

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

Study Group meets the third Thursday of each month

Next meeting 17th November 2016 at 11 a.m.

Venue: PineGrove Bromeliad Nursery

114 Pine Street Wardell 2477

Phone (02) 6683 4188

Discussion: October 2016

General Discussion

Editorial Team:

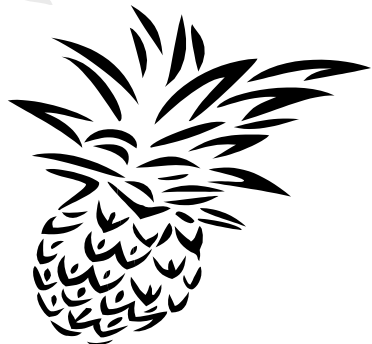
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Meeting 15th September 2016

The meeting was opened at approximately 11.00 am
The 22 members present and two visitor were welcomed.
A total of two apologies were received.

General Business

Ross welcomed the members and visitors (quietened the rabble) and distributed the Newsletter. He advised of a correction he made to Dave's entry for last month, which was tagged as *Aechmea weilbachii*, however after a little research it was discovered Dave's plant was actually *Aechmea warasii* var. *intermedia*.

Mail received this month was Bromelletter from the Australian Bromeliad Society, the Journal is now in the library for borrowing. Ross noted a mistake regards *Aechmea* 'Big Pinkie', the photo on p.20 tagged as such is *Ae.* 'Big Matchsticks'.

Show, Tell and Ask ?

Ross showed a *Tillandsia* tagged as punctulata hybrid possibly 'Tania Marie', his doubts about whether this name is correct have been founded since flowering and proven to be *Tillandsia* 'Tina'. (photo p.10)

He then showed *Aechmea* 'Blush', with stunning colours, grown under 70% mesh. *Ae.* 'Blush' has been grow true from seed which dispelled thoughts it was of hybrid origin between *Ae. recurvata* and *Ae. orlandiana*. (photo p.7)

Further discussion was had about the multitude of forms of *Ae. recurvata* he had grown in Newcastle, with plants producing a variety of colours from orange, red and yellows. *Aechmea recurvata* takes about 2 1/2 to 3 years to grow from seed to flower and is a good plant to have in collection. See how many different forms and colours you can collect and let the readers here know of your findings.

He then showed a variegated *Billbergia* 'Hallelujah' which has clumped nicely in the 3 years or more he has had it. (photo p.7)

Ross also showed an albo-marginated form of *Bill.* 'Hallelujah' from Bob Larnach of BA Bromeliads, which should be register as *Bill.* 'Bubblz' in the near future. This is an outstanding variant of the parent it sported from. (photo p.10)

Ross advised that he has managed to get 6 seeds to germinate collected from the large red form of *Tillandsia complanata* (photo p.10 September Newsletter). He stated that it is a higher altitude plant which grows as an epiphyte and bears multiple spikes. He said that the seeds initially germinated well, but were a bit sensitive to our summer temperatures therefore quite a few were lost but hopefully those survivors will make it through the coming summer and acclimatize to our grow conditions as this red leaf form is not often seen in our collections.

Ross advised the Group that back issues of most of our FNCBSG Newsletters are readily available, issues not being held in stock can easily be reprinted on request for collection the following meeting. Les Higgins most recent article - **Understanding Plant Nutrient** had a reference to an article in a previous issue - **Fertilizer Confusion, March 2013**, this prompted the advice to members of the availability of back issues. Away members can e-mail the editors at: pinegrovebromeliads@bigpond.com for electronic back issues if required.

A flyer was tabled for the Tweed Orchid Show and Fair, which is to be held at the Tweed Civic Centre, cnr Wharf and Brett St. Tweed Heads on 5th and 6th November - 8.30am to 4.00pm and 8.30am to 2.00pm respectively. There will be Orchids, Bromeliads, African Violets, ferns, hippeastrums, potting mixes and fertilizers etc. for sale. Admission \$3.00.

Another plea was made to members for submission of articles for upcoming Newsletters, an editors task is never ending to find interesting articles for you. It would be greatly appreciated if you the readers help us with articles you feel may be of interest to others. Please have a go!

Reminder – Ross will be absent for November meeting, he will be in Bromeliad heaven, tripping around Mexico to Guatemala to Costa Rica, to name just a few exotic locations on the list! He hopes to bring back lots of tales and photos.

♣ **November meeting will be on as usual** ♣

Keryn gave an update on the rat situation, advising of some improvement around the house and has been told of a homeopathic repellent, which she will chase up further information about. A discussion followed regards other pest/dog repellents, Vicks smeared on pots for dogs and a dab on their nose, an electric / battery operated trap for around \$100 or a Goodnature no poison rat trap (check the internet for availability for about \$200) being some suggestions.

John showed a *Vriesea* 'Ladd's Elation' (unreg.) which has taken about a year to flower from a pup. One of its parents being *Vriesea elata* gives it the tendency to pup high up in the leaf axils near the base of the inflorescence, this is commonly referred to as upper pupping. (photo p.9)

John also showed a *Orthophytum glabrum* which he had hanging in the shade house, it now has new growth/pups on stolons coming out the bottom of the pot. This plant originates from northeastern Minas Gerais, Brazil where it grows on slopes. It has a vigorous growth habit which was evident with the two plants on display, one plant has been grown under 50% shade cloth whilst the other shown by Ross for a full all day sun grown comparison was a much lighter, more coppery brown / orange in colour. (photos p.10)

Lesley brought in an *Aechmea burle-marxii* with last years spike still attached, contrasting in colour to the new inflorescences. Thus having both red (aged) and yellow (new) inflorescences on the same clump. Grown under 70% white shade cloth this plant grows quite happily. (photo p.7)

Lesley also showed a *Tillandsia rodrigueziana*, a red/orange colour in winter, she finds this plant to be very cold-tolerant. It is grown in an unprotected area year round obtaining good foliage colour under winters full sun.

Doug gave an interesting talk about several of his Orthophytums, which originate from central east Brazil. He discussed *Orth. diamantinense* and a few related species, which are rarely seen in cultivation in Australia. *Orth. diamantinense* has a compact growing habit, lovely colour, grown under 50% white cloth with regular watering, but does tolerate full sun and dry conditions. In nature it likes rocky areas, with sand and leaf litter, they spend up to 6 months of the year without rain. Its wet season has a rainfall pattern similar to our NSW east coast. Altitude 1000-1500 metres, seed dispersal is probably mainly by ants.

Doug talked about another group of Orthophytums with pink/red/grey variations, with variable leaf widths and flower in the centre crown (not on a tall scape), and take about 3 years from seed to flower. He uses sand and organic matter for potting mix and allows them to dry out between watering. They grow in crevices in nature and under cliff overhangs, but do grow well in pots. Doug advises not to give them too much nitrogen (Blood & Bone), or they won't colour up.

Doug showed a *Orthophytum albopictum* which originates in a 10km radius of one particular town in Brazil where it grows in abundance. The area is south of the *Orthophytum burle-marxii* growing area. Where these two areas meet, plants are extremely variable and appear to include hybrids between the two species. Doug has grown his *Orth. albopictum* from seed for 3 years.

Discussion followed regards the use of Bromeliads in religious ceremonies and nativity scenes around Christmas celebrations. An article will be searched for and printed at a later date relevant to this subject. Readers — troll through some older BSI Journals and see what you can find to help grace these pages.

Garry showed a piece of deco/mod wood which is made from recycled plastics etc. which may be suitable for mounting plants – try your local hardware store.

Ross thanked the group for the increased number and quality of plants entered in the competition this month, also it's good to see plants for discussion / brag being brought along. Well done everybody.

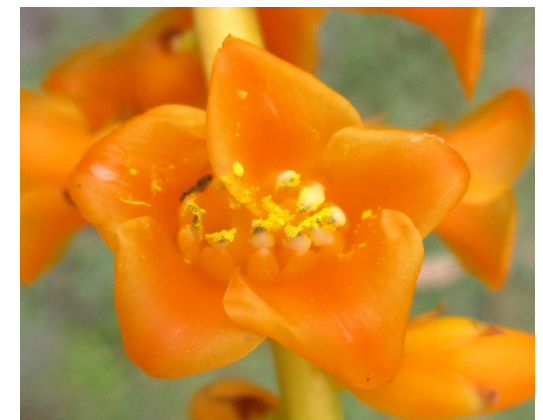
After lunch, Warren gave a working demonstration of floral art on a large piece of driftwood. He will be entering the piece in the upcoming Woodburn Orchid Show. With a good supply of Bromeliad inflorescences to select from, he also sourced various other elements from the gardens to create a very beautiful arrangement that will surely be worthy of a top prize!

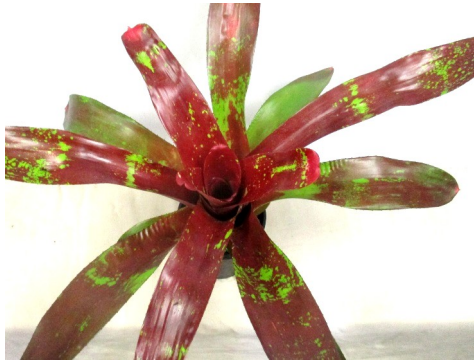
Warren then reworked Ted's decorative vase entry into a stunning display and explained the correct proportions for a balanced arrangement.

Don't worry, Ted, the original was great too !

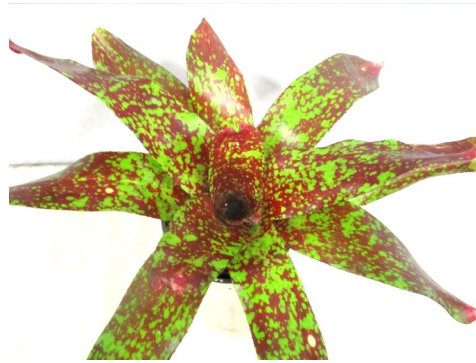


Ross explained to the Group about floral parts of Bromeliads regards number of petals etc. which are usually in ranks of three, this discussion was brought about by the finding of several unusual *Dyckia* flowers which had five petals. A couple too many you might say, over the years we have seen several flowers with nine petals in *Neoregelia* 'Blood Plum'. A *Tillandsia* was reported having only two petals several years ago, nothing is unusual with Bromeliads. *Dyckias* fusing / creting is a common occurrence in the gardens of PineGrove.





Neoregelia hybrid unknown
grown by Keryn Simpson



Neoregelia 'Gold Fever'
grown by Coral McAteer



'Stars and Bars'
grown by Dave Boudier



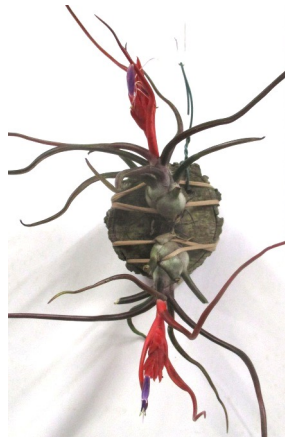
Billbergia 'Hallelujah' variegated
grown by Ross Little



Tillandsia aeranthos
Dave Boudier



Tillandsia rodrigueziana
grown by Les Higgins



Tillandsia bulbosa
Jeanette Henwood



'Island Dreaming'
grown by Keryn Simpson



Aechmea burle-marxii
grown by Lesley Baylis



Alcantarea vinicolor
grown by Ted Devine



Vriesea unknown hybrid ???
grown by Laurie Mountford



Aechmea 'Blush'
grown by Ross Little



Orthophytum albopictum and
hatschbachii grown by Doug Binns



Neoregelia 'Julia'
1st Open John Crawford



Neoregelia 'Pemento'
1st Novice Michelle Hartwell



'A Basket Case'
by Jeanette Henwood



Vriesea 'Ladd's Elation' unreg.
grown by John Crawford



Vriesea 'RoRo'
1st Judges Choice Lesley Baylis



Cryptanthus 'Strawberries Flambe'
grown by Trish Kelly



'Gecko Manor'
grown by John Crawford



'Logs Up'
by Ted Devine



Canistrum fosterianum
grown by Kay Daniels

Photos supplied by: Ross Little



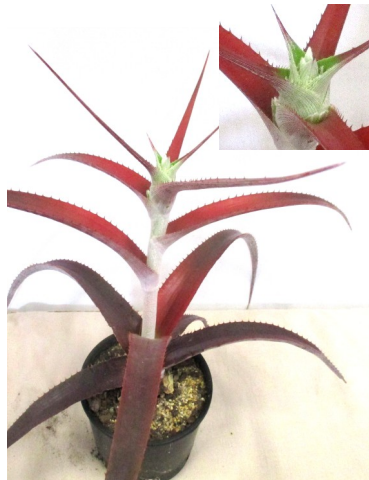
Orthophytum glabrum showing stoloniferous growth habit and inflorescence grown by John Crawford



grown by Ross Little



Tillandsia 'Tina' grown by Ross Little



Orthophytum diamantinense grown by Doug Binns



Billbergia 'Bubblz' grown by Ross Little

HANGIN' AROUND... Pendant flowered Bromeliads.

Many Bromeliads excel as hanging pot or basket plants because of their particular growth habit, stolons or tight clusters. Another type that is especially good for hanging are those with pendant flowers. These species have flower spikes that hang lax or recurve, often to well below the bottom of the pot or basket. In fact, many hang to several feet, creating a particularly showy display when in mass bloom. Add a different dimension to your garden. Hang em' high and watch em' dangle.

Aechmea 'Foster's Favorite Favorite'

One of the most spectacularly coloured *Aechmea*. A wine-red, glossy-leaved plant with cream coloured variegation, suffused with pinks and reds. The pendant inflorescence of large red fruits stays in colour for several weeks. A sturdy plant with upright growth to 400mm or so, somewhat stoloniferous but easily grows in a 120 to 150mm pot. Grows well in deep shade to bright light.



Aechmea 'Red Ribbon'

A good looking plant that grows to about 450mm tall, in a somewhat flaring tubular shape. The foliage is light green with red variegation and the inflorescence is a pendant panicle of red berries. Great for hanging baskets.

Aechmea warasii

A Brazilian species that is excellent for a hanging pot or basket. The plants have coppery coloured leaves in an upright flaring tubular rosette and are somewhat stoloniferous. The inflorescence is pendant, hanging below the pot, with red berry-like fruits. Prefers shaded locations.



Vriesea simplex

A small species to about 8 to 10 inches tall, with discolour leaves, green on top, reddish underneath. The inflorescence of yellow and red is beautiful, very pendant with a thread-like stem having alternating and well spaced flowers in a ladder-like arrangement. An outstanding plant for a hanging pot. The flower spikes will hang to about 18 to 24 inches.



Text from: Tropiflora's Cargo Report Vol.8 #1, Feb. 1998.

Photos by Ross Little



Billbergias Are Back !

Like so many gaily painted wax candles, Billbergias lend a festive air to brightly lit spots, the perfect plant for decorative containers or hanging baskets. Native to tropical America, Billbergias are a group of upright, tubular or tightly vase-shaped medium sized Bromeliads. Resplendent with foliage colours of clear green to silver banded, red with green spots or blotched and mottled with white, pink and brown.

Arguably no other Bromeliad is showier in

foliage or in bloom, their inflorescences, often pendant, a cascade of orange, pinks, and reds and blues.

Held in esteem by early plantmen, Billbergias were introduced to European horticulture in the last century as showy, flowering plants. By the turn of the century, Billbergias had found their way back to America as pot plants, like 'Queens Tears' (*Billbergia nutans*) and as garden subjects. Many an old homestead in the woods of Florida has a tree or two ringed with the 'Summer Torch' (*Billbergia pyramidalis*). So ubiquitous have these become in the Florida landscape that many gardeners are incredulous when told that they are not native.

A fall from grace. Billbergias were as popular as any genus in the 1950s when fascination with Bromeliads amongst a small group of fanciers led to the founding of the Bromeliad Society. Growing horticultural interest in Bromeliads and a paucity of specimens on the market fuelled the search for new varieties. In time, Billbergias began to fall out of favour. Why? They were just too easy to grow! Before long, everyone who wanted one had one and there were few new species being discovered. In the never ending quest for something new and different, Billbergias got left behind.

Redemption of a genus. In time, many Billbergia species and old hybrids could only be found in the odd collection scattered here and there. The some die-hard Billbergiaphiles began to carefully cross-breed their beloved plants with interesting, often spectacular results. Today, though there are still fewer than a hundred species of Billbergias, there are likely five times that many hybrids, some so incredibly beautiful that they could scarcely have been dreamt of only a few years ago. The proliferation of these lovely new hybrids has brought about a renaissance in the genus Billbergia, elevating them once again to the realm of 'collectors items', often fetching well over \$50.00 for a single cutting.

Culturing for colour. Billbergias are undemanding and easy, growing in a variety of light exposures, flowering faithfully. For best results in attaining maximum colour and form, some simple rules should be followed. Grow bright. With few exceptions (mostly among the all green species) brightly lit conditions promote higher colour. A few Billbergias may adapt to full sun conditions, but most prefer and look their best in bright filtered light. The conditions under a pool screen for example are nearly perfect to maximize colour and form. Don't over fertilize. Fertilizing is necessary, but should be done sparingly when you are trying to produce a compact and colourful plant. Too much fertilizer can rob colour and form. However, if you are primarily trying to increase your plants, then by all means do fertilize. Offsets removed from an over-fed parent may be larger than a well grown adult should be. It may take more than one generation of offsets to 'slow the plant down' to get the colourful and compact growth desired. Soil should be well drained and light. Under-potting is not a problem. Most Billbergias thrive in and look their best in clumps. A well grown blooming cluster can be a spectacular sight. Water your plants as needed, when the soil begins to feel dry.

Reprinted from: Tropiflora's Cargo Report, Vol.7 #5, December, 1997.

Unusual Containers and Mounts

by Derek Oakley

First, what is unusual ? What is a mount ? What is a container ?

A plastic pot, a terracotta pot or a glazed pot is unusual for a Bromeliad.

Why ? Because they are terrestrial, saxicolous or epiphytic, so pots become unusual to the plant. But man in his infinite wisdom put them into pots.

So Bromeliads became pot plants. Then we decided to put them into unusual containers ! And then onto unusual mounts !! So then we come to the individual grower and his imagination. Think what is the limit of your imagination because that is the limit of mounts and containers. But remember the plants requirements such as what size does it grow; how big a root system is it capable of developing; what does it require for humidity or drainage. Then consider if you want to enter it in competition or is it for your own satisfaction in your own collection.

Personally, I prefer mounts and unusual containers, but competition demands that some plants be kept in standard pots so I do conform. To enter your mount or container in competition, you must aim for harmony between the plant and container or mount; skilfulness in growing the plant or plants; attractiveness and compatibility; originality and uniqueness; and of course, cultural perfection and conformation. So we get back to making sure that the plant you choose will fit the item you choose e.g. rock, cork, logs, tea pot, pinecones or a terrarium.

Reprinted from: Bromelink, bi-monthly Journal of Bromeliad Society W.A. Inc. Vol.5 No.3 1983.

Understanding Plant Nutrient - part 2 of 3 by Les Higgins 2016

Terrestrials and epiphytes benefit from nutrient foliar sprays. Applied on a hot day when evaporation is high salts can accumulate on the leaf surface and cause damage. For non-CAM plants apply early in the morning. For CAM plants apply in the evening. A compromise is foliar nutrition applied on the morning of a bright day at a temperature below 30°C. Foliar applied substances (nutrient or poison) enter the plant by diffusion through tiny holes in the cuticle and uptake by leaf cells. Guard cells prevent the entry of water through the stomata. This can be partly overcome by the use of surfactants. A cynical comment is; foliar nutrient runs down the stem to be absorbed by the roots.

Osmosis description is liquid passing through a semi-permeable membrane (skin). Atom transportation by osmosis is either active or passive. Active transport involves cations(+) and anions(-) being present on both sides of the semi-permeable membrane. The law is: The dilute flows into the concentrate. Nutrient solution more concentrate than the solute within the plant causes "Reverse Osmosis", liquid flows out of the plant causing death. A plant suffering reverse osmosis quickly looks very limp.

Plant Hormones are added to modern fertilisers, they include Growth Promotants: Auxins that encourage root growth and Cytokinins that stimulate green growth. Gibberellic Acid causes elongation and converts growth energy into flowering potential. Huge vegetative and root growth or impressive flowering results from a selection of specific Growth Promotants, not super nutrient.

Another group of hormones are Growth Inhibitors. Ethylene and Abscisic Acid (ABA) control the final stages of plant development such as flowering and seed/fruit production, abscission and senescence. In CAM plants ABA regulates growth, stomata closure, protein synthesis and other biochemical processes.

Tissue Culture formulae has a very basic inorganic selection. Auxin quantity and type is balanced by the type and amount of cytokinin. Both must be compatible to that plant and the desired form of growth. Organics are incorporated to stabilise the culture's pH.

Granular packs of N.P.K, for many years called "Complete Plant Food" are formulated for the needs of plants in soil and soil based potting mixes. Magnesium, Calcium and sulphur are considered to be present in the substrate. Individual applications of Epsom Salt and of Calcium Nitrate are required whenever these packs are given to plants not in soil.

Fertilisers providing the six macro-nutrients became necessary with the introduction of 'Soil-less Potting Mixes'. Resin coated prills in varied nutrient and time release ratios are very popular. One danger found with the early prills was the resin casing split open in hot weather simultaneously releasing sufficient chemicals to cause death. The resin was totally revised and a temperature limitation is printed on the pack. To safeguard against extreme heat, sprinkle prills on the substrate surface and then cover with pebbles. Two part liquid nutrient packs (sold in Hydroponic shops) are excellent but only if the contents of the bottles remain separate until poured into the full amount of water.

Commercial fertilisers can be expected to contain trace elements in sub-optimal amounts. The simplest explanation is to consider a plant as a building site. The building material, bricks, windows, tiles etc are the equivalent of macronutrients. Tradespeople are the trace elements employed to do the construction. To have excess tradespeople is inefficient but an occasional spray of Nutri-Key Shuttle is beneficial for plants.

Vitamins are now accepted as valuable, even essential. They include Vitamin B1, Biotin and B3. Coenzymes, the message carriers within a plant, are usually vitamins or derived from vitamins. Drop a vitamin B tablet into a fertiliser solution.

During most winters there are claims of plants killed by cold weather. A more probable cause of cold weather death is carbohydrate deficiency resulting from over use of Urea and Ammonium. Molasses adds carbohydrate and a wide range of elements. Half teaspoon of molasses per 10 litres of water is ample. In the garden, for cold protection, cover plants with a mulch of Lucerne Hay. The growth hormone Triacntanol is released as the hay decays.

In warmer regions commercial growers use Urea/Ammonium (NH₄) to facilitate maximum growth in the least possible time. To avoid winter death of plants purchased from tropical zones, buy in spring and build-up the plant's carbohydrate tissue. Over the first growing season nitrogen should be exclusively nitrate (Potassium nitrate, Calcium nitrate, Magnesium nitrate). Balance the nitrate (Potassium nitrate) with Epsom salt, Potassium phosphate and molasses, plus Nutri-Key Shuttle (trace elements). Keep Calcium nitrate as a separate application. This gives all six major nutrients and adequate trace elements.

To be continued.....

Novice Popular Vote

1st	Michelle Hartwell	<i>Neoregelia</i> 'Pimiento'
2nd	Coral McAteer	<i>Neoregelia</i> 'Gold Fever'
3rd	Keryn Simpson	<i>Neoregelia</i> hybrid unknown
3rd	Ted Devine	<i>Alcantarea vinicolor</i>

Open Popular Vote

1st	John Crawford	<i>Neoregelia</i> 'Julia'
2nd	Lesley Baylis	<i>Vriesea</i> 'RoRo'
3rd	Kay Daniels	<i>Canistrum fosterianum</i>
3rd	Les Higgins	<i>Tillandsia rodrigueziana</i>

Judges Choice

1st	Lesley Baylis	<i>Vriesea</i> 'RoRo'
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Decorative

1st	Trish Kelly	<i>Cryptanthus</i> 'Strawberries Flambe'
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Comments from the Growers:

John's *Neoregelia* was acquired 2 years ago. It's a slow grower. He uses SR fertilizer, it is grown under 50% shade cloth and given no special attention.

Lesley's *Vriesea* has an attractive flower spike and has given her two pups so far. It's grown under 70% white shade cloth where it is feed a "bit of everything".

Les got his plant from Lesley, he has been experimenting with potting mix for it. He doesn't water it and feeds with his own concoction, has no pests.

Kay was gifted her plant by her daughter at Mudgeeraba about 6 months ago. It's grows under the shade of a tree receiving no special attention, has no pests.

Trish's plant is a hybrid from USA. It receives a lot of bright light but no direct sun, Trish uses rain water only and finds this a tough plant, no special attention.

Michelle's *Neoregelia* is grown at the edge of her patio, receiving some NW sun, with no special attention afforded it other than some rain.

Coral is unsure where she got her plant from originally. It grows at the side of the house. She uses potting mix & fertilizer obtained from Pinegrove.

Keryn got her plant from the Gold Coast about 6 months ago. It's grown in part shade receiving some morning sun. Gets a bit of water, no rat issues as yet !

Ted got his plant in Lismore about 2 1/2 years ago, it has been growing outside in the shade, but is now in the greenhouse. It gets an occasional feed.