E. H. S.

WELLINGTON

EPIFLORA

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EPIFLORA

Volume 8 No.2 **May 1999**

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From the President

The last few months have been absolutely chaotic for us and our plants have been sadly neglected; as has my attention to Epi and Hoya affairs. Most of you will be aware that shortly after my last letter in Epiflora Peter had a heart attack; putting paid, at least for the meantime, to our plans to sell the house and move to Waikanae. It also made the sale of our business, which was already under negotiation, even more of a priority; Peter's illness did not help there either because it meant I had to take more responsibility both in keeping the business going without him and in dealing with lawyers and accountants over the sale which, as I write, is almost completed.

It's been an unbelievably stressful few months but hopefully in a few days it will all be over and we can go back to a more normal life. All the delay hasn't helped Peter's health but I'm sure that once the responsibility for the business passes to someone else he will regain his former strength.

My thanks to those in the Society who have given us such loving support and helped keep the Society wheels turning and my apologies for the many things I have left undone. We have appreciated your care and concern.

I have just visited the glasshouses and some of the plants still seem to be a little confused about which season it is and what they should be doing. In Peter's glasshouse epi's "Soft Lights" and "Fringe of Gold" have lots of well-developed buds; as does Aporocactus "Sussex Pink". Ceropegias in both houses have finally finished flowering after a long and prolific season and there is a lot of new growth on some of them - including a couple that I had given up for dead. Schlumbergeras are in full flower - I brought some inside to enjoy them better.

In a few weeks I hope to have more time for the really important things like family and friends, enjoying my grandchildren and pottering about with plants - meanwhile

Best wishes to you all

Alison Beeston.

24th May 1999

The Programme for 1999

Meetings are at Johnsonville Union Church (Dr. Taylor Terrace) and start at 2.00 pm. Library books etc. are available at 1.30 pm.

June 12th	**Schlumbergeras - care and cultivation**
July 10th	**Mid-winter function**
August 14th	**Beautiful begonias**
September 11th	**Epiphytes on Stamps**
October 9th	**Origin of Epiphyllum hybrids**
November 13th	**Visits to collections**
December 11th	**AGM and Christmas function**

News About People:

Best wishes to **Dianne O'Neill** who has recently had a short stay in hospital to improve her chances of being selected for the 100 metre dash in the forthcoming Olympics..

Our best wishes also go to **Alison and Peter Beeston** who, by the time you read this, will have begun what we hope will be a long and well-earned retirement.

Items for your Diary ..

July 10th	Midwinter Function - there will be a competition with wonderful prizes for the best "***Epiphytic Hat***"
November 13th - 14th	Hutt Valley Horticultural Show

November 19th - 21st Epiphyllum and Hoya Convention in Auckland. (Make a week of it - the Ellerslie Flower show is the following weekend!)

Hoya kerrii....

***Morris Tarr** writes about this delightful hoya.*

As it may be some time before we see any more of his photos - it is timely to express thanks for the many beautiful photographs he has allowed us to use - and for the way he has provided photograph, negative and a short article - at, sometimes, very short notice. ***Ed.***

A native of Thailand and the Indo China area, this cool growing plant is commonly known as the "Valentine" or "sweetheart" Hoya. The reason for this is its large, thick heart-shaped leaves which are 2 to 6 inches (5 to 15 cm) long and nearly as wide at the widest point.

This plant is an extremely vigorous climber and needs lots of room to grow. It is possibly the most vigorous grower of all the Hoya family.

The flowers are in globular clusters of 15 to 25, they are fuzzy and reflexed. The petals are white to pink, and as the flowers age the colour will change to dark pinkish brown due to the staining by the brown honeydew that is secreted from the deep corona, or central crown.

These flowers are very consistent and reliable bloomers, they seem to remain in flower for quite a long period. You may have to grow them in a larger than ususal pot because of their strong and fibrous root system. I find that if you keep them contained in an upright frame and pruned now and again, that they are easy to maintain and an extremely rewarding plant to have in your collection.

Hoya kerrii - grown by Morris Tarr

Disorders, Diseases and Pests that affect Epiphytic Cacti and Hoyas - Spotting and Blemishing

*This is one of the series of articles written by **Rex Hardy** - which were originally printed in EpiGram, the Official Journal of the Epiphytic Cacti and Hoya Society of Australia Inc.*

Introduction: When the branches and segments of our epiphytic cacti are healthy they should look plump and shining and feel waxy. The branches of epicacti should have a blue-grey coating on them. Leaves of hoya plants should have a shine about them. There is also plenty of new growth, which is evidence that the plant is growing happily. Unfortunately this is not always the case and when we look at our epiphytic cacti or hoyas what we see is branches or leaves that are spotted and blemished.

We now turn to the problems or disorders that result in the spotting of branches (phylloclades) and segments of epicacti and the leaves of hoyas.

If there is one thing that spoils the beauty of our epicacti and distresses the grower, it is the various spotting and blemishing that seems to appear on the growth of some of our plants. The worst affected seem to be epicacti, although it only seems to affect certain named hybrids. While some of the various types of spotting and blemishing could be said to be due to poor management skills and poor cultural care, other types of spotting and blemishing appear to be the direct result of genetic factors. Growers of epicacti should take heart from this fact and not always blame themselves or feel guilty when the branches of their beautiful plants sometimes become spotted and look awful.

Those who are hoya growers can feel grateful that hoyas do not suffer very much from any type of spotting or blemishing.

I would now like to look at some of the various types of spotting and blemishing that affect epiphytic cacti and where I can diagnose the problem and prescribe a remedy I will do so. I should say also that little research has been done in this area, and so not a lot of information is available, and what is written is very often only theories.

One thing I have observed, however, is that when the plant is under stress such as a result of having just completed flowering, is rootbound or suffering from some unfavourable climatic condition, the spotting or blemishing begins or all of a sudden becomes worse.

1. NITROGEN BURN OR BLACK SPOT

The first type of spotting or blemishing that I want to look at is what is called Nitrogen Burn or Black Spot. This usually shows itself on newer growth of mature plants, although sometimes even mature growth can be affected this way. Again it will afflict small immature plants where it usually starts on the edge of the branch and spreads inwards towards the mid rib. These spots or blemishes are an orange colour to start with and quickly turn brown and then black. At the same time the spots can turn to blemishes and the affected areas become sunken, dry out and holes can develop in the branches.

The Cause: The cause of this problem or disorder, as the name suggests, is too much nitrogen. Usually it is the result of feeding the plant too much fertiliser when the plant is young and again feeding a more mature plant with a fertiliser that has too high a nitrogen content. When purchasing fertilisers for use with epiphytic cacti make sure the nitrogen content shown as "N" on the container is no higher than 10. Remember nitrogen can build up in the soil and an accumulation of this can cause the potting mix to become toxic. This will result in burning the branches of your epicacti as described earlier.

The Remedy: Once you see your plant developing this spotting, immediately scrape off the soil on the top of the container which will help to remove any residue of fertiliser that has not dissolved. Next give your plant a thorough watering thereby leaching or washing out any excess fertiliser that may be in the soil. This disorder will not kill the plant but will leave it with some marked branches which can be removed later.

2. MOSAIC VIRUS.

This is shown on mature branches of epicacti by way of small orange-brownish spots or freckling about 2-3 mm in diameter. Whilst it is called a virus, there seems to be nothing which indicates that it is, nor does it appear that there is any danger of it being contagious or spreading to other plants in your collection. In fact it seems to be one of those genetic disorders that affect the mature branches of epicacti when they are about two to three years old. The worst plant for this disorder seems to be the hybrid Nopalxochia phyllanthoides, often called Deutsche Kaiserin or German Empress. Unfortunately epicacti hybrids that have this plant in their parentage seem to be similarly affected.

The Cause: As mentioned above, it seems to be a genetic disorder so there is nothing you can do to prevent this apart from not keeping those hybrids that show any evidence of this problem.

The Remedy: I know of no remedy for this condition but I have found that by keeping any plant of German Empress or any of its hybrids in a more heavily shaded area, this

seems to delay the start of this freckling. To keep one of these plants looking good I recommend feeding it a low nitrogen fertiliser to keep it producing new growth and then periodically cutting out any old branches that become spotted. Other growers have told me that a spray with a good fungicide also seems to help.

3. TEMPERATURE OR CELL DAMAGE SPOT

This is what I have called this type of spotting for the want of a better name. These spots are larger than any other types of spotting, usually averaging 1.5 to 2.0 cm in diameter. Although termed as spots, they are sometimes anything but round. The colour of this type of spotting or blotching is dark brown to maroon to black to start with. As the spots develop the colour at first darkens and then, once the spotted area dies, it fades and dries out - becoming hard. The area can then be pushed out making a hole in the branch.

The Cause: Botanists tell us the spots are caused by extremes of temperature between hot days and cold nights. Some epiphyllum growers, and I am one of those, believe it is due more to the breakdown of cell structure in the branches due to over hybridising. I believe it is similar to what happens in the animal world when there is too much inbreeding. Remember our epicacti are being continually crossed all the time; there are now some 13,500 hybrids at least all descended from a few species plants. Because this only happens in some hybrids, there is a possibility that some of the weak cell structure could be a gene that has been inherited from some plant in the past and is getting passed down each time we hybridise. There is also the possibility that this may be caused by a virus but very little work in this area has been done with epiphytic cacti - apart from some work with zygocactus.

The Remedy: I know of no remedy for this, but I would suggest, however, that with so many hybrids with such similar flowers, if you find such a plant in your collection that you discard it and grow one that does not possess these tendencies to spot. My observation is that these plants are becoming less in our collections which is encouraging and must be the result of our new hybridisers being more selective in the parent plants they are using in hybrising. If you are into hybridising, I trust you will follow their example and use plants that are free from this type of spotting.

4. SUNSTROKE SPOTS.

This is a name I have given to another type of spotting and blemishing that we can experience. This is one that can be prevented and is usually due to carelessness. It shows as an area of the branch which is a blemish of very small bright orange spots which have

the appearance of rust on the branch. In the case of it being extreme, the spotting may blister having the appearance of a disease.

The Cause: This happens in cold weather and is the result of a plant being cold and growing in a shaded area all of a sudden being taken out and left in direct sunlight for some reason or other causing it to become burnt (sunstruck).

The Remedy: Immediately move the plant to a heavily shaded area and nurse it until it recovers by sending out new growth in due course. Later the marked branches can be removed.

References:

Haselton, S.E., (1946), **Epiphyllum Handbook**, Abbey Garden Press, Pasadena. California

Innes, C & Wall, B, **Cacti, Succulents and Bromeliads**.

Cultural Calendar - Epiphyllums and Hoyas....

Jane Griffith *led the May Meeting at which this calendar was created .*

For some time now members of the Society have spoken about how they would find it useful to have a cultural calendar for each of the epiphytes we grow. So at the May meeting we started this task compiling calendars for Epiphyllums and Hoyas. Schlumbergeras, Rhipsalidopsis, Rhipsalis, etc will follow later.

For the growing of both Epiphyllums and Hoyas there may be some variation in activities undertaken at each season of the year depending on your local climatic conditions. The cultural calendar devised by members took this into account to some degree but always remember that if what you are doing (and have always done) works for you – great!

EPIPHYLLUMS

SPRING (September-end of	Its time to fertilise with a fertiliser high in potassium to encourage flowering e.g. Phosphrogen, Peter's Blossom Booster. And/or apply slow release of fertiliser.

November)	Apply systemic insecticide and fungicide in October e.g. Thiram, Captan or Benulate and if slugs are a problem attack these in the way you find most effective. As the weather warms up increase watering of your plants – amount of water will depend on your location but plants should not be allowed to dry out completely. Tidy up those plants that survived the winter and throw out those that didn't! De-weed and give any plants that have grown excessively long a light prune. If the stems have become dirty during the winter wash them down on a warm day. This is the time to move any plants you wish to have in a more advantageous position before flowering occurs. Enjoy the flowers as they burst forth. This is the opportunity to do some hybridising – remember to keep careful records of crosses taken.
SUMMER (December- end of February)	Continue to enjoy the flowers on your plants. Increase watering – at least weekly but more if your plants are in a hot place. Overhead watering systems can be used in the summer as long as the wet stems are not exposed to direct sunlight. Continue fertilising and spraying plants for pests and diseases. Depending on the size of your collection, pruning and re-potting is usefully undertaken in summer. Placing a few Diazinon crystals in the bottom of pots when repotting acts as a deterrent to Mealy Bugs. Keep some pruned off stems for propagation – drying them out for a week or two before potting up in either propagating sand or your usual epiphyllum mix. Do remember to write the name of the hybrid on the stem immediately after pruning. For those who graft seedlings onto Opuntia pads or other grafting stock this is the time to remove well grown plants and pot them up to grow on their own roots.
AUTUMN (March- end of May)	As temperatures begin to fall slow down on the watering. Continue pruning and re-potting. When re-potting slow release fertiliser can be added to the mix to aid bud development in the winter. Cull those plants that you no longer require – especially those which flower infrequently for you or are disease-prone.

	Seed pods will be ripening – when the hybridised pods are ripe take them off the plant and either sow seed or store seed in a dry place for planting in the Spring. Seedpods not being used for hybridisation should be removed.
WINTER (June-end of August)	Ease off watering, stopping stem watering completely over the winter period. Pruning can continue over the winter but remember as you prune you may be removing buds that have already started to form. Take tender growing plants inside to avoid frost damage – the thin stemmed plants are particularly prone to collapse from frost damage. Seeds can be sown if bottom heat is used. Check your plants for slugs and snails who see this time of year as paradise.

HOYAS

When discussing treatment of Hoyas it must be remembered that in their natural habitat Hoyas are grown in a variety of places- from Tropical environments to Cool Temperate areas. In discussing cultural activities we are emphasising those hoyas that can be grown in the Wellington region **without** a heated glasshouse.

SPRING (September-end of November)	This is the time to start watering gently – possibly with slightly warm water initially. A teaspoon of Dolomite sprinkled on each pot and then watered in increases the calcium available for the hoya. Check for any pests that have survived the winter and spray with Orthene or Target. Some prefer to deal with the pests (especially Mealy Bug) individually with a cotton bud dipped in methylated spirits whilst others spray the plants with methylated spirits Take cuttings and generally prune plants at this time of year, re-potting where necessary. When re-potting only use a slightly larger pot. Put shadecloth or paint on the windows of your glasshouse to

	protect your hoyas from the direct rays of the sun.
SUMMER (December- end of February)	As the temperatures rise watering should be increased, remembering to never leave pots standing in water. Plants benefit from fertilising with a high potassium fertiliser to boost flowering – e.g. Peters Blossom Booster Continue taking cuttings and re-potting. When flowering starts clean leaves to avoid the sooty mould that grows where the flowers drop their sticky nectar.
AUTUMN (March- end of May)	Flowers will continue during Autumn so enjoy! Continue to watch for pests and treat accordingly Slow down watering. As ripening seed pods burst open plant fresh seed using bottom heat.
WINTER (June-end of August)	The only watering done in winter is when the plant looks dry – then water sparingly in the morning. Roll up shadecloth or wash paint off windows to allow plants to receive more light. Move plants away from draughts. Check periodically for pests.

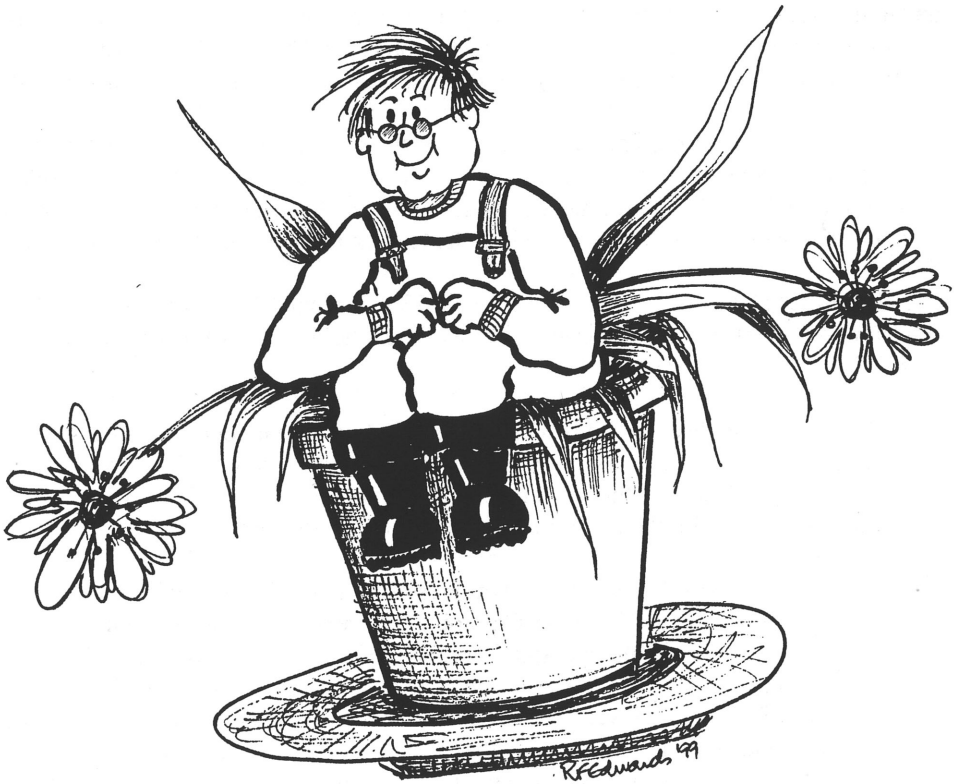
Care of Hoyas...

The March meeting was devoted to discussion on hoyas ***Robyn Gibson*** *tells us about some of the issues that were discussed.....*

A number of members had brought plants in - each described how they care for them and the problems they encounter. This in turn prompted a wide range of questions. The question most wanted the answer to was "How to keep hoyas alive over winter?"; and "How to get them to flower?" was a close second! Other topics such as pruning, and repotting and dealing with pests and diseases also generated lively discussion...

Bottom Heat can be beneficial

At the May Meeting as the growing of cuttings and seeds was discussed Bruce Purdie was insistent on the value of "Bottom Heat". Is this what he had in mind?



Robyn Edwards

Collecting Plants in Habitat.....

Many of us enjoy growing plants that originate in exotic locations - but few of us have much knowledge of how the original specimens were collected or the trials and tribulations of the collectors. In the February 1999 edition of ***The EpiGram*** *(the South Bay Epiphyllum and Hoya Society newsletter)* ***Dick Kohlschreiber*** *wrote on the subject ..*

Have you ever had the fantasy of going to Mexico, Central America or South America? And while you are walking through the jungle, you spot an epiphytic cactus that has never been found before - and it is spectacular!! Those of you who are only interested in the epi hybrids often don't realise that if it hadn't been for some person in the past bringing back some species from Mexico or Central America, you wouldn't have the hybrids that are available today.

Last year the CSSA Journal had an article about the increasing difficulty of obtaining, collecting and export permits for many countries [1]. It is now nearly impossible for a botanist or collector not affiliated to one or more institutions to obtain such permits. Because of this, the day of the amateur plant explorer taking plants back to their home country is over.

In the November-December, 1998 issue of the CSSA Journal (Vol 70, number 6) Myron Kimnach wrote an interesting editorial on some of the other hazards of plant collecting - he writes:

> " A much less-discussed subject is the actual physical danger of botanising. We're not talking here just about falling off cliffs, poisonous snakes, dysentery or drowning, all hazards that field botanists and zoologists must face. We are talking about threats from the most dangerous species of all - man.
>
> There are countries where botanists at present would be at great risk if they chose to poke about: Sudan, Afghanistan, Colombia - all are now uncivilised countries whose governments are unable to maintain order. To go there is to risk one's life, either from bandits or guerrillas. Two European succulent collectors recently dared to enter northern Somalia and were robbed twice by men with assault guns, losing their vehicles and all their possessions - they were lucky to escape with their lives. That part of Somalia is also thickly sown with land mines, the result of their civil war -

[1] And we could write a very long article about the difficulties of getting import permits for NZ - but that is another story - **Ed**.

digging for succulents would be highly hazardous.

Exploration in Mexico can be dangerous as well. Several years ago Hernando Sanchez-Mejorada and I were exploring the back country of Sinaloa, notorious for its cultivation of poppy and marijuana. Two days in on dirt roads, we noticed people were keeping out of sight, even going into their huts and closing curtains when they saw us coming. It turned out that, two days before, some narcotic farmers with assault weapons shot down an army helicopter that had been looking for their crops. The next day the federal police came into the area, caught the shooters and hung them from a tree in the village square, from which they were cut down before we arrived. We also heard that some of the Federales did a little moonlighting, using their weapons to rob villagers or passers-by. That night we had to park our camper along the road on a steep grade, with no space to hide the vehicle - our sleep was restless.

A final example is Colombia, a beautiful country, though now much deforested. It is ravaged by two guerrilla groups constantly at war with each other and the government. A favourite method of financing their activities is to kidnap and hold to ransom foreigners or prominent Colombians. Then there are Colombian bandits - two American botanists were robbed on the streets of Medellin, and later, travelling along a major highway, were trapped in a traffic jam caused by a collision; when the hitter did not have money to pay the hittee for damages, the latter drew a gun and robbed all the other drivers. Finally there are the narcotic dealers and farmers, ever on guard to protect their investment."

Kimnach ends his editorial with the fact that he was planning a trip to Colombia to collect a new *Disocactus* species near Medellin and a possible new genus of epiphytic cacti near Bogota. But he was advised not to come because it was an election year and the guerrilla groups were stepping up their violence. He says he will probably have to leave collecting these species to others. But it would be a shame for these plants to perish forever when the trees in which they grow are cut down.

***Epiphyllum* Lollipop - grown by Jane Griffith**

Epiphyllum - Lollipop

Jane Griffith *writes about a small flowering epiphyllum from her collection*

This small orange epiphyllum was hybridised by Wressey Cocke and registered by Ethel Hurst of Hurst Nursery. A cross between Vive Rouge and *Disocactus macranthus* it is the Disocactus side of the family that gives it its distinctive pointed petals. Vive Rouge is an off-season bloomer - a characteristic Lollipop has inherited and in fact Lollipop will flower several times a year and therefore is a very rewarding small flowered epiphyllum to have in your collection..

Odd Cuttings and Seeds

For those with Internet access

Rainbow Gardens 1999/2000 Flowering Jungle Cacti Catalog is now on-line at:

http://www.cactus-mall.com/rainbow_gardens

Also the 1999 Rainbow Garden booklist is now on-line at:

http://www.cactus-mall.com/rainbow_bookshop

As Cactus-Mall has done with a number of catalogues recently, in addition to being able to browse these on-line, they each can be downloaded as a single zip file. This will enable users to browse the information off-line or print their own copy as they wish.

Clive Innes

I am sure many of our members who have been active in the cactus hobby for a substantial period will be sorry to hear of the death of Clive Innes early in March. Clive was a very well known

plantsman and former Vice Chairman and Fellow of the BCSS. He was responsible for a number of significant books on cacti and related subjects.

Clive had reached his 90th year in January and had been in hospital since Christmas so this was not entirely unexpected.

Snail wars..

There has been further discussion in various places - on how to keep these delightful little creatures away from one's equally delightful plants. Some favour gravel floors - as reputedly they do not like to crawl over them. Some favour layers of crushed egg-shell - which, presumably, is meant to have a similar effect. A photo in a recent publication showing a snail crawling over the edge of a razor blade does leave one wondering whether sharpness is any discouragement... Those who live where snakes and toads are prevalent report that they have few snails or slugs - but I guess they have other problems.....

We hear from members of the Auckland Epiphyllum and Hoya Society that preparations are in hand for this year's convention - in case you had forgotten .. here is a reminder ..

Our Convention

19 - 21 November 1999

Already it is starting to shape up...
quite exciting really.
We'll visit a few gardens
and garden centres,
as well as time to have speakers
on various topics...
and
a photo competition,
raffles, and more
as well as dinner together
and a barbeque.
A wonderful opportunity
to see friends again,
make new ones and
have a good time into the bargain.
And to enjoy Hoyas and Epiphyllums

Cost is $50

Future Publication Dates..

EPIFLORA is published quarterly by the Wellington Epiphyllum and Hoya Society.

Comments and contributions are most welcome.

The society aims to encourage discussion and debate; opinions expressed are those of the authors and do not necessarily represent those of the society. It is the policy of the society to publish corrections of fact but not to comment on matters of opinion expressed in other publications.

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Subscriptions:

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(overseas members $NZ16.00 or $US12.00)

Additional Associate Members - $4.00