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# Orchids

*in New Zealand*

Volume 16 No. 4

August 1990





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5-17 September 1990

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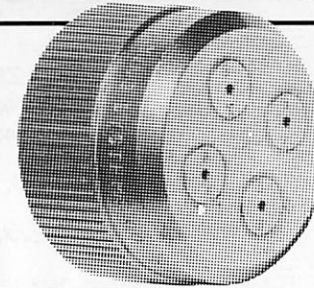
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A special 'Colour Fund' donation has been made by the late Edna Campbell—see obituary elsewhere in this issue.

## Diary Dates 1990

### July

Saturday 28th 10 am to 4 pm  
 Sunday 29th 10 am to 4 pm  
 SOCIETY: **Kapiti Orchid Society**  
 VENUE: Southwards Museum Complex  
 ADDRESS: Paraparaumu

### August

Saturday 3rd. Sunday 4th  
 SOCIETY: **Bay of Islands Orchid Society**  
 VENUE: Union Church Hall

Friday 17th. Saturday 18th. Sunday 19th  
 SOCIETY: **Whangarei Orchid Society**  
 VENUE: Forum North Exhibition Hall  
 ADDRESS: Rush Avenue, Whangarei

Friday 24th. Saturday 25th. Sunday 26th  
 SOCIETY: **Hawke's Bay Orchid Society**  
 VENUE: Lindesfarne School Hall  
 ADDRESS: Pakowhai Road, Hastings  
 CONTACT: Secretary, 6 Tiffen Place, Greenmeadows.

### September

Monday 10th - Show opens  
 Sunday 16th - Show closes  
 Conference runs 5-17 September  
 SOCIETY: **13th World Orchid Conference**  
 VENUE: New Zealand Exposition Centre  
 ADDRESS: Greenlane Road, Auckland  
 CONTACT: Registration: P.O. Box 12-442 Auckland

Thursday 27th. Friday 28th. Saturday 29th  
 SOCIETY: **Kaitiaki Orchid Society**  
 CONTACT: P.O. Box 245, Awanui  
 Saturday 29th. Sunday 30th.  
 SOCIETY: **Canterbury Orchid Society**

### October

Friday 5th. Saturday 6th.  
 SOCIETY: **Wairoa Orchid Society**  
 VENUE: Presbyterian Hall  
 ADDRESS: Queen Street, Wairoa

Saturday 6th. Sunday 7th  
 SOCIETY: **Taupo Orchid Society**  
 VENUE: Taupo Memorial Hall  
 ADDRESS: Tongario Street, Taupo

Saturday 20th. Sunday 21st.  
 SOCIETY: **Tauranga Orchid Society**  
 CONTACT: P.O. Box 669, Tauranga

Saturday 20th. Sunday 21st.  
 SOCIETY: **Wairarapa Orchid Circle**  
 VENUE: Knox Church Hall  
 ADDRESS: Dixon Street, Masterton  
 CONTACT: P.O. Box 302, Masterton

Societies are requested to send details of show dates. Please ensure:—accurate data forwarded. —full information on schedule provided. Much information provided is incomplete and often inaccurate. It is in your interests that correct information is provided. We apologise for any Show information supplied but not printed.

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# Orchids

IN NEW ZEALAND

incorporating 'The New Zealand Orchid Review'

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 NEW ZEALAND ORCHID SOCIETY

VOL. 16 No. 4

AUGUST 1990

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# This Magazine, Our Magazine

**I** FIND IT HARD TO BELIEVE, but now this is now my fourth issue of the magazine. Perhaps it is time for some housekeeping!!

The greatest challenge has been to get it back to a normal production schedule. This has taken longer than I had hoped, but now that we have caught up I hope that everyone—readers, advertisers, printer, distributor, and not the least your Editor, will find a regular schedule more acceptable. Everyone will know when they can expect it, and can plan accordingly. This will necessitate set deadlines, and everyone's co-operation will be required, but the benefits will make it all worthwhile.

The changed format, layout, increased use of illustrations, and content seem to have received general acceptance. Further improvements will be seen as resources permit, but overall I have been pleased with the results, despite the odd problem. It is important to note that it is you the reader who must make the final judgement as to whether it is acceptable, and if I do not know what you want, I cannot provide it. This production is a team effort, and we must all work together to make it the best magazine possible within the

constraints that exist; let us aim at the best orchid magazine of the Pacific.

I have been pleased with the articles that have arrived—many without the usual pressure from me. To all those that have contributed, and in particular the regular contributors, my thanks. We are always, however, on the lookout for more and new material. You say you

## editorial



Orchids in New Zealand  
Editor:  
P. C. Tomlinson  
14 Putnam Street  
Northland  
Wellington 5, N.Z.

want to read about culture. There are many superb growers of the many different types of orchids in this country and in the local societies. Those top growers are encouraged to put their thoughts and techniques on-to paper—perhaps you readers in the same society can provide the additional encouragement necessary to see pen put to paper.

There are articles that everyone can write—how about “*my favourite orchid*” or “*my favourite orchid book*” or even “*my favourite orchid personality*”—the possibilities are endless!! You may not think you can write, but you may be surprised just how easy it is once you start.

Where possible scripts should be typewritten on one side of the paper—if this is not possible, please make sure writing is clear, especially spelling of plants, place names, people etc.

Please use double spacing and leave generous margins—it makes editing and typesetting instructions easier and clearer for those who have to complete this work.

## Deflasking and the little Plants

**I** DO ALL or most of the things that are commonly done with a flask of orchid plants. For example I place the flasks for minimum of three days in the environment where the plants are going to live. I have begun a new routine following this. I open the flasks and leave them for about 48 hours before proceeding with the deflasking. This has increased the survival rates and seems to lessen the shock from deflasking. However, a word of caution. If fungal spots appear on the medium, proceed immediately. The spread of the fungus onto the plants can be disastrous.

I then proceed to doing more of the usual things—washing well to remove agar; soaking in a captan solution; giving them a drying period before potting and throwing out the runts, that is until recently.

Now comes the difference. An innovative commercial grower, who wished to remain anonymous, shared her technique with me. This has gone through a four year period of trial and error to reach the present, I believe, very successful point. It is used for those flasks delivered with rather small plants or to grow on some of those smaller plants found in a flask, and you want them!

The first thing to do is to get some very fine washed bark, wet it thoroughly and sterilise it. I fill a plastic ice cream container with the wet bark and microwave it for four minutes on high. It should steam (boil) and be allowed to cool. The next move is to fold a paper kitchen towel twice to give four thicknesses. Do this

by  
**Trevor Nicholls**  
33 Hinekura Avenue  
Taupo

the way that gives you the greater length. Leave an unused gap of approximately 2½ centimetres from both ends. Lay the roots of the plants onto the towel. Then place a layer of the fine bark over the roots and the towel so that the whole lot is level. Next carefully roll it up like a sponge roll and filling, using care that the plants are caught into the roll. She then puts them into a pot the same size as the cut off bottom (minus its black base) of a large plastic soft drink bottle. The roll is positioned in the pot and packed around with more of the fine bark. The cut-off bottle bottom is then inverted and positioned a short way into the pot making a miniature terrarium. The pot is then placed in a bowl of water until everything is wet. This soaking process needs

to be repeated about every 15 days. The ‘hat’ is not necessary for plants such as cymbidiums or cattleyas.

She has been keeping all the pots on their packing table. This will soon be wanted for packing, so recently the pots have been moved to a spare bench in their greenhouse.

Does it work? I recently received a consignment of flasks. One of them had the plants well mixed up with the agar. I did all the usual things with such a flask and was resigned to the fact that I would lose most or all of them. I decided to use the above method on them. Another of the flasks had very small plants in it and it was given the same treatment. Two months later I took the ‘hats’ off them both to show her the progress they had made. I was unable to work out which of the two was the one that had been tumbled. There was in one pot, one dead plant. Even the protocorms had sprouted into plants and were indistinguishable! ◀

# BADGE PRANKS

*Badges, teaspoons,  
stamps.  
Jim Dench updates  
the Conference plans.*



In 1981 whilst at the 10th World Orchid Conference in Durban, South Africa, I decided to seriously collect orchid badges, pins to our fellow American friends.

An article in The Australian Orchid Review, by Harry Spence, mentioned that his wife was very interested in 'badge collecting', so I wrote to her and she became my first 'badge pen pal', and still is. I now correspond with at least 12 people around the world and we swap badges regularly. Ben Hardy mentioned in his article in 'Orchids in New Zealand', February 1990 that my collection numbered 300 badges but he was a few short in his estimate; I have to date 420 badges.

Recently I have branched out and have become very interested in collecting orchid teaspoons. I have to my surprise, discovered that there is another group of collectors with just as strong a swapping mania as we badge people. I came home from the Asian Pacific Orchid Conference, Adelaide 1989 with some 30

teaspoons, all featuring an orchid on top of the handle. I also have some gold plated ones now, and the numbers are growing fast.

To all fellow collectors, badges, teaspoons, orchid stamps, orchid artifacts, please come well armed to the Orchid Conference in Auckland in September. We will 'have a ball'! The special area will be a delight to see. There will be a fantastic set-up with badges unlimited from all over the world for swapping. Security will be necessary for collections and ideally if these are housed in a small glass covered case all the better. A limited number will be provided but you will be responsible for your own swapping arrangements.

There will be a map of New Zealand displaying the locations of orchid societies in both the North and South Islands, marked with their Society's badge, mainly to show overseas visitors where we all hail from. This display will be sold by auction at the end of the Conference to help defray

costs for The Collectors Corner.

So come along to Auckland in September. This is a chance of a lifetime to be part of our Orchid Olympiad. With over 60 countries participating, new friendships to be made an opportunity not to be missed.

428 Botanical Road  
Palmerston North

Illustration — the proposed  
Odontoglossum Alliance  
group badge.

## Some Questions and Answers

**Q.** How to get *Epedendrum radicans* to flower?

**A.** Put outside, early in spring to harden off, if it develops keikis which are taken off, sometimes don't flower. Leave them on and grow into bigger plant. If given too much water may grow and not flower like *D. kingianum*. Try sheltered sunny spot in garden.

Please ensure your name, address and phone number are included. I may wish to contact you or return photographs etc.

For articles of more than 500 words, please include a head and shoulder (passport type) photo of yourself, or a photo of yourself involved in an orchid activity perhaps related to the particular article; your readers are interested to see you.

You are invited to include photographs to illustrate your article—prints or slides, although prints are preferable for black and white illustrations. No guarantee is given that all or any will be used, but I do strongly believe that good illustrations are very important, as you can see from the last issues. If you can provide suitable material (which will be returned), this can considerably enhance the article.

To ensure inclusion in a particular issue, all *Editorial copy* must be in the Editor's hands 6 weeks before scheduled publication date.

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Nov/Dec	by 1 October

*Advertising copy* must be in the printers hands 3 weeks prior to publication date—i.e. 3 weeks later than

Editorial copy. All advertising queries direct to the printer, Bill Deed.

If the magazine is to develop, we need the maximum number of subscribers possible. If you like the magazine, tell other growers and orchid friends and encourage them to purchase it. You may even like to give subscriptions as presents. Increased subscriptions will give us the extra finance to

## T. L. C.

**Gwen Thomassen  
recites an adventure  
with a vanda, and her  
success in bringing it  
back from near death.**

Having been growing orchids (mainly cattleyas) for several years, and having bought various plants back to health, both for myself and for friends in our Club I have learned the hard way. A friend presented me with a sick vanda, and I repeat a **very sick** vanda, which had been a really lovely bloomer, the previous year. That poor plant was treated with so much (so called) kindness. It was drowned, roots all rotted, mix broken down, mix too fine, in plastic pot, not enough drainage, to mention some problems. The owner said, "Please can you do something"? Oh! I shall try, but don't expect any results.

make it even better—more articles, more photos, more colour. If you do not like it, tell me or members of CONZED Council as we cannot improve it if we do not know your wants. Remember, it is not my magazine, not yours, BUT OURS. It can play a very important part in the orchid community in this country. Let us all work together to ensure that it fully meets the needs of everyone.

I flamed a knife, and cut about 12mm above where the roots once had been. It was dipped into sulphur, left to dry and then placed in dampened Vermiculite, about 25mm deep. It was told to stand upright, "Just for me please". Placed beneath my cattleyas in shade, it sat there, (poor little soul) for six months. A little lecture from me each day, of course, until one day I could wait no longer, and said to it. "I think I shall lift you out and see just what you are doing, or what you are not." There, looking at me, were two nice roots, one 30mm long the other 12mm. It seemed to be saying "See, I'm trying to grow for you". That was one of the highlights of my orchid growing. That plant now sits in a raft, in a little coarse bark, and hopefully, will be back with her owner next summer. I hope this will be of interest to others. Don't give up with sick plants, these beautiful plants don't.

## Edna Campbell: An appreciation

Way back in 1978 Edna was encouraged by Darrell, her husband, and me to join the Waikato Orchid Society. This was the beginning of the very supportive role she has had in the orchid world.

She helped to feed the Orchid Council, in the days when they met in Taupo, and the bus loads of people who have come on glass-house visits. From the time the Taupo Society was formed her home was opened for committee meetings and to host our guest speakers. From our very first show Edna became a very active helper. In recent years she herself has slowly become more involved, joining us when we go visiting and coming to meetings. Being Edna, it was not long before she took on the task of compiling most interesting newsletters. Next it was as a very active liaison officer to the 13th World Orchid Conference committee.

Over the last two years she has put in many hundreds of hours for orchid lovers on a wider scale. She became known, through her letters, to orchid people at one end of New Zealand to the other, and further afield. During this time she has smoothed out the problems that arise from distributing a magazine such as "Orchids

in New Zealand"; keeping the most meticulous records.

Edna never grew an orchid. Nevertheless, her enthusiasm and energy has left its mark on orchid growing in New Zealand.

Ave atque vale. To her family and Darrell our love on Edna's death 13th May, 1990.

Trevor Nicholls  
Taupo



*The late Edna Campbell  
contributed this item in 1988,  
to help the Editor.*

*If the Editor you'd hate to be  
Then spare a thought to pity me.  
It's almost time to go to print  
But for copy I am stint.*

*I plead and beg you all to write  
I thought you would—I hoped you might.  
But alas it seems  
It was a figment of my dreams.*

*So Please—once more, I ask of you  
Is there not something you can do?  
An article — just something small  
Far better than just none at all.*

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that's why I didn't object when nominated onto a committee to look at establishing the Rotorua Orchid Society. This eventually led to 3 years as secretary of the society. While I now realise that I wasn't particularly suited to the job, being young and inexperienced in matters of that sort, I am still very grateful that it happened, as it bolstered a fledgling interest in orchids that has now become a passion.

From small beginnings our society flourished. We have had many shows, some very extensive ones in the beginning, incorporating many other horticultural and craft groups, but more recently we have held our shows in conjunction with the Rotorua Camellia Society, culminating in last year's show, and our best, being a true floral extravaganza. Both societies have grown and matured during our relationship to the point where at last our show was extensive, varied and of good quality and one which I was proud to be associated with.

In our early years when there was the usual enthusiasm of youth the society organized two major seminars for hobbyist growers and the hosting of a CONZED AGM. In more recent times the energy of the society has been channelled into provision of an interesting and varied programme for our monthly meetings. Our current ma-

ior project is planning for our display in the 13th World Orchid Conference in September this year. Putting on a display outside our own area is a new experience for us, and while a little daunting, I am sure we will cope well.

But back to the present and our anniversary tea. It was attended by about 60, including several of our founder members who have since moved from the area and now belong to other

societies. We were addressed briefly by the current President of CONZED, Andy Easton, our own current President Peter Anderson, and our founding President Dr Murray Ashbridge, and as can be seen by the photo it was a jovial group that cut the anniversary cake.

I am sure that in the future the society will go from strength to strength and I look forward to being associated with the society for many years to come. ◀

### Using Sphagnum Moss

It is possible to keep it growing very well with a little care. Fruit trays are excellent. Place the green heads up and then put the trays in a position of high light, but out of direct sun. It needs to be kept very wet. Frosts seem to have very little effect on it.

Around here it gets used for a number of purposes. One of these is when mounting plants on slabs. In the early days I used to surround the roots of the plants with moss. Eventually the roots grew through and attached themselves to the slab. Now the moss is only used on the outside of the roots. They attach themselves in weeks instead of months.

It is also used on the top of pots of some genera, especially the fine rooted surface growing ones such as oncidiums. Previously I found the top of the pots were drying out too quickly. Trying to solve this with more frequent watering meant that the bottom layers of mix were becoming waterlogged. This problem is now solved with a top layer of sphagnum.

Another use is for small plants from flask. These are planted into straight sphagnum and most of them love it. They enjoy the even moisture and the humidity. My experience is that there is a critical point when they need to be put into a normal bark mix or they become unhappy.

Sometimes I manage to lose roots off a plant. From my experience, the fastest way to solve this problem is to pot the plant into straight sphagnum. If it is not too late the response is quite incredible. ◀

*Tauranga Orchid Society Newsletter*

Last month we looked at what plants can be easily grown other than cymbidiums. *This month we feature two articles concerning the culture of mixed collections of orchids.*

## GROWING MIXED GENERA

**THE THEME** is the growing of orchids to perfection. I believe that this could be ideally achieved by putting only one plant in your growing area, and catering to its specific requirements. Such an approach is hardly practical and certainly would eliminate much of the fascination of orchid growing.

Most orchid hobbyists like to grow as many plants as they can in the space available and an increasing number of orchid hobbyists are beginning to grow more than one genus. From the hobbyists that I have surveyed, about one half grow only cymbidiums and the other half grow cymbidiums and other genera. Only one or two in each society do not include cymbidiums in their collections. As the orchid hobby grows in New Zealand, there will be more and more growers looking to expand their collection into a "MIXED" collection.

The growing of a mixed collection of orchids to anything close to perfection can be a great challenge, even to the famed kiwi ingenuity. A thorough understanding of requirements of the plants . . . and also of the conditions avail-

*W. James Harper presented a talk to the North Shore Orchid Society Seminar in 1983. It presents further views on the growing of a mixed collection of orchids.*

able for growing the collection . . . is essential.

This article on the subject of mixed collections will focus on general guidelines, giving special attention to matching growing conditions to something close to natural growing conditions and will emphasize the orchids of the Americas to illustrate a mixed collection. Emphasis will be on epiphytes.

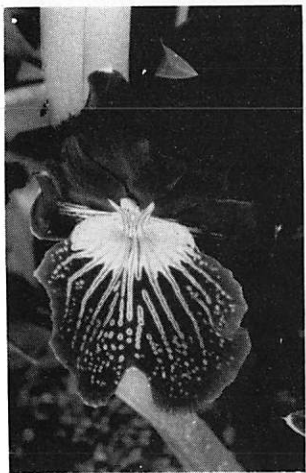
### SOME GENERAL THUMB RULES

Let us first turn our attention to some general guidelines towards better orchid growing — which apply across the board to single genera or to multiple genera collections.

#### 1. Be Observant!!!

Learn to read your plants. At a seminar, Mr George Fuller emphasized that the key to good orchid growing was learning to understand what your plants were 'saying'. This is excellent advice. The best guide to orchid growing is to watch your plants carefully — watch for new shoots, roots, condition of leaves and stems. If your collection is small enough (500) plants, pick up each plant on a regular basis and give it a good inspec-

tion. In time you will get a feel for signs of good and poor health.



*Miltonia Bleuana* 'Geyslerland'  
Grower: A. Easton

## 2. Don't Overcrowd Your Plants!!!

This is probably a major deterrent to growing orchids to perfection and a rule that most of us tend to ignore. Providing each plant with plenty of room for good air circulation generally increases flower production and decreases disease—especially rots. At the same time it makes it easier to inspect the plants.

## 3. Find out all you can about the conditions best suited for a given Orchid!

For a species you can generally get a 'ball park' idea from determining where the species grows and its range of habitat. Some species will grow at widely different elevations,

on a variety of hosts and in varied light intensities—these are generally easy to grow. Other species may be found only above a given elevation, on a specific host and always in deep shade. Such a species may also be easy to grow if its conditions in nature are known. The growth requirements for many modern hybrids are more difficult to ascertain, since their requirements are generally a combination of those of the species involved. Knowing the species can be useful, but beyond that there must be a knowledge of the dominance in each species, e.g. most of the *Cattleya dowiana* hybrids require a higher than usual temperature for cattleyas—even when crossed with cooler growing species. For our modern hybrids, information from breeders and other hobbyists can be most useful.

## 4. Become acquainted With the microclimate In your growing area!

Every grower has differences in microclimates that can be used to advantage if you are growing a mixed collection, even with the same greenhouse in the same alignment in two neighbours yards. Try to estimate the differences in temperature, light, humidity and air movement in the different locations in your growing area. A thermometer, humidity gauge and light meter can

be useful in this regard. By knowing the microclimates in your growing area, you can improve your culture. When I am trying a new species for me, I like to get several plants and locate them in different microclimates to see where the species does best.

## 5. Avoid overpotting!

Most orchids resent overpotting and are much more prone to root rot. The greater the mass of media to roots, the greater the probability of having poor air holding capacity around the roots. Underpotting is especially beneficial for those plants that require a lot of water during the growing season and for those that do not require a dormancy period.

## 6. Don't overwater!!

One of the most common axioms of orchid growing is that more plants are killed by overwatering



*Cattleya harrisoniana*

## The Rotorua Orchid Society has also celebrated its 10th Anniversary, Jess Foster and Glenn Anderson report as follows. . .

### Jess Foster writes:-

Keith Goodwin put an advertisement in the Rotorua Post to see if anyone was interested in forming a society.

A meeting was held on 3rd February, 1980. Dave Ashbridge welcomed 28 persons and it was decided to

form a society, named **The Rotorua Orchid Society**, with meetings to be held on the 1st Sunday of each month.

### Glenn Anderson writes:-

On February 11th, 1990, the members of the Rotorua Orchid Society met in the extensive and delightful garden of Dawn and George Marson for a barbecue tea in celebration of the Society's 10th Anniversary. It was a time to take stock of our society in preparation for looking to the future, but for me it was more a time for reflection on our past.

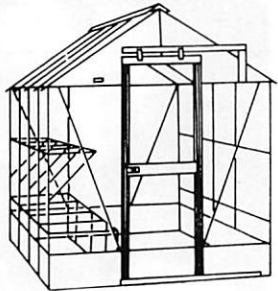
It took me back 10 years to a small crowded room, full of people who had responded to an advert in the local paper, regarding interest in the formation of a Rotorua orchid society. There was a magnificent display of orchids put on by our soon to be President Dr Murray Ashbridge and soon to be Vice President Keith Goodwin. For many there, it was the first realization that 'orchid' was not a synonym for cymbidium. I remember a particular spectacular plant of *Vanda Rothschildiana* brought in by Dr Ashbridge that had me spellbound. Perhaps



Cutting the cake; Rotorua Orchid Society's 10th Anniversary  
From left: Founder Vice-President, (ROS) Keith Goodwin; Founder President, (ROS) Dr Murray Ashbridge; Founder Secretary, (ROS) Glenn Anderson; Current President, (CONZED) Andy Easton; Current President, (ROS) Peter Anderson.



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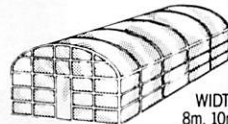
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than by underwatering. It is well to define what is meant by overwatering—which generally means too frequent watering without an opportunity for the media to regain its air supply. There have been a number of studies that have shown that epiphytic orchids can stay continually wet if the roots get sufficient air. I have seen phalaenopsis growing in water in Tennessee—but the water was constantly being replaced.

Massey University has shown some evidence that some orchids can be grown at least for an extended period in peat moss on a wet pad—the success being related to maintenance of an adequate air supply around the roots. The amount of water given at one time should be generous and always water thoroughly to leach out accumulated salts. Pot watering and then going back and rewatering again about 30-60 minutes later can be beneficial.

**7. Don't overfertilize!!**

Orchids have a definite and specific requirement for minerals and like frequent low levels of fertilizer. Most orchids like a N:P:K: Mg level of 100, 35, 70, 25 ppm.

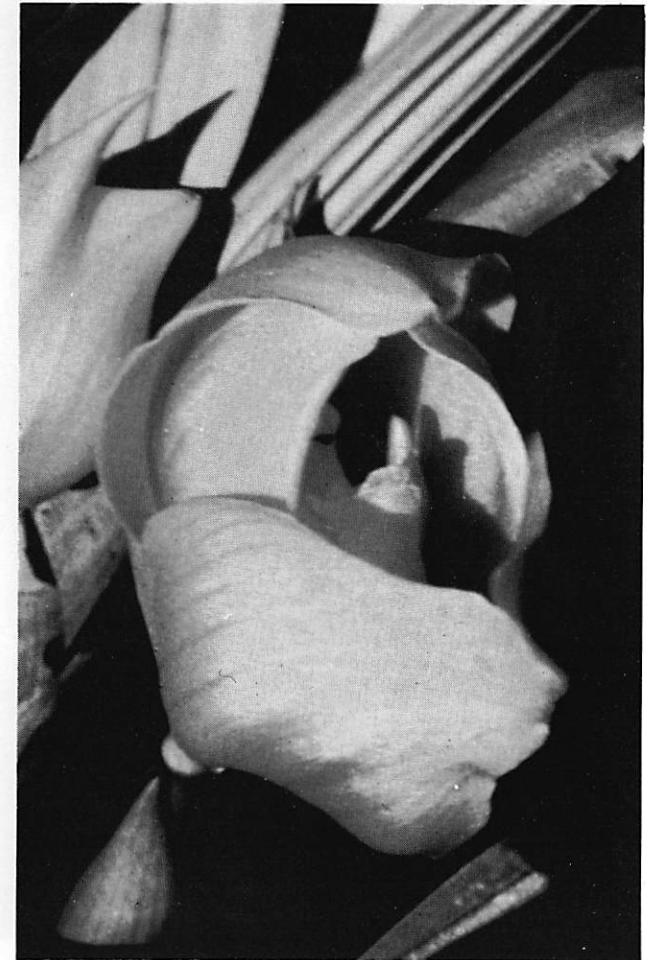
(A fertilizer that is close to this for N, P and K is Yates Orchid Fertilizer with 10, 3 and 6% of N, P and K respectively. One

capfull (8g) to 8 litres of water will give 100, 30 and 60 ppm of N, P and K. This is about 8 times less than is recommended on the label. Determining that amount of fertilizer to give the proper ppm is difficult because of lack of labelling in New Zealand and a general lack of knowledge on the part of most orchid hobbyists on how to

convert composition to ppm. The following may be helpful:

0.1%	=	1000 ppm
0.01%	=	100 ppm
0.001%	=	10 ppm

If we know the % of N in the fertilizer and use it at the rate of 1 g/litre (or 1 g/1000 g), then dilution rate is 1 divided by 1000. If we then divide the % N in



*Anguloa clowesii*

the fertilizer by 1000 we will have the % of nitrogen in the litre of fertilizer. For a fertilizer with 10% nitrogen:  $10/1000 = .01$  or 100 ppm. A teaspoon is about 8 grams, so we can use 1 teaspoon in 8 litres of water to get 100 ppm N.

At this low concentration fertilization can be done with every watering. Too heavy a feeding results in a high increase in salts as the pot dries out and results in root burning. Also avoid combining solid, slow release fertilizer with liquid fertilizer—this has been one of the most frequent reasons for failures with slow release fertilizer.

### 8. Don't change Your culture if your Plants are doing well!

There is a great temptation to hear an "expert" expound a different way of doing things, or you see someone growing something extremely well and you rush home and change. Alas—the plants don't respond . . . something was different. A few years ago I saw some paphs in Australia in a different mix and growing better than any I had ever seen. Back in Ohio I repotted all my paphs in the Australian mix, but kept my other cultural aspects as always. Two years later the paphs were just beginning to come back to their former healthiness. Because mix,

watering, light, humidity, and air movement are interdependent, you cannot change one aspect without giving consideration to the other elements.

### 9. Simple Rules

Remember there are no simple rules for all orchids or for a given orchid under different conditions!!



*Epidendrum falcatum*  
Grower/Photo: Bill Franssen

declared open this special occasion. The Society's Patron thought our present President, Adrain Irving was a lady, till they met each other, quite a laugh indeed.

As advertised in our monthly newsletter there was a 'THEME DRESS of TEN which one took part in of course. Others who never seem to find the time had to tell stories on different given topics in front of the crowd.

The main highlight was our TENTH ANNIVERSARY CAKE which had iced orchids on it. There were three honours given by Adrain Irving who stood and lit the candles on this cake, followed by the Society's first Lady President who fanned out those ten candles. Now for the moment we have been waiting for, the speech by the

founder, President, who also had the honour of cutting the cake on a summer's night.

The Orchid Society of Southland has sure made its mark up North for various things which most will know about and especially the number of different orchid speakers over a period of ten years who have advised details of the culture and genera grown in sub tropical areas like the North Island. Learning from this, builds up interest and trying to increase your own knowledge.

This TENTH ANNIVERSARY is now over and what remains are the memories of this milestone a great occasion all round. We must look forward to the next fifteen years till the Society marks its second celebration. ◀



above: First President John McDonald.



below: Adrain Irving lighting the 10 candles.

# Society News

*This month we have three items concerning orchid societies.  
The first is by John Lloyd from Dunedin.*

## "Southern Update"

Contrary to popular belief in some northern parts of our beautiful country, orchid growing in the "South" thrives!

Many fine orchids are being grown in small glass-houses, heated almost continuously in winter. Conditional shortcomings are overcome with ingenuity and flair. But more importantly the renowned "Southern Hospitality" and personal contact to give our members their money's worth, is very much abroad.

Individual members keep in touch from Christchurch through to Invercargill—a

distance of almost 500 miles. A bus load of enthusiastic orchidists from Oamaru (you remember that progressive little town that the N.Z. Post can't find) is to visit growers in Dunedin on June 24th to renew friendships and learn from one another. Then July 29th a bus load from Dunedin travels to Invercargill, the heart of the Southland farming district for their annual get together, enjoy visits to glass houses and a meal together.

Memberships at clubs are buoyant. Hands-on demonstrations at club nights are very popular and well attended. Fund raising to send displays to 1990 Conference in Auckland are in full swing. We get 40 to 50 people to our friendly meetings. Sales table plant material is increasing in quality and quantity—due in no small way to visits by commercial growers: Members increasingly want to participate in actively joining the band of workers getting things done.

In the southern orchid growing clubs the cry is "It's Alright Here"!

## Anniversary congratulations

Two societies have recently celebrated their 10 year anniversaries.

In this first report Tarris McDonald discusses that of the Orchid Society of Southland.

The Orchid Society of Southland started when careless days were in ten years ago. Membership has grown from 20 to 100 today. John McDonald stood as

President for five years in a row. So, on Waitangi Day 1990, the Society reached this special milestone year, and 40 local orchidists came along to a night they would

remember—pot luck tea, wine and cheese, chips and dips to follow.

Our Patron Eve Poole made a speech and officially

## WHY GROW A MIXED COLLECTION?

People who grow a mixed collection will give varied reasons for doing so. Most mixed collections are found in the growing areas of those hobbyists that have been growing for a long time and have developed a love for orchids in all of their myriad forms. I think the strongest reason for my interest in a mixed collection is two-fold—(a) a fascination in seeing things that are different from one another, and (b) the challenge of doing something that is generally considered a challenge.

My fascination with different genera came about the time in orchid growing, when I became aware that there were orchids other than hybrid cattleyas (translate that to cymbidiums for New Zealand). That fascination has grown with the years and been sharpened by observing orchids in their native habitats, and trying to understand the natural growing conditions and how these might be translated to the improvement of culture at home.

To me, one of the most fascinating aspects of the orchid family is its diversity—in form, colour, habitat, and development. No one really knows the number of orchid species—they are estimated to make up more

than 10% of the flowering plants on earth—with guesses ranging from 12,000 to 35,000 different species. The most common figure heard is that of 25,000. That number doesn't seem unduly large—until we calculate that if you saw one new orchid plant each day, it would take over 68 years to see every species. That doesn't even consider orchid hybrids, estimated at over 70,000. So it is little wonder that one generally sees at least one new orchid at every show. These species are grouped into about 800 genera. If we add to that man-made "intergeneric hybrids" (390 in 1981), the total genera available to the orchid grower is about 1200. Thus there is a wealth of plant material to satisfy the grower of mixed genera.

## DESCRIBING AND MATCHING NATIVE HABITATS:

Natural habitats refer primarily to species as noted earlier and have less relevance to very complex hybrids. Books and publications are useful in learning about native habitats, but the best way to understand native habitats is to visit them and "feel" the conditions. I have had the privilege to see orchids growing in Florida,

Mexico, Guatemala, Puerto Rico, Australia, Papua New Guinea, and most recently in New Zealand. A friend of mine, who has collected in Mexico for about 25 years, can go into an area where he has never been before and predict with excellent accuracy whether or not there will be orchids growing there. The signs that he looks for are:

- Air movement
- Humidity
- The type of "bush"
- Relation of the site to prevailing winds.
- Presence of visible epiphytes—ferns and bromeliads
- Presence of streams or rivers

Most of the 700 + orchid species in Mexico grow at altitudes between 3000 and 7000 feet in cloud forests, below the upper canopy of leaves. A good orchid habitat generally has a constant breeze, condensation of water on vegetation every night from the clouds, trees with proper bark and lichens to aid seed germination, light proper to the species, and pollinators for the species. Generally other epiphytes are present. Trees along a river, with its higher humidity, is frequently richer in orchid species that dry areas—but this varies with the species. Under these conditions the orchids are bathed in moisture every night—even in the

dry season. Those that grow high in the trees dry out rapidly, whereas those that grow on the trunks of tall trees remain wet around their roots until later in the day. Thus *Oncidium hastatum* that grows about 2/3 up in a 50 ft tree does best under high light conditions and does well in a pot which is watered once a week. *Pleurothallis*, which grows at eye level on the same tree, prefers to be on a slab and to be misted daily. Both of these orchids like the same night temperature of 10°C.

In their native habitats epiphytic orchids receive their nutrients sparingly from bird droppings, accumulated detritus from leaves, and nutrients washed down from above during heavy rains. From this we can deduce our earlier statement that epiphytic orchids like frequent feeding with very dilute solutions.

Epiphytic orchids in all of the countries that we have seen share in common good air movement and a supply of humidity. Natural habitats can never be exactly matched, but information gained can be useful to make the job easier.

#### CULTURAL NOTES FOR MIXED COLLECTIONS:

The major key to a successful mixed collection

is the selection of genera that grow well together and matching the genera to the microclimates in the growing area. The first criteria for selection relates to temperature, which includes the night temperature, day temperature, and temperature difference. The night temperature is most important, followed by day-night temperature difference. A minimum of 5°C temperature difference is essential to bloom initiation of many genera. The

second criteria is shade requirements. Other criteria include potting media, water and need of a rest period. Once you have determined, from literature or observation, the habitat needs of a particular orchid, find an area that appears suitable and then observe carefully over a period of some weeks. Remember that orchids are slow growing and what you do today is often not apparent until several weeks have passed.



*Dendrobium Alice Iwanaga 'Happyness'*  
First—Best any other genera. Wellington 1985  
Grower: Young and Beaumont, Marlborough

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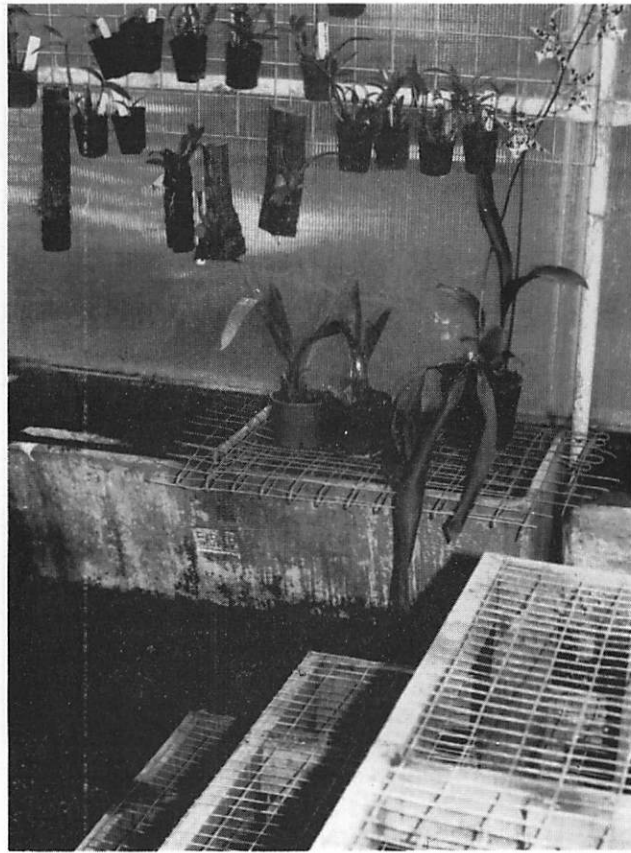
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Seeing that I collect rain-water in a row of concrete tubs which extends right along the west wall of the cool house (see photo) I placed the plants on wire mesh which was placed on top of the tubs. I chose the shadiest part along that wall, i.e. no afternoon and only a little morning sun. The tubs were left full of water and the 50mm aperture between the water surface and the twin-wall sheeting allowed for a constant flow of fresh air over the water and the plants.

My odonts have done better but I am still contemplating the installation of an evaporative cooler in the not too distant future. As far as oncidiums are concerned, they were also potted on into plastic pots but have now moved on to punga, she-oak, and feijoa mounts. They attached themselves within a few months and show nice and healthy root systems. That story will require another "update" later. ◀



Cogito's odont. home. Concrete tubs holding rainwater, plants placed on wire mesh. Gap open between top of tubs and wall.  
Photo: B. Fransen

The sand dunes along the coast of Great Britain and the northern and western European seaboard are the home of *Epipactis dunensis* or Dune Helleborine. Its deep seated root stock penetrates the compact sandhills built up around dwarf willow bushes. Associate that mental picture with

Arthritis. The cause? No, the relief of. The roots are used in the treatment of arthritis.

More healing uses concerning orchids include infusing *Disa* tubers to restore loss of speech, by the people of Transkei and Natal in South Africa; Madagascans make a scented restorative tea from the

leaves of *Angraecum*; Mexicans have used some *Laelias* as cures for fever; North American Indians have used fern roots and Lady's Slipper orchid roots boiled with a sweet liquid to cure headaches, while on the island of Cyprus the villagers use dried ground tubers of orchis to make a milk custard drink.



*Laelia anceps*  
Grower: D. & M. Patchett, Wellington O.S.

Using night temperature as the first criteria, select plants that are not greatly different from one another. *Broughtonia sanguinea* (warm) and *Odontoglossum crispum* (cold) cannot be expected to both do well under the same temperature regime. By selecting plants with the

same temperature requirements, you can generally find varying conditions of light in the same greenhouse or other growing area. Differences in watering needs can be supplied by differences in potting or potting medium. Microclimates can also be created by such means as

providing for bottom heat, extra shading or air movement. A capillary pad or sponge mat can provide extra humidity and moisture to such plants as pleurothallis, masdevallias, disa and paphs. Experience has made me appreciate good air movement. I like to leave fans going day and night. The more plants one tries to grow, the more critical is good air movement. It helps cool leaves in daytime and prevent fungal and bacterial disease at night—when the temperature drops and humidity rises . . . often to the dew point with moisture droplets forming on leaves to encourage microbial growth. A friend of mine waters his pleurothallis and masdevallias at night, but maintains strong air movement all night.

Because of their diversity, even in a single genus, orchids will differ in their requirements. At the same time everyone's growing conditions are just a little different. In addition I believe that orchids (some clones) are rather adaptable, and may do very well under what seems to be different conditions. Under such circumstances, a plant that has become adapted over several years to a certain set of conditions may fail if changed suddenly to "ideal" conditions. ◀

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18°C = RH 70-90%; from 2800 to 3500m = temp. range 8-16°C = RH 70-90%. The RH values are lowest during the day and the temperatures during the nights. There are seasonal highs and lows beyond all these figures. Constant temperatures above 25°C (like in our "coolhouse" summers) are fatal. Moderate and infrequent deviations can be and are tolerated. To get an appreciation of the height that these plants grow at, one would have to scale the greater part of Mount Cook before finding some species. Some of the better known "Colombian" odontoglossum species are: *cirrhosum*, *constrictum*, *crispum*, *cristatum*, *hallii*, *harryanum*, *lindenii*, *lindleyanum*, *luteopurpureum*, *naevium*, *naevadense*, *nobile*, *odoratum*, *pardinum*, *ramesissimum*, *schillerianum*, *tripudians*, *wallisii*, *wyattianum*.

Last spring I tried another ploy to keep them cooler, airy, and naturally moist.



*Odontoglossum crispum*

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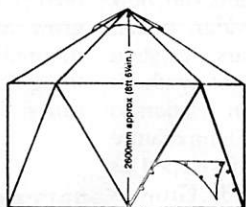
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## FEATURE — Part II

# MIXED COLLECTION CULTURE

THE SUCCESSFUL MANAGEMENT of a collection of mixed genera orchids is  
not an easy matter

Anyone who has such a  
collection must:

—Read all available books  
about the plants in the col-  
lection to ascertain their  
particular requirements.

—Visit other people's glass-  
houses to see how they  
manage.

It is through this that  
you ascertain what plants  
will successfully grow to-  
gether. Even within one  
genus, different species can  
require differing temper-  
atures, from warm to cool.  
Some may prefer wet,  
others dry conditions.  
Some may be shade loving,  
others demand full sun.  
Often the variation between  
species of the one genus  
can be greater than the  
variations between genera.

This discussion will  
cover the culture in a small  
heated glasshouse. It is fair  
comment to say that if you,  
the grower, find conditions  
comfortable, most orchids  
will also be comfortable as  
well, as evidenced by those  
who grow a wide range of  
genera successfully in their  
living rooms. It is generally  
found that in a home it will  
not be the temperatures



*The late Frank Askin  
from Wellington  
maintained a mixed  
collection of orchids —  
all grown to perfection.  
Here he passes on some  
of his secrets, in  
Part II of  
this month's feature*

that will restrict what will  
grow successfully, but  
rather the light levels  
available.

## Cultural Factors

### 1. Growing Media

To simplify the cul-  
ture of a mixed collec-  
tion, the same basic  
growing mix must be  
utilised, just modified as  
necessary to suit the  
particular require-  
ments of each plant. Most  
plants will generally grow  
in a wide range of materials.  
Locally pine bark mix is  
widely utilised, modified in  
some cases by the addition  
of pine, scoria or moss.  
The characteristics of your  
own watering habits will be  
the main determinant of  
mix composition. If you  
are a compulsively heavy  
waterer, use a very open  
mix to allow the extra  
water to drain away  
quickly. If you are much  
more sparse in your habits  
with the watering hose,  
make the mix much more  
water retentive.

A good basic mix I have  
found suitable is:—  
6 parts of bark, using the  
material retained over 1/8  
inch sieve.  
1 part scoria  
1 part horticultural  
charcoal.

This basic mix is adapted as necessary for the reasons noted above.

## 2. Watering

More plants are killed by overwatering than by any other single factor. With a mixed collection the requirements of each plant must be individually appreciated, and the use of a mix of known composition will help give control over this aspect.

## 3. Heating and Cooling

The plants selected must be compatible to the temperature levels maintained; some plants are adaptable but others will quickly deteriorate if the correct conditions are not provided.

Remember that if you do not have very strong fans operating in the glasshouse there will be a temperature differential (quite an appreciable one in some cases) from the floor to the roof. This can be taken advantage of in the placement of plants to provide conditions more to their liking. There is a close relationship between temperature and humidity; as the temperature rises, humidity will fall. If the area tends to get hot, special efforts may be necessary to increase the humidity, which will also help in reducing the temperature.



*Paph. villosum*

## Light and Shading

This is often a major determinant of what can and cannot be grown. The light levels will tend to be more or less uniform throughout the house, and therefore plants must be grown which require similar light conditions. Some selective plant placement with some plants shaded by

others allows for some variation however. If terete *vandas* are grown, for example, which require very high light levels and temperatures, this may not suit other plants which you may also like.

In a general discussion, it will be necessary to restrict the comments to a few generic groups. Generally the temperature

## RESEARCH

Recently I happened upon an interesting article about orchid research in West Germany. The optimum growing conditions of plants can now be established within hours, rather than in years. A system of measuring photosynthesis and respiration in relation to CO<sub>2</sub>, light, and temperature availability was developed as long ago as 1973. Growers can send in a few young plants of whatever species they want to grow to make profitable use of this facility.

## HABITAT

We are still dependent on hard gained experience and the use of good reference books. It is fairly well known that odontoglossums need relatively low light levels. Something like 5000 lux with occasional highs up to 10,000 lux. In practical terms that means that their light requirements are generally lower than for most cattleyas and higher than for most paphiopedilums. Lower levels of light, especially in winter when our days are already shorter than in their natural habitat, should be avoided. Most odontoglossums (generalities again!) experience a so called dry season during their winter. Mists and low cloud still provide near 100% RH for at least part of every 24 hour cycle. Most odontoglossums have fairly airy root runs. Some grow on trees where

the roots may still be moss covered. Others grow on shrubs. Many on the ground in rubble and under scrub, in grass, lichen, and moss. Some are both epiphytic and terrestrial. Because they grow at high altitudes on mountain sides, there is one thing that all odontoglossums get at all times: *MOVING AIR*.

## INTERGENERIC HYBRIDS AND OTHER GENERA

Odontoglossums are compatible with many other related genera. Consequently many inter- and multi-generic hybrids are made. The habitats of these breeding partners often are a mixed bag. Many offspring are therefore not only tolerant of higher temperatures, light, and dryer conditions; they often need to be provided with growing conditions that are the intermediate of what the various parents require. In this way it has come about that many hybrids not only possess increased vigour (all hybrids should have that!) but also become easier to grow. The obverse (or perversive?) side is that some become almost impossible to grow, even though their beauty may be supreme.

There are many more factors that have come to try us. Many of the genera that are used have sought after properties that we want to

introduce because they are missing in odontoglossums—the red and the orange cochliodas and adas, the wide labellums of miltonias, the yellow colour—flatness—and floriferousness of the oncidiums, the warmth tolerance—vigour and texture of the brassias, etc. etc. All such plants have desirable as well as undesirable characteristics, depending on who you are and what it is that you are looking for. Cochliodas have red but small flowers. Miltonias have wide labellums but only two or three flowers. *Varicosum* type oncidiums have a nice yellow and “large” labellum that is also round and flat. “But” the sepals and petals are “insignificant”, and dominant for shape. Brassias are easy to grow, warmth tolerant, and have large flowers, but they are “spidery” and tend to introduce openness in the flowers of their offspring.

## MY ODONTS

After transferring all young plants to basket pots I found that they grew much better roots. This enabled the transfer to ordinary 75 to 100mm plastic pots some 6 to 9 months later. Older plants now sit in 12 to 18mm pinus radiata bark. My watering practices are such that the plants will stay nice and moist without adding sphagnum moss, peat, or any other water retaining medium.



almost tropical heat during the sunny days of winter. Another two orchid growing friends each have identical greenhouses. On (greenhouse) is orientated east-west and the other north-south. The house that is orientated east-west absorbs considerably more heat than the other. Each has to take different measures to grow the same plants.

The point is that we must all read our own conditions and take the measures that are appropriate for the plants we choose to grow.

## IDENTIFICATION

There is an area of confusion which is not helped much in that different authorities produce differing claims. The latest research recognizes only 58 true odontoglossum species. That claim simplifies things somewhat because they all occur in The Andes mountain range of South America. Alex D. Hawkes in his *Encyclopedia of Cultivated Orchids* (1965) estimates that there are approx. 300 species. Such variance complicates matters and the fact that some species or groups of species are to be found under different generic names when consulting different authorities is rather unsettling as well. However, as long as we remain alert to these possibilities we will usually end up with an identification of sorts.

## WARM, INTERMEDIATE, OR COOL

Having identified what we've got, we can find out whether it grows warm, cool, or intermediate. Sometimes this is indicated with the use of the letters C-I-H, singly or in combinations of two. Others give altitudes in meters and maximum and minimum temperatures in degrees Celsius. Some entertainers use generalities only. When reference is made to GROUPS of plants, general descriptions are all that it is possible to give. Convenient groupings can and are made.

Most classifiers still recognise more than 58 species. Some divide odontoglossums into the "Mex-

ican" and the "Colombian" species. Maybe Central and South American species would have been less confusing terms. The Mexican species grow on the high plateaus of the Sierra Madre in Southern Mexico and down through most of the Central American countries to as far as Panama. Most of them are cool to intermediate growing, just like their Colombian "cozzies". The Mexicans distinguish themselves by requiring from a brief to a long winter rest. For that they are best kept in intermediate temperatures and "good" light. They contain such species as: *Odm. cervantesii*, *Odm. grande* (now *Rossioglossum grande*), *Odm. pendulum*, *Odm. pulchellum* (now *Osmoglossum pulchellum*), *Odm. rossii*, *Odm. uroskinneri*, and *Odm. williamsianum*.



*Odontoglossum cervantesii*

requirements can be indicated by the following (heat loving to cool growers).

Phalaenopsis  
Vandas and  
Ascocentrum  
Cattleyas  
Paphiopedilums  
Miltonias  
Odontoglossums  
Oncidiums, wilsonaras  
Vulstekearas  
Masdevallias  
Cymbidiums

With dendrobiums there are species which require warm conditions, others right through the range to cold growing.

*Cattleyas*, are widely and easily grown, and require mid-range temperatures, say 15 to 25°C. Adult plants like bright light levels, although not full summer sun, and can stand

high temperatures for short periods without burning. They require around 70 per cent humidity if this can be maintained. As many people have some *cattleyas*, the requirements of other genera will be considered in relation to *cattleya* conditions.

With *cattleyas* can be grown the following genera but with increased shade. *Paphiopedilums*, mostly the mottled leaved types, although these prefer a minimum of 15 to 25°, and a maximum of 30°C. Some of the cool growing species such as *insigne* require only 10 to 12° or less to flower successfully.

*Miltonias* prefer quite stable temperatures; 15°C minimum to 20° C maximum being ideal. They

will grow down to 12°C, with the maximum kept as low as possible. These plants will deteriorate if kept for too long in high temperature conditions. They generally prefer duller light conditions than *paphiopedilums*. *Phalaenopsis* will grow successfully with *cattleyas* but under increased shade, although will do even better if temperatures are increased to at least 18°C.

Plants requiring higher temperatures than *cattleyas*, (say 18 to 24°C), are *vandas*, *asocendas*, in brightly lit areas, and *phalaenopsis* in shaded areas, plus some of the warmer growing *paphiopedilums*.

Plants requiring lower temperatures than *cattleya*

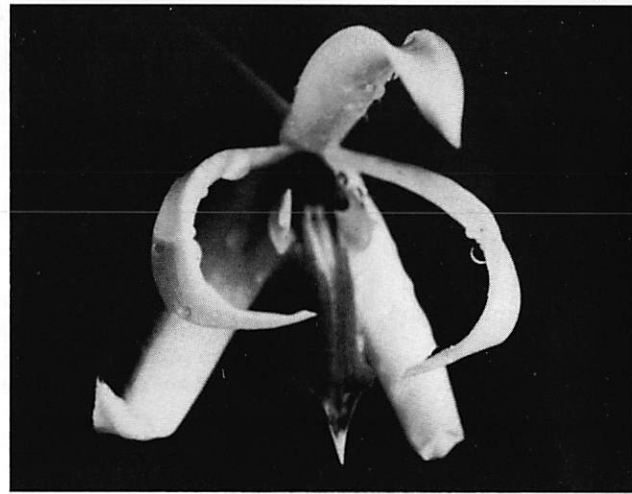


Blc. (Fortune Grandview x *C. bicolor*)

(say 10°C) are *masdevallias*, *odonts* and *cymbidiums*.

*Masdevallias* require buoyant conditions, with plenty of fresh moist air. The *odontoglossum* alliance grow naturally over a wide geographical and ecological range. Because of their particular growing requirements, they generally need to be grown separately. They need plenty of fresh air, good humidity, good light and feeding. They need generally a free draining growing mix, with some moss to maintain moisture levels in the basic mix already described, a large double handful of finely chopped moss should be added to a 10 litre bucket-full. These need a minimum of 8 to 12°C. The *vulstekearas* can be grown slightly warmer, *Wilsonaras* requirements will depend on the *oncidium* species contained in the hybrid, and therefore confirmation of the plant's parentage obtained usually from the Sander's Lists, is extremely helpful.

*Cymbidiums* are generally not recommended for inclusion in a mixed collection in a small glasshouse. While not only taking up a considerable amount of space, they are favourite hosts for red spider, and this can be difficult to eradicate completely. They therefore can be a continuing source of infestation for the other plants contained in the



*Leptotes bicolor*

glasshouse; genera such as *odonts*, and *miltonias* being very susceptible to damage from this pest.

During the summer period, to reduce glasshouse temperatures, heavy shading may often be necessary, which can influence what can be successfully grown. It is often not possible for all doors and ventilators to be used because of wind, and also such action will cause a loss of humidity, which is usually especially important for optimum growing during such a period.

Mixed collection culture makes extra demands on:—

- Plant and glasshouse hygiene
- Plant observation and readiness to change conditions
- Careful watering
- Experiments in shifting plants around to find optimum conditions.

Because in a mixed collection individual plants may be not quite receiving the conditions they prefer, they therefore often tend to be more susceptible to pests and diseases.

For the successful maintenance of a mixed collection:—

- Talk and discuss plants and problems with other growers
- Visit other growers and see how they manage
- Read all available books and periodicals
- Carefully observe actual plant behaviour
- Maintain records of how the plants have responded so that gradually you can build up knowledge of what each plant prefers.

*Good luck with your mixed orchid collection. While its successful maintenance may be a challenge, the rewards will be well worth the trouble.* ◀

as the *Oncidium Alliance*. The lumping together of plants that are related can be deceptive culture-wise. The various genera in the group can be and are crossed to make fine intergeneric hybrids.

Such hybrids have all sorts of variable qualities. Some have the full flower shape. Some have big and others grow small flowers. In general terms there are cool and there are warm growing ones. And there-in lies the trap. It all depends what one means when speaking about "odonts". Some people merrily call all odontiodas, miltassias, macLellanaras, alicearas, miltontidiums, odontocidiums, oncidiums, vuystekearas, wilsonaras, etc. etc., odontoglossums. Let us get it straight. Any plant that has a generic name other than "odontoglossum" is not an odontoglossum. At the very outside they can be said to belong to the *Odontoglossum Alliance*. Even then one can get embroiled in an argument without even trying. Just ask some oncidium growers how they feel about having to enter their attractive plants in the all enveloping *Odontoglossum Alliance* class at their local and bigger shows. Nine times out of ten they are out of contention when having to compete against the *crispum* type odontoglossums. Should they be?

The name "*odontoglossum*" means different things to dif-



*Odontocidium Wintergold*

ferent people. On no account should anybody form the opinion that they should all be treated the same culture-wise. It can take quite some time and heart-break before that is understood. Once it is understood we can begin to make the first steps towards successful culture. That is if we are willing and able to provide the conditions that these plants need.

## THE CONDITIONS

Some time ago, when reading about cultural conditions, I came across the statement that most people who grow orchids live in a world of their own. I am not

sure anymore who the author was but the observation struck me as applicable to most hobbyists. Recently a speaker on odonts at our Society meeting told us not to let the cool house dry out too much during winter. He also said that the relative humidity (RH) should not fall below 60%. I find that in winter I am forever trying to bring down the RH in my cool house. My house has a gravel floor that will absorb plenty of moisture and only an average amount of heat. Every greenhouse is different in that respect. A friend has a built-in veranda with sloping transparent roof facing north. It has a tiled floor and will generate

the label might have said *Vuyl*. Cambria 'Plush' FCC/RHS x *Oncidium varicosum* var. *Rogersii*, in which case the plant would be a seedling of the unregistered cross between these two plants, and you might hold on to it for a while considering whether the modifying influence of the vuyl. parent would nullify the needs of the oncidium parent and make it more amenable to your conditions. The best response in a situation like that is to put the plant back on the table, and continue on your way round the hall. If it is still there when you get back, then you were meant to have

it and you should grasp it firmly and take it home (after paying for it) to find the right spot for it to flourish.

### Conference

This is the last chance we get before the 13th WOC to ensure that our plants are all psyched up for flowering in the first week of September—or even the last week in August. I must say that the WOC of the WOC have got it right when it mattered—I always knew they would. If their names were made public now there would be very little blood spilled, and certainly none of

mine. The weather has been just about what is expected for the time of year, and all my flowering plants were in their final positions by mid-June, with the buds just about to poke out of the sheaths. Of course, some of them will sprint ahead and others will dally, and I imagine that the Society meetings just before and just after the 13th WOC will have marvellous displays of the plants that didn't make it. I intend to be at the Conference with a large name tag so that I will know who I am at all times, so if you spot me then say 'hello' and I will make a lot of new friends. ◀

## COGITO'S DIARY

### ODONTOGLOSSUM UPDATE

**N**EARLY TWO YEARS have gone by since I mentioned my attempts at growing odont. I've learnt as time went by and can now lay claim to have actually flowered a number. I still think that these plants are some of the most beautiful in the orchid world. Consequently I keep acquiring a few more from time to time.



*Bill Fransen brings us up to date with odontoglossums — including his current cultural methods.*

To just say that odonts need cool conditions and regular watering is inadequate. Things aren't quite as simple as that. Many a grower will have found this out at considerable expense. To begin with there is an enormous variation between plants that are loosely termed to be members of the *Odontoglossum Alliance*. The title is really a misnomer because it should be known

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# CULTURE OF COMMON ORCHIDS

P. C. Tomlinson

## Note:-

1. General guidelines to growing and culture of common orchids *with restricted facilities*.
2. In controlled temperature and humidity glass house, culture will differ.
3. Culture applies to both species and hybrids.
4. Some species in many of the genera may differ from the typical for the genus.

## SYMBOLS:

Culture.....	E = easy (new grower)	
	C = with care (some experience recommended)	
Temperature (night).....	C = cool	7—13°C (45—55°F)
(day 6°C (10°F) higher)	I = intermediate	13—15°C (55—60°F)
	W = warm	15—18°C (60—65°F)
Watering.....	1.....Moist all year	* Require cool winter
	2.....Dry in winter	temperature as well.
	3.....Dry in summer	
	V.....Species vary	
Shade.....	F = Full sun	L = Light shade
	M = Medium shade	H = Heavy shade
Flowering.....	Sp = Spring	Sm = Summer
	A = Autumn	W = Winter V = Various

	Ease of Temp. culture	Rqmts.	Watering	Shade	Flowering
<i>Anguloa</i> .....	C	1	2	L	SpSm
<i>Bifrenaria</i> .....	C	1-C	2*	L	WSp
<i>Bletilla</i> .....	E	C	2	F	Sm
<i>Brassia</i> .....	C	1	2	L	SpSm
<i>Brassavola</i> .....	C	1	2	F-L	V
<i>Bulbophyllum</i> .....	C	1	1	M	WSp
<i>Cattleya</i> .....	E	1	2	L	V
<i>Chysis</i> .....	C	1-W	2	M	Sp
<i>Cirrhopetalum</i> .....	C	1	1-V	M	V
<i>Coelogyne</i> .....	E	C-1	2*	M	V
<i>Cymbidium</i> .....	E	C	1	L	AWSp
<i>Dendrobium—Kingianum type</i> .....	E	C	3	L	Sp
— <i>Nobile</i> (soft cane).....	C	1-C	2*	F	Sp
— <i>Phalaenopsis</i> (hard cane).....	C	W	2	F	V
— <i>Himalayan Type</i> .....	C	C-1	2*	F	V
<i>Encyclia</i> .....	E	C-1-W	2	L	V
<i>Epidendrum</i> .....	E	C-1	1	L	V

wild, usually as a result of overlapping habitats. All of the offspring of a registered hybrid are known by the registered name, but of course they are all different from each other, rather like members of your family. It makes no difference whether the best examples of the parents were used, or the worst examples, the seedlings are all known by the same name. Until a hybrid is registered, it is known by the names of its parents separated by an X, the first name being the plant which carried the pod, and the second name being the name of the plant which carried the pollen. A selfing is a plant crossed onto itself, and a sibling cross is one made by crossing two offspring of the same parents.

If you have a particularly good example of a hybrid, or even if you are just proud of flowering it, you can give it a name, as long as you have all the vegetative parts of the clone. This name is written with inverted commas, and is often the name of the grower's wife, the district he lives in, or the name of his establishment if he is a commercial grower. This is an informal naming, and no registration is needed. This name should be carried out to all divisions of the plant, though it is often one of the first things to be lost. A seedling is by definition an unflowered plant, although it is more often used to describe the offspring of an unregistered cross.

The name mericlone is a shortened version of meristem clone, and indicates a vegetative reproduction carried out in laboratories which should produce lots of plants identical to the original. A mericlone keeps the same name as the original plant, and also any awards.

Several groups consider orchids for awards, most notably the Royal Horticultural Society in England, and the American Orchid Society in the USA. There are three main classes of award, Highly Commended Certificate, Award of Merit, and First Class Certificate, (corresponding to Bronze, Silver and Gold medals if you are a sports fan), and these are usually written as abbreviations.

So the next time you see a plant on the sales table which takes your fancy, check out the label. If it says *Vuykstekeara Cambria 'Plush'* FCC/RHS, you will know from your reading that it is a multi-generic hybrid which has been registered as Cambria, that the particular clone was called 'Plush' by its owner, and that it has received a high award from the RHS. It is almost certain to be a mericlone. On the other hand, if the label says *Oncidium varicosum* var. *Rogersii*, you will straight away recognise that it is a variety of the species *Oncidium varicosum*, called *Rogersii* and if you have conditions like mine you would put it back again knowing that you don't have enough light or heat to grow it well. Of course,



*Vuykstekeara Cambria 'Plush'*

much nicer nowadays, and at the next enlargement of my glasshouse there may very well be a small area double lined with polythene where I can try my hand at some of those smaller hybrids that have appeared.) My present conditions are pretty shady in the winter. I heat one house to almost intermediate temperature most of the time, blow the used air into a cool house, and the rest have it pretty cold. Everything is kept pretty dry in winter, and things have settled down to cymbidiums, cattleyas, odontoglossums, and the cooler growing Australian dendrobiums. Plus all the other ones that I couldn't resist.

This is the time of year when I go to work in the dark and come home in the dark, and I only see my orchids at the weekends. Of course everything has slowed right down and there isn't much to do in the glasshouse anyway, except check that the heaters are working and there is plenty of slugbait around. My ecology-minded nephew tells me that he keeps snails and slugs away by scattering broken eggshells around the edges of his garden. They won't cross the shells, and when you dig the garden the shells add lime to the soil, and of course they didn't cost anything in the first place, so it would like a good thing all round. I have tried it but so far haven't been wakened by

screams of agony as another slug lacerates itself to pieces.

I suppose about once a month the plants will get watered early on a sunny morning so that they will be dry before nightfall, with a light feeding if the weather forecast is good and it looks like they could get some growing done.

## Names

It's a good time of year to sit in a comfortable chair in a warm room, and read all about orchids. When I started growing orchids I borrowed every book available from the public library and the society library, and studied them carefully. At first the names had me fooled; you really need to know Latin and Greek, and have a good working knowledge of mythology to have any idea of what the names mean, but by persevering you can at least memorise them eventually. A tip here is to read only about one genus at a time. If you read about cymbidiums, cattleyas and phalaenopsis all in the same evening, your brain will scramble them all up while you are sleeping, and you will never remember which one is which. But how do you know if a plant offered for sale is a species, a hybrid, a seedling, a mericlone or whatever? There are rules to help with this sort of thing, there's even a handbook on nomenclature, which I can earnestly recommend as a

sure cure for insomnia. Briefly, every orchid has two names, the first one is the generic name, which is a great help in deciding if you could be looking at it. If it isn't on your list of orchids you can grow, forget it. The second name is the specific name, which describes the plant in one way or another. This name starts with a capital letter for hybrids, and no capital if it is a species, also species names are usually written in *italics*.

What is a species anyway? For our purposes it is a group of naturally occurring plants which look sufficiently alike to be recognised as being the same type. There are varieties of species, they are different enough from the species to be noticeable, but close enough to say that they are still of the same type. The main difference is usually in the colour of the flower, e.g. lots of species have a variety *alba*, which is simply the same plant but with a white flower. Some species are very variable and some are very similar, and every species has plants which are better than average, and some plants which are poorer than average.

A hybrid is a cross between any two plants which are not of the same species, or between a species and a hybrid, or between two hybrids. There are some naturally occurring hybrids between two species in the

<i>Gongora</i> .....	C	1-W	1	M	V
<i>Laelia</i> .....	E	C-1	2	L	V
<i>Lycaste</i> .....	E	C-1	2	M	WSp
<i>Masdevallia</i> .....	C	C	1	H	V
<i>Maxillaria</i> .....	E	C-1	1-2	M	WV
<hr/>					
<i>Miltonia</i> .....	C	1	1	M	V
<i>Miltoniopsis</i> .....	C	C-1	1	M	V
<i>Odontoglossum</i> .....	C	C	1	M	WV
<i>Oncidium</i> — <i>equitants</i> .....	C	1	2	L	V
— <i>crispum/varicosum</i> .....	C	1	2*	F	SpSmA
— <i>others</i> .....	E	C-1	V	L	V
<hr/>					
<i>Paphiopedilum</i> — <i>green leaved—one flowered</i> .....	E	C-1	1	M	WV
— <i>green leaved—multi flowered</i> ...	C	1-W	1	M-H	WV
— <i>mottled leaves</i> .....	C	1-W	1	H	WV
<i>Phalaenopsis</i> .....	E	W	1	M	V
<i>Pleione</i> .....	E	C	2	M	WSp
<i>Rosiglossum</i> .....	E	1	2*	F	Sp
<hr/>					
<i>Sophranitis</i> .....	C	C-1	2	M	W
<i>Vanda and allies</i> .....	C	1-W	1	F	W
<i>Zygopetalum</i> .....	E	1	2	M	V

## NIGHT TEMPERATURES

Cool 7—13°C  
(45—55°F)

Intermediate 13—15°C  
(55—60°F)

Warm 15—18°C  
(60—80°F)

## DAY TEMPERATURES

Smallest increase possible

7°C(10°F)higher

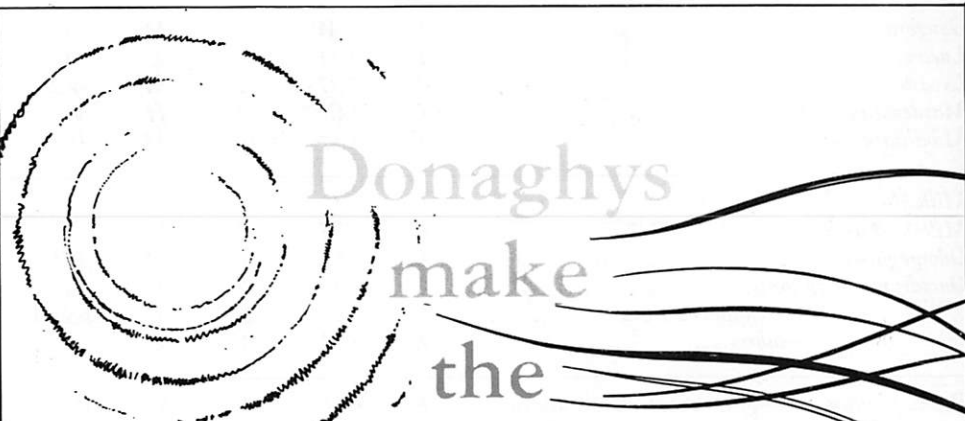
7°C(10°F)higher

—  
*Bifrenaria*  
*Dendrobium*—*kingianum* type  
—*nobile*(soft cane)in winter  
*Laelias*  
*Odontoglossum*  
*Oncidium*(high altitude types)  
*Paphiopedilum*—*green leaved*  
—*single flowered*

—  
*Brassia*  
*Dendrobium*—*Nobile*  
(soft cane) in summer  
*Epidendrum*  
*Miltonias*  
*Oncidium*(the majority)  
*Paphiopedilums*—*mottled*  
*leaved*

—  
*Ascocendas*  
*Dendrobiums* —*Phalaenopsis*  
(hard cane type)  
*Phalaenopsis*  
*Vandas and allies*  
*Paphiopedilums*—  
*green leaved*  
*multi flowered*

*Maxillarias*  
*Masdevallias*  
*Miltoniopsis*



Donaghys  
make  
the  
Shade  
a  
grade  
better

**The 'All Round' Protector**  
Donaghys Knitted Shade Cloth — Designed for Strength, Flexibility and most of all *Versatility*. Versatility that provides plant protection from a variety of potentially harmful elements and predators, including ...

**SUN** Donaghys Knitted Shade Cloth will protect plants from burning and minimise colour fading on blooms.

**WIND** It will afford plants protection from the blustery New Zealand winds.

**FROST** Light frosts cannot touch your plants because Knitted Shade Cloth protects by creating its own micro-climate.

**RAIN** It has a misting effect on rain and will repel damaging hailstones.

**BIRDS and INSECTS** The finely knitted mesh will keep birds and insects at bay.

*Easy Installation*  
Donaghys knitted shade cloth can be cut to size with scissors and *it won't fray*. It's very flexible and easily attached to wooden or metal framework.

**A Variety of Grades Available**  
*Very Light* — approx. 40 to 45% shade; *Light* — approx. 45 to 50% shade; *Medium* — approx. 65 to 70% shade; *Heavy* — approx. 75 to 80% shade.

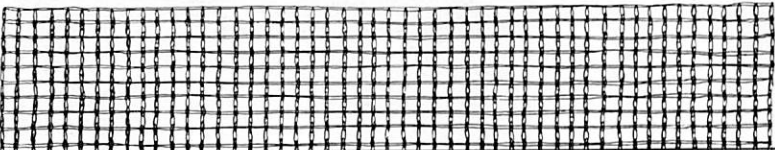
**Own Micro-climate**  
Once installed Donaghys Knitted Shade Cloth creates its own micro-climate controlling humidity and evaporation with more even temperatures. As a result vigorous growth is promoted.

**Many other uses**  
•Pet/Livestock shelters •Boat/ Vehicle shelters  
•Tennis courts •Pool surrounds •Caravan annexes •Balcony/ Patio surrounds.

Give your plants *maximum protection*. Specify Donaghys Superior Knitted Shade Cloth (The 'All Round' Protector) and be assured of *Quality*.

**DONAGHYS**  
PERFORMANCE FABRICS

Call our experts for further information, technical specifications, pricing and orders, Toll Free ☎ 0800 658 866



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# ORCHID RAMBLINGS

**N**OW THAT YOU have your glasshouse built and benches erected, with correct shading and temperature and humidity control, what are you going to grow in it?

Orchids of course, but what type, or rather what genera of orchids will be suitable to grow in your glasshouse? For not every glasshouse can provide conditions to grow every common genus of orchid to perfection, and you are bound to be limited in one way or another. You will also have your favourites, and no doubt the glasshouse was designed to accommodate them.

## Odonts

One of the most vital requirements is light—every orchid needs as much light as it can take without burning, and the only variable is the amount of light you can supply. Light is the source of the fuel which powers the whole growing and flowering process through photosynthesis, and it is not good trying to grow a terete vanda if your glasshouse is in a shady position, as you are bound to fail. It is much better to decide what range of genera will flourish in your light conditions, and stick to them.

The range of temperatures which you can provide is the other factor which will determine what you should be growing. If your pocket is bottomless and your glasshouse is perched on a hill where it gets sunlight from dawn to dusk, then grow what you like and use shade cloth to get the right light conditions.

Luckily I don't care much for vandas, and at the time I

**Bob McCulloch**  
*is back,*  
*Talking of plants,*  
*mericlones, names*  
*and awards,*  
*and getting ready for*  
*The September Show.*

started growing orchids phalaenopsis had flowers the size of saucers, only with less charm, so I wasn't tempted to sell one of the family into slavery to pay the power bills. (Phalaenopsis are

*Phalaenopsis stewartiana*  
"sell the family into slavery to pay the power bill".

