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ORCHIDS IN NEW ZEALAND

May-June, 1976

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ORCHIDS IN NEW ZEALAND

Official publication of the Orchid Council of New Zealand.

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EDITORIAL

Over recent months a number of inquiries have been received from commercial growers wishing to advertise on the front cover of the magazine. To date these requests have been politely refused as it was considered that the cover should be utilised for photographs of flowers of some botanical interest rather than commercial.

The president's report mentions that magazine costs are rising and at a recent meeting of the Committee it was proposed to make the cover space available to commercial growers who wish to advertise. This decision was not given lightly but to ensure that subscribers can receive the magazine at the present rate for some time to come this step is necessary.

I would add however, that it is not intended to let the space for commercial interests for every edition—if a member has a flower that is of interest consideration will still be given to publication.

I regret this decision, as many readers will, but in these times of inflation it is unavoidable.

LETTERS TO THE EDITOR

Dear Sir.—

I refer to your description of Odontioda White Heron, the subject of the cover photo of the March-April number of "Orchids in New Zealand."

The statement that Oda. White Heron is the first registration of an Odontoglossum hybrid from New Zealand is not correct. This registration was published in the Orchid Review in June 1975, but the registration in my name of Odontonia Crispette, parentage—Odontonia Zizette x Odontoglossum crispum was published in the Review in December 1973.

I made this cross in September 1966, sowed the seed in September 1967 and saw the first bloom in February 1971.

As the colour of the parent, Odontonia Zizette is mainly red-maroon, the colours of the progeny are very variable, ranging from maroon to white with many intermediate shades.

Another New Zealander who is well known in the Odontoglossum hybridising world is Mr Henry Rudolf. Some of his crossings were made over 20 years ago although to my knowledge none have been registered.

F. R. ASKIN,
Wellington.

NOTES ON ORCHID JUDGING

The time has arrived when members of the affiliated Orchid Societies should be informed of what has been done in preparation of Rules and Standards for judging and training of personnel to judge and administer.

The executive lost no time putting into action a committee with myself as Chairman to submit the Rules and Standards. After many months these were prepared and submitted to the Executive and have been approved. I and John Mason were appointed Registrar General and Deputy Registrar General of Awards and Prizes respectively.

Members with orchid growing experience and acumen have been invited to take a course of training for judging. Those accepting will be sent the Rules and Standards for study. As a point of interest these are based on the A.O.S. rules.

Nominees are aware when the seminars will be held in each district and the details of instruction are being prepared.

It is intended that those judges of the New Zealand Orchid Society who are also members of the Affiliated Societies and accepted the Council's invitation shall attend the seminar in their respective district for a refresher course.

A. H. BLACKMORE,
Auckland.

SHOW EXHIBITION DATES

WINTER

Waikato Orchid Society—31 July 1976.
Set up time for plant display 7 p.m. Members of other Societies welcome—please notify Secretary number attending.
Location: Senior Citizens Hall, Clarence Street, Hamilton.
Secretary: Mrs E. E. Young, R.D. 3, Hamilton.

SPRING

Poverty Bay & East Coast Orchid Society
10 September 1976 10.00 a.m. to 9.00 p.m.
11 September 1976 9.00 a.m. to 8.00 p.m.
Plants to be benched after 5.00 p.m. on 9 September
Plants not to be removed until after closing of show.
Location: Kaiti War Memorial Hall, Wainui Road, Gisborne.

Wairarapa Orchid Circle
Tentative show dates 10/11 September 1976.

Hutt Valley Orchid Circle
16 September 1976 2.00 p.m. to 9.00 p.m.
17 September 1976 10.30 a.m. to 6.00 p.m.
18 September 1976 10.30 a.m. to 6.00 p.m.
19 September 1976 11.00 a.m. to 4.00 p.m.
Four Orchid classes only in General Show Schedule. This year held in conjunction with World Daffodil Convention.
Location: Horticultural Hall, Laings Road, Lower Hutt.

Golden Coast Orchid Society
30 September 1976 9.00 a.m. to 5.00 p.m.
1 October 1976 9.00 a.m. to 5.00 p.m.
2 October 1976 9.00 a.m. to 8.30 p.m.
Tropical Fish will be displayed also large display in inner courtyard of Mall
Location: Coastlands Shoppingtown, Paraparaumu.

Hawke's Bay Orchid Society
1 October 1976 1.00 p.m. to 9.30 p.m.
2 October 1976 10.00 a.m. to 8.00 p.m.
3 October 1976 11.00 a.m. to 4.00 p.m.
Location: Tech. Old Boys' Gymnasium, Whitmore Park, Onekawa.

Manawatu Orchid Society
1 October 1976 11.00 a.m. to 9.00 p.m.
2 October 1976 10.00 a.m. to 5.00 p.m.
Location: St Pat's Recreational Hall, Amesbury Street, Palmerston North.

North Shore Orchid Society
1 October 1976 1.00 p.m. to 8.00 p.m.
2 October 1976 10.00 a.m. to 9.00 p.m.
3 October 1976 10.00 a.m. to 5.00 p.m.
Location: R.S.A. Hall, The Strand, Takapuna.

Waikato Orchid Society
1 October 1976 1.00 p.m. to 9.30 p.m.
2 October 1976 10.00 a.m. to 5.00 p.m.
Prize giving ceremony at 5.30 p.m. followed by buffet dinner.
Location: Ferrybank Lounge, Grantham Street, Hamilton.

Taranaki Orchid Society
7 October 1976 1.00 p.m. to 5.00 p.m.
7 October 1976 7.00 p.m. to 9.00 p.m.
8 October 1976 10.00 a.m. to 9.00 p.m.
9 October 1976 10.00 a.m. to 4.00 p.m.
Special exhibition in conjunction with New Plymouth Centennial.
Location: St Joseph's Hall, Devon Street West, New Plymouth.

MANAWATU ORCHID SOCIETY NEWS

Our first meeting for 1976 was held on the 12th February at All Saints Church in Church Street, Palmerston North.

Despite the time of year, many members brought along plants of Phalaenopsis, Cattleyas. Dendrobiums and Miniature Cymbidiums.

To me, who in this case gave the plant commentary, it was a great pleasure to see the quality of the culture from each member.

Following this we had a lively discussion on the winter care of Cymbidiums and indeed, how important it is to impress on, especially beginners the necessity of slug bait, the spraying of fungicide and insecticide now that the flower spikes are showing.

A good slide programme on the Aussie trip was shown by our President Mr Norm Wood and this rounded off a very pleasant and interesting meeting.

GORDON MANEY

Venue: All Saints Church.
Meeting: 2nd Thursday in month.
Time: 7.45 p.m.
President: Norman G. Wood.
Secretary:
MRS SUE TURNER,
12 Terry Crescent,
Phone: 74379.

The plant continued to grow, eventually producing 150 flower spikes each year, hanging in the same place over the cymbids, until a disaster befell it. This occurred one year, when it was brought into the house during flowering. On returning it to the bush-house I decided to topdress with fowl manure, and omitted to take notice of the fact that a large bush which had been providing some shade had been removed. As it happened, that day produced a severe heat wave and I returned from work to find the centre of the plant was completely cooked. It has never really recovered.

It would appear that basket culture is most suitable for this genus. Some years ago Mr Bruce Chick of Murwillumbah was growing several plants with mediocre results. When I mentioned my experiences he transferred some to baskets with excellent results. I have also noted that when grown in heavier shade, growth is more luscious, but flower stems become weaker, and lose their red colour.

My friend George McKerrow grew one under similar conditions in Bexley, Sydney, and received a cultural certificate for his plant.

In our locality we find that members of this genus difficult to handle. S. fitzgeraldii, falcatus, and cecilii, do not produce the same display of blooms as hartmanii does.

Recently the Sarcochilus family has been used to produce several crosses which are proving quite interesting, but the real breakthrough has been the inter-generic cross produced by Mr and Mrs Bill Cannon of Wayside Nursery, Port Macquarie. They have crossed hartmanii with phalaenopsis, and the offspring seems to have inherited the easy growing characteristics of the hartmanii, with the better qualities of bloom of the Phalaenopsis parent.

We should hear a lot more about this crossing in the future, as we come to realise that here is a Phalaenopsis which can be grown easily in a much wider range of conditions than its parent, and yet retain the beauty of the parent. Added to this should be the hybrid vigour provided by crossing two inbred species, and the future holds unlimited possibilities for our hartmanii.

The Executive of the Orchid Council of New Zealand wish to sincerely thank the Hawke's Bay Orchid Society for their generous donation of $100 to be used for further improvements to the magazine.

COVER PHOTO: Cattleya Fabia (dowiana x labiata) registered by Veitch in 1894. Is it any wonder the early hybridisers were so excited over their handiwork when a primary hybrid such as this turned out so well. C. Fabia has been used extensively for further breeding. Photo by courtesy of Mr. G. Fuller, New Plymouth.

WAIRARAPA ORCHID CIRCLE

Orchid display

8/9 October, 1976,

Y.M.C.A. Church Street,
MASTERTON.

ORCHID COUNCIL OF NEW ZEALAND

Second Annual Report, 10th April, 1976.

On behalf of the Executive Committee I have pleasure in presenting this report of the Council activities of the past year.

The public interest in the cultivation of orchids continues to grow, and some new Orchid Societies were formed, and others are in the process of formation. The Council, where requested, was able to advise and help in many cases. We look to the strengthening of the Council by the addition of these Societies to our ranks.

The production of a national orchid magazine was perhaps the major task of the Executive during the year. This project was placed in the hands of a sub-committee comprising the Editor, President and Secretary. We have been indeed fortunate in the selection of Mr Graeme Boon as Editor of this magazine, and the success of this venture is largely due to his ability and enthusiasm. The costing of the magazine was originally designed to allow a small margin of profit, such profit to be utilised for improvements in the magazine. Recent increases in paper costs have now reduced this profit margin, and some thought must be given to a price increase sometime in the next year. The Printer, Taranaki Newspapers Ltd., has been generous in only passing on to the Council the extra cost of the paper, absorbing increased labour costs. The number of subscribers to the magazine continues to increase with each issue, and plans are already in hand to increase the printing as required.

A sub-committee, under the Chairmanship of Mr A. H. Blackmore, was appointed during the year, to investigate and submit to the Executive, suitable Standards and Rules for the judging of orchids for awards and at shows. The Standards and Rules submitted have now been approved by Executive, and a plan for the training of judges, and for Regional Award Judging meetings, will shortly come into operation. Mr A. H. Blackmore has been appointed Registrar General, and Mr F. E. J. Mason Deputy Registrar General. The Standards agreed on are basically those of the Australian Orchid Council, and thus will ensure that New Zealand Award judging will be on a parity with that of other orchid judging bodies. I thank those people who served on this subcommittee, who all contributed freely of their knowledge and experience, for the benefit of all orchid growers. A Judging Committee is now being established, and training and refresher seminars for judges will be held in August of this year.

The committee set up by Government to implement the Plant Varieties Protection Act, will be meeting shortly, to consider bringing further ornamental plants under the provisions of this Act. The Council has requested that the Orchidaceae be considered at this meeting. We are grateful for the assistance we have received from the New Zealand Nurserymen's Association in making submissions.

The executive Committee met on three occasions during the year, and discussions were also held by telephone and by mail. I wish to thank the Executive Committee for so freely giving of their time to attend meetings, and for their efficiency in dealing with what are necessarily lengthy agendas at each meeting. Our thanks also to Mr S. G. Wray, our Secretary-Treasurer, whose attention to detail and enthusiasm for the objects of the Council, has made much of our progress possible.

The Orchid Council of New Zealand has made steady progress to its stated objectives since its inception less than two years ago. With a continuance of the mutual co-operation and goodwill shown by member Societies, we shall, in the future, see further advances in the study and cultivation of orchids, and an enhancement of the pleasure and interest of those who grow them.

TOM FRENCH,
President.

THELYMITRAS–SUN ORCHIDS

Jim Forrest, 19 F airview Place, Te Puke

The name Thelymitra comes from the Greek Thelys feminine, and mitra, a turban or headdress and refers to the hood of the column.

Thelymitras are lovely plants, although the flowers do not look like an orchid at first glance at all. Relatively easy to cultivate, they are unfortunately not so easy to flower as flowers will only open on hot sunny days. This presents no problems for the plant as it is able to pollinate itself without opening—(cleistogamous).

The plant consists of often quite large tubers, sometimes oval, often elongated. One leaf appears, usually in winter and looks like an onion. It soon however broadens out and in some species is trap like. The flower stalk contains from one to 20 flowers. Cultivation—A very sandy well drained mix. Place the tubers about 2 centimetres under the surface. Grow in about about 50/50 shade, but bring out into the sun to flower. Keep damp but not wet while in growth. Leaves are very prone to rot off if they get wet and stay that way in winter. Plants are dormant in summer and should be kept dry then.

Fertiliser—I manure with weak liquid once a month when they are in growth, but the word is weak.

Disease—several fungi attack them. One rots all the leaves away. Prevention is better than cure, i.e. keep them dry in damp weather, but you can spray with a fungicide. If you do, only spray the leaves as it will also kill the fungi the plant needs to live with.

Repotting: I suspect that they do not like this so I do it as little as possible. Some species multiply quite quickly but you can move the whole lot into a larger pot without breaking the ball. Usually with any terrestrials that I am not repotting I scrape the top 2-3 centimetres away and replace it at the start of the growing season.

Where to find them: Thelymitras are found throughout the country usually growing in light scrub. In my area you can often find them on roadsides now that grading has gone.

The species: Thelymitras are very difficult to separate. The method is to look at the column with a lens, colours range from white to blue, often in the same species. Unlike most orchids, the sepals and petals are the same size and colour.

T. pauciflora—grows up to 50 centimetres, often less. Leaf is quite wide and fleshy. Usually found on clay banks or rough pasture. Flowers may be blue, pink or white. This is one species you can grow from seed with a bit of care. I first found this plant growing on a solid clay slope where a tennis court had been bulldozed out and trampled all year by thousands of feet—yet it grows and flowers freely. Who says orchids are not tough.

T. venosa—grows in swamps and wet places. A slender plant up to 25 centimetres, growing from tear drop tubers. It has the most glorious blue flowers, but is difficult to cultivate requiring a very specialised habitat. Flowers from December to March.

T. ixioides—Similar to T. venosa in growth. Flowers are blue with spots. Found all over the country in scrub, roadsides, etc.

T. longifolia—Grows up to 50 centimetres. Leaf wide often ridged. Flowers white often pink. There are doubts about this plant and T. pauciflora, that the botanists have to sort out.

Widespread from sea level to the mountains and on dry ground to damp sites. Flowers from December to February.

There are a number of other species in the country and some very lovely ones in Australia, particularly in the west. These have red or yellow flowers, colours not found in the New Zealand species.

night, and such was the nature of their habitat that there was no provision for a supply of stored water during drought.

Several happy hours were spent groping along the spurs of the mountain fastness, continually coming across new clumps of the orchid which until that day I had been led to believe was almost extinct.

Finally the lengthening shadows reminded me of the long trip home. So I turned my back on this fascinating spot. But from time to time as I made my way slowly down the mountainside, I stopped and looked back, and as the plants of S. hartmanii disappeared from view, I realised why they still grew so undisturbed in their lonely surroundings. Their safety lay in the very solitude and loneliness of the place.

I think that while men prefer to remain in more accessible localities, this family of hartmanii will continue to flourish undisturbed, except perhaps, for the occasional enthusiast like myself, to whom they will provide the answer to the ever recurring question "Where does the elusive hartmanii grow?" Meanwhile my own two or three specimens are settling down to their new conditions and will I hope, flourish for me as they did in their own natural surroundings"

As a result of the publication of this article in the A.O.R., I received a letter from the editor, in which he drew my attention to the fact that I had not named the locality, for obvious reasons of course. He asked that for record purposes I should tell him of the locality, and surmised that it would be in the MacPherson Ranges, probably in the Tweed River area. In my reply, I thanked him for his interest, told him his guess was wrong, and left it at that.

However the locality soon became known to local enthusiasts, and it is now common knowledge that it was on a mountain side known as Blue Knob, and this particular variety has become known as the Blue Knob hartmanii.

On this first visit to the site I returned with five small plants. I gave two away. One went to a friend in my home town, who grew and multiplied it for many years, only to have them all stolen in a raid on his orchid house. The other I gave to a friend, the late Jim MacKinney who lived at Epping, in Sydney. He was the father of well known Jim MacKinney who has a fine orchid nursery at Sunnybank in Queensland. Some years later Jim Sen. told me in a letter that he had won best specimen in a local show with his hartmanii, which had about 15 spikes. That same year, one of mine had about 30 spikes, which somewhat astounded my friend Jim. However he continued to grow his specimen plant, but when he died I lost track of it.

For my three remaining plants I planted them in three different ways. One went into a pot containing leaf mould mixture and was placed on a bench among my cymbids in a fairly shady situation. It never really thrived. Number two went into a pot, and this was placed in a more open situation. It did better than number one, but could be described as just fair.

Number three was placed in a basket, which was lined with elkhorn fibre, and filled with leafmould. It was then hung in a fairly open position in the cymbidium house. This plant really thrived.

The difference in growth was obvious right from the beginning. It quickly developed new leads, had strong leathery leaves, and in no time was a fine flowering specimen. The blooms were held high on strong stems which were dark red in colour, the blooms being pure white with just the smallest eye in the centre.

Similar species coming from other areas have weaker stems, and a larger eye which detracts from their appearance.

THE ELUSIVE HARTMANII

By Percy H. Sheaffe, Brunswick Heads.

My first contact with Sarcochilus hartmanii was about 25 years ago, when a member of our society returned from a holiday in Queensland with a small plant, which was later identified as S. hartmanii.

When the plant bloomed, I joined the hunt to find the native habitat of this lovely orchid, but success was delayed for some time because I was looking in the wrong situation, mostly in thick bushland, gorges etc.

When I did eventually find its habitat, this semed to me to be the most unlikely place in the world, being high on a mountain side, exposed to sunlight and the westerly winds, and at the mercy of wallabies as evidenced by condition of the plants.

After finding this family I was inspired to write the following article for the Australian Orchid Review. It is reproduced here as being the best means of conveying my feelings at the time . . .

"Reading Mr Green's account of his hunt for S. fitzgerald in flower, has inspired me to relate my experiences in search of the rarer S. hartmanii.

For a considerable time past I have been keeping a careful watch on what I considered to be likely places which I passed during my several hunting excursions into the bush.

Until recently however I could not locate even a single plant of this much sought after Australian species, in spite of the fact that from time to time I would meet some person who was the proud owner of such a plant.

Having read on more than one occasion of the rarity of S, hartmanni, and statements to the effect that it was almost extinct in N.S.W. I did not expect my task to be an easy one, but at the same time I was confident that one day I would set eyes on at least one plant growing in its natural surroundings. Therefore I continued my constant search, studying every tree, rock, cliff face, and every likely—and unlikely place. But what an enlightening I received, when eventually I stood, one day, high on the side of a mountain bluff, in a position that was fully exposed to the summer sun, and within clear and unrestricted view of the inhabited farmlands surrounding it—and beheld, not one lonely plant, but many beautiful specimens thriving in their sunny position on the cliff face. There they were fully exposed to the elements, their roots penetrating a foot or more in each direction and thriving in the little pockets of leaf mould that gathered here and there on the rocks, and every plant as healthy and robust as you could wish to see.

What a thrill it was to stand there, a thousand feet or more above the surrounding countryside, and count the plants that could be seen on every rock, several showing belated but failing flower spikes, but all carrying scores of dead stalks as evidence of the display that I was a few weeks too late to behold. So this was where they grew, these were the conditions that produced one of Australia's most lovely orchids.

Actually it was about the most unlikely place anybody would ever bother to hunt for any species of orchid—the kind of locality where you only expect to see bladed grass, and where the scattered trees would provide very little protection for any type of vegetation.

Facing north-west, the mountain side was so steep that to climb upwards it was necessary to keep a very tight grip on the dry grass using it as the only means of making any progress at all. The return trip downhill was a nightmare. The slightest trip might start a tumbling fall that could end hundreds of feet below. The hartmanii was growing on the many outcrops of rock that formed precipitous cliff faces on the mountain side, sharing the situation with occasional clumps of D. kingianum and D. speciosum.

I was fascinated by the health of the many specimens I saw, and although this is a comparatively high rainfall area, there must be many rather lengthy periods when the only available moisture is provided by the dews at

PUKEKURA CORNER

Dendrobium cucumerinum (Mac LEAY)

New Zealand has but one representative of this important genus of orchids, namely D. cunninghamii which was covered in the first issue of this magazine but Australia is the habitat of a large number of Dendrobiums and not only are they varied and interesting in flower quality but their growth habit assumes some most unusual forms. Not the least unusual is D. cucumerinum, the cucumber orchid.

This species is found growing in Southern Queensland and N.S.W. to Sydney and adapts fairly readily to cultivation provided one does not try to grow it in a pot. The growth habit is creeping and it does best when attached to a piece of treefern slab or some other firm support. It will adapt to a range of growing conditions but in most parts of New Zealand would only require the minimum of protection in winter. Certainly in the north, shadehouse conditions would be suitable and it could be associated with Cymbidiums provided that during periods of dormancy, watering was restricted for it benefits from dryness at this time.

When not in bloom the plant has the appearance of a string of miniature gherkins due to the strange bumpy cylindrical form of the leaves and almost complete absence of pseudobulbs—factors which no doubt allow for survival during dry periods but upon blooming, the picture is one of daintiness with clusters of creamy-white flowers about 2.5cm across streaked with reddish purple and very distinctive wavy maroon ridges along the centre of the reflexed labellum. Our plants at Pukekura bloom in January, February or March.

by George Fuller, N.D.H. (N.Z.), Curator

JONES AND SCULLY'S "RECOMMENDATIONS '76"

This latest catalogue celebrates both the United States 200th anniversary and the Jones and Scully 30th anniversary. It is a most expensively prepared 160 glossy pages all but 45 of them with full colour reproductions of stock and studs.

Listings are in alphabetical order with the exception that "Other Mericlones" comprising 6 pages of oddbods, vandaceous intergenerics, dendrobiums, and finally, miniature cymbidiums, follows Cattleya mericlones.

Prices range from $3.00 for an unflowered seedling in a 2" pot, through $99.50 for an awarded cattleya mericlone in a 6"-7" pot—average about $65.00—to $1500 for an awarded division—average about $200. Six pages of flask and bare root seedling lists whet the apetite—some very interesting selfed species included; three pages of books on orchids and related subjects, 15 pages listing, and illustrating, supplies, and a colour photo index complete the volume.

The cost of all this eye delighting information is aparently $3.00, but it is sent unsolicited and gratis to members of the American Orchid Society.

Minimum foreign order—$25.00. As bedtime reading, it will keep you entertained much longer than a "Whodunnit."

ORCHIDS FOR BEGINNERS

by I. D. James, Halls Road, Hamilton

The orchid family with some 30,000 species (and there are a greater number of man made hybrids) is the largest in the plant kingdom. Yet orchids may be comparatively recent arrivals on this planet. Only a few very doubtful fossil remains have ever been found.

Orchids are the most highly evolved plants. This is strikingly evidenced by the complicated and specialised nature of the flowers. There are many species dependent upon a specific insect for pollination. These may have flowers resembling, in detail, the insect concerned. Ophrys, a European ground orchid, carries the deceit further with flowers which not only simulate the female of a species of bee but also produce a scent which acts as a sex attractant to the male bee of that species. The attention paid to the flowers by the male ensures cross pollination.

The flowers of a typical higher plant such as a daffodil have a central pistol (with a stigma which receives the pollen on fertilisation) and a number of surrounding stamens with antlers holding pollen. One orchid may appear very different from another but tear away the sepals and petals and there remains one essential similarity—the column. This is the basic answer to the question "what is an orchid." The column is unique to the orchid family. If it does not have it, it is not an orchid.

For some, the fascination of orchids compels them to collect species. The rarer or the odder the flowers the better. Others prefer to grow only plants, usually hybrids, which have great floral beauty. Whatever your interest it will be helpful to understand how orchids are named.

Closely related orchids are placed in the same genus. The Cymbidium genus contains about 70 different kinds or species growing in their natural state in the wild. Thus Cymbidium pumilum is a species in the Cymbidium genus. If we hybridise Cymbidium pumilum and say Cymbidium Babylon, itself a hybrid (by placing the pollen from one of the plants on the stigma of the flower of the other and raising plants from the seeds of the union) we could describe the progeny as pumilum x Babylon. However new crosses made in this manner are usually given a collective or grex name when they flower. The cross mentioned has been named Cymbidium Oriental Legend.

Because pumilum is a miniature species, the plants of Oriental Legend will tend to be on the small side. However no two seedlings, when they mature, will have flowers which look exactly alike, just as the children of two human parents do not exactly resemble each other. Thus the name Oriental Legend on the label in the pot tells you not precisely what the flowers of that plant will be like, but merely the name of its two parents.

To distinguish one particular plant or clone from the others all bearing the same name because they have been raised from the same parents, it may be given in addition, a varietal name. Thus Oriental Legend 'Cinnamon' is a particular clone or cultivar and all the plants with that varietal name, having been propagated from the same plant, will be identical in all respects.

When two plants which have never previously been used together as parents are hybridised the new cross may be given a name by the raiser after the first seedling has flowered. However the new name must first be accepted by the International Registration Authority (at present the Royal Horticultural Society in England) before it will be recognised. The Authority has to be satisfied that the person making the application really did make the cross (or have the permission of the raiser) and must also be satisfied that the cross has not previously been made and registered and that the name proposed has not been used before and is a suitable one. If the registration is accepted the new cross is in due course published in "Sanders List of Orchid Hybrids". The serious hybridist will spend many many hours studying these fascinating lists which enable one to trace back the ancestry of a hybrid to the original species.

CYMBIDIUM ORCHIDS: PEST AND DISEASE CONTROL 1975.

PART 6 by Joy Amos.

AGRICULTURAL CHEMICALS USED ON ORCHIDS

		L.D. 50 Acute Oral	Acute Dermal
S. ACEPHATE e.g. ORTHENE	Aphids, Thrips, Caterpillars, Mealybug, Scale	945	over 2000
S. BENOMYL	Botrytis, Glomerella, Gloeosporium	over 5000	over 1000
CAPTAN e.g. CAPTAN, ORTHOCIDE, FLIT 406	Cercospora, Leaf Spot, Botrytis.	8400	—
S. CHLOROMETHAN SULFONAMIDE e.g. KUMITOX	Mites	470	—
COPPER OXYCHLORIDE e.g. CUPROX	Bacterial Soft Rot Fungus Diseases. (Checks growth)	150-800	—
DDT	Slaters, Thrips, Mealybug, Caterpillars	300-500	2500
DDT/LINDANE SMOKES	Pests controlled by both chemicals		
DIAZINON e.g. BASUDIN	Aphids, Thrips, Scale, Mealybug, Mite, Ants, Springtails, Fungus Gnats, Millipedes, Vine Weevil.	300-600	500-1200
DICOFOL e.g. KELTHANE	Mites	575-2000	1000-1230
DIELDRIN	Soil Pests	40	over 100
S. DIMETHOATE e.g. DIOSTOP.	Aphids, Mites, Mealybug, Scale, Thrips, Springtails	200-300	700-1150
LINDANE	Aphids, Thrips, Mealybug, Caterpillars	200	500-1000
MALDISON e.g. MALATHION	Alphids, Mites, Springtails, Scale, Mealybug, Baits for Crickets	1400-1900	over 4000
METALDEHYDE e.g. ATASLUG, BLITZEM, SLUGIT	Slugs and Snails	600-1000	—
METHIOCARB e.g. MESUROL	Slugs and Snails, Mealybug	100-135	350-7000
NALED e.g. DIBROM	Mite, and other sucking and chewing insects (fumigants)	430	800-1100
NICOTINE	Aphids, Thrips, Mealybug (fumigant)	70	140
S. OXYDEMETON-METHYL e.g. METASYSTOX R.	Aphids, Mites	57	100
OMETHOATE e.g. FOLIMAT	Mites, Aphids, Mealybug	50	100
PYRETHRUM	Aphids	200	—
TERRAZOLE	Pythium, Phytophthora	2000	1366
ZINEB e.g. DITHANE Z78	Leaf Spots	1000-8000	1000
SODIUM SALT OF O-HYDROXY-DIPHENYL e.g. NATRIPHENE	Pythium, Phytophthora	2000	—

TOXICITY RATING

ACUTE ORAL OR DERMAL L.D. 50 mg/kg

0-50 Very highly hazardous
50-100 Highly hazardous
100-500 Moderately hazardous
over 500 slightly hazardous

Small amounts inhaled or contacted can cause deat.h.
Continued excess exposure to these materials, may result in injury or death.
Preferred materials.

SHADE-HOUSES FOR BEGINNERS

by A. O. DARE, President, Waiarapa Orchid Circle

Here in the Wairarapa we have only recently formed an Orchid Circle and while everyone is as keen as mustard most of our growers have as yet only a few plants. This causes us to give thought to the easiest and cheapest ways of giving cymbidiums the right amount of shade in the summer. Most of us agree that about 30% shade is best. A factor for consideration is the need to be able to take a small shade-house down in case the grower moves from the district or gets enthusiastic and wants a bigger and better one.

For myself I built a house out of ¾ inch galvanised pipe and key clamps. Pipe comes in lengths of 21 feet so I used a seven foot module and braced every square with 12 gauge galvanised wire. Naturally the house is seven feet high. I have often thought how easy it would be for a person just starting off to build a tunnel house by using plastic water pipe—the type that comes in lengths of about 20 feet. Simply drive ½ inch steel into the ground or set it in cement so that about 12 inches protrude above the surface—place the steel about 12 feet apart and place one end of the pipe over one spike — bend it into a semi-circle and then place the other end on the other spike. Make as many hoops about six feet apart as you require the shade-house long. Join the hoops along the top and sides with some battens or pipe and reinforce with diagonal bracing of wire. Then the tunnel is all ready to cover with shade-cloth.

However the main purpose of this article is to tell you of a delightful little shade-house I recently saw near Opotiki. This person had simply taken two pieces of mild steel reinforcing mesh and bent them into a semi-circle to form the frame over which was stretched shade cloth and then wirenetting. The reinforcing mesh (6 inch) may be brought in sheets of 15ft 6 inches by 7 feet. Take 8 pieces of ½ inch galvanised pipe each 2ft 6 inches long and drive these into the ground in two rows of four. Place the pipes in the rows to space evenly over 13 feet 6 inches and space the two rows 8 feet apart. The pipes should protrude out of the ground about 18 inches. Now tie the reinforcing mesh to the pipes on one side and then bend it in a semi-circle to form a tunnel and tie to the other side. This will form a tunnel 14 feet long by 8 feet wide. Of course if you want a smaller one just use one sheet of mesh to give a tunnel 7 feet long. Tie shade cloth over the tunnel and then cover with wire netting. You could place one end against a wall and leave the other open or you could close the end with shade cloth or battens. The one I saw had some shrubs growing at one end but outside while the other was open. The reinforcing mesh will cost about fifteen dollars a sheet while sewn and eyeletted 30% shade cloth will cost about 21 cents per square foot. Thus a house 7 feet by 8 feet will cost less than fifty dollars—but ever so easy to put up and to take down again.

If you wish to make the tunnel higher you could run a board along each side and only bring the mesh to the top of the board. It would be a good idea too, to brush the steel and paint it.

Although a collective grex name can only be given to a new cross in the manner described above, anybody can in theory give a varietal name to a particular clone provided a name for it has not been previously published. However a grower would not normally give a varietal name unless satisfied he owned the entire clone (perhaps having purchased the plant as a small seedling and not having given any propagations of it away) and should not do so unless the plant is of outstanding horitcultural merit. Further, rules for the choice of a name have been set down by the International Code of Nomenclature for Cultivated Plants, and orchid growers must observe these.

If you purchase unflowered seedlings the raiser will probably have indicated the type of flower he expects from the cross. Nevertheless as all plants from the same seed pod are different you must wait for the seedling to flower before you will know whether you have a champion or a weed. Most seedlings are disappointing but the occasional good one which turns up gives them an irresistible lure.

Beginners should gamble on a few seedlings, but it would be wise to acquire a proportion of good named varieties. These are vegetatively propagated by dividing the original clone, or by culturing the meristematic tissue. The latter is a laboratory process. It has revolutionised the orchid industry as it enables any number of small plantlets to be produced at the same time. Plants so raised are called mericlones and are all identical. The process means that one can now purchase for a few dollars a piece of a good plant which would formerly have cost perhaps some hundreds of dollars. Meristems are usually sold as small plants and take about as long to flower as seedlings of the same size. Unfortunately there are still some kinds of orchids which have so far been difficult to propagate by the meristem process.

Orchids grow naturally in all parts of the world where other plants grow, from sea level to about 14,000 feet. Many grow in symbiosis with a fungus. The mycelium of the fungus invades the orchid roots and the plants digest it—the plant is virtually a parasite on the fungus. Orchids commonly cultivated are typically hybrids of species which grow naturally in the tropics or semi tropics at elevations above about 1500 feet. They will probably be epiphytes, that is, they grow not in the ground but on the branches of trees.

Beginners are often encouraged by being told that orchids are easy to grow. They usually are if their individual cultural requirements are understood. However, these requirements vary from one kind to another as might be expected from the widely differing conditions under which they grow in nature. Epiphytes, when grown in pots, are obliged to send their roots around the inside of the pot instead of the outside of a tree branch as in nature. They will die quickly if the pot is filled with a medium which does not allow the roots to dry out rapidly after watering as would be the case in the forest. Epiphytes will tolerate long periods without water. If you give such a plant to a man who has grown nothing but cabbages he would probably plant them in soil. There they would quickly die and he would proclaim them very difficult to grow. On the other hand if someone who had grown only epiphytes tried to grow cabbages under the same conditions, his cabbages would die even more rapidly the first time he dried them out. He would decide that cabbages were difficult or even impossible to grow.

Orchid growers owe a debt of gratitude to the pioneers who established basic cultural methods in England last century. Much more has been learnt since and there is vast literature available for the beginner to study. Variations in climate not to mention availability of suitable potting materials and other factors are such that each country must adapt basic cultural practices to its own conditions.

The beginner can learn much from the opportunity membership of an orchid society will give to visit and discuss with the local growers. A great deal of the specialised knowledge gained under New Zealand conditions has not been documented or published and future issues of "Orchids in New Zealand" will in time endeavour to rectify this.

JOTTINGS ABOUT ORCHIDS

By Onc idium

Hybrid Cymbidiums are grown in great quantity in New Zealand, in fact most newcomers to the hobby start off with them. Usually they are grown to a high standard, as our conditions suit them, with the top growers getting a degree of perfection equal to any in the world.

These hybrids have been developed from only a few species of the Seventy or so that make up the genus. These are sometimes grown along with the hybrids, and include such things as lowianum, tracyanum, grandiflorum, insigne, etc.

This leaves of course about sixty species of which little or nothing is known by the average enthusiast. They range from Madagascar, Himalayas, Southern Asia to Japan, Malaysia, Sri Lanka, New Guinea, and Australia. Consequently, not all are cool growing, some need intermediate temperatures while others require hot-house treatment.

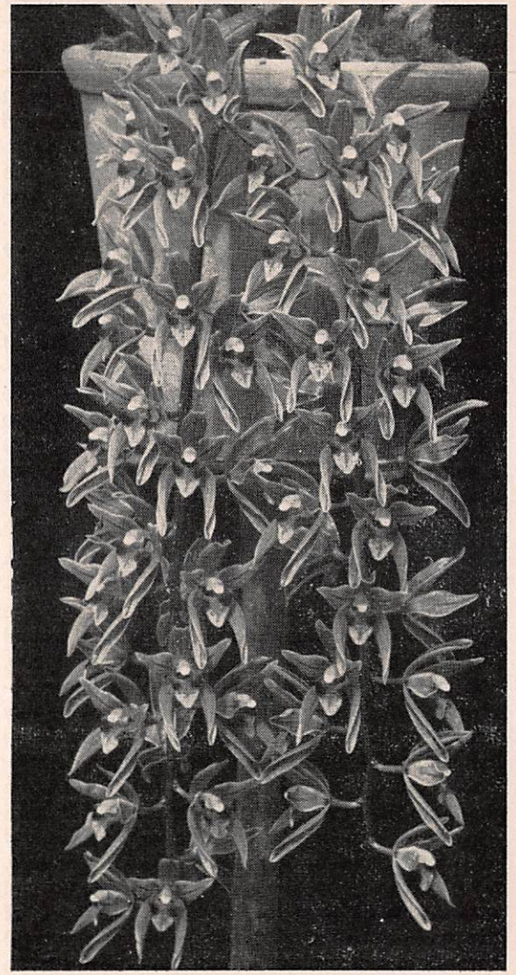
I would like to describe one of the Australian species which is being grown more and more, but not always very well, and that is C. canaliculatum. The other two Aussies—madidum and suave—are also on the difficult side, perhaps some reader could give us a few pointers on these?

C. canaliculatum is a widespread species, being found from the Hunter River in N.S.W., to the top of the Cape York Peninsula, and then westward to north-western Western Australia.

It's hardly ever found in moist coastal areas, but grows in hollows of trunks in light shade, and sometimes in full sun, in the hottest and driest area. This is the first clue to its cultivation in New Zealand.

The greyish-green leaves, usually only three or four, hug the fairly tall pseudobulbs, and are thick, deeply channelled, and rigid with a sharp point at the end, reminding one more of a Yucca than a cymbid .

Most of the flowers I have seen are about 25cm across, but they are sometimes found up to 50cm in Australia. The flower colour is



Cymbidium devonianum

extremely variable, from pale green to almost purple-black, sometimes spotted.

Mrs Marj. Claringbold of New Plymouth, has had distinct success with it, and here is a summary of her culture.

PHALAENOPSIS

"A Chemical method for the treatment of nodes to produce keikis or plantlets."

When the flower stem of a Phalaenopsis has reached maturity, preferably after flowering, by treating the nodes on the stem with this special paste plantlets or further flower stems can be induced to appear and grow rapidly.

METHOD—Carefully peel outer tissue away from 1st, 2nd and 3rd nodes. Apply a moderate amount of paste; repeat application in 15 days. In case of branched stem, apply to 1st node of new branch. Mix paste before use. Keep in refrigfierator, but not frozen.

I had signs of movement after 6 days. On the most vigorous variety treated the first node is a plantlet, the second has produced 2 plantlets at the base of a new flower stem and the 3rd or furtherest from the plant, after 6 weeks had a 7½" stem with buds appearing—this is a very strong thick stem. 2 other varieties treated; one in flower, had one node treated and it has a Keiki or plantlet, not as vigorous as the first variety which is a robust quality white, producing 4¼" florets. The third plant treated had two nodes which have produced plantlets.

I demonstrated this new method which is not yet listed in the producers chemical list, at a visit to one of our very successful growers of several genera, Mrs Betty Cullen of Kati Kati. After I had demonstrated she used up what was left of the paste on one of her own plants and was pleased with the results.

This paste, costs $10.00 for 5grms but it would probably do hundreds of nodes. I had a bottle of seed growing media and the paste sent by airmail, the postage, etc. came to $4.17 on top of the cost of the chemicals.

Incidentally, in case anyone is interested, the 2 Phalaenopsis seed pods took exactly 5 months to ripen.

Cyril Pritchard, 24 Pohutu St., Whakatane.

Address for paste—

Hill's Orchid Lab., P.O. Box 1184
Ontario, California 91762. U.S.A.

DON'T LEAVE IT TO THE BIRDS AND BEES

by Syd Wray

Why do orchid growers leave their fertilized flowers on their plants? When they obviously have no potential as future generations of orchid seedlings. They have no knowledge of where the pollen came from, whether it was fertilised by a bee, moth, fly or even a spider, and if it was a bee perhaps the pollen could be from a fellow orchid enthusiast down the road.

So often I hear the story that it was the only plant flowering at that time. You insist that it is a selfing, little do you know that it could have travelled miles before it reached your flower. Bearing all this in mind the pod in growing draws a large amount of goodness from the plant and could even prevent flowering for the next year or two. A wasted plant, wasted space, wasted potting mix! and lastly wasted effort!

You then look around to see if you can grow the seed or find someone to do it for you—more money down the drain.

Then comes the time when you finally get your flasks and plant out your 50 seedlings, still not knowing what they are and where the bee came from. You will need fifty pots and a sack of orchid mix and probably an extension to your glasshouse and four years of potting.

The end result—flowers that either are of no quality, of no value to any one or possible winners of the next show (valueless—no name).

We must ask ourselves was it worth the expense when for $20.00 approximately you could have purchased an awarded clone or orchids in flask from a commercial grower which would be worth a great deal more in the end result. Now seriously, to cross pollinate two orchid plants is very easy, if you are in doubt ask some of the more experienced orchid growers in your area, as it will be very much easier all round to be shown than for me to put it in print. After pollination the most important part is to record the name of the plant the pollen came from and hang a label around the flower also don't forget the date. This way it certainly is not wasted time.

ON THE MOVE

"Time and tide wait for no man" says the ancient adage—nor does anything else when the question of transfers come onto the horizon. The last time this happened, it was a relatively simple matter, as there were only about three or four weeds to be transferred. But, after five years in one place, gathering neither moss nor dust, but a bigger and bigger collection of orchids, the problem of shifting, books, clothing, bits and pieces, plants, glasshouse, plumbing, glass, plants, furniture, heaters, plants, cameras and other photographic paraphenalia, can become quite a problem.

The first thing to do is known as the process of sorting, or the "GO-STAY" process. All the accumulated impedimenta must be sifted, sorted and separated. If it gets into the "GO" pile, it heads directly for the trailer in a box or wrapped up in a bundle of strings; if it gets dumped into the "STAY" pile, it has then to undergo a second classification depending on which filing cabinet it may be assigned to. For the lowest degree, it will find its way to the ultimate filing cabinet to meet a fiery fate.

Not only does this happen with all sorts of documents, but even to sickly weeds which have either become members of the self-weighing type (scales attached), or which have succumbed to a degree of culture to which they were not accustomed. Fortunately, not many found themselves in those categories.

The first problem to be surmounted was to find a temporary location for the warm growing specimens so that the glasshouse could be taken to pieces. This was not too great a problem on this occasion as a nice little sun-porch was available. It was also most helpful that the summer (?) showed so little sign of being summery. The next task was to take the glasshouse down. At last my wisdom in purchasing a commercially built model from aluminium was to pay dividends. Just undo the bolts, slip the glass out (preferably without breaking it) and the lawn is cluttered with bits and pieces of aluminium. The major difficulty was to get the weather to keep dry long enough so that all these works could be undertaken.

With the glasshouse reduced to nuts and bolts and strips of aluminium extrusion, the next problem was to get the power cut off and the plumbing disconnected. The manner in which these feats were accomplished will not be revealed on the grounds of self-incrimination! With all these bits and pieces scattered over the lawn, it was difficult to decide what colour the lawn was supposed to be.

With the help of the local funeral director's wagon (Not the hearse), all the cool growers got shoved in the back of the vehicle with all sorts of other bits and pieces and the move was on. The immediate problem on arrival, was to arrange temporary accommodation—a handy shady spot under some creepers and vines was found.

The day of final exodus dawns and all those lovely weeds from the sunporch are transferred with loving care into the back seat of the car. Anything of lower importance like stereo set, cameras, etc, get tossed onto the trailer. The back seat is reserved for the "children".

A rapid clearing of a patch of convolvulus finds a very suitable new home for glasshouse. Out come the concrete blocks, down goes the floor, and before anyone realises what has happened, the frame of the house is beginning to emerge from the shade of the hedge. Glass in—shelving in—warm plants in. Now the only problem is to keep the little darlings warm at night. Resurrected is the old kerosene heater, which will have to do until the power is connected.

A month later, the power is on, the shelving has been thrown out, the watering system has been modified and modified and is now working well. Sand trays have been installed to keep the humidity up (when they dry out the sprinklers are turned on). Some of the dear wee things are even threatening to burst into flower, so it appears that most of the weeds have survived their little trip—only time will tell.

REV. FR. B. J. EDWARDS,

The plant was bought in 1965 from Limberlost Nurseries, Cairns, and was kept in an unheated glasshouse with, at first, cacti. A change to Cattleyas saw the cacti move out, but the conditions stayed much the same with the Catts. also liking bright, dry and warm atmospheres.

The Cymbid was kept in the warmest and brightest spot. Watering is done about three times a month in Summer, but only very occasionally at all other times. Feeding is scarcely done, about twice per year.

When flower spikes appear, any watering is done very sparingly, and carefully, so the spike is not touched with water at all. The spikes have a habit of going black and sections of buds fall out, especially from water drips from the roof.

Marj. has noticed it flowers from the same bulb several years running. She has flowered it for the last seven years, and had five spikes last year.

Because of its habit of not having many new growths, and the paucity of roots, it's only been repotted twice. The first time, six years ago, it was divided, and this January it was done again. Even so, it only consists of five leafed bulbs, and three back bulbs, so you can see it is not a plant that will overgrow its welcome.

Further reading—
"Australian Indigenous Orchids"
by A. W. Dockrill

WAIRARAPA
ORCHID CIRCLE

Orchid display

8-9 October, 1976,

Y.M.C.A. Church Street,
MASTERTON.

VIRUSES

By A. H. Blackmore

With virus diseases, the exact identification of the parasite is difficult. Viruses are so small that they cannot be seen through the ordinary microscopes used to detect and study fungus and bacterial parasites. They can be photographed by means of modern electronic microscopes, but even so they are something of a mystery. Undoubtedly, plants suffering from the disease have some form of infectious agent in their sap, but in many cases its exact nature has not been identified. It is, however, known to be very small and to multiply within the plant cells, so that it is usually distributed throughout the tisues.

Plants unlike animals, do not seem to produce antibodies to fight viruses, although in some cases, they are able to resist to a certain extent. Usually infected plants become more crippled and degenerate with the passing of each season.

Common signs of virus infection in cymbidium orchids are mottled streaky patterns on leaves, starting in a yellow colour and later turning black, probably through fungi parasitic agency. I have no knowledge of the flower being affected. With Cattleyas the flower bebecomes damaged by dark brown streaks on the midrib, or brown spotting, or brown throats developing a week or so after opening. Finally the whole flower could suddenly turn brown and disintegrate. The leaves need not show any signs and because of this a dishonest person could sell a plant which he has flowered, thus knowing it to be virused.

Viruses can be transmitted by sucking insects, by using containers affected by virus, having previously contained a virused plant, (Pots and compost will carry live virus for years). It has been proved that potting tables have carried live virus for 30 years). A stake, having been used in a virus contaminated pot can affect a plant a year later. Don't use stakes, tie to a wire above the plant.

Seeds from virused plants are usually free from virus, but a plant could be affected by using pollen from a virused plant.

Virus can be killed by heat at 156 deg. C. for half an hour. This rules out treating plastic by heat, but use a common chemical sodium hydroxide (caustic soda) 2% solution mixed with 2% solution of formaldehyde (formalin). To get the 2% caustic soda, mix 1lb in 50 pints of water and %2 formalin is 1 part formalin in 19 parts of water. Keep these two solutions separate but mix them 50/50 each day as they are wanted. Either solution by itself is not 100% effective, but together they will do the job if reasonably fresh. Keep the solutions in glass containers and I suggest large vats for dipping pots, which will need to be washed later before being used. Use rubber gloves as the hands could be damaged.

MILTONIA ROEZELI

By J. Campbell

I have never been a great fancier of Miltonias (pansy orchids), but when the opportunity of obtaining one or two of the species arose, I took them as I am basically a species orchid grower.

The plant of M. roezeli flowered last year and I fertilised a flower to obtain seed as it is also an ambition of mine to make more species available to New Zealand growers.

I have seen this orchid flowering in another collection several times and I can never recall it being scented, nor can I recall the length of time the flowers lasted. This year it has made its presence most noticeable in my hothouse by the beautiful delicate scent which fills the house, specially after watering.

The foliage of the plant is about 30-35 cm tall with a slightly longer flower stem carrying six 7 by 7cm flowers. The petals are white and the lip has a fairly large bright yellow blotch at the base bordered by some faint pink veins. This plant was in bloom for our society's November 3rd meeting and at the date of writing (16-12-75) they are still showing no sign of wilting.

Considering the hot Nor-Westers we have been having lately, I feel that the lasting qualities of Miltonia roezeli make it a very desirable plant.

PHALAENOPSIS

By G. A. Maney

Phalaenopsis is a genus of orchids which I think has been given too little attention; in New Zealand in particular. The flowers are really beautiful and long lasting and unlike all other orchids, have an extremely long flowering season. Many plants in my house are continually in bloom throughout the year. Heating is of course a must! But despite what many people think, quite inexpensive; if a few simple precautions are followed.

My hot house is a 4.8m x 3m lean-to glass house with good ventilation lined inside with 005 P.V.C. The benches are 75cm high x 1m wide covered with wire mesh and with a central walk. Under one of the benches is a 3KW fan heater with a thermostat, with a P.V.C. sock fixed to the heater and running the 4.8m length of the house. The sock is perforated with holes from 1-2cm in diameter. This I feel is vital; one for movement of air and two for an even distribution of heat. 15.5 deg. Celsius or 60 deg F. is minimum heat required.

At the far end of the house I have a 3m x 1m hot box 15cm high filled with river sand and heated to 21 deg. C by a soil cable, thermostatically controlled. This is used for plants out of flask and those that need extra bottom heat when they are very small. The hot box is entirely covered in; just a light one inch square wooden structure, 1m high, covered with P.V.C. that is in effect a miniature hot house. It is also useful for plants from overseas that have to be quarantined for three months.

Phalaenopsis must have a very open mix for good drainage. I use chopped pine bark, shredded ponga and fresh sphagnum in equal parts, with a further covering of sphagnum round the top of the plant; big or small. As for containers, when they are babies just out of flask, they are put into community 9cm squat plastic and after two months they are generally ready at 5cm leaf length to go into 5cm plastic thumb pots. I put extra holes in these for better drainage. They are watered every day with a fine spray and always with warm water. This is quite simple if you keep a container filled at all times in the glass house. Preferably rain water.

Feeding of course is most necessary, and this is done twice a week with Atlas fish emulsion or any good liquid feed. I use a weaker strength on the babies, than the adult plants.

It is most necessary to thoroughly drench the plants once each week, otherwise you run the risk of salt buildup. For this I use the hose preferably on a warm sunny day and even in the winter you usually get one a week.

I hope that those of you who have often thought of a hot house, will make the decision and have a go. Believe me you will never regret it. Small plants of this genus are cheap and flower quite easily in 2 to 3 years.

I would suggest that you start with a few adult plants and a lot of small ones and you will be surprised how quickly your collection grows and rewards you with more flowers than any other orchid. There are a number of plants in my house that produce up to 150 blooms in a year. Most of the larger plants are put into wire baskets and thrive with the free root run.