now hold the plant firmly in one hand and gently tear the leaf, one half at a time, away from the plant, working from the cut at the centre to the outside. If you have to trim any leaves always re-shape the tips the same as the leaf grows. If the plants have been outside during the summer months, clean out any dead leaves or grass which may have lodged in amongst the leaves. Pull out any weeds growing in the pots. This does not include those lovely little ferns that decide to come and "board with the broms" from time to time.

If any plants need propping up they can be tied to a small stake, but sometimes I find it difficult to tie it firmly without altering the contour of the leaves. Lucky stones can be used but there is the danger of an offset being damaged should it come up underneath before the stone is removed. A wire support can also be made from a coat hanger.

No hard and fast rules can be set down for watering during the cold weather but it is important to remember that more plants are lost due to **OVERWATERING**. The needs of plants vary very considerably, to the size and type of pot (plants in terracotta need more watering than those in plastic), the soil, whether it holds the water or is porous, the environment in which the plant is growing and the special needs of the plant itself (does it grow in habitats where it is wet or dry, rainfall, etc,?). If in doubt keep the soil only **SLIGHTLY** moist and the leaves dry during extreme cold spells. Use a paddle pop stick to test the soil.

If possible, turn the bulbous tillandsias planted on bark in an upside-down position so that the plant will not become waterlogged during any wet weather. Water other tillandsias **VERY, VERY** sparingly. Water the **SOIL ONLY** of cryptanthus, keeping the leaves dry. The hardier bromeliads may be given a very light spray from the hose to freshen the foliage but pick a warm day and do it early so that they have dried off before the night air begins to settle.

If, through lack of space, some plants have to be left out in the open, try to arrange them in the most protected spot but not pushed into a damp corner which gets no sun. Make a portable fence with wire netting and a few stakes threaded through at regular intervals. This can be put around the plants and fastened together with a tie. Make a tent using hessian or an old sheet (NOT PLASTIC) and tie to the wire. This makes a good cover especially if frosts are expected.

This program may be too time-consuming for members with extensive collections but I have written it as a guide for new members with small collections.

It is a good idea to keep notes on the things you do during the year, so that you can compare and possibly change or improve your program. Don't rely on your memory. Just when you need it most it has a nasty habit of letting you down!

Reprinted from:

Bromeliad Society of N.S.W, *Bromeliad Newsletter*, July 1991, Vol.9, No.7

We're so Lucky in Northern NSW

Mel Barlow 2015

I was chatting with one of our readers today Mel Barlow from Cowra in central NSW, the temperatures have already begun to drop out there making it time to get her Bromeliads sorted into their winter home. Mel says "this is a big task but I find it quite rewarding as during summer my plants thrive in my gardens on display for all to see from the house. During winter, when zero temperatures and hard frosts are almost nightly and in the coldest part of winter we can often reach -5 degrees overnight, and barely 10 degrees during the day...it's been known to snow just 10km away from here, leaving my Bromeliads unprotected in the garden is just not possible. So my autumn days are spent moving what seems like a never ending sea of pots from the garden into my plastic covered shade tunnel". Mel cleans, de-pups and re-pots if needed, after arranging her plants in her plastic covered tunnel she waters well which will be their last heavy watering until spring. "I water sparingly in winter to minimise the risk of rot, just a light spray here and there, most watering is done during the morning to allow the leaves to dry off before those zero temps come again. I find the plastic covered tunnel provides protection from the frosts but minimal protection from the cold. By winters end a little cold damage is noticed on the less hardy plants. My favourites/fussy plants enjoy life inside my house in the warmth, from experience I've learnt which plants won't tolerate the winter freeze. My plants stay in the tunnel until mid-spring, when the risk of frosts is all but gone, and then I will start the cleaning, de-pupping, moving process all over again, just in reverse".

We're lucky in Northern NSW that our winters aren't as cold as Mel's as we're able to grow most of our Bromeliads in our gardens year round.

Novice Popular Vote

1st	Kevin Jones	<i>Neoregelia</i> 'Skotak's Tiger'
2nd	Les Higgins	<i>Cryptanthus</i> 'Black Magic'
3rd	-----	-----

Open Popular Vote

1st	Gloria Dunbar	<i>Vriesea</i> 'Forrest'
2nd	John Crawford	<i>Neoregelia</i> 'Painted Delight'
3rd	Marie Essery	<i>Aechmea</i> 'Del Mar'

Judges Choice

1st	Helen Clewett	Dish Garden
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Decorative

1st	Helen Clewett	Dish Garden
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Comments from the Growers:

Kevin won his *Neoregelia* 2 years ago in our raffle. It grows under 70% shade cloth and gets early morning sun and rainwater. No pests or diseases.

Gloria bought the mother plant 4 years ago from Dillings in Ballina. It grows under 75% beige shade cloth and the shade house is in full sun all day. Plenty of light has brought out good colour.

John bought his *Neoregelia* as a pup in 2013. It has been in full sun and didn't burn but a little bleached, he feels it probably needs more shade. No fertiliser except when potting up new pups.

Marie's *Aechmea* is a pup from a mother plant that she has had for many years. Grows under 70% beige shade cloth, it has had some scale problems probably because it has been too crowded. Too many plants Marie!

Helen put this dish garden together several years ago demonstrating how well some mixed plantings can go together. It is basically ignored as it tends to look after itself regards watering from the heavens. It sits on an outdoor table getting lots of good bright light.

Laurie has had the mother plant of his *Tillandsia* for many years and this pup was taken off in 2009. It grows in the shade house under 2 x 25% layers of green shade cloth. He uses a soluble fertiliser when he repots. He has never recorded any pests or diseases on his *Tillandsias*.

Comments from the Growers: continued

Les acquired his original *Cryptanthus* 'Black Magic' from Len Waite, the plant shown is about two years old, its parents are *Cryptanthus* 'Araucic' x 'Racinae'.

Depending on light frequency and intensity *Crypt.* 'Black Magic' can be black, green or brown, I've attempted to make all three colours in this plant. A basket is suspended about 30mm above this plant to make a darkened central area and the outer leaves are in brighter light. The moving shadow blends black and green into brown. Shade cloth is 50% white overlaid with 50% green.

Nutrients during the growing season include:

Black Gold, Iron Sulphate, Magnesium Nitrate (home made), a combination of Potassium Nitrate, Calcium Nitrate and Molasses (Molasses is super worm food and a nematode killer). With autumn approaching Potassium Phosphate will induce maturity and increase cold resistance.

The leaf sheen is the result of Diatomaceous Earth (Amorphous Silica) breaking down and providing a constant supply of silica.

The potting mix is not good at almost pH7, the organics are macadamia husks, mushroom compost and 5 in 1 plant food. These organics make a "claggy" substrate that becomes dense and restricts air movement. Organics in the potting mix attracts worms.

There has been a huge invasion of earth-worms, worm casts emerging from drainage holes and the sides of net pots reveal their presence. Ample Diatomaceous Earth had been added to destroy insects and also deter earth worms and gastropods (snails and or slugs). When DE breaks down the worms invade turning this potting mix into a solid airless mud. Plants become "wobbly" and prompt repotting is essential if roots are to be saved.

Copper is a fungicide that kills worms, slugs, snails and Bromeliads. I have soaked the floor of one shade house with copper oxychloride (\$30/kg) and the other house with copper sulphate (\$5/kg), each is successful. To insure no future worms and gastropods I intend to frequently soak the floor and around the houses with Bordeaux mixture (25 grams of copper sulphate and 25 grams of hydrated lime (\$10.50/20kg in 10 litres of water). The Bordeaux mix forms what is near enough cupric carbonate and it is insoluble.

In last months Newsletter - **Cultural Note for Cryptanthus** states: "dead flowers can initiate bacterial soft rot". In the photo on p.9 we can see that the central area of 'Black Magic' has been cleaned of what was a big plug of dead flowers with the potential to initiate crown rot.