



President : Murray Aldridge  
Secretary: Louise Gannon 02 95249072  
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## MONTHLY BULLETIN

VOLUME 44 NO 3

Meetings held at the Uniting Church Hall, cnr. Flora and Merton St., Sutherland on the Second Monday of the Month. All Visitors Welcomed. [Visit our Website on www.ssos.org.au](http://www.ssos.org.au)

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### MARCH 2008

#### Minutes from the February 08 Meeting.

The President, Murray Aldridge, declared the meeting open and welcomed all present, both members and guests, calling for a motion that the minutes of the meeting were a true and accurate recording. The motion was put by Bob Moar, and passed by those present.

#### Correspondence.

Orchids Australia.

A.O.F. Campaign, edited papers ( compiled from Orchid Growers Contributions, cost \$10.

Flask Price List, Easy Orchids.

Queensland International Orchid Fair, 29<sup>th</sup>. Feb.1<sup>st</sup>.& 2<sup>nd</sup>. March. Flyer.

Brochure from Neutrog Fertilizers.

Murray then thanked Wal.Chapman for the Beginners talk on Nomenclature, and Bob Moar who acted as our Host for the evening.

Our Yearly Auction Night at the May meeting, will be publicised to other Societies. A notice will be sent out well before the meeting and a final list of plants will be available on our web site , from late April. The Auction list form (limit 5 plants) will be available at the March Meeting, please return to the Hon. Sect. at the April meeting night or post to the Secretary, to enable us to draw up the lists.

Both Nev. Roper and Gary Hart, received a \$5 voucher on the sales table, for their equal win for our Yearly Seedling Competition. Congratulations to both.

Murray mentioned that he was approaching Mr. Bill Miles (from Victoria) as a guest speaker, to talk on Species at our next monthly meeting. If he is not available, we will have a talk ( panel) on pests and disease control, with the emphasis on non-toxic methods.

A bus trip to Orchids Out West, to be held at the Hawkesbury Race Course, Clarendon, is being organised by Jan. Robinson, for Friday 2nd. May Total cost \$15, with our Society subsidising the Show entry fee. Limited to 24 seats. See the further details in this bulletin.

FEES ARE NOW OVERDUE. If your fees, are not paid by the next meeting, this will be your last Bulletin.

The New Growers Group will hold a meeting at Jan Robinsons home on the 23<sup>rd</sup>. Feb.at 2:30 p.m. Murray to speak on Species. All welcome.

Don't forget that our March meeting will be the A.G.M. You are reminded that only financial members are eligible to vote. We welcome any member to join the committee and nomination forms can be obtained from the Hon. Secretary at the March Meeting.

Neutrog Fertilizers have advised us that they are about to release a new fertilizer for orchids, called

Strike Back. More details as they become available.

Murray extended thanks to Samantha and Peter (The Orchid Tray Co.) for their attendance.

He then went on to speak on a display by Bob Moar of a group of paphiopedilum in a tray, containing sphagnum moss, and a fine layer of pebbles. These plants were given to Bob some six years ago and Bob had tried to emulate the same natural climatic conditions for the plants of Paph. concolor and Paph. bellatulum, the conditions intermediate to hothouse.

**Lucky Plants :** G Hart, T Thorburn & J Moss

**Plant Raffles :** S Stevens, J Costa, D Wood, O Howard, G Birss & J Moss.

### **Dates To Remember**

10<sup>th</sup> March --SSOS Monthly Meeting, Point Score & AGM

4<sup>th</sup>-6<sup>th</sup> April – Sydney International Orchid Fair, Castle Hill showground

14<sup>th</sup> April – SSOS Monthly Meeting, Point Score

2<sup>nd</sup>-4<sup>th</sup> May –Orchids Out West Show, Hawkesbury Racecourse, Clarendon. See further info.

12<sup>th</sup> May – SSOS Monthly Meeting, Point Score & Auction Night

### **Editors Corner**

Firstly, just a reminder, if you are interested in doing a judging class, see Ted Beehag (the bearded one) as he is about to get organised, if he has enough starters.

The offer of the free bush-houses was taken up, and our thanks to Dulcie & Max Krasny for their kind offer.

The missing plant of Sandra Crosby's was returned safe and well. Please when picking up your plants, do a count to make sure you have the right ones, as mistakes can occur.

### **Judging Roster For March 08**

	TEAM 1	TEAM 2	TEAM 3
LEAD JUDGE	W CHAPMAN	D BROOKS	K WILSON
JUDGE	E BEEHAG	I CHALMER	N ROPER
JUDGE	G HART	I WARE	S T HO
ASSOC.	J MOSS		
WRITER	M HITCHCOCK	S CROSBY	J ROBINSON

## **SSOS “CHEAP AS CHIPS” BUS TRIP!!!**

TO “ORCHIDS OUT WEST” SHOW  
At Hawkesbury Race Club, Clarendon  
**FRIDAY, MAY 2**

### **Orchid Displays 15 Orchid Vendors**

**Have a Day Out with 23 other SSOS  
orchid enthusiasts!**

**Only \$15 will get you**

**Bus Fare and Show Entrance Fee**

The 24-seater bus will pick you up at a central location in Sutherland around 8:45 a.m. and drop you off at the front door of the orchid show in Clarendon, where you will have about 2 hours to look at the displays and spend up big at the vendor stalls. You can carefully pack your new orchids and other orchid paraphernalia in the covered trailer that the bus will be towing and forget about them until you get back to Sutherland that afternoon.

The bus will then pick you up and take you to the Clarendon Tavern for lunch, or you can stay at the Show if you'd prefer. At approximately 2:00, the bus will pick you up at either the Tavern or the Show and head back to Sutherland, with an estimated arrival time back at Sutherland of 3:30 p.m.

**DON'T MISS OUT ON THE  
FUN!!**

**Support the Society and add to your own  
orchid collection.**

Ring Jan Robinson on 9520-6920 or see her at the next Monthly Meeting with your \$15 to secure your spot on the bus.

**MONTHLY JUDGING RESULTS**

For : Feb-08

**OPEN JUDGES CHOICE**

Winner Paph. victoria-regina G. Hart

**INTERMEDIATE JUDGES CHOICE**

Winner Blc. Marie's Song S. Vavayis

**NOVICE & JUNIOR JUDGES CHOICE**

Winner Vanda Blue Sansia E. Korpi

**CLASS # 1 AUSTRALIAN NATIVES**

1st Liparis reflexa J.W. Moss

**CLASS # 2 SPECIES PAPHIOPEDILUM**

1st Paph. victoria-regina G. Hart

2nd Paph. primulinum S T Ho

3rd Paph. primulinum var. flavens K. Wilson

4th Paph. primulinum G. Hart

**CLASS # 3 CATTLEYA OVER 110mm**

1st Blc. Mt Anderson x Lc. Quadean Aida Costa/Crosby

2nd C. Hawaiian Wedding Song 'Virgin' Costa/Crosby

3rd C. Hawaiian Wedding Song 'Virgin' J. Hart

4th Blc. Karbella Beauty x Blc. Faye Miya Moto J. Hart

**CLASS # 4 NOVELTY PAPHIOPEDILUM**

1st Paph. St. Swithin G. Hart

2nd Paph. Vanda M. Pearman G. Hart

3rd Paph. St. Swithin G. Hart

4th Paph. delenatii x Paph. Fanaticum G. Hart

5th Paph. S Gratix S T Ho

**CLASS # 5 CATTLEYA OVER 80 TO 110mm**

1st Blc. Beverly Blitz J. Hart

2nd Blc. Dal's Girl J. Hart

3rd Bl. Island Charm 'OC' J. Hart

4th C. Minerva J&amp;M Moss

**CLASS # 7 CATTLEYA INTERGENERICS (Up to 70mm)**

1st Ctna. Dal's Sweetie E. Beehag

**CLASS # 8 CATTLEYA UP TO 80mm**

1st Slc. Seagulls Mini x C. Heuver E. Beehag

2nd Lc. Mini Purple x Sc. Batemanniana Costa/Crosby

**CLASS # 9 AUSTRALIAN NATIVE HYBRID**

1st Dend. Aussie Parade x Dend. Jesmond Sparkler Costa/Crosby

**CLASS # 10 SPECIES ASIAN**

1st Vanda coerulea R. Moar

2nd Coel. mooreana 'Brockhurst' D. Wood

3rd Cym. dayanum N. Roper

4th Phal. equestris M. Errington

**CLASS # 11 PHALAEOPSIS**

1st Phal. Happy Lady Costa/Crosby

2nd Dtps. Wedding Art x Dtps. Hsinying Maki T. Hyde

**CLASS # 12 SEEDLING**

1st Paph. Wossner Butterfly Costa/Crosby

2nd Paph. Michael Koopowitz G. Hart

3rd Phal. World Class x Phal. Golden Peoker G. Hart

4th Paph. Vedanta 'Carpenteria' x rothschildianum G. Hart

**CLASS # 13 ONCIDIUM**

1st O. incurvum T. Thorburn

**CLASS # 14 NOVELTY PHALAEOPSIS UNDER 75mm**

1st Phal. Dou-dii Rose x Phal. Ching Her John Costa/Crosby

**CLASS # 16 MISCELLANEOUS**

1st Bulbo. dearei x Bulbo. Wilmar Galaxy Star D. Wood

2nd Enc. Bees Knees x Enc. venustum M. Errington

3rd Ctsm. Susan Fuchs D. Wood

4th Milt. Goodale Moir 'Golden Wonder' J. W. Moss

**CLASS # 18 VANDACEOUS NOT VANDA**

1st Neostylus Lou Sneary 'Kultana' M. Errington

2nd Doritis rosea x Kingietta philippenense K. Wilson

3rd Vasco. Five Friendships 'Pretty' M. Errington

4th Ascda. Plymanee x Asctm. miniatum N. Roper

**CLASS # 19 MASDEVALLIA & DRACULA SPECIES**

1st Drac. vellutineo G. Hart

2nd Drac. riplejana G. Hart

3rd Drac. astuta G. Hart

4th Masd. infracta 'Wine' B. Smith

**CLASS # 21A PLEUROTHALLIDINAE HYBRIDS**

1st Drac. Swamp Fox G. Hart

2nd Drac. hirtzii x gorgona G. Hart

3rd Rest. pelyx x elegans G. Hart

**CLASS # 21B LAELINAE SPECIES**

1st Enc. diota G. Hart

2nd Cat. bicolour 'Brasiliensis' M. Errington

3rd Cat. harriseae T. Thorburn

4th Cat. harriseae E. Beehag

**CLASS # 23 SPECIES OTHER THAN ASIAN OR PAPHIOPEDILUM**

1st Phrag. schlimii K. Wilson

2nd Gong. galeata N. Roper

3rd Prom. stapelioides G. Hart

4th Max. nigrescens N. Roper

5th Prom. stapelioides G. Hart

**CLASS # 23A OTHER PLEUROTHALLIDINAE SPECIES**

1st Rest. contorta N. Roper

2nd Rest. morhii N. Roper

3rd Pleuro. pubescens G. Hart

4th Pleuro. johnsonii G. Hart

**CLASS # 24A NATIVE SARCANTHINAE HYBRID**

1st Sarc. Fitzhart x hirticalcar N. Roper

2nd Sarc. Fitzhart x hirticalcar N. Roper

3rd Sarc. Velvet N. Roper

**CLASS # 29 NOVICE - MISCELLANEOUS**

1st Vanda Blue Sansia E. Korpi

2nd Phal. Unknown M. Luk

3rd Phal. Unknown M. Luk

4th Zygo. Blue Eyes D. Coulton

**CLASS # 30 NOVICE - SPECIES**

1st Stanhopea oculata J. Robinson

**CLASS # 31 INTERMEDIATE - PAPHIOPEDILUM**

1st Paph. Primvaal G. Birss

**CLASS # 33 INTERMEDIATE - NATIVE SPECIES & NATIVE HYBRID**

1st Dendrobium Angellene G. Birss

2nd Sarc. hirticalcar G. Birss

**CLASS # 34 INTERMEDIATE - CATTLEYA**

1st Blc. Marie's Song S. Vavayis

**CLASS # 35 INTERMEDIATE - MISCELLANEOUS**

1st Miltassia S. Vavayis

2nd Rodrumnia Liz 'Ful Moon' G. Birss

**CLASS # 36 INTERMEDIATE - SPECIES**

1st Encyclia alata G. Birss

2nd Lycaste cruenta G. Birss

**CLASS # 37 INTERMEDIATE SEEDLING**

1st Paph. niveum 'Thaigirl' x niveum 'Jane' G. Birss

*Following is the Financial Statement of the Society for Year Ended Dec 07. The accounts are done by S T Ho from records submitted by the treasurer. If you have any question, please raise them at the AGM*

**SUTHERLAND SHIRE ORCHID SOCIETY INC.**

36 RAGLAN ROAD  
MIRANDA NSW 2228

**Balance Sheet [Last Year Analysis]**

December 2007

	<b>This Year</b>	<b>Last Year</b>	<b>\$ Difference</b>	<b>% Difference</b>
<b>Assets</b>				
<b>Current Assets</b>				
Commonwealth Bank	\$4,760.97	\$6,280.23	(\$1,519.26)	-24.20%
St. George Fixed Term Deposit	\$11,501.67	\$8,174.83	\$3,326.84	40.70%
Cash On Hand	\$300.00	\$200.00	\$100.00	50.00%
Prepaid Insurance	\$59.69	\$139.00	(\$79.31)	-57.10%
Prepaid Rent In Advance	\$340.00	\$0.00	\$340.00	NA
Inventories At Cost	\$1,684.21	\$1,324.00	\$360.21	27.20%
Lou Sasso Trophy	\$200.00	\$200.00	\$0.00	0.00%
Sundry Debtor	\$392.00	\$0.00	\$392.00	NA
<b>Total Current Assets</b>	<b>\$19,238.54</b>	<b>\$16,318.06</b>	<b>\$2,920.48</b>	<b>17.90%</b>
<b>Withholding Credits</b>				
<b>Fixed Assets</b>				
Plant & Equipment At Cost	\$3,070.00	\$3,070.00	\$0.00	0.00%
Accum. Deprn. Plant & Equipment	-\$2,783.04	-\$2,726.47	(\$56.57)	2.10%
<b>Total Fixed Assets</b>	<b>\$286.96</b>	<b>\$343.53</b>	<b>(\$56.57)</b>	<b>-16.50%</b>
<b>Total Assets</b>	<b>\$19,525.50</b>	<b>\$16,661.59</b>	<b>\$2,863.91</b>	<b>17.20%</b>
<b>Liabilities</b>				
Subscriptions In Advance	\$404.00	\$358.00	\$46.00	12.80%
<b>Total Liabilities</b>	<b>\$404.00</b>	<b>\$358.00</b>	<b>\$46.00</b>	<b>12.80%</b>
<b>Net Assets</b>	<b>\$19,121.50</b>	<b>\$16,303.59</b>	<b>\$2,817.91</b>	<b>17.30%</b>
<b>Equity</b>				
Retained Earnings	\$16,303.59	\$15,608.99	\$694.60	4.40%
Current Earnings	\$2,817.91	\$694.60	\$2,123.31	305.70%
<b>Total Equity</b>	<b>\$19,121.50</b>	<b>\$16,303.59</b>	<b>\$2,817.91</b>	<b>17.30%</b>

**Sutherland Shire Orchid Society Inc.**  
**Auditor's Report**

The Balance Sheet and Profit & Loss Statement for the Sutherland Shire Orchid Society Inc. for the year ended 31<sup>st</sup> December 2007 shows an operating Profit of \$ 2817.91 for the year.

I have examined the books of accounts and documents as presented by the Treasurer. In my opinion the Balance Sheet and Profit & Loss Statement for the Financial Year Ended 31<sup>st</sup> December 2007 has been drawn up so as to give a True and Fair View of the state of affairs of the Sutherland Shire Orchid Society Inc.

(As signed by S T Ho - see secretary for the original.)

See Ting Ho

Auditor

Dated : 31<sup>st</sup> January 2008

**SUTHERLAND SHIRE ORCHID SOCIETY INC.**

36 RAGLAN ROAD  
MIRANDA NSW 2228

**Profit & Loss [With Last Year]**

December 2007

	<b>This Year</b>	<b>% of Sales</b>	<b>Last Year</b>	<b>LY % of Sales</b>
Income				
Auction Commission & Donations	\$267.00	2.90%	\$244.15	3.20%
Donations & Sponsorship	\$360.00	3.90%	\$348.00	4.60%
Interest From Investment	\$346.60	3.80%	\$395.73	5.20%
Members Subscriptions	\$717.00	7.80%	\$726.00	9.50%
Prize Money From Other Shows	\$2,479.25	27.00%	\$375.00	4.90%
Raffles From Meetings & Shows	\$1,931.15	21.00%	\$1,592.20	20.90%
Sales Table & Commissions	\$3,098.00	33.70%	\$3,947.65	51.70%
Total Income	\$9,199.00	100.00%	\$7,628.73	100.00%
Cost Of Sales				
Gross Profit	\$9,199.00	100.00%	\$7,628.73	100.00%
Expenses				
Advert., Printing & Stationery	\$363.35	3.90%	\$382.06	5.00%
Bank Charges	\$125.55	1.40%	\$106.50	1.40%
Bulletin Expenses	\$669.22	7.30%	\$802.45	10.50%
Depreciation	\$56.57	0.60%	\$75.94	1.00%
Insurance	\$260.86	2.80%	\$758.10	9.90%
Library Expenses	\$129.95	1.40%	\$88.95	1.20%
Licences	\$43.00	0.50%	\$42.00	0.60%
Members Award/Amenities	\$0.00	0.00%	\$296.95	3.90%
Prizes	\$617.98	6.70%	\$510.00	6.70%
Rent & Hall Expenses	\$1,022.00	11.10%	\$988.00	13.00%
Raffles Expenses	\$200.00	2.20%	\$0.00	0.00%
Sales Bench Purchases	\$774.56	8.40%	\$2,019.46	26.50%
Show & Display Expenses	\$925.25	10.10%	\$252.50	3.30%
Speaker Expenses	\$60.00	0.70%	\$0.00	0.00%
Subscription Fees	\$180.00	2.00%	\$130.00	1.70%
Supper/Judges Morning Teas Etc	\$354.80	3.90%	\$371.22	4.90%
Website Expenses	\$598.00	6.50%	\$110.00	1.40%
Total Expenses	\$6,381.09	69.40%	\$6,934.13	90.90%
Net Profit/(Loss)	\$2,817.91	30.60%	\$694.60	9.10%

**TREASURER'S REPORT**  
**FINANCIAL YEAR ENDING 31<sup>ST</sup> DECEMBER 2007**

This report for the year ending 31<sup>st</sup> December 2007 showed Sutherland Shire Orchid Society made a small profit on last year. Part of this is due to increased prize money from shows which included two years of "Sharkies" prize money.

The Society was also able to add to the monies invested in term deposit.

The Society desperately needs to increase membership.

We have seen a number of newer members volunteering for committee and with the experienced members continuing an exciting and entertaining year lies ahead.

(As signed George Birss - see secretary for the original.)

G Birss  
Treasurer

## SOFT CANE DENDROBIUM CULTURE BY SANDY ANDERSON

Soft cane or Nobile type dendrobiums must surely be the easiest of all exotic Orchids to grow and flower and the range of colors available is unsurpassed by any other type or Genus of Orchid.

Early attempts by some growers were somewhat disappointing with plants making aerial growths (kikis) instead of flowers.

These notes are intended to help those people to overcome that problem and to encourage new growers to try them. There are no special conditions needed, just an understanding of their basic requirements. We believe that by far the most important aspect of their culture is that they have a definite and set time to grow and an equally set time not to grow. When this is properly understood, the rest is relatively simple. The species from which our modern hybrids are derived were mainly from an area in the lower Himalayas and associated hills in India and the western side of the mountain ranges which run down the Malay Peninsula and usually at an altitude of 3,000 to 4,000 feet. In these locations they are subjected to extremes of heat, cold and heavy rainfall - so don't pamper them.

Summer temperatures of 40 deg. and Winter down to 0 deg. (canes must be allowed to freeze) are tolerated equally well if other conditions are looked after.

The time to start to look for good flowers, is when the old flowers are still on the plant. In other words you need to grow a good lead during the Summer to be able to get good flowers from it next spring. While still flowering or shortly afterwards, the new leads will emerge and start to grow. As soon as they start to show signs of wanting to grow and not just sit there (usually when it is 3 or 4 inches long) that is the time to start your feeding program.

Fertilize according to the rate of growth of the new leads, as the growth rate accelerates, so increase the fertilizer rate. As a guide we start fertilizing on the 1st of November and gradually increase frequently from once per week to twice weekly, by about Xmas, then maintain that rate till the end of March, when we stop completely, (no more fertilizer is given to the plant until next season) by that time the new lead has reached its maximum height and only needs to fill out the top 2 - 3 nodes to finish its growth.

The fertilizer recommended is H.S.O. 12 or Campbells at the rate of 3gms per ltr. full strength.

All Dendrobiums have the capacity to produce new growths from their nodes (kikis). This is one of Nature's ways of ensuring survival of the species. A plant will use this method of reproduction if placed under stress, such as when the root system has been damaged or rotted, or when conditions are not ideal. I have seen 2 collections destroyed by using them to provide extra shade for Cattleyas etc. during Summer under fibreglass roof, (conditions there were too hot and too dry). All canes shrivelled and Kikis developed all over them. Using any fertilizer containing Nitrogen on the plant when they are not in active growth will also produce the same results as will trying to grow them under too much shade.

We grow all our Dends. in shade houses of 30% or 50% shade, even our small plants, although these could be grown under 70% alright. It is important to provide plenty of light for flowering size plants, especially in the Winter months. In fact from about the end of April they could be left in full sun until the buds appear, but remember that the higher the light level the more attention needs to be given to watering in hot weather. Plenty of air movement around the plants helps to reduce the temperature of the leaf surfaces and prevents burning.

During the Summer period which corresponds with the "wet" season in the region where they originated, plants require copious quantities of water and as high a humidity as it is possible to provide. After the growth has finished in the early Autumn, watering can be tapered off so that by July it should only be necessary to water at 5 to 7 day intervals if weather is dry, increasing again as flowers start to develop.

**POTTING** - Size of pots, type of potting material and water frequency are all inter-related. In brief, the smaller the pot and the more open the mix the more often watering will be needed. However don't use larger pots or finer mixes than necessary. We grow our single flowering cane plants in 100mm (4") pots and a mix of 2/3 bark ( $\frac{1}{4}$  to  $\frac{1}{2}$  inch grade) and 1/3rd perlite and water well in the late afternoon daily during Summer. On hot days (over 30deg) we give a 4 to 5 minute watering once or twice during the day, mainly to increase the humidity.

Repotting is best done as soon after flowering as possible and before the roots on new leads can be damaged. If any organic material is used in the mix such bark etc. 2 years will be about its limit.

When dividing or trimming old growths at repotting time leave 3 years growth on the plants. Those old canes act as a reservoir for food for the new growths.

**PEST AND DISEASES** - These orchids are subject to attack by pests that growers know only too well and are treated with Insecticides appropriate to the pest. The exception to that is leaf spotting. This is caused by a fungus and can be controlled with Mancozeb or try using Hy-san.

**FLOWERING** - Soft cane Dens. need a cooling off to initiate flower buds, Yamamoto say a month of nights at about 10 deg. is needed, but we believe that 15 deg is cool enough.

If plants are placed in a position where good light reaches the full length of the flowering cane at bud initiation time, you will find that they develop over a greater length. If crowded together at that time. flowering will be confined to only the top sections.

**SOME HELPFUL HINTS** - A porous floor covering that can be wet- sawdust or wood chips are good or some sort of plant growing on the floor will improve humidity. It will also help if plants are grown fairly close together for the hot growing season, but space wider in Autumn for better flowering.

Flowers last long lasting but this can be extended by keeping the plants cool and the flowers dry when watering.

#### TO SUM UP

- 1.. Fertilize and water freely all Summer
2. Stop fertilizing not later than end of March
3. Water all year if conditions are dry
4. Grow under plenty of light and air movement
5. Sit back and enjoy the results

*Article kindly provided by Audrey Marks*

## PLANT CARE

During the cooler months of the year, activity in our orchid houses/shelters is a little less frenetic than during the warmer or those months when generally plants are doing most of their growing. However, the colder weather can play havoc with our plants if we don't take appropriate action to help them. Some advice has been received from Jan Wickham, Territory Manager & Crop Nutrition Specialist of AgriBest Australia, courtesy of Bill Dobson, in regard to a product called "Envy".

This advice is also applicable to plants other than orchids and is of benefit as well for use during the warmer months.

#### ENVY

- Frost protection for most crops.
- Drought protection - Reduces moisture loss by up to 50%!!!!
- Sunburn protection for sensitive plants and fruit.
- Transplanting young seedlings
- Transporting trees and palms of all sizes
- Reducing wind burn
- Tissue culture deflasking and cutting propagation
- Extending the life of cut flowers Leaf glossing of indoor plants Reduction of scarring on fruit from wind and insects
- Delaying needle drop in Christmas Trees
- Reduction of heating and browning off of rolled turf

## ENVY FACTS

- Envy will increase frost tolerance by as much as 4 C less than frost
- Envy can reduce moisture lost through transpiration by as much as 50%
- Envy diluted spray dries to a clear, colourless, gaspermeable membrane
- Envy will not interfere with photosynthesis or normal carbon dioxide or oxygen exchange
- Envy drying time varies depending on ambient temperatures. Allow a minimum of 4 hours and 24 hours under severe conditions
- Envy does not restrict plant growth
- Envy, when applied is biodegradable in approximately 45-60 days
- Envy is Non Toxic
- Envy stored in a cool place has a shelf life of up to five years in a sealed container away from heat and light.
- Discard if product assumes a reddish colour.
- Envy is pH neutral

## Australian Orchid Foundation - Awareness Campaign

# VIRUS IN ORCHIDS

Viruses are parasites - they only reproduce within cells of the host plant. They take over normal plant cell functions to divert the metabolism of the host plant into virus production.

A single virus consists of a minimum number of genes encased in a protein structure and its replication inside the plant cell it is absolutely dependent on the metabolic system of the host plant. For this reason there is NO KNOWN CURE for virus infection as any chemical/drug that will stop virus reproduction will also disrupt the metabolism of the plant cell and probably lead to the death of the plant.

Transmission of infection from infected to healthy plants relies on physical damage to the plant tissues which causes a "break" in the plant cell wall. This is caused either by mechanical damage or by the vector associated with the transmission. Mechanical transmission can occur during vegetative propagation and pruning when secateurs or other cutting instruments are used, when roots are damaged during division or repotting, when leaves rub together in an overcrowded glasshouse or when there is wind damage to any part of the plant. However, most plant viruses are transmitted by other organisms of "vectors" that feed on and move between the plants. These may be insects (aphids, whitefly, leafhoppers, planthoppers, thrips, beetles), mites or soil inhabiting organisms (nematodes, fungi).

Some viruses are seed-borne but rarely to all the seedlings reared from one seed lot. A few viruses are soil-borne.

Initially most plant viruses multiply at the site of infection which causes localised symptoms such as necrotic spots on the leaves due to damage to the plant cells in the immediate vicinity. Systemic infection results when the virus is then spread to all parts of the plant either by the plant's vascular system or direct cell-to-cell spread. Multiplication of the virus in the plant cells leads to changes in the plant cells which cause many of the characteristic symptoms of infection - stunting, distortion of the leaves and flowers, mosaic patterns or striping on the leaves or flowers, yellowing, wilting, infertility.

For accurate confirmation of virus infection, specialized tests must be done in a laboratory. Tests may involve electron microscopy, serological testing using antibodies to specific viruses, or advanced techniques using molecular genetic techniques. So far no kit has been developed to allow easy detection and diagnosis of virus infection by the orchid grower.

The most effective way of preventing virus infection is to destroy infected plants (or isolate if seed is required), control potential vectors of virus transmission and wash hands and sterilize tools before each plant is handled.