

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

Edition: February 2023

Agenda: General Discussion

Venue: PineGrove Bromeliad Nursery
114 Pine Street Wardell 2477
Phone (02) 6683 4188

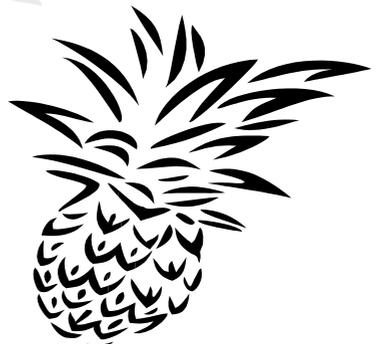
Study Group meets the third Thursday of each month
Next meeting March 16th 2023 at 11 a.m.

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Meeting 19th January 2023

The meeting was opened at approximately 11.00 am
The 11 members and one visitor present were welcomed.
Two apologies were received.

General Business

As this was our first meeting of the year there was no general business to be dealt with other than the suggestion of electing officers for the year 2023. Well that really got everyone's enthusiasm invigorated - 'not', with the suggestion to leave it until next month for further discussion! Seconded by all in attendance.

Our visitor from Queensland, Trevor Blake introduced himself giving a short history of how he got 'hooked on Bromeliads'. Due to the Covid lockdown he gained a greater interest in gardening since 2020 and Bromeliads in particular. While on holiday in our region he thought it a good opportunity to attend our Group meeting.

We hope Trevor enjoyed his visit and the extra plants he gained to add to his ever growing collection.

Show, Tell and Ask!

Mitch brought along his new seed growing venture to show us, 'Till. pockets' with germinated Tillandsia seed inside them. He's growing Tillandsia seed inside pieces of shade cloth folded over and stitched together to form a 'pocket'. These 'pockets' are hung up in a well lit area where there is good air flow and he mist sprays them regularly - at least several times a day.

Mitch had another interesting plant to show us, a bigeneric hybrid of a Vriesea crossed with an Alcantarea being x*Vriecantarea* 'Pink Pussycat' created by John Catlan and named by Genny Catlan. Quite a hardy hybrid that Mitch has been growing in full all day sun along with many of his Alcantarea. Unfortunately due to our fickle summer this season, mostly quite mild with the occasional sudden scorcher this plant didn't quite handle it and got a bit burnt, so it is currently under 50% white shade cloth. This reminds growers that many plants will handle full sun if it is a steady rise from winter through spring into summer. If we get long periods of overcast days and wet weather then suddenly the sky clears to full sun with high temperatures, some bleaching to plants may occur or at worst some burnt leaves. Burnt leaves can look unsightly, leaves with burn patches can be trimmed, to maintain a nice appearance try trimming the leaves to the same shape as its tip was originally. Plants suffering from a little bleaching can be moved to a more protected position where they will recover back to normal.

Trevor asked about buying plants from interstate, most sellers will advise if they can send to your state, best bet is to check with your local regulatory body. If sending plants interstate ensure they are clean i.e. bare rooted, that is no soil around the roots (thoroughly washed) and free of pests.

The hyphen issue requires some clarification as it has been noticed that the Bromeliad Cultivar Registry (BCR) is retaining the hyphen and the 'ii' ending. Whereas the Bromeliads in Australia (BinA) website Photo Index is going with the protolog of hyphen included and one (i). Both will be accepted, but some web sites are type sensitive so you may need to try your search with hyphen in and also without the hyphen and the same regards the 'i' or 'ii'.

What is the significance of the name ending:

When a plant is named after a man it gets the masculine ending of (i) or (ii) -
Vriesea philippo-coburgii for Prince Philipp of Saxe-Coburg.
Sincoraea burle-marxii for Roberto Burl Marx.

When a plant is named after a woman it gets the feminine ending of (ae) -
Neoregelia carolinae for Caroline Morren.
Aechmea racinae for Racine Forster.

Ross had several plants on the table for Show and Tell, a *Guzmania roezlii* in particular raised a few questions about identification.

What is the difference between: a Vriesea a Tillandsia and a Guzmania, also

What is the difference between: an Aechmea and a Portea ?

Tillandsia v's Vriesea.

How do we tell the difference? That's easy, Tillandsias are those grey fluffy things and Vrieseas are green or banded. At the moment ... wrong. Unfortunately there are many green Tillandsias and many grey fluffy Vrieseas. The difference is ... Vrieseas have a pair of nectar scales ——— on each petal, these protect the nectar and the basal flower environment.



However this does not appear to be a good enough reason for separating genera, particularly since the nectar scales or appendages are near to the last parts of the brom to develop and have had no influence on the plants make-up until that time when the petal is constructed.

Many scientists believe that a number of characteristics should be used in combination when defining the genera, which are currently delimited using the one character ... presence of nectar scales. Revision of this situation has already started and is continuing to gain momentum. (DNA)

How to Recognize a Guzmania -- A Guide for the Layman

by Mulford B. Foster

We are always being asked for a simple rule or guide to be able to tell whether a certain plant belongs to this or that family or section of a family. We are so often asked, "How can you tell a Guzmania when you see one? What are the outstanding features that separate it from some of the other bromeliads?"

When you take into consideration that the botanists have been trying to settle this question for two hundred years and that a few of them have completely agreed with each other, it is not so readily explained as some of the layman, who have little more than their casual eyesight and wishful thinking to rely upon, want it to be. There are few short cuts for the botanist so the layman shouldn't ask for, perhaps, one rule that has taken the scientists years of observation and study to learn.

There are certain outstanding characteristics that a Guzmania must have. However, several of these very same characteristics are common with other genera as well.

First of all, every Guzmania must have smooth edged (entire) leaves. There are no spiny edged leaves in the Guzmania group. The leaves are generally glossy and the plants are generally in the form of a many-leaved rosette. In most species there are fine pencilled longitudinal lines, brown or maroon, showing faintly or strikingly in the leaves, usually most evident near the base of the leaves. Certain exceptions such as *Guzmania musaica* will not show these longitudinal lines but may show very striking bands of pencilled markings of maroon or dark green colour instead.

The flower head of a Guzmania may be on a tall scape or it may be sunken in the leaf rosette. It will be in a close, head-like form if low, but may also have a close, head-like formation on a long stem. Some flower heads are in a tight, cone-like form while others are on long spikes with short compact branches or long open branches. One character in Guzmania that a layman can see easily is that the flowers are always in more than two rows, while in most species of *Tillandsia* and *Vriesea* they are in exactly two rows.

All Guzmania have plumose seed, generally brownish - the little feathery pappus (parachutes) that float on a current of air. All members of the subfamily Tillandsioideae, to which Guzmanias belong, will have this kind of seed, but not all are brownish.

Ed. (**Pappus**: apical tuft of hair or bristles or homologous appendages on fruits. On a seed, such a tuft is termed coma.)



No matter what the form of the scape or the seed, it will be necessary, for final identification, (and for that matter any bromeliad) to examine the parts of the flower which can be seen when you dissect a flower. First, you must remove the floral bract, then the sepals which are generally attached to each other at the base; then, with the aid of a magnifier, you examine closely the petals.

Most of the Guzmania flowers do not open very wide, if at all, and then usually but very little. However, some spread completely open with recurved petals. Guzmania flowers will be, generally, white or yellow.

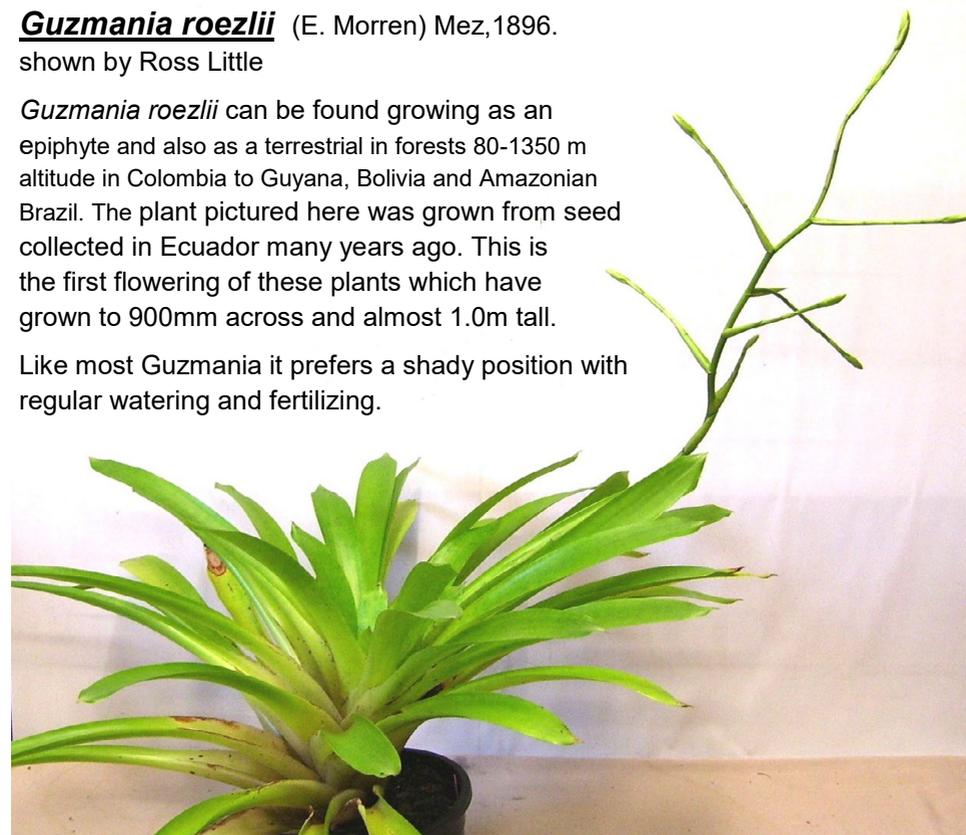
All flowers will have colourful bracts which may appear to be petals, especially in the closely framed heads such as *Guz. lingulata*. These bracts may be yellow, green, white or red-orange and many of them also have pencilled longitudinal lines, like the leaves.

Of sepals, there are three; they are the flower parts that surround or contain the three petals. In Guzmanias the sepals will be fused near their base. The edges of the sepals will be smooth - not serrated. continued page 6.

Guzmania roezlii (E. Morren) Mez, 1896.
shown by Ross Little

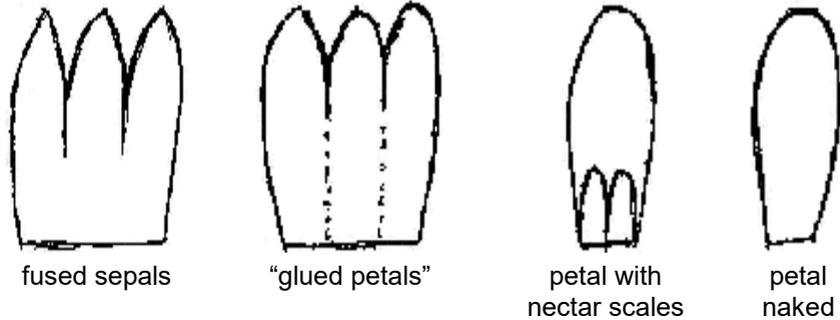
Guzmania roezlii can be found growing as an epiphyte and also as a terrestrial in forests 80-1350 m altitude in Colombia to Guyana, Bolivia and Amazonian Brazil. The plant pictured here was grown from seed collected in Ecuador many years ago. This is the first flowering of these plants which have grown to 900mm across and almost 1.0m tall.

Like most Guzmania it prefers a shady position with regular watering and fertilizing.



The petals, however, will give the final decision, and it is on the basis of whether or not they will be joined together but not fused. In *Guzmania* it will be a good “glue job” as Lyman Smith says. The petals can be separated without actually tearing the tissues in the process. Some may be joined higher than others.

Also, the petals must be naked, without nectar scales at the base of the petals.



If the petals are definitely fused or grown together at the base and have nectar scales at the bottom of each petal, then, most likely you have a *Vriesea*. But if the petals are separate and have no nectar scales then you probably have a *Tillandsia*.

If the layman becomes bewildered at this seemingly “technical” approach, may I say that I have endeavoured to simplify and synthesize to a minimum, those characteristics essential to the determination of a *Guzmania* without which your observations can have no valid frame of reference.

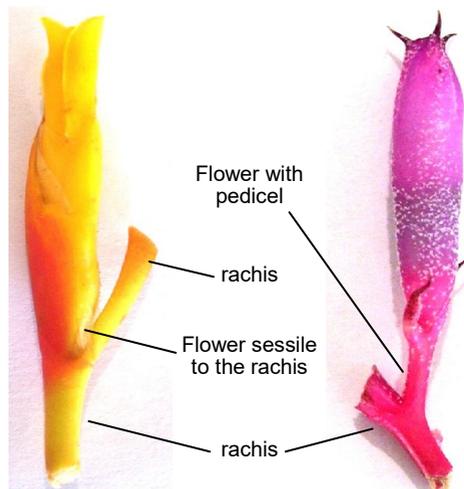
A little keener observation, a little more analysis, a little more curiosity and a little more insight into the flower will enrich your Flower I.Q.

Aechmea v's Portea

Many years ago when I was visiting John Catlan (Qld. Aust.) we discussed the difference between *Aechmea* and *Portea*. John “if the flowers have a pedicel longer than 5mm it's *Portea*, if they are sessile it's *Aechmea*”.

However there are some *Aechmea* that have long pedicels e.g: *Ae. mexicana*, *Ae. luddemanniana* and *Ae. filicaulis* to name a few.

Photos by Ross Little



Happy 90th Birthday Shirley Smith



Mum (Shirley) is a genuine North Coast local. She was born in Lismore and grew up on a dairy farm at Tucki, with her parents Charlie and Iris Mason, older brother Bill, and 2 older sisters Fay and Yvonne. She went to Tucki primary school and then Lismore High, then went on to do her nursing training at Lismore Base Hospital - the only one of her family to gain a profession. Now there are 3 generations of nurses, plus a doctor in our family.

She met my Dad, Alan Smith at high school, and they married in 1955. Dad always said that Mum could hold her beer better than most blokes he knew!

My brother Phil arrived in 1958 and I followed in 1960. Mum was always there for us, and they both worked hard to give us a happy and carefree childhood. Mum always supported Dad with his health challenges, and with his business ventures, which were many and varied over the years. The most well-known would be building, owning and operating the iconic Ballina Waterslide for more than 20 years.

Mum has seen some tough times in her 90 years. She may be little in stature but she is big in resilience and strength of character. She has passed on her core values to us - honesty, respect and kindness, just to name a few. She is a much loved mother, grandmother, great grandmother sister and friend to many and I am proud and grateful to be her daughter.

From Debbie - Happy 90th Mum !!





Aechmea chantinii
1st Open Kayelene Guthrie



Tillandsia tenuifolia
1st Tillandsioideae Helen Clewett



Vriesea 'Kiwi Cream' x fenestralis unreg.
shown by Michelle Hartwell



'SEED'
shown by Kayelene Guthrie



'Happy Dayz'
1st Decorative Debbie Smith



'Snail Trail'
1st Decorative Coral McAteer



Catopsis paniculata
shown by Mitch Jones



'Sea of Colour'
shown by Mitch Jones

Vriesea altodessarae

shown by Helen Clewett

This highly ornamental species was found in Alto da Serra, Sao Paulo, Brazil in 1875.

It grows terrestrially and epiphytically in rainforest mostly at higher altitudes. It is a very attractive, eye catching species that grows to 800mm across x 1300mm high.

Occasionally confused with species such as *Vriesea philippo-coburgi* and *Vr. procera*, however it can be distinguished from both of them by its narrow attenuate leaves and its long narrowly triangular blades of the scape bracts and lower primary bracts.

Attenuate: narrowing to a point; thin or slender.



Hohenbergia castellanosii

shown by Ross Little



This very hardy species was found by Castellanos in Marau to Muta, Bahia, Brazil in 1967.

This plant is 450mm across and 950mm tall including the inflorescence. To attain the red leaf tips the plant was grown in full all day sun into a clump and not fertilized.

It is a very tough species that has endured many 40°C plus days, so would be well suited to a xerophytic garden.



Tillandsia 'Jim Hyde'

shown by Gary McAteer

A form of *Till. fasciculata* variety *densispica* with yellow green floral bracts and pale violet petals, it was obtained from Jim Hyde of Brisbane Australia in the 1970's and named by Rolly Reilly.

Gary was a bit dubious about the name that was on this plant when he acquired it as:

Tillandsia variabilis 'Cartago'.

Now that it has flowered we agreed it wasn't right and has now been correctly identified as *Tillandsia* 'Jim Hyde'.

Neoregelia 'Ebbeny'

shown by Ross Little

Grown under 70% green shade cloth this plant grew to 650 mm across. Prior to its centre flushing fuchsia pink it was spotted light purple on the inner leaves.

It's a vegetative sport from *Neo. 'Psychedelic'* x *spectabilis* which occurred in the collection of Perth grower Derryn Grosse and named in honour of his daughter.



Dyckia 'Yellow Glow'

shown by Mitch Jones

Dyckia 'Yellow Glow' is a cultivar of *Dyckia brevifolia* which can sometimes be challenging to grow and getting it to turn the bright canary yellow it's known for.



With experience growing this *Dyckia* I have found it tends to like to be on the dryer side, not too much water. Excess water tends to cause the plant to rot. I have learnt rain only will suffice especially if it is grown in a 200mm squat pot with gravel topping.

I have found *Dyckia* 'Yellow Glow' will turn bright canary yellow in the warmer months especially when the plant has matured and is grown in full sun. Clump specimens look best in pots.

Free draining succulent or cacti mix is best suited with 12 to 24 month slow release fertiliser added to the potting medium.

Propagation is easy and is done by removing rosettes when the plant becomes over crowded in its pot or the clump starts to become compact. Removing the excess rosettes allows air circulation and helps prevent rot caused by water sitting in the centre of the clump.

Dyckia 'Yellow Glow' can be susceptible to stress so once it has found its happy spot I highly recommend growing it in that position or area.

Show, Tell and Ask! continued

How do we acquire seed from seed banks?

There are seed banks within Australia via some of the Bromeliad Societies that offer fresh seed at reasonable prices. Remember most seed is opportunistically collected from within the collectors shade house or garden with no idea who the pollen donor was. In other words no guarantee it is true to type. It is up to the seed grower to assess the results as plants mature and flower. Be aware some 'seed banks' are distributing seed collected off hybrids and naming the seed as such, the resultant seedlings/plants cannot be named as per the parent of that seed. They are another hybrid possibly deserving a new name in their own right.

Importing seed from overseas is getting more difficult, be sure to acquire only from reputable seed bank suppliers e.g. BSI seed bank. All imported seed must be correctly labelled and match Australian Quarantine Services (now DAFF - Department of Agriculture, Fisheries and Forestry) Icon lists and may need a phytosanitary certificate. Also check with your state/local DPI - Department of Primary Industries.

Ed: as Bromeliad Groups/Societies our aim should be to preserve species only through our seed banks.

Mitch mentioned that he's been pollinating his plants/flowers while it's been wet as bees and other beneficial insects are not active. This allows him to control his pollination efforts reducing the risk of foreign pollen corrupting his efforts.

Raising seed requires a lot of patience, Neoregelia, Aechmea, Hohenbergia, *Dyckia* seed and many others will can be successfully grown from seed to flower in around 3 years. *Alcantarea*, *Tillandsia* and *Vriesea* seed can take as many as 25 or more years to reach maturity and flower.

I have a large tank type *Tillandsia* flowering now (2023), I've had it for 17 years, it was a very large plant when I acquired it, I would guess it's close to 30 years old now. It will be featured in these pages in coming months. Ed.

Vegetative propagation of most Bromeliads is a quicker method to grow a plant from offset/pup to flower but slower than seed raising/mass production if large numbers of plants are required.

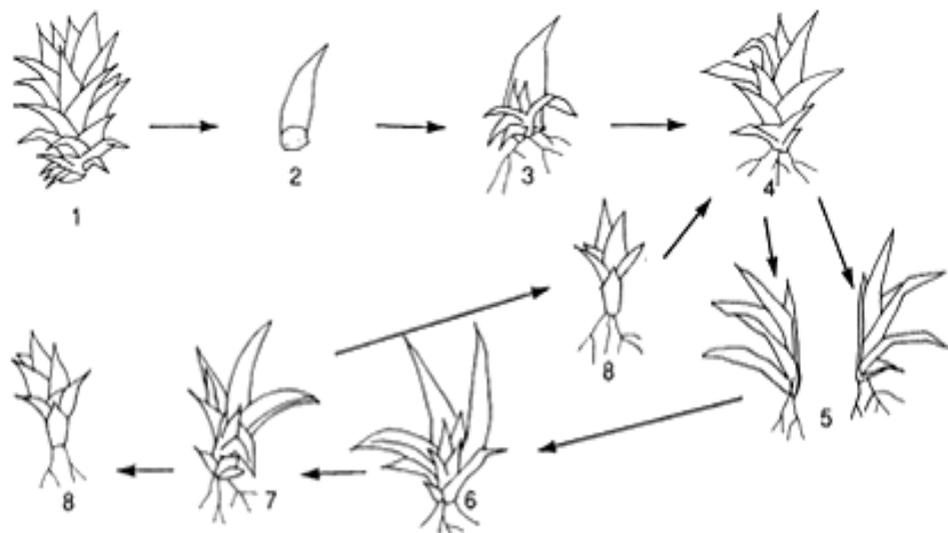
Mitch has been experimenting with growing pineapples. *Ananas* (pineapples) can be grown from offsets/pups or from the crown of the fruit itself. Cut the crown off the fruit, allow it to dry for a few days before planting it into potting mix. Another method is to suspend the cut top over water allowing roots to form and search for the water. When roots have formed plant the top into potting mix.

The crown itself can be halved or cut into four pieces down through its centre, allow each section to dry then place them in pots and treat them as per a regular offset/pup. (No.5 of Leaf-budding Cycle below)

A method Mitch has been trialling is 'crown leaf cuttings', taking or tearing the leaves of the crown off and setting them in trays of vermiculite. Keep them in a brightly lit area and keep moist. Unfortunately Mitch's first successful attempt fried on one of those awful scorching days. Must keep them cooler next time.

The following information (in part) has been gleaned from an internet search for: 'pineapple leaf cuttings' and 'ananas leaf bud multiplication'

Ananas plants can be vegetatively propagated either in vivo or in vitro. These vegetative propagation techniques are commonly applied for cloning of plants that have highly segregating seeds, long juvenility or are parthenocarpic. Plants such as pineapples and bananas for example, are vegetatively propagated because it is not preferable to have seeded fruits. In pineapple, leaf budding has been shown to be a good way of mass propagating in vivo. An average of 15 leaf-buds can be obtained from a single crown.

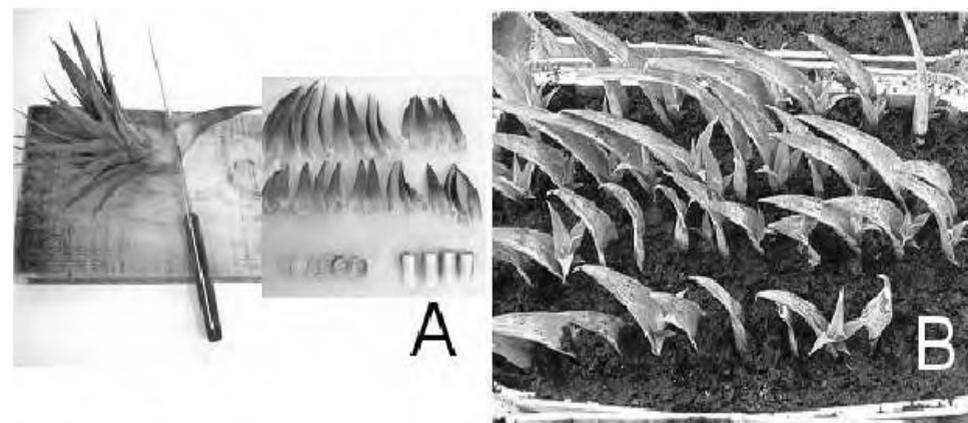


- Key:-
- | | | |
|-------------------------------|---|-----------------|
| 1. Pineapple crown * | 5. Plantlet halved | |
| 2. Leaf-bud * | 6. Bud(s) developed on divided plantlet | * Stage 1 Cycle |
| 3. Developing plantlet * | 7. Divided plantlet with bud(s) removed | |
| 4. Fully developed plantlet * | 8. Bud(s) detached and planted | |

Illustration of the leaf-budding cycle from Wong, W.W.W (1992).

Crown leaf budding: This technique has been used for many years and many alterations of the original technique have been tested (K. K. Seow et al., 1970; C. K. Lee et al., 1978; H. C. Dass et al., 1984). Each crown leaf in the pineapple plant covers a bud on the stem at its base. The first step is to remove and discard the base of the crown and any dry leaves. Each green leaf of the crown can then be carefully removed along with a small piece of the stem just under the bud (Figure 1A). The top portion of the crown with associated leaves is too soft to permit the removal of single buds so the whole top is just split vertically into four pieces. The cuttings are then dipped into a sodium hypochlorite solution followed by a fungicide dip to protect against rotting and then planted into flats containing moistened sand, a mixture of black soil and peat or agarose (agar medium). One month after the transfer to the growing medium the buds develop into plantlets. No fertilizer application is required at this stage. After two to three months of growth, the plantlets are transferred into propagation trays (sheet pots) or into beds in a greenhouse. The growing media used at this stage consists of 45% black peat, 40% white peat, 15% clay and 4 kg Osmocote 10-11-18+2 per m (Osmocote may be replaced by other fertilizer compounds). The propagation trays are installed under shade 3 (40%) and irrigated with small sprinklers just to maintain the soil wet. After three additional months of growth under light shade i.e. when they are five to six months old, they are ready to be transplanted into the field. One crown can give up to sixty plantlets depending on the variety of pineapple.

Figure 1. Crown leaf budding.



A. Separating leaf buds from the crown.

B. Leaves growing in the planting medium.

Taken from in part:
 Newsletter of the Pineapple Working Group, International Society for Horticultural Science.
 Thanks to Mitch Jones and Chester Skotak for their help in compiling this information.

Open Popular Vote

1st	Kayelene Guthrie	<i>Aechmea chantinii</i>
2nd	Mitch Jones	<i>Dyckia</i> 'Yellow Glow'
3rd	Helen Clewett	<i>Vriesea altodaserrae</i>

Tillandsioideae

1st	Helen Clewett	<i>Tillandsia tenuifolia</i>
2nd	Mitch Jones	<i>Catopsis paniculata</i>
2nd	Gary McAteer	<i>Tillandsia</i> 'Jim Hyde'

Decorative

1st	Coral McAteer	'Snail Trail'
1st	Debbie Smith	'Happy Dayz'

Judges Choice

1st	Mitch Jones	<i>Dyckia</i> 'Yellow Glow'
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John's Decorative Object - judged by John Crawford

1st	Kayelene Guthrie
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Web Links for Checking Correct Identification and Spelling ?

Bromeliad Cultivar Register (BCR): <http://registry.bsi.org/>

Refer to this site for correct identification and spelling of your hybrid or cultivar.

New Bromeliad Taxon List : <https://bromeliad.nl/taxonlist/>

Refer to this site for latest species name changes and correct spelling.

Bromeliads in Australia (BinA) <http://bromeliad.org.au/>

Refer to this site for its Photo Index, Club Newsletters many with Table of Contents Index and there's Detective Derek Articles.

Keep these web sites set as desktop icons for quick reference access.

Where do I Find the Dates ?

www.bromeliad.org.au then click "Diary".

Check this site for regular updates of times, dates and addresses of meetings and shows in your area and around the country.