



# THE MONTHLY BULLETIN OF THE KU-RING-GAI ORCHID SOCIETY INC.

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**Next Meeting :** \* \* \* **No February meeting this year** (We are still effectively locked out but things are looking more hopeful. Our committee will advise you immediately as soon as there is any change to our situation.)

## The January Virtual Benching

How about that Stanhopea crossed with a bucket orchid in this month's Virtual Benching (= Coryhopea). It sure did look like its name "Predator". It is hardly surprising that it was one of Gowan Stewart's. Another of our members who could grow leaves on a stick, but she also has a wonderful curiosity streak that brings her to try all sorts of weird orchids, and she has quite an artistic talent too unless you haven't noticed the great one person displays she does at the St Ives Fair each year. I hope the pandemic allows the fair to resume this year and that Gowan continues.

## My Favourite this Month – a big Stanhopea nigroviolacea 'benched' by Jenny Richardson



I have to start by admitting that Stanhopeas aren't really my favourite orchids. I admire their complexity and I grow quite a few, but that is it. But don't judge them by my attitude. Many growers just love them, and they are very popular.

Despite all that, it is this photo that really got me this month. I haven't noticed a picture from underneath like this one before. At first I thought I was looking at buds just opening but I soon realised that was wrong. This is the bee's eye view of open flowers.

Can you imagine yourself as a bee approaching from below? That cross pattern opening in the tip of the lip is so unexpected. If I was a bee flying up into that, half intoxicated by the overpowering Stanhopea vanilla and chocolate perfume, I wouldn't know where to go. Of course he (or is it she or it?) might not approach from below. Perhaps they come at the flower from side on, right at the base of the column? But anyway, I am allowed to imagine aren't I?

So how else can I say it. To my un-art trained eye this is a great piece of art. Congratulations Jenny. I have rarely seen one displayed so well.

In the Virtual benching Jenny has already told you about the contention regarding the name. Stanhopea expert Barney Greer's great little book was published in 1997 and even up 'til then nigroviolacea and tigrina were regarded by most as separate species but the scientists were circling. Nowadays it is accepted that they are the same but for horticultural purposes, although colour is not a valid separator, the deep purple splashed one is still labelled nigroviolacea in most collections. So don't go willy-nilly changing your labels. The name is still horticulturally purposeful.

Stanhopea tigrina as a species comes in a wide range of colour and pattern variations from mostly yellow with purple spots, often in lines, to the extravagant purple splashed patches of nigroviolacea. Barney Greer's book tells us that 'tigrina' (the less coloured one) is much the rarer, but probably also the less popular.

Still, both are very attractive in their own way and both grow well for us here in Sydney.

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**Society News** (if anyone has a news item, please phone Jim on 9476 3383, or email at [jimbrydie@aussiebroadband.com.au](mailto:jimbrydie@aussiebroadband.com.au) )

**President Dennys' Desk** – Are our meetings about to return? I am still not in a position to say yes. Transparently, our committee is split about returning if restrictions are eased further and that is fair enough because personal risk needs to be considered seriously. To be honest, because of my own health I am personally worried about it before vaccinations become the norm. Presently, our normal meeting hall is still limited by the 4 square metre rule which means with all our tables we are restricted to 24 people. With half our tables, it would be 30. So, what does this mean? Although some folk may get enjoyment out of a truncated meeting the larger part of our membership will not. I certainly would not. If the restrictions are eased further, then I will undertake to ask all members if they are prepared to return to meetings and the responses of members will be factored into the decision consideration. That said, even if this occurs many members have already advised me that they will not return to meetings until they feel it is completely safe to do so. Such a decision will be respected by me.

**Supplies** - As members have been previously advised Garden City Plastics are moving to Trade Customers Only. Jenny has been in contact with GCP and they have confirmed that they will still sell to societies, but their ball-park order minimum is about \$1000 per order. Hopefully by the time you receive this bulletin, KOS will have submitted an order to and received goods from GCP. We are ordering some hangers and a restock of Osmocote pellets and Peter's Finisher fertiliser. I thank all those who responded with advice on this matter, notably Kevin Crocker.

**Virtual benching** - On the 23rd January, Jenny launched VB #10 and she was correct to describe it as a bumper issue and welcomed Adrienne McLean to VB – fantastic. John Chang's elegance continues to amaze me. The easiest thing to say for me is that hairy little *Bulbophyllum dayanum* grown by Jean and Jeff Fulcher captured most of my attention along with Jenny's blooming *Stanhopea nigroviolacea*. Thank you all for sharing the joy and thank you Jenny and Jim for your continued efforts. I also thank Trevor for working with Jenny to get VB's on our website.

**Facebook and VB** – We are working out a way to get some of our VB photos on FB which will be great. Jenny is working with Angie Lyle and hopefully some of photos will be appearing more regularly but this also depends upon permission being obtained from those who “own” the photos.

**Alice Hipkins** – In January I attended the funeral of Alice Hipkins. Alice passed away just short of her 100th birthday. She had an amazing life, and I was unaware of how much of her life was connected with the world of orchids and the extent of the work she accomplished to make orchids more accessible to people. I have no doubt that her efforts will continue to contribute positively to our world of orchids.

**Member's welfare** – please remember, if you need to speak to someone immediately then you are most welcome to contact me at any time, 24/7 on 043 88 77 689.

### Future Events

**Sun 14<sup>th</sup> Feb - Public Auction sale of orchids from the estate of the late Garry Williams**, at Cromer Community Centre, Fisher Road North, Cromer. All proceeds go to Garry's Widow. The auction has been organised and will be run by Manly Warringah Orchid Society. Their Secretary Tinka Riddell tells us : The auction will start at 10am with viewing from 9.30am. Included are 92 trays of orchids up for auction with 5+ plants in each tray/box. So come along and grab a bargain. (PS: Jim Brydie can email you a catalog - [jimbrydie@aussiebroadband.com.au](mailto:jimbrydie@aussiebroadband.com.au))

**Sun 28 April** – the MWOS will also host the next of their very popular bi-annual public orchid auctions. Catalogs are just being developed at present. More info available as it comes to hand.

**The Library – by Chris** - The Oct - Dec 2020 issue of the Orchid digest is now in. This issue is devoted to the genus *Phragmipedium*. The front cover shows the species *Phragmipedium caudatum* and the back cover shows the hybrid *Phragmipedium Noirmont*. As usual many excellent photos illustrate the articles. Frank Cervera has contributed three articles outlining the species and their identification; cultural requirements and taxonomy. There is also an article on breeding for white flowers. There is an anecdote about an imported batch of *Phrag. besseae* where a customer complained about receiving a plant with yellow flowers instead of the usual red. The exchanged plant was important for breeding. Also the yellow combined with pink in some crosses has produced white offspring.

(JB: wow, I wish I had gotten the yellow one.)

### Observations

- I think most people write 'Congrats' because they don't know how to spell congratulashions
- It's a five minute walk from my house to the local pub and it's a 35 minute walk from the pub back to my house. The difference is staggering
- When NASA's robot Curiosity landed on Mars, early photos showed no sign of football, beer, or porn. Proving once and for all that men are not from Mars.
- Propa ganda is what London Cockneys do when they look really close at something.
- I was told by my doctor that every piece of chocolate eaten shortens your life by two minutes. After doing the maths, it seems I died in 1537.
- The surest sign that intelligent life exists elsewhere in the universe is that it has never tried to contact us.



## Orchids from the Virtual Benching -- Jim Brydie

1. *Brassia verrucosa* - benched by Adrienne – Jenny told you all about this mostly Central American species in the VB so I won't repeat all that here, but I just had to say what a great orchid this is for newer growers in Sydney. It may come from the tropics in wetter conditions than our temperate zone, but it does come from a high enough elevation in its home countries to make it tolerant of our winter temperatures, and it is one tough little species. It can be grown under trees in the backyard provided you supplement the irregular rain we get here and feed it at least more or less regularly.



I have seen a few sad looking backyard *B. verrucosas* in my time but it sure takes a lot to kill one. Just treat it with at least a little care and it will reward you with displays like this one of Adrienne's. One little warning though. It does have a strong perfume, and one that not all find pleasing. Not an orchid to leave locked up in a warm house while you go shopping.

2. *Brassia hybrids* - several benched – You can see from the lovely *Brassia verrucosa* above, what it and its sister *Brassia* species might offer when they are crossed with their other *Oncidiinae* cousins, and we had a few nice examples in the Virtual Benching as well. Big spider shape flowers, multi flowered racemes, and colours carried from both parents.



There are about 30 species of *Brassia*, all from the Americas, like all *Oncidiinae* members. However, a few have characteristics that make them a less than the ideal parent. Some come from lower elevations and are therefore warmer growers, and some produce hybrids that can be difficult to flower, but there are also many types that are wonderfully floriferous and easy to grow, and these days I think you can trust the commercial breeders to be using the best ones.



The four hybrids at the left are from our Virtual Benching. A *Brassidium* (a cross between a *Brassia* and an *Oncidium*) is the most common *Brassia* intergeneric. Betty N Shiraki is the cross between *Brassia verrucosa* and the delightful (and tough) *Oncidium sphacelatum* which has a tall, many branched inflorescence of hundreds of 3cm yellow and brown flowers. As you can see, the hybrid is a

lovely half way between the two parents. Tigerlily is another *Brassia verrucosa* hybrid but is now officially a *Bramesa* because the parent that used to be *Oncidium sarcodes* has now been shifted to become *Gomesa sarcodes*. However, for the purposes of this discussion you may just as well call it a Brazilian *Oncidium*. *Sarcodes* also has many yellow and brown to red/brown flowers on a tall spike but is less branched.

'Golden Gamine' is a *Brassidium* using a different *Brassia*, the darker flowered, more wispy shaped *Brassia arcuigera*. I rather like these blackish looking flowers, and I have another 'arcuigera' *Brassidium* that grows and flowers very well in my shadehouse and has only recently finished flowering. Its name is Kenneth Bivens. *Brassia arcuigera* has a quite distinctive long narrow lip that is often a feature in its hybrids as well, along with its dark coloured sepals and petals, but in nature it comes from much lower elevations so in its hybrids I feel it is important to find a cross with a significantly cooler growing *Oncidium* parent. Something that is not particularly hard to find.

The fourth of our initial samples above is more complex. Instead of *Brassia* x *Oncidium*, it is *Brassia* x *Miltonia* (*Bratonia*). The *Miltonias* generally have larger and fewer flowers than *Oncidium* and are more colourful but there is quite a difference from one species to another. *Bratonia Shelob* is a 5<sup>th</sup> generation hybrid involving 3 *Miltonia* species and 3 *Brassia* species, one of the latter being *Brassia gireoudiana* which has a magnificent long spike of big flowers but can be cranky to flower. The other two are *Brassias verrucosa* and *arcuigera* so *Shelob* is really a curious mix that has created a very pretty flower.



### 3. *Prosthecea?* or is it an *Encyclia*, or an *Anacheilium*, or perhaps a *Coilostylis*? Or something else? –



In our Virtual Benching this month there were pictures of two very attractive “Prosthecheas” (radiata, and trulla), which leads me to explore the title question. The story begins with --- Once upon a time there was this giant genus called Epidendrum.....

All Epidendrum species and relatives are from the Americas and are related to Cattleya & Laelia. When the explorers of the last century were still discovering all those new species, the genus Epidendrum became something of a dumping ground for new species of this family that were not clearly some other genus. The problem was that although they became Epidendrums, they were a quite a different bunch and fairly obviously not all members of the same genus.

In 2004, Carl Withner and Patricia Harding published a book called “The Debatable Epidendrums” that gives us some nice history of the problem in its preface. It is too much to repeat here in total but I hope the following extracts give you some useful history. Carl tells us :

*“... this book deals with more of the Epidendrum species, especially those that have fallen into Encyclia in the past, more or less only because they had pseudobulbs and because other salient factors of the plants and flowers were ignored.*

*... most classification systems have been classed as artificial instead of natural because they have not always emphasised the evolutionary relationships of the species, genera, and sub genera, or other categories in taxonomy.*

*... We have always attempted to make our classification systems as ‘natural’ as possible, trying by deduction and close observation of their comparative anatomy and biochemistry to reflect what ‘may’ have happened in nature. We have never succeeded completely, of course..... With the orchids, we have also never been able to assess the role of hybridisation versus a direct descent through mutation or other factors.*

*.... The recent use of nucleic acids (DNA) ... and computers...has enabled man to approach the matter of orchid classification in another fashion... The potential for a more evolutionary basis for classification now becomes possible with these techniques. .. although such systems have much merit, the results often do not jibe with the more classical systems. ... With orchids, the genetic studies have only just begun to add information that is useful at the generic and species level. .. techniques for obtaining such data are improving all the time, as are the machines...*

*..but to write a book about these species now, we must mostly content ourselves with the classical data and information on hand, supplementing it when possible with the new data as it becomes available. ... although we realise that the treatment we have proposed (JB:- ie the arrangement of which species go in which genera) may end up completely changed. From our artificial or practical point of view, it is the only avenue available until additional species, multiple clones of the same species, and pigments, genes, and proteins that are more varied may be sampled and analysed.... ”*

(editor Jim Brydie: I have provided the above excerpts to illustrate the changeability of the bases for defining what is what, and that even the views of equally respected authors and taxonomists are still in flux. The Preface and Introduction of this book are much more comprehensive than these excerpts and anyone interested in the subject should take the trouble to read both, and the authors generic definitions, as valuable contributions to an understanding of these very popular genera. )

So, now as to which genera is which. In Withner and Harding’s book, they provide this simple key to 8 genera of well known species, separating orchids that were all once Encyclia (after just about all starting as Epidendrums).

		Genus
1a	Column fused to lip	Coilostylis
1b	Column free of lip	Encyclia
1c	Column fused to lip part way	go to 2
2a	Column teeth equal (except in Anacheilium ciliare which has a fimbriated column midtooth)	go to 3
2b	Column teeth unequal either in length or in characteristics	go to 4
3a	Flowers resupinate (ie lip downwards)	Pollardia
3b	Flowers non-resupinate (lip uppermost)	Anacheilium
4a	Lateral teeth of the column longer than medial tooth	go to 7
4b	Medial tooth of the column longer than lateral teeth	go to 5
5a	Lip longer than 15mm long	Panarica
5b	Lip shorter than 15 mm long	go to 6



6a	midtooth of column is beaklike (acute)	Hormidium
6b	midtooth of column rounded, not beaklike	Prosthechea
7a	Lip without warty heels	Prosthechea
7b	Lip with wart heels	Oerstlundia

Now getting back to the orchid in the picture at the beginning, is 'trulla' really a Prosthechea? Well, the lip is uppermost so it clearly isn't a Pollardia, and if I could see the details of the flower and had a magnifying glass, I could also decide between Anacheilium and Prosthechea and others. But, seeing I can't, let's look at other means.

Orchidwiz says the correct genus is Prosthechea and gives W.E Higgins 1998 as the published reference. They also List Anacheilium as a synonym quoting Withner and Harding 2004 as the publication for that name, implying that this name hadn't been accepted (and also that the key table above is not accepted).

Interestingly though, in Withner and Hardings book they also mention the Higgins reference. They say : "Higgins (1997), from his cladistic study of Encyclia based in part on molecular studies has transferred more than 90 species to Prosthechea, apparently without noting some key morphological characteristics in comparison to the numerical cladistic information." It seems that at least those two author taxonomists were unconvinced.

If you check our other freely available major species name resource at orchidspecies.com, a site contributed to by a huge number of orchid experts and taxonomists, you find that they give the correct genus name as Anacheilium (with Withner and Harding as the reference), and list Prosthechea (ref Higgins 1997) as a synonym. So, it seems you can toss a coin between Prosthechea and Anacheilium depending on which expert you accept.

Like Carl Withner, I am still a trifle suspicious of some of these early DNA studies and the cladistic results they have proposed. I am convinced that DNA analysis is the way to go eventually, but like Withner and Harding, I would like to see more comprehensive studies including study of multiple clones of each species and particularly type species and various forms. Eventually, DNA should provide us with a much clearer picture of the evolutionary history of many genetic branches of the orchid family. But at present, assuming that Withner and Harding did use their own key and decided trulla and radiata were Anacheiliums, I will go with that too.

If we accept Higgins without question it would mean that we don't accept physical characteristics like resupinate or non-resupinate flowers (and other such factors), as indications of evolutionary path and Prosthechea finishes up with a strange mix of characteristics. Perhaps it is only me but I can't see that. There must be more to come. I may turn out to be quite wrong, and if so, will stand corrected when it is finally shown how such evolutionary trees arose.

### A bit of light Relief

#### A Story about Three Men who went on a Hike ...

Three men were hiking through a forest when they came upon a large raging, violent river. Needing to get to the other side, the first man prayed: 'God, please give me the strength to cross the river.' - Poof! God gave him big arms and strong legs and he was able to swim across in about 2 hours, having almost drowned twice.

After witnessing that, the second man prayed: 'God, please give me strength and the tools to cross the river.' Poof! God gave him a rowboat and strong arms and strong legs and he was able to row across in an hour after almost capsizing once.

Seeing what happened to the first two men, the third man prayed: 'God, please give me the strength, the tools and the intelligence to cross the river.' **Poof!** He was turned into a woman. She checked the map, hiked one hundred yards up stream and walked across the bridge.

( the moral of the story is that if at first you don't succeed, do it the way your wife told you!)



Pee on the electric fence  
they said...  
It will be fun they said...



**A Public Announcement by Mary Poppins** - she says she will no longer be endorsing her special brand named lipstick. She has found that it breaks too easily, and it makes her breath smell. She is quoted as saying - "the super colour fragile lipstick gives me halitosis."



**4. *Stanhopea* intergeneric hybrids** – After seeing that amazing *Stanhopea* intergeneric grown by Gowan in our last virtual benching, I thought it would be interesting to see what some of the other *Stanhopea* intergenerics looked like. The main other genera used to hybridise with *Stanhopea* are : *Acineta*, *Cirrhaea*, *Coryanthes*, *Paphinia*, and *Gongora*. There has also been a few hybrids with a rare genus called *Kegeliella* and I strongly suspect those with also be explored more fully in the future. It is not feasible to show you all the species and varieties used, but the following should provide a general insight into the kinds of orchids involved.



***Acineta erythroxantha***



***Cirrhaea dependens***



***Coryanthes macrantha***



***Gongora galeata***



***Gongora chocoensis***



***Paphinia herrerae***



***Paphinia neudeckeri***

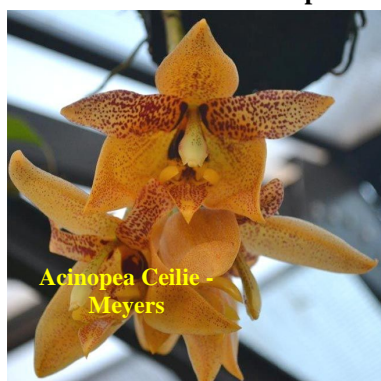


***Kegeliella atropillosa***

So you can now see the general characteristics of some of the parent species. Can you guess what the hybrids with *Stanhopea* might look like?

Apart from the *Gongoras*, these are all quite large flowers. At least as big as the *Stanhopeas*.

#### Samples of the intergeneric *Stanhopea* hybrids



***Acinopea Ceilie Meyers***



***Acinopea Eric Sauer***



***Acinopea Gunter Gerlock***



***Stangora unknown***

----- three *Acinopeas* (*Acineta* x *Stanhopea*) -----

(*Stanhopea* x *Gongora*)



***Paphinopea Doug Kennedy***

(*Paphinia* x *Stanhopea*)



***Kegehoepa Hoosier Surprise***

(*Stanhopea* x *Kegeliella*)



***Coryhoepa Red Martian***

(*Coryanthes* x *Stanhopea*)

There are also a few *Cirrhopea* hybrids (*Stanhopea* x *Cirrhaea*) but I was unable to find a picture of any. I don't know whether that means they are so outstanding that the pictures are worth a fortune, that they too new for pictures to be available, or that the hybrids are a total failure and not worth snapping.

Anyway, although this intergeneric area obviously has much promise, growers need to take care that some will be failures. Also, that some are bred between warm growing species that require special conditions to cultivate them. For example, many of the attractive *Paphinia* species are at best intermediate growers. Some of the *Acineta* are from higher elevations but you rarely see them in collections so I assume there is some drawback to their cultivation. I have never grown them, but it should be possible with some understanding of their needs and I am sure more experienced advice is available if you look.



## 5. The bizarre *Bulbophyllums* - Benched by Jean and Geoff Fulcher

How about that fantastic close up picture of *Bulbophyllum dayanum* that the Fulchers sent in. What a cracker. Why does an orchid evolve to look like such a hairy scary face. If it is imitating some kind of prehistoric beastie I hope I never meet one. Even its mother couldn't love it.

Dayanum is one of those Bulbos with growths spaced a few inches apart on a rhizome, and comes from an intermediate temperature environment, but it sure does provide an interest when it flowers.

And the other one, *B. arfakianum* is another weirdie. A big long 'beak' shape flower with a little window in the side to let the pollinator in. And did you know that the striped or tessellated colour patterns of closed



flowers like these are there for a reason? They allow light in through the paler parts to make the interior just the right brightness for whatever is designed to go on inside. You know, the sex part we shouldn't talk about in polite company. There are a few genera in different families that use this closed or canopied flower structure to suit a special pollinator.

How about these samples.



*Lepanthes caprimulgus*



*Ophidion dasyglossum*



*Zootrophion atropurpureum*,



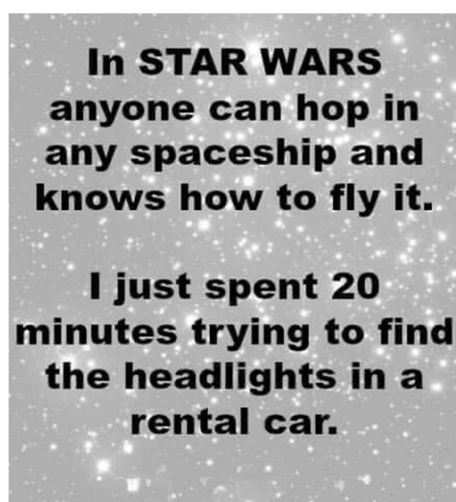
even our Australian *Pterostylis*

## More Light Relief

**The Scotsman** - A Scotsman was skiing in Canada and after a hard day on the slopes he retired to a bar at the bottom of the mountain. After enjoying five whiskeys, he noticed a stuffed animal hanging above the fire place. He asked the barman, "What on earth is that?" The barman replied, "That's a Canadian moose." "Get away with ye mon!" exclaimed the Scotsman questioningly, "how big are the bloody cats!?"

I was at Walmart the other day looking for a turkey for Thanksgiving when this lady next to me asked the attendant, "do these turkeys get any bigger?"

With a straight face he replied, "No ma'am, they're dead". (It made my week.)



- Today I saw a dwarf climbing down a prison wall and I thought to myself 'That's a little condescending'.
- Last week I told my wife that I wanted to be cremated. She made an appointment for me next week.

## **Go Green, Stay Green----with ENVY! (by Friendii)**

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Every Autumn and Spring Show, large numbers of Cattleyas, Dendrobiums, Oncidiums and other genera are brought in for sale by club members. Yet, despite the considerable quantities of Phalaenopsis plants that club members purchase each year from commercial nurseries, very few, if any, of those plants ever appear on the sales benches. There has to be a reason. Yes, it is more difficult to vegetatively propagate phalaenopsis and this may be part of the explanation. However, my experience suggests that the prime reason is more closely associated with the susceptibility of these plants to both bacterial rots and cold stress.....each year the number of plants purchased is balanced by the number of plants that die!! Consequently, few ever become spares that can be presented on the sales bench.

Both bacterial rots and cold stress can be controlled by using the correct cultural techniques.....attention to watering frequencies and timing, adequate sunlight, good air movement, timing and frequency of re-potting all influence growth and the chances of survival. Copper-based sprays, such as Kocide or copper sulphate, can assist in the control of bacterial rots. However, each winter we are faced with the fact that some orchids, if unassisted, will succumb to cold stress. This is particularly so of phalaenopsis and those dendrobiums and vandas that have their origins in the lowland tropics. If we want to grow these types of orchids we should be aware that the environment in which we intend to grow them must simulate that of their origins. For phalaenopsis, night-time minima below about 8 degrees C can result in mesophyll tissue collapse and subsequent death of the plant. Winter night-time minima in Rockhampton can be as low as 2-3 degrees with quite devastating consequences for any unprotected, cold-susceptible orchids.

Before the start of winter, most successful growers of cold-susceptible orchids wrap their orchid houses in plastic to minimise wind chill and retain heat within the orchid house. In some cases, a heat source is provided to ensure that temperatures do not fall below the critical minimum. Several growers provide additional protection by using the anti-transpirant spray, Envy. I have not seen any definitive studies on orchids that demonstrate the effectiveness of Envy in reducing losses associated with cold stress. However, experienced orchid growers who use the product claim that it assists in providing additional protection from cold.

According to AgroBest Australia, Envy is a non-toxic polymer concentrate that forms a semi-permeable, bio-degradable film that reduces transpiration without affecting photosynthesis. It is claimed to increase cold tolerance by up to 4 degrees C and to reduce transpiration losses by up to 50%. Thus, when night-time temperatures are expected to fall below about 5-6 degrees C, Envy alone may not provide sufficient protection to prevent damage from cold stress. To be on the safe side, the temperature in the orchid house must be maintained above about 6-7 degrees C if damage from cold is to be minimised. The take home message is that orchids that need to be grown in a warm environment will still require a warm orchid house even if Envy is used. Like most chemicals, Envy is an aid to good cultural practices, not a substitute. Local practice is to apply Envy at the start of winter at least 24 hrs before a cold snap is expected with repeat applications about every 2 weeks until the threat of cold weather has passed. For maximum protection, Envy must be applied to the entire plant....both surfaces of leaves, all pseudobulbs and any exposed roots. It should be applied to allow sufficient time for the film to dry before night-fall.

Any spray equipment must be thoroughly washed after use to prevent clogging of nozzles.

Because Envy reduces water loss through transpiration, it is a very useful aid in minimising losses of newly-deflasked plants. Most losses of newly de-flasked plants are associated with dehydration or the effects of over-watering in an attempt to prevent dehydration. Plantlets that are dehydrated soon wither and fail to develop secondary roots that are essential for growth. Over-watering favours the development of the damping-off fungus, Pythium. Either way, an empty compot is the result. Envy helps to reduce dehydration and the need to over-water. If you are not already using Envy when you de-flask, I suggest that you try it.

Unfortunately for any interested readers, by the time this article appears in the Newsletter winter should be almost over and most of the cold-damage will have already occurred. However, despite global warming, winter will arrive again next year, same time, same place and maybe we will be just that little bit better prepared for its effects next time. Perhaps your orchids will be the envy of us all!! - Friendii

**Footnote from Jim Brydie** – Obviously, this article was written at a different time of year but application of the principles is made simple by Friendii's common sense informative style. Our conditions in Sydney are a bit different, and vary substantially from one part of Sydney to another but I agree wholeheartedly with the author's observation that Envy is a wonderful added tool in our culture processes. Just not a way to grow warm growing orchids cold.

However, the recent popularity of growing Phalaenopsis as houseplants may make the use of Envy a particularly valuable tool. Houses act as heatsinks and even after you go to bed and turn the heaters off, the house maintains its built up heat and only dissipates it slowly. I have noticed that even though the inside temperature may decline to just a few degrees above outside temperature by morning, the slow decline really helps plants like Phalaenopsis cope. In even colder areas, the addition of the use of Envy could be all the difference.