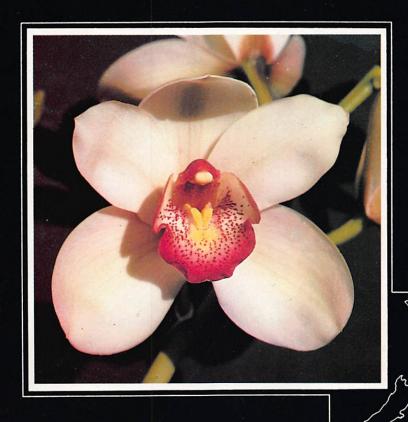
# ORCHIDS IN NEW ZEALAND



SEPTEMBER/OCTOBER 1982



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#### **COVER PHOTO**

Cymbidium Uro 'No. 3.' (Ann Green x Karen Cameron) another fine orchid from the collection of Mr I.D. James of Hamilton.

# Some Uncommon Orchid Ailments

by I.D. James

Not infrequently one comes upon an orchid collection where the plants are not thriving, notwithstanding the apparent absence of any of the

common growth limiting factors.

If your plants are growing better than those in most other collections do not let anyone persuade you to change any aspect of your culture — follow the sporting maxim of never changing a winning game. Do not read any further. However if your collection is one of those described in the first paragraph it may be worthwhile considering what follows. It is mainly a checklist of some toxic substances growers may unwittingly allow to be introduced by air, water or compost. Orchid plants, grown as they usually are in relatively inert composts and inside enclosed structures, are captive subjects. They are more likely to be poisoned by their owner than the plants growing in soil in his garden.

#### WATER

Many of the problems here are associated with attempts to store water. Water is best (but not cheaply) stored in plastic tanks or containers with plastic liners. Plain iron tanks are probably safe. Galvanised tanks are bad news. They can be coated inside with a bituminous paint but you are taking a risk. Concrete tanks may be safe but can also be given the bituminous treatment. Wooden wine barrels should be safe. Do not use copper containers. All water tanks should be covered. Avoid spraying water on leaves of plants until water quality can be eliminated as a possible cause of health problems.

Zinc is a trace element essential for plant growth but is very toxic if present in other than minute amounts. It will be introduced in to the water supply if this is via new galvanised pipes, a galvanised iron roof or a galvanised iron tank. We have seen several cases of zinc toxicity over the years, the most recent one being experienced by a commercial grower who had excessive zinc levels (as shown by leaf analysis) following the

installation of a new deep well bore and galvanised piping. In severe cases leaves will be pale or straw coloured even under heavy shade and plants will not grow well. If you have a mild zinc problem you cannot otherwise correct, try and keep the water off the leaves as far as possible. The addition of iron chelate to the water is said to help.

Lead. The writer had trouble when he applied (stupidly) a lead paint shading to a glasshouse from which rain water was collected. The older cymbidium leaves turned a bright orange before they died. As a result of the reduction of the use of lead paints this problem should not be encountered. However any shading compound used on a surface from which water is collected should be treated with suspicion until proved or known to be safe.

Copper. Damage to Cymbidiums believed to be associated with high leaf copper levels has been reported in New Zealand. This followed the continuous application of copper sprays.

Treated Timber. Water dripping from treated timber may retard growth. Plants subjected to this

seem particularly susceptible to subsequent infection by disease organisms. The problem is largely confined to plants in the open and exposed to rainwater. We know of one grower who lost many cymbidiums and who observed that those plants infected were located in the nursery along evenly spaced parallel lines. In fact they were under the drip from newly erected treated radiata pine beams supporting shade cloth. Oddly enough we have seen various orchids growing reasonably well in containers made with treated timber.

Nutrients. Use only a formula or commercial product recommended by qualified people. Use with caution untried proprietary fertilisers containing unspecified hormones or other organic growth

substances.

#### AIR

Pollutants in the atmosphere will enter your greenhouse unseen and are often the unsuspected cause of orchid ailments. Here are a few.

Engine Exhausts. The exhaust gases from both two stroke (never use inside a glasshouse) and four stroke engines can be toxic to plants. We once saw, in a large commercial orchid nursery in Hawaii, a long block of plants adjacent to the entrance driveway visibly less healthy than the rest. It had only just been found that the problem came from the exhausts of the many cars using the driveway.

**Creosote.** Timber impregnated with this and other tar products should not be used in a glasshouse. They give off volatile substances which can damage even plants not in direct contact with the timber.

Gas. A natural gas heater which is not vented (ie with a flue taking the combustion products outside the glasshouse) may cause damage to flowers with sepals, whole flowers and even buds wilting

prematurely. See Roger Cooper's article in the May—June 1978 issue of "Orchids in New Zealand."

#### COMPOSTS

Bear the following in mind if you suspect your trouble originates here.

Charcoal. We have had plants damaged from charcoal made from treated timber. It is understood that charcoal sold for use in barbeques is usually made from untreated mill slabs and that you would be unlucky to experience this problem.

Sawdust. Do not use sawdust from treated timber. Make a few enquiries before buying — do not rely upon an advertisement offering

sawdust as untreated.

Fines. It has been our experience that orchids (especially epiphytes) will sulk if the compost contains too much very fine material. It is not necessarily a question of drainage or of air or water retention. The root tips will cease growth immediately they come in contact with some material whether under or on top of the compost. Eliminate fine pumice dust, dust from bark, peat moss and from fern fibre.

Moss. Be careful where you collect your sphagnum moss. If it and surrounding vegetation is green and growing all will be well. In a dry summer when the moss often looks dead anyway, the fact that a roadside (a popular collecting spot) has been sprayed with weedkiller could be overlooked.

We would like to mention one further factor not often mentioned in the literature and not related to air, water or compost. It concerns individual clones which just do not have the genetic make-up to grow well.

Anyone who raises orchids from seed or even from flasks will know that the individual seedlings often range in vigour from those that grow rapidly to those that never reach maturity. This can be observed even in mericiones in some

circumstances, less so with Cymbidiums than with some other genera. These 'runts' are hard to identify when isolated from their contemporaries. They are usually recognised for what they are in a larger collection. But pity the poor novice who acquires only a few plants and they are all in this category. For no one will be able to tell him why his plants are not growing — except those who know their history.

LETTER TO



The Editor, Sir.

Once upon a time The Orchid Council of New Zealand instituted a training scheme for orchid Judges and appointed Award Judging Panels in various regions of this country so that orchids of merit could be judged by the Panels, and if found worthy, be accorded a suitable award certificate. One short list of such awards appeared in the pages of your worthy magazine, but lack of any further information of Awards in recent times leads me to enquire as to the present status of the Award Judging system.

Are the Award Judging Panels still in existance?

If so, have any Awards been granted to orchids in the past two years?

If Awards have been granted, are these kept secret to the Council?

May I suggest that if the Award Judging scheme is still operating the majority of New Zealand orchid

enthusiasts would welcome information on any Awards granted to plants. Maybe they could even be published in this magazine.

Yours etc. 'Wondering'

Replies to your questions are as follows:

- a. Yes
- b. Never been informed
  - . No.

The above answers are as brief, or, perhaps I should say lengthy when compared to the answers to my own queries from the Registrar Generals' section of the Orchid Council in respect of ratified awards. Publication has been very haphazard, the majority of 1978 awards were published in March/April 1980. 1979 awards were published in November/December 1981 and January/February 1982 saw the publication of the 1980 awards — not very consistant.

A grower goes to considerable trouble and expense when it is decided that a plant is worthy of submission for award consideration. Local judges give their time, often during work hours, coloured slides and a report are sent to the Council for its decision and ratification if an award is warranted. The Registrar General then notifies the grower of the final decision.

Now, at this stage no one but the grower, Council and Registrar General are aware that an award has been made. Our magazine is the only means that the grower has of notifying other orchidists that his or her plant has been awarded. To publish a year to 18 months later is an insult to the grower and it would also appear that the magazine committee are falling in their duty to publish. The awards should be published in the magazine following Council ratification. The AD given at our 1980 National Show was even omitted from the Registrar Generals list in January/February 1982.

In the Standards for Judging Handbook, under Regulation and Bylaws No. 8 it states that "notices of awards shall be published as early as possible by the Executive in New Zealand and to notify overseas organisations etc." Perhaps this rule could be amended to read 'at the time that the Registrar General informs a successful grower of an award, a copy of the letter be sent to the Editor for publication."

I would suggest that you contact an orchid judge or Regional Registrar in the area you live and ask them to bring this matter up at the next Registrars' meeting.

Ed.

# Native Orchids in Fiordland

by Isla Campbell & M. McDonald

Election weekend, 27—29 November 1981, was spent by 21 Orchid Society of Southland members in a very enjoyable and instructive 'native orchids camp' on the fringe of Fiordland National Park, well isolated from the unfolding political drama.

This is a fertile area for orchids, as members, under the guidance of Mrs Jeannette West of Dunedin, soon found. At 500m, the Borland—Monowai region has peat bogs, mountain beech habitats, many species of

indigenous orchids - and clouds of sandflies!

Due to an overly energetic member of the Fox Clan, everyone was forced to greet Saturday morning rather earlier than expected. After eating breakfast in various stages of somnambulism, we made cut lunches, (Melanie and Rosa dutifully buttering for all before realising each family was making its own!)

Mrs West led our first hunt through the Borland Nature Walk — a leisurely exploration for ground species. We were fortunate to locate: Aporostylis bifolia (the odd-leaved orchid), though not in flower; with its definite hairy covering on stem and leaves. We recognised a similar plant, a Caladenia (either C. lyallii or C. catenata) on the nature walk also. The following day we found this in manuka scrub and only there did we observe the two-headed specimen.

Corybas macranthus was our next impressive find, although many specimens of *C. trilobus* were found in fruit. *C. macranthus* was located beside a dark creek on the South Borland Track, completely shaded over. The beautiful deep red flowers showed the characteristic whiskery lateral petals and sepals. Unlike *C. trilobus* this shade-loving species has its flowers below a silver-sheened underleaf.

While waiting for another Mathieson — our avid photographer — to catch up, Kyla found Chiloglottis cornuta, the 'parrot-

beak' well camouflaged on a damp mossy bank. Leaves on some specimens were definitely marbled. The greatly elongated leaves and stem indicated that flowering was well past.

Adenochilus gracilus was another interesting find. We learned that these plants seldom occur in groups and unlike most orchids have no tuber, only a rhizome or underground stem. One leaf occurs a few centimetres up the stem, while the other is several centimetres along the ground. In the same vicinity we located Pterostylis graminea with its distinctive striped green leaves. Other species in this genus were P. banksii and P. montana. These 'greenhoods' differ in the length and red shading of the sepals and petals.

The next part of the journey was more exhaustive and some folk opted to make a leisurely return to the Lodge. While waiting for the others they collected wood for a barbeque — and then the rain appeared!

Those who did walk the perilous limestone track were rewarded by sighting two clumps of *Earina autumnalis* and *E. mucronata* clinging to the north side of beech branches. These epiphytes were easily distinguished by the positioning of their leaves; the former's leaves fanning out in the one place.

They continued up to meet the Manapouri powerlines. Along the gravel road on the way home it was surprising to discover many delicate specimens of Microtis unifolia. better known as the 'onion orchid. Along the drier grass verges it grew abundantly as there was plenty of light. Many showed tips missing. They had proved tasty morsels for browsing animals. Mathiesons. McDonalds and Whites have since recognised this orchid growing profusely in their own properties and have enjoyed observing it at close quarters!

We were able to distinguish the Microtis from Prasophyllum colensoi, with its flowers growing upside down; in the opposite direction. These flowers had a yellow tinge to them by comparison

with Microtis species.

Moving on to the Borland Mire, an area of wetland, we found in bright sunlight *Thelymitra longifolia*, *T. hatchii* and what may have been *T. venosa.* aptly named the 'sun orchids': The shades of blue thelymitra species did justice to the azure sky that Sunday morning. Our photographers wandered far for good specimens to photograph. Pinkish and whitish flowers were found while *T. hatchii* could be distinguished by its large, thinner leaf.

Increasingly redder forms of lateral appendages and spinal regions were also discovered in several specimens of homo sapiens by lunchtime, for it appeared that like the thelymitras these creatures bare themselves to the sun too.

Finally in the bush we located Gastrodium sesamoides in the precious short time we had left after lunch. We were impressed by its lack of colour and stick-like appearance; not to mention its dependancy on a beech fungus for survival.

After a memorable and fulfilling weekend for the whole group, in

excellent weather, we are sure much was learned, although the highlight for younger members was the challenge of the Confidence course; particularly Tarris who conquered the 25' Parabola Wire, while others cleaned up. We must convey a special thanks to Mrs West for making it possible to learn so much from her experience and fine Herbarium at Borland and for infecting us with an enthusiasm which has led many members to search for and find more native orchids all over Southland.

# LETTER TO



Dear Sir,

In the March/April issue of 'Orchids in New Zealand' I noted with interest the remarks of Gordon Maney re Cymbidium Culture in which he recommends the use of Black Leaf 40 to eliminate scale. How and from whom is this obtainable? I understood that this chemical was withdrawn from sale some eight years ago. This would not be the first time I have seen Black Leaf 40 recommended for use in recent years.

Has the ban on this dangerous poison been withdrawn?

Arthur Dawson.

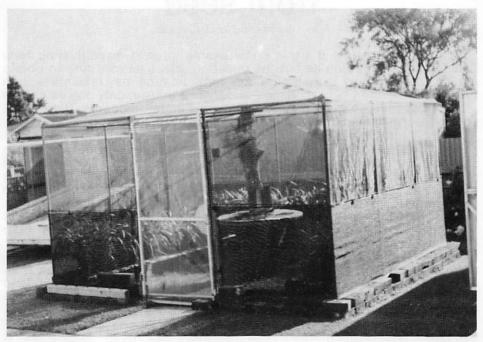
The Registrar of the Agricultural Chemicals Board confirms that this product has been withdrawn and is no longer registered for sale in New Zealand. The reason being, this highly toxic and short lived chemical, in the hands of the home gardener, is considered too dangerous and there are other products on the market that will do the job equally well if not better.

However, those who have some left may still use same, but PLEASE TAKE EXTREME

CARE.

Ed.

# A NOVEL SHADEHOUSE



On one of my travels some 18 months ago, I visited Lyall Feck, Secretary of the Dannevirke Orchid Society. We did the usual 'orchid prowl' and I was intrigued to see the most novel shadehouse ever built — in fact if there was an inventors award for orchid houses this would get it.

Lyall 'nformed me that his revolving clothes line was wearing out and a new one was required. Now as we men know, to dig out an old galvanised pipe with about half a ton of concrete on the end is no joke; it's easier to buy the wife a new clothestine and hack saw the old one off close to the ground. However, in this case the hoist was kept and utilised as follows. Four 3.6m pieces of 17mm galvanised water pipe were used to square up the existing arms (pinned with key clamps or brazed), pipes were dropped (as studs) from each corner and at 1.2m intervals to prevent any sag. This formed sides approximately 2 metres high. The roof and sides were covered with 32% Sarlon shade cloth cut and stitched by a local upholsterer.

There was trouble with the wind blowing the orchids over so Lyall surrounded the lower metre with an additional layer of black 'wind break' cloth which was very successful. The entrance was formed by using an old aluminium house screen door; this was fitted with little trouble. The bricks around the foot of the house hold the mesh shadecloth taut and help to prevent slugs and snails from entering.

I have suggested to my wife that I might try the same, but was informed that until a new line is up and working properly, 'hands off.'

Thank you for the notes and photo Lyall. Editor.

# Growing *Thelymitra longifolia* from seed

R.A. Bicknell and Ella O. Campbell

At the present time there is considerable interest in cultivating New Zealand terrestrial orchids but the question arises as to where to obtain plants. One difficulty is that, although multiplication may take place from tubers, this is often slow. If, as in *Pterostylis plumosa*, only one new tuber replaces the old exhausted one, no numerical increase occurs. Therefore it seemed worthwhile to try growing plants from seed.

It is well known that for the successful germination of the minute seeds of orchids an extraneous supply of food materials is needed. Under natural conditions this is supplied by a fungus, but from the thousands of seeds in a capsule few seedlings develop. The method reported here uses a sterile nutrient medium and gives the advantage of controlled conditions. As a start Thelymitra longifolia was chosen since it grows naturally under a wide range of climates and soil-types and is presumably less demanding in its requirements than some other species.

Mature but undehisced capsules were gathered on January 12, 1982 from plants growing Palmerston North which flowered four weeks earlier. The fully grown capsules recognisable from immature ones because they were larger, and also brownish-green due to the brown testas of the nearly ripe seeds within. Even though care was taken in transporting them back to the laboratory in stoppered glass vials, some did open and shed their seeds later that day. In order to depress the basal metabolic rate the capsules and shed seeds were stored at 5°C in open glass vials within a larger closed vessel containing silica gel.

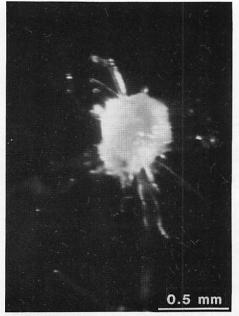
The nutrient agar on which the seeds were later sown was prepared

according to the formula of Vacin and Went. From this 3ml was added to each of 40 culture tubes which were immediately plugged and then sterilised at 120°C for 20 minutes. They were allowed to cool in an inclined position so that the agar set on a slope.

Seed was sown on January 13 and 14. Prior to this six capsules from four plants were surface-sterilised by immersion for five minutes in 0.5% sodium hypochlorite solution to which a few drops of absolute alcohol had been added as a agent. Shed seed wetting treated similarly but for one minute only. All subsequent operations were conducted under sterile conditions in a laminar flow cabinet. After rinsing in four changes of sterile water the capsules were cut open and with the aid of an inoculation loop seed was transferred to the agar slopes. the tubes were immediately resealed with rubber bungs. Shed seed was filtered from the rinsing water using a sterilised Buchner funnel and similarly transferred to agar slopes. The tubes were now placed upright in clear plastic racks. The next step was transfer to a growth room held at 20°C. Some tubes were kept under continuous light at the low intensity of 500 lux and others at a higher intensity of 5,000 lux.

The first visible signs of germination, namely swelling of the

embryo region and rupture of the testa, usually occurred after 12—14 weeks but continued up to the 19th week. Thereafter growth was rapid with protocorms obvious within the next fortnight Fig. 1 and an organised shoot-tip region within the following three weeks. The development of green leaves followed. Figs 2 & 3.

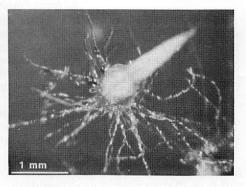


1. Protocorm attached by rhizoids.

The best germination was obtained with seeds from undehisced capsules under low light intensity when over 800 seedlings resulted. Under higher light intensity there was a marked reduction in germination. Shed seeds produced disappointing



2. A group of seedlings.



 A seedling showing the protocorm with numerous rhizoids and the first spike-like leaf.

The percentage germin	nation is tabu	lated below.	
Seed source	Percentage germination		
	at 500 lux	at 5,000 lux	
Undehisced capsules	80%	30%	
Shed seed	1%	SPECIAL STREET	

results for it proved difficult to surface-sterilise them effectively without losing viability. A quarter of the tubes became contaminated and in the others germination was very poor. The delay in the commencement of germination agrees with what is reported for several Australian terrestrial orchids under natural conditions.

This study shows that under suitable conditions *Thelymitra longifolia* can be propagated in quantity from seed. Later it is intended to transfer some of the seedlings to a non-sterile soil and hopefully bring them into flower; and also to try other species.

Nutrient Agar (	Vacin and Went	t, 1949).
Ca <sub>3</sub> (PO <sub>4</sub> ) <sub>2</sub>	0.2 gm	Fe <sub>2</sub> (C <sub>4</sub> H <sub>4</sub> 0 <sub>6</sub> ) <sub>3</sub> .2H <sub>2</sub> 0 0.28 gm
KNO <sub>3</sub>	0.525gm	MnSO <sub>4</sub> .4H <sub>2</sub> 0 0.0075 gm
KH <sub>2</sub> PO <sub>4</sub>	0.25 gm	Sucrose 20 gm
MgSO4.7H20	0.25 gm	Distilled H <sub>2</sub> 0 1000 ml
(NH <sub>4</sub> ) <sub>2</sub> SO <sub>4</sub>	0.5 gm	Agar (flake) 16 gm

# Talk given to 1982 Santa Barbara International Orchid Congress

by Norm Porter of Walkanae

Since my last talk to the Cymbidium Orchid Congress here two years ago, I have expanded my orchid growing from a back yard enterprise to a new nursery comprising eight buildings, housing cymbidium seedlings to flowering size plants in various stages of development, also specialising in hybridising the odontoglossom aliance such as odontocidiums, odontiodas, vuylstekearas, wilsonaras, zygopetalums and allied intergeneric hybrids.

New Zealand at present is experiencing a boom period in cymbidiums. There would be around 6,000 members in the 27 different orchid societies, which of course give me a terrific interest with their shows and meetings.

To give you an idea of the extent of interest, we were trying to work out how many cymbidium seedlings have been sold, or better still, how many are being grown throughout country. We estimated somewhere around 800,000 would be in the right vicinity, plus the tens of thousands of mericlones. Just in my area alone, within 10 miles there are five growers who have over 60,000 seedlings, so I'm fortunate in having such a great gene bank of new material on my doorstep. These growers have an extensive range of crosses with which they expect to cover every type of market, whether it be early or late export in minis or standards, with a huge variety of colours especially dark shades in miniatures. They also have crosses to cover the hobby and pot plant market.

Compared to most of your nurseries here, I'm only in a small way but still expect to flower somewhere over 1,000 seedlings a year. The best of these I will use for future hybridising, while others will be grown on to evaluate and if they fulfill the necessary criteria they will either be cloned for the hobby or for the commercial cut flower market.

I feel that one of the greatest developments over the last few vears has been the vast improvement in quality of the early flowering cymbidium. That is, varieties that flower naturally without heat. from sav October—February (May until August). This past flowering season we have seen seedlings that have had better shape than the best midseason ones, and to think that this could have happened in such a short time I wouldn't have thought possible. The best I saw was a (Winter Fair 'Crystal' x Fan Fare 'St Francis' 4N). It had flowers nearly 12cm, sepals 7cm and petals 6cm wide with a lip of over 7cm. Fifteen flowers on an upright spike and was flowering in October (May). The flower was completely round having a filled in shape with the bottom sepals almost touching. This type of flower is showing up regularly now, with crosses that have come from the erythrostylum line, which comes through Earlybird to Winter Fair. I saw several other seedlings worthy of an AM and one which would warrant an FCC, something I didn't think possible a few years ago.

Just look what has happened this past winter in California with the number of awards given in your December, February period. A great step forward.

Don Wimber has done a lot of experimental work with colchicine treating of mericlone plants and seedlings and his work is now being carried on, on a commercial scale by nurseries around the world. It is starting to give us a whole new range of colour tetraploids which is going to improve the colour and quality to a great degree. To my mind the most important one which I have seen over the last year is Claudona 'Rajah' 4N. Some years ago I commented that the diploid form was vastly under-rated and that its characteristics were needed

to improve the modern cymbidium. particular its spectacular lip, probably the largest and boldest lip vet seen. On a well grown plant it is over 5cm wide. For many years, in fact up to 20 odd years, I have felt the cymbidium has missed out on the lip size as it is the focal point of the flower. When one looks at a cattleya you are immediately drawn to the lip which makes the flower stand out so well. Imagine what a 5-7cm lip would do for a cymbidium. In fact this size has almost been achieved this year with some first flower seedlings and only on small seedlings in one gallon pots. Claudona 'Rajah' 4N is the key to these spectacular lips and with what is in the pipeline we are just starting to see a new era in the development of more spectacular cymbidiums. One cross which has been producing these huge lips is Claudona Rajah 4N x Khyber Pass 'Rowes Red.' The flowers have been in lovely Autumn and bronze shades, large and bold with massive lips.

When treating diploid flasks of seedlings there is a 25 to 30% chance of them being converted to tetraploids. You do hear of higher figures but I find this is all I appear to get in the ones that I have done. At present I do not treat all my diploid flasks. I prefer to have all diploids from a cross as I believe the future of cymbidiums is with them. Once you have a good diploid you can then convert into a tetraploid. It's a lot slower this way but you may get enough diploid and tetraploids from the cross having the desired characteristics that is if you grow enough of them, but this takes a lot of space. With the new technology that has been developed in the laboratory it is now possible to convert a tetraploid back to a diploid, and when this is applied to cymbidiums one will be able to treat all flasks of a cross and the chances are a lot of time will be saved. It's slow whichever way one goes, but with forsight, knowledge and a little bit of luck the desired characteristics that have been built into the parents, may come out in the first seedlings to flower.

In the future development of cymbidiums I consider one of the most important areas to be looked at is the reduction in the size of bulb and foliage. Even if this cannot be achieved in initial crosses, it should always be in the back of the hybridisers mind, for the long term. This smaller bulb and foliage has been achieved in the earlies with the introduction of erythrostylum through Earlybird down to Stanley Fouraker, Fred Stewart Winter Fairs, Trigo Royale, etc, which by the way have free flowering characteristics. With the rising cost of green houses and oil, I feel it is one of the most important tasks of the hybridiser to reduce the size of the plant, yet still retain the standard size flower.

Miniature cymbidiums have a drawback in this way as the greater percentage have large bulbs and excess foliage, however, with the development of the tetraploid strain largely implemented by Andy Easton of Featherhill Orchids, we are now seeing compact bulbs and foliage with tall stems having 'Polymin' shaped flowers.

I feel the greatest development that will come in the miniature cymbidium is in the pot plant trade, having just seen nine spikes in a 12cm pot and 18 spikes in a one gallon pot, which by the way were fertile tetraploids, the mind boggles as to how this type of plant will revolutionise the miniature pot plant field. Minis possibly offer the largest range of development because of the number of species available. Look at the beautiful Hoosai hybrids with their dark colours, tall spikes and rich scent. Devonianum hybrids which give

lovely cascading spikes, with deep colours and lips. Canaliculatum, virescens, a rich gene bank to be incorporated into the miniature and standard strains.

How about the con-colour cymbidiums. A personal favourite of mine ever since I saw my first one -Nadina 'concolour' about 20 years ago. These are distinct from the pure colour or alba cymbidiums. They occasionally turn up in triploid breeding such as Lagoon. California, San Francisco, etc. sometimes in diploids which is where my interest lies. Possibly the most spectacular in recent years has been the May Hopcraft cross with their clear orange, apricot and peachy tones, with lips of the same or similar colour. This type of flower has unusual blends of colours in this colour range with lips having no spots or markings on them. Many are large with up to 12cm flowers having 20 or more on a spike. Crosses have been made with them to give more con-colours in this colour, and as a matter of interest the best May Hopcrafts have been converted to tetraploids.

Now, a few thoughts for the future. How about a red, yellow or orange cymbidium with an all white lip. A brown or red with a gold lip. I have heard it said that the development of the cymbidium has just about reached it's peak. I feel we are only just starting. It has also been said that the mid-season tetraploid and triploid white has reached the pinnacle. With some of the thoughts I have just given, you can see how they could also change and improve. How about a pure white cymbidium with a huge blood red lip from the Claudona 'Rajah' 4N.

I feel the development of the pure colour albino cymbidium has a long way to go. It's also a personal favourite of mine, but it needs a lot of work because generally speaking they are slow growers and not very robust but look at those beautiful colours, with their clear greens, creams, whites, golds and yellows, having yellow, gold and orange lip markings with a white background.

Possibly the most difficult of all is going to be a blue cymbidium. We have made developmental crosses with this colour in mind and ultimately expect to get one although it will possibly be two or even three more generations. Some of the Flavians, Fascellas, Cinderellas show a hint of purple blue if you stretch your imagination a bit. Maybe by the time I'm in a wheelchair we will see them.

How about cascading spikes like the ones we saw 20 or 30 years ago, 30 or 40 flowers or more on a spike with massive stems. So out of fashion as most crosses are made with commercial market in mind. We have crosses now to continue this decorative type of cymbidium.

This will give you some idea of what we are working on, but also taking into account other factors such as warmth-tolerance, intergeneric hybrids, varigated foliage and scent. Some of those species are just terrific, freedom from spotting, longevity of flowers, self supporting spikes for the cut flower and commercial grower and bi-coloured flowers. As I've said, we're just starting.

# The Orchid Foundation Trust Board (N.Z.)

by Jack Hart

The North Shore Orchid Society at a special general meeting held on the 3rd May 1981 resolved that a Trust Board be established with a grant from the Society of a sum of \$15,000 being part of the profits

from the 1980 International Conference and Orchid Show.

After a period of lengthy legal procedures, the Trust has now been established.

The main objects of the Trust are: "To encourage, promote, benefit, preserve and assist generally throughout New Zealand as the Trust Board in its sole and uncontrolled discretion thinks fit in such manner and to such extent as it deems desirable and expedient the cultivation and scientific study of orchids throughout the world and the advancement of education and learning about orchids, their growth and propagation."

The Trust Board consists of three members, one to be appointed by the North Shore Orchid Society and other two members by the Orchid Council of New Zealand. After the Trust Board has been incorporated for five years all three members shall be appointed by the Orchid Council.

The first members of the Trust Board are W. Ross-Taylor and M.D. Leahy, both appointed by the Orchid Council of New Zealand, and J. Hart, appointed by the North Shore Orchid Society Inc. The latter will act as Secretary of the Trust Board and the Registered Office will be at his residence, 632 A Glenfield Rd, Auckland 10.

The Trustees shall hold office for one year and are eligible for reappointment.

A duly audited Balance Sheet shall be submitted annually to the Orchid Council. Alterations and additions to the Rules can only be made at the Annual Meeting of the Orchid Council and carried by a majority of at least three quarters of the members present.

The above is a brief resume of the Trust Deed, the complete document occupies six foolscap pages!

Initially the aim of the Trust Board is to invest the capital and distribute the income after

expenses. The Board will hold expenses to an absolute minimum

The main aim is to distribute any grants in such a manner that as many orchid growers as possible will benefit. Assistance to "Orchids in New Zealand" is an obvious avenue but other projects to benefit a large number of orchidophyles such as the purchase of slide programmes from overseas sources for circulation by the Council among Societies are possibilities.

The capital sum has been held in trust by the North Shore Orchid Society since May 1981 and the interest accummulated from that date will be passed on to the Trust

Board.

In addition the North Shore Orchid Society will bear the legal costs associated with the establishment of the Trust Board.

The North Shore Orchid Society feel that by establishing the Trust is the most appropriate way of saying "Thank You" to all the Orchid Societies and their members for the wonderful assistance given to make the 1980 Conference such a success. It is hoped and indeed anticipated that the funds of the Orchid Foundation Trust Board will be augumented by donations from Societies and individuals.

# The John Easton Award

by Arthur Dawson, Chairman of the John Easton Award Committee

All Orchid Societies affiliated to Conzed Inc. (The Orchid Council of New Zealand), receive notices to the effect that nominations for the John Easton Award close on August 1st each year. Most of the Clubs and Societies should know what it is all about, as relevant information is sent to each Club.

I am sorry to say that 50% do not acknowledge receipt of notices, 25% say no nomination, and the other 25% thankfully have the good grace to reply with nominations plus a short biography which is most necessary in the allocation of this Award.

I ask myself, are the 75% just disinterested? (I could tell of over 12 suitable nominations). Do they understand the conditions of the Award, or as I have heard two people in conversation say, "H'm, I wouldn't want that Award on my mantelpiece."

I would certainly be a very proud person to have my name engraved on this Award along with the other illustrious recipients. Unfortunately, the writer knows there are many years of service, knowledge and dedication to pass before this would or could be considered.

The John Easton Award is the only National Award open to those interested in all areas orchidology, it is in fact awarded for the most outstanding contribution to the culture of orchids,' no matter if it be a new discovery, ways to Paphs by meristem propagation, literature, outstanding service, or any other contribution of exemplary merit to the culture of orchids. Whatever the contribution, it must be to the benefit of orchids and orchid growing in New Zealand. Nominations are only received from affiliates of Conzed Inc, but may be for any person whatsoever.

The Award is decided immediately after the closing date of nominations; it is held for one year and is always presented at the Hawke's Bay Orchid Society's Annual Display. Allowance has been made for the Orchid Council of New Zealand to take over the allocation of the Award should the Hawke's Bay Orchid Society be unable to do so at any time.

Six years ago I received a suggestion from Andrew Easton to

the effect that he would like to present a trophy to the Orchidists of New Zealand, subject to the conditions already partly explained. A Committee was selected from Hawke's Bay orchid lovers along with the President of Conzed.

The Award duly arrived, a quite handsome hand made affair constructed of American woods on which an engraved plaque was mounted. Each year Andrew Easton donates a suitable recognition permanently belonging to the recipient, which up to this time has taken the form of a valuable orchid painting.

The John Easton Award is in memory of a very fine gentleman, a man I was privileged to know for many years. He was the father of Andrew Easton, and was the man who helped to make all things possible for this young, dedicated person, who himself, in a few short years reached the absolute top in his chosen profession.

I sometimes wonder how many members of the Orchid Clubs throughout New Zealand, or the world for that matter, have done anything in memory of their father, something that will live on long after we old orchid lovers have shuffled off this mortal coil.

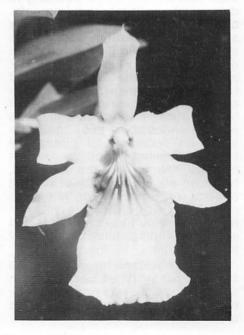


By George Fuller, N.D.H. [N.Z.], Curator Pukekura Park, New Plymouth.

# Miltonia spectabilis Ldl.

Reference to miltonias usually conjures up thoughts of the "pansyorchids" and whereas that description could apply to this Brazilian species, it usually relates to the multi-flowered hybrids which have originated from species from the cooler alpine regions of Colombia and Ecuador.

M. spectabilis produces only a single flower per spike but a specimen plant can still be very spectacular (the specific name is not an accident!) for the blooms are up to 10cm long, arising from the base of the pale green pseudobulbs which are produced on a branching rhizome. This creeps over the surface of the mix at what can almost be described as an alarming rate and offers the other distinction



from the northern group which tend to grow with pseudobulbs in a tight cluster almost perching on top of each other.

The creeping habit renders the plant somewhat difficult to keep in bounds but there is the saving grace that the plant seems in its element trailing several pseudobulbs and a web of fine white roots over the edge of the container and one should not be influenced by the oft — repeated recommendation for the compact northern group that potting should be almost annually. If one adopted that policy it would be difficult to build up the size which can make this species such an eye-catching specimen plant.

Another feature which can be of concern to the newcomer is the pale foliage colouration which could well be described as 'anaemic' in comparison with most orchids. Provided roots are sound and the plant firm and not diminishing in size, ignore the pale foliage.

In relating the miltonia species to their countries of origin in trying to determine cultural requirements. one must be very careful, for although the Brazilian species are at the southern limit of the range of distribution they are from lower altitudes than the Colombian and therefore require warmer conditions. A minimum night temperature of about 12°C (53°F) is recommended but this could be lower on occasions if plants are kept somewhat drier in danger periods. None of the species, however, should be subject to long periods of dryness, for adequate moisture and relatively high humidity are cultural essentials and summer shading must be adjusted to ensure this.

In the Auckland area the more familiar 'pansy' types can be kept in shade houses very successfully during summer provided humidity is maintained. But to return to our Brazilian species, the potting material, be it comprised of mixtures of fern fibre or bark and pumice must ensure freedom from stagnation and shallow, wide containers or baskets are preferable. Even slabs are suitable if water application can be thorough, particularly in dry summer periods when growth should be rapid prior to flowering.

The blooms are rather flat and very impressive, the clone illustrated being creamy with the labellum suffused with rose-purple overlaid with veins of darker hue, a combination almost identical to that found in the familiar form of Calanthe vestita. They are produced singly on sheathed stems about 20cm tall and are long-lasting, and open in late summer to autumn from the base of recently formed pseudobulbs.



One striking variety has been widely distributed in cultivation since 1846, this being *M. spectabilis var. Moreliana* which has a basic flower colour of maroon with a lip of rose-purple — really eye-catching. Our plant is also distinct in producing up to three blooms per spike, a feature I have not found mentioned in any description.

Reader's contributions required please
This space could grow faster than your orchid plants

# **New Zealand Native Orchids**

by Dorothy Cooper of Lower Hutt

I have recently started a New Zealand Native Orchid Group with a newsletter aimed specifically at native orchids. There has been a very good response, we have over 80 members already, and our main aims will be the study and conservation of this little known group of New Zealand native flora. Many of our members are not orchid growers, but are interested in native plants; subscription to the group is \$3.50 which covers printing and postage costs.

I will in future submit to this magazine, articles that members of the Group contribute to our newsletter which are interesting to orchid growers.

For example, in newsletter No. 1, E.D. Hatch contributed the following interesting article on Corybas orbiculatus and Corybas aconitifiorus which shows just where orchids will grow, — I think we probably kill a lot of orchids with kindness!

## **Odd things about Orchids**

E.D. Hatch

Corvbas orbiculatus is perhaps unusual in liking to grow in running water, and in my experience is found in no other habitat. In the Waitakeres it will be found clinging in masses to the mossed rock faces beside small waterfalls and along the wet walls of gorges. But its most remarkable choice of a home is the sea cliff at Kaitarakihi. In seepage areas and in the little streams that tumble into the tide, the orchid grows among the rootlets of Pohutukawa and the clutter and tangle of Machaerina and Astelia. exposed to the blustering southwest wind, and a mere metre or so above the breaking waves. They must live with mycorrhiza for the layer of moss and peat on the rock is not more than 4mm deep, barely enough to cover the orchid tuber. One would imagine the environment to be too tough, but on reflection I suppose it is no worse than that endured by the Earina and Dendrobium which cling to the Pohutukawa roots alongside.

Talking of toughness — I found, last November, about half way

through the old diversion tunnel at Kakamatua, a single plant of Corybas aconitiflorus. In semidarkness, with a strong cold draught constantly screaming in from the sea, and seepage water lying in little lakes on the floor, a less pleasant place to live would be hard to imagine. The orchid seed had apparently blown germinated on a block of sandstone that had fallen from the roof, flowered, been pollinated, and produced a seeding peduncle 10cm tall. They do say that this species has subterranean tendencies!

In the second newsletter I contributed a note on deformities amongst our native orchids as follows:

#### The Odd Ones

by Dorothy Cooper of Lower Hutt

Oddities and deformities amongst our native orchids seem to be quite common; I have found Thelymitra flowers in the Wellington region with weird floral structures. In November 1981, in the Eastbourne hills, I found a sixflowered Thelymitra pauciflora, not

all the flowers were open, but in each of the six there was a horizontal stigma in the base of an empty column cavity; no pollinia or anther cap; instead, a third clump of cilia on a third column arm protruded from the back of the cavity — at the same level as the two lateral column arms and where the anther cap would normally appear. (see fig. 1).

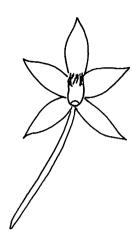




There were only five perianth segments on each flower; usually the labellum was missing and one flower had a narrow 'tube' instead, of the same tissue and colour as the labellum should have been. (fig. 2). One flower had a lateral petal missing. Leaf and general growth was otherwise normal for the species. The plant was not in an area where it could have been affected by sprays, and presumably was just an 'oddity.'

Another example of deformed specimens of T. pauciflora was sent to me in December 1981, by Kevin Luff of Wanganui. In the flowers of these plants, the anther and the stigma were often absent, and in two flowers the column consisted of a flat structure with a clump of

fig 2



white cilia at the top on a short 'column arm'. (fig. 3). The leaf was a simple v-shape, but black watery marks on it suggested that it may have been sprayed with something like a weed-killer.

These orchids will be infertile as they are without functional anther and stigma but presumably they can still reproduce vegetatively so it will be interesting to see if the same thing happens next season, thus perpetuating these 'oddities.'

fia 3



Thank you Mrs Cooper. It is to be hoped that the Native Orchid Column can become a regular feature in our magazine.

# **Photographing Native Orchids**

by R.J. Markwick — Native Orchid Society of South Australia

As an amateur photographer and a natural history lover, it was perhaps inevitable that I should turn to flowers as subjects for photographs. My interest in Native Orchids sprang from these beginnings as did my interest in close-up photography, which naturally had to follow because of the diminutive size of the subjects. For the naturalist-photographer, close-up photography can open up new worlds of interest and provide unparalleled opportunities for the study of the smaller universe, including for instance, the tiny details of our own Australian Native Orchids.

Close-up photography can be a complicated process involving computations of effective focal lengths and effective apertures. bellows extension factors, reciprocity failure, filters, tripods, focusing rails, electronic flash guns etc, but for those who don't want to get involved in these kinds of hassles, simple and relatively cheap equipment can be used to produce results which, while not being of the ultra close-up super-scientific type. are nevertheless generally acceptable.

After a certain amount of trial and error one soon learns that there are a few important rules to be applied, and that certain techniques must be employed to produce good results.

I use a few tricks which have proved to be beneficial to the quality of my work, and I will pass these on later. Also, by engaging in a little research and a certain amount of discussion with other photographers, I have familiarised myself to some extent with the various items of photographic equipment used for close-up work.

What is close-up photography? Close-up photography is usually understood to refer to the rendition of a subject on film varying from approximately 1/10th life-size, to life-size (i.e. 1:1 magnification), and is generally suitable for flower "portraits." Macro-photography varies from life-size to something like 10-25X life-size, and is ideal for

photographs intended for the study of taxonomic detail. Photography with magnification greater than this requires the use of a microscope and is called photomicrography. Our interest is limited to the first two.

To begin with, any photographer contemplating close-up work will need a single lens reflex camera to facilitate accurate focusing, preferably one with a through the lens light metering system. In addition, to suit individual needs (or the pocket), he will need one or more of the items mentioned below:

- The cheapest close-up accessories are close-up (meniscus) lenses, which screw into the front of the prime lens, just like filters. These are generally satisfactory for "portrait" work.
- The Hoya-Zoom Close-up lens, also screws into the cameralens filter ring. This is a very useful supplementary lens, relatively cheap to purchase and is also suited for "portrait" work.
- Extension rings are considered by many to rank with bellows as the best method of taking closeup photographs. Definition is generally superior to that produced by supplementary lenses.
- 4. Focusing bellows look similar to the bellows of folding cameras.

They provide greater magnification than close-up lenses (into the macro range), allow the lens to focus over its entire range, and provide the expanded control necessary for truly creative work.

Macro lenses which are designed for close-up work produce excellent results because they have been specially designed to work at close focusing distances.

Useful accessories needed for serious close-up (or macro) photography will include a sturdy tripod, a set of focusing rails and an electronic flashgun (or two).

Further information on all of the items mentioned above, together with what I hope will be some useful tips, will follow in future articles.

# Cymbidium Culture **Notes**

by Gordon Maney of Palmerston North

Here is the two months we've been waiting for; all the months of hard work, of T.L.C. to bring those new seedlings and mericlones to flowering for the first time.

If you have taken every care, with slug bait regularly thrown around your plants, kept your benches and walks dampened down, and generally sprayed for red spider etc, the pleasure you'll get from lovely clean blooms will be your reward.

Every year I see many hundreds of blooms spoilt, because none of these simple precautions have been followed.

I have said in past culture notes, if your houses are hot and stuffy, your flowers will suffer, particularly after watering. The humidity will rise and without fresh air spotting will occur, and buds will yellow and drop. For this reason when you're building, allow plenty of fresh air, in other words, as much ventilation as possible without cold draughts.

If you have a cool fan, set the thermostat to come on at 17°C this will keep the air moving, and is a great help as the days get warmer.

From the first day of September, start your feeding programme.

The early flowering varieties you should have started feeding in July. Nitrosol, Atlas fish emulsion, Nitrophoska etc, as liquid feeds once a week, use a different one, in other words alternate.

Now with dry fertiliser, four parts super, four parts blood and one part potash once a month through to November. Use approximately one tablespoon to a 25cm pot. Less of course to smaller pots. Make sure you sprinkle round the outside of the plant, not in the leaves or you'll burn them.

Remember to water well the day before feeding, never ever feed a dry plant; and water first thing in the morning to allow the plant to dry out by nightfall.

#### **Bay of Plenty Orchid Society**

Last vear we held a most successful and enjoyable Commercial Growers Sales Day. We have another one planned for September this year and would like to extend a very warm invitation to any readers who may be planning to visit this area. At this stage sixteen Commercial Growers are being invited to come and sell.

Venue — Te Puke High School Assembly Hall in Tui Street, off Cameron Road. Visitors travelling south towards Te Puke, Cameron Road is on your right opposite a green bridge as you enter Te Puke. Travelling north the opposite.

Date — Sunday September 12, 1982. Time — 11.30 am — 2.30 pm approximately. Please bring your own lunch. Tea and Coffee will be provided. We hope you will be able to join us in another enjoyable and successful day.

Please bring boxes for transporation of purchases. You will need them.

For further information regarding sellers' lists write to: Secretary, Mrs Jill Blackwood, 250 Pohutukawa Venue, Ohope.

#### THANKYOU WANGANUI

The Wanganui Orchid Club has made a very generous donation of \$100 to the Magazine Account of Conzed Inc. It is through the receipt of donations such as this that the Editorial Committee is able to stretch the budget, and occasionally increase the size of the journal and sneak in that extra colour picture. The Editor and his Associates have plenty of ideas for improving our maaazine. and the thoughtfulness of the Wanganui Orchid Club does assist in making some of these practicable.

#### DO YOU KNOW??

Among the thousands of tourists that visit New Zealand each year there must be a proportion, perhaps small, of orchid growers of note. As most tourists enter New Zealand through Auckland or Christchurch it is the Orchid Societies in those cities that are most likely to make contact with the orchid travellers, and Societies in other areas remain unaware of their presence in this country.

If you know of any overseas orchid grower planning to visit. or arriving here, please advise the Secretary of Conzed Inc., or the nearest member of Conzed Executive immediately, if possible giving some detail of the visitors itinery, so that Orchid Societies can be advised and have the opportunity to make them welcome. Cooperation in this way can be of mutual benefit to all Societies. as well as providing our visitors with a view of orchids and orchid growing in New Zealand. How's that Wanganui!!!

Tom French

# CYMBIDIUM COMPANIONS

Ros Bickerstaff, 12 Enfield Rd, Napier.

#### VANDA, R. Brown

This genus derives its name, Vanda, from the Sanskrit word for the species, Vanda Roxburgii (syn. V.tessellata) found in Bengal and India, and, today, refers to all other orchids of similar growth and habit. Vandas are found in India, Southern Asia, South-East Asia, Java, Moluccas, Timor, Philippines, and North Australia.

There are two main groups of these beautiful orchids, the rounded terete-leaf, and the flat strap-leaf. with an intermediate form known as the semi-terete-leaf, Vandas. The terete-leaf group are warm growing varieties, whereas the strap-leaf group are mostly intermediate, with a few that can grow in cooler conditions but prefer intermediate. All varieties need plenty of light to bring them into flower; the tereteleaf plants need full sun, and the strap-leaf requiring bright light, either in full sun or hung from the top of the roof of a glasshouse. Another essential is the amount of humidity. A high humidity is required at all times. They have no resting period, so they can be given plenty of water at all times. I use drip irrigation all the year. However, do make sure that the drainage is excellent. Many South-East Asian growers use just lumps of charcoal in baskets, or even empty wooden baskets and grow them to perfection. Although most species are epiphytes, they can be grown in pots or even in prepared beds. Be careful when spraying to see that water does not lodge for long periods in the leaf-axils. This will cause rotting and can kill the plant. Also as inflorescences arise from the upper leaf-axils, these can be easily damaged by water as I have

learned to my sorrow. Given plenty of fresh moving air, water and light even the warmer growing vandas will flower in cooler conditions — but with much reduced numbers of flowers.

The cooler growing plants that I have are V.coerulea, V.cristata, V.alpina and V.stangeana (syn. V.stenziana).

#### VUYLSTEKEARA, hybrids

This is one of the most beautiful intergeneric groups of man-made, horticultural hybrids. It is formed from genera three Odontoglossum, Cochlioda, and Miltonia — and is known as a trigeneric hybrid. Of course, the cross is made using one of the following bigeneric hybrids Odontonia (Odontoglossum Miltonia), Odontioda (Odontoglossum x Cochlioda). Miltonioda (Miltonia x Cochlioda) and the genus not already used, to make up the trigeneric hybrid e.g. Odontonia x Cochlioda, Ódontioda Miltonia, or Miltonioda x Odontoglossum. Another way to make a Vuylstekeara hybrid is to use any two of the above-mentioned bigeneric hybrids e.g. Odontioda x Odontonia, Odontonia x Miltonioda, Odontioda x Miltonioda, or, to cross any of the above genera. bigeneric hybrids, with Vuylstekeara hybrid, so that in the ancestry of the new hybrid all three genera have been used.

This horticultural genus is dedicated to Ch.Vuylsteke, a Belgian orchidist.

These plants can be grown quite easily and can stand quite a variety of conditions. However, they seem to prefer a slightly warmer position in the coolhouse than the odontoglossums, probably getting this from the miltonia part of their ancestry. Give them humid conditions and they will thrive, and flower profusely. Use as small a container as possible; plants will

flower in a 5cm diameter pot. It pays to put some "ballast" in the pot to prevent it capsizing, or even put the pot in another larger pot with a few rocks from broken clay pots to hold it firmly in position; for, nothing is so disappointing as to break a spike when it is just coming into flower. (Quite a number of genera can be treated similarly when spikes make them top-heavy).

There is quite a large number of beautiful Vuylstekeara (veeoolstake-ee-ah-ra) to choose from — Vuyl.Edna 'Stamperland,' Vuyl.Cambria 'Plush,' Vuyl.Monica 'Burnham' — to name a few I grow.

Reader's
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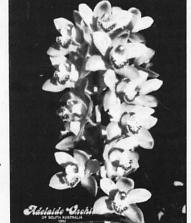
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# Well Grown Miniature Cymbidium Orchids **Available from the Nursery Now**

- Amesbury 'St Patrick' HCC
   (Amesbury x Peter Pan) 'Mikado'
- Dag 'Dandy'
- 4. Dagonet 'Pink Beauty'
- Ensikhan 'Alpha Orient'
- 6. (Hoosai x Voodoo) 'Cedarwood'
- King Arthur 'Merlin'
- 8. King Arthur 'San Diego'
- Mary Pinchess 'Limelight'
- 10. Oriental Legend 'Cinnamon'
- 11. Oriental Legend 'Enchantress'
- 12. Oriental Legend 'Golden Harvest' 13. Oriental Legend 'Wild Rose'
- 14. Pelleas 'Zuma'
- 15. (Pumilum x Sensation) 'Claret Veil'16. Sharon 'Kermit' (Showgirl x Amesbury)
- 17. Swan Lake 'Snowcap'
- 18. (Sweetheart x Ann Green) 'Pink Gin'
- 19. Sylvia Miller 'Serendipity'

- —Ex green
- -Early green Orange/ red lip.
- -Yellow/green pure colour
- -Pink
- -Early pink
- -Deep maroon brown fragrant
- -Bronze/yellow
- Light bronze
- -Yellow green
- -Light tan -Soft pink
- Light yellow
- -Deep pink
- —Light brown
- —Oxblood red
- -Green
- -White
- -Pink (soft)
- –Bright yellow

\$10.00 each plus \$3.00 freight and packing per shipment in New Zealand, New customers \$5.00 deposit with each order please.

Contract seed sowing and replating service. Write to the Manager, Tony Minett for details.





#### FROM TODAY'S SEEDLINGS COME TOMORROW'S MERICLONES

Why not try a few of our proven and exclusive new crosses? We will allow 50c off the listed price per plant if you buy five or more.

YOU WILL NOT BE DISAPPOINTED

ROWLAND & McCARLIE Arinandale Road, R.D. 1, Kumeu



# MANSELL & HATCHER LTD

1982 New Flask Listing Now Available Free.
Containing 34 outstanding crosses.
Including:

Odm. Rossii Majus x Odm. Pescadero 'Pink Glow'

Oda. Joe's Drum Rawdon AM/RHS x Philomel 'Michie Donning' AM/RHS

Milt. Red Admiral Petunia AM/RHS x (Augusta x Robert Paterson) Craggwood Oda. Memtor 'Craggwood' AM/RHS x Oda. Haniesto 'Mont Millais' AM/RHS

Vuyl. Eunice Taylor x Oda. Mem. Donald Campbell 'Redwood'

Odm. Moselle x Odm. Stonehurst Yellow

Odm. Bictoniense 'Album' x Oncidium Concolor

Orders to be placed by early October 1982

Established Odontoglossum and Allied Genera.

Plants listed in July issue. Most are still available but selling fast.

Also a large range of Cymbidium mericlones at competitive prices from flasks to flowering plants.

For free lists send to:

## **TUCKER ORCHID SUPPLIES,**

51 King Edward Avenue, Bayswater, Auckland 9
PHONE: 456-692

# ORCHID SEEDLINGS

Established in 5cm pots

SLC JEWEL BOX 'DARK WATERS' AM/AOS (mericione) Clusters of rich dark orange-red flowers, vigorous and compact plants.	\$4.50
BRASSIA LONGISSIMA The largest-flowered Brassia-incredible green, yellow and brown flowers 20—25cm long.	\$4.50
ONCIDIUM STACYI 'KNAPP' AM/OAS X ONCIDIUM STACYI 'MERRITT ISLAND' AM/AOS Striking rich brown, yellow and orange flowers with crisped edges on terete-leaved plants.	\$4.50
AERIDES CRASSIFOLIUM X ASCOCENTRUM MINIATUM Sprays of vivid rose-purple to orange flowers on small plants.	\$3.50
SCHOMBURGKIA THOMSONIANA X ENCYCLIA MARIAE Imagine a tawny-yellow flower with a huge flaring mariae-type lip in deep velvety purple on a	\$3.50
vigorous plant ANGRAECUM LEONIS Fragrant heavy-textured cream flowers.	\$4.50
HOWEARA MINI-PRIMI X RODRIGUEZIA DECORA This could be even better than Mini-Primi — with more and larger flowers.	\$3.50
ASCOCENDA YIP SUM WAH X ASCOCENDA MINI KAM Large dark red flowers of exhibition quality.	\$3.50
BARKERIA LINDLEYANA ALBA Fast growing reedstem plants with lovely 5cm white flowers with	\$4.50
faint pink flush.  ONCIDIUM CEBOLLETA  Yellow, red and brown flowers with very crisped edges.	\$3.50

**Orchid Species** 

Collection of all 10 plants for \$35. Please add \$2 for packing and letter rate postage. Growing instructions included.

**PO BOX 2039** 

**ROTORUA** 



The Cattleya Sellers

R.D.2 Waluku, South Auckland Phone: Otaua 753

Caryl & John Sellers

# Cattleya, Dendrobium Cymbidium & Oncidium Mini Flasks

ex R.G. & I. Price, Queensland

\$20.00

**DO YOU RECEIVE OUR LIST?** 

Direct from Thailand, in quarantine now: Flowering sized plants of

**Cattleya Bow Bells** 

(selected cut flower variety)

\$25.00
ORDERS ACCEPTED

# CHANGES IN ATTITUDES . . . .

You knew Featherhill produced fine Cymbidiums and Odontoglossum Alliance. You would expect them to do well at the Santa Barbara International Orchid Show with these genera. Right? Right!

Best Miniature Cymbidium 1982 (Wild Silk x devonianum) "Featherhill"

Best Coloured Cymbidium 1982 Sensation "Chianti" HCC/AOS

Best Odontoglossum Alliance 1982 Wilsonara Kendrick Williams "Featherhill" AM/AOS

Best Specimen Plant Cymbidium 1982 C. eburneum "Coburg" CCM/AOS JC/AOS CA/CSA (by far the most floriferous plant of C. eburneum every exhibited in the U.S.)

BUT, if you thought that was all, it's time to change your attitude!

Best Lycaste 1982 Lycaste Wyldfire "Carol Ann" FCC/AOS

Best Miltonia 1982 Miltonia Beethoven "Lyoth Tycoh" AM/AOS

Best Cattleya 1982 Potinara Flameout "Featherhill"

NO, we didn't win Best Standard Cymbidium but then almost anyone can breed mid-season bloomers, our nursery has made a specialty of ultra-early and ultra-late blooming standards.

Customers throughout Australia and New Zealand have been enjoying similar successes this Southern Hemisphere Spring.

# FEATHERHILL EXOTIC PLANTS

(Andy & Carol Easton)

Santa Barbara, California, U.S.A.

Represented in New Zealand by John Hannah Orchids Ltd.

# ..... CHANGES IN LATITUDES

## **Question:**

What moves from 34½°N to 38°S in a long, drawn out, costly and tiring process?

#### **Answer:**

An Orchid Nursery! To be specific, New Zealand's new orchid nursery, Geyserland Orchids, is Featherhill "down under."

Is Featherhill going to Hell?? Well, almost! Geyserland Orchids is located at Tikitere or as it is commonly known, Hell's Gate, just outside the city of Rotorua.

Everything is under wraps at present — the quarantine requirements that you're all too familiar with. But, by early 1983, New Zealand will finally have a broad-based, diversified, orchid nursery of WORLD STANDING. We don't have plans to add a selection of Pleurothallis species but if you're looking for:

- Standard Cymbidiums for Export or Exhibition
- Miniature and Novelty Cymbidiums in a full color and seasonal range
- Exhibition or Cut Flower Paphiopedilums
- A superb selection of Odontoglossum alliance intergenerics
- Cattleyas of all types with some choice cool-growing crosses.
- Selfings and meristems of selected forms of interesting species.

Geyserland's offerings may be of interest to you

# **GEYSERLAND ORCHIDS LTD**

P.O. Box 162, Rotorua

"Sooner or later you'll be buying orchids from Geyserland"

# **Orchid Laboratories**

(Cushla & Philip Wyatt)

## Our 1982 Colour Catalogue is now out.

It features some exciting NEW EXCLUSIVE CLONES

## Rae James 'Sigma'

A rare release from the famous houses of Jim James of Hamilton. This tall spiking clear white progeny of Hi-Rated Moonstone is a true advance. Prepared exclusively by us for Jim.

# (Earlyana x Kiata) 'Lyle'

A tall spiked decorative with most unusual colouring. Rusty gold overlaid with red which fades to yield a rich bronze with a maroon barred lip.

AND some OLD FAVOURITES

## Burgundian 'Chateau'

Despite its long life there is still a strong demand for this lovely golden brown flower.

# Tapestry 'Zita'

A tall spiked rich red flower — a real easy to grow production plant.

# Touchstone 'Mahoghany'

A delightful miniature — flowers from a single growth — produced for its pot plant appeal.

AND a listing of select seedling flasks from our own nursery and that of Jack Blackman from Te Kuiti. Both Miniatures and Standards.

From the nursery we have excellent stocks of seedling community pots (5 plants minimum) from Lambert Orchids.

Buy your plants from their original source. Beware of re-hashed plant material. Only our plants are 100% virus checked by an independent authority.

# **Orchid Laboratories**

Victoria Rd, R.D.1, CAMBRIDGE

PHONE: (07127) 7095



# Charlesworth Odontoglossums

# available again! send for a list NOW

If you missed out last year don't this time!

Charlesworth are the world leaders in quality odontoglossum breeding and the others buy their breeding plants from them. Several of last years shipment we have seen were of award standard on their first flowering. We hate selling them! This list contains yellow, orange, salmon, peach, red, mauve, tan, white and patterned expectancy plus a Wilsonara.

#### **Cymbidiums**

A large range of 15cm mericlones (some miniatures) and some flasks, divisions, backbulbs and seedlings. FREE — one bulb and growth mericlone of Tal Craig 'Sutherland' (late bright pink) to cymbidium plant orders over \$100.

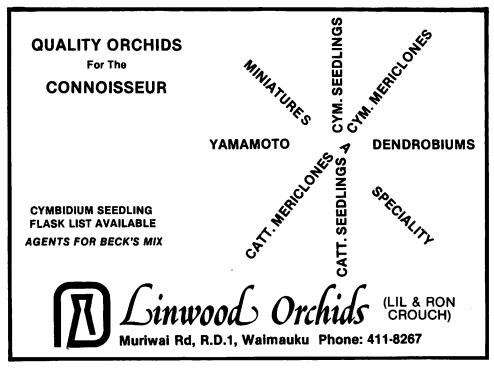
#### **Apologies**

Our last mericione list was never printed because a commercial grower came along and ruined it! Yamamoto Dendrobiums — our stock was sold as a collection last season. Plants no longer available.

Send a self addressed envelope for either or both lists to:

# PARADISE ORCHID NURSERIES

P.O. Box 2107, Tauranga South



# SPECIES ORCHIDS

from

# L&R ORCHIDS

'THE SPECIES PEOPLE' Lorraine and Russell Hutton

We have one of the largest collections of Species Orchids in N.Z.

We offer an extensive range of species seedlings established in 5cm pots — some available in 7 cm and 10cm sizes

NEW SPECIES ARE BEING ADDED CONTINUOUSLY

Also a large number of divisions & flowering sized plants available

WRITE NOW FOR OUR LATEST LISTS

# L & R ORCHIDS

21 Jellicoe Avenue, Tuakau Phone: 68-392

VISITORS WELCOME
Please make prior arrangement
if possible

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Send for FREE descriptive list of well over 150 currently available Orchid Books . . . Sent Surface Mail anywhere in the world, postpaid!!!

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#### MRS MARION WRIGHT

63 Hillcrest Ave., Northcote, Auckland, 10

Phone: 484-914

NZ AGENT FOR:

#### Cymbidium Farm, Adelaide, South Australia

Latest Cymbidium Flasks Available (on forward order)

- **\* MINIATURES**
- **★** NOVELTIES
- **★ STANDARDS** 
  - ALSO -

Divisions, Back Bulb Propagations and well established mature plants

#### OPEN 7 DAYS WEEKLY 10am-4pm

A prior phone call appreciated List available on request

### **TOP QUALITY MINIATURE & NOVELTY MERICLONES**

A range of colours to grace any collection. Available now or shortly.

Strong plants, some with growth.

V930 AMESBURY 'FRANK SLATTERY' Aug/Sept up to 30 dark		
green flowers	\$10 €	a.
AMESBURY 'LEVIN' July/Aug long stems green, white lip V925 FAIRY WAND 'RUBY WINE' AM/AOS Aug dark red mini	\$10	"
VOIS INVEILING 'CHITAN' AM / AND COST dork rod from flowers	φIU	<i>n</i>
V918 IVY FUNG 'SULTAN' AM/AOS Sept dark red 5cm flowers V821 LEODOGRAN 'CRADLEMONT' AM/AOS-ODC July/Aug rose pink	\$10	
B/L		"
V934 MIMI 'LUCIFER' HCC/ODC July rose/burgundy novelty	\$12	"
V942 MIMI 'SOPHIA' BA/CSA Aug/Sept deep wine		n
V910 MIMI 'SACRAMENTO' HCC/AOS Greenish tan, spring		n
V935 MINI MINT 'MAXINE' HCC/AOS Early Aug light green pure		
colour colour	\$12	n
V941 MINI SARAH 'JILLIAN' Sept pure colour. Seedling class	<b>4.</b> -	
winner		n .
V912 MINUET 'REYNELLA' April/Sept orange miniature	\$10	n
V931 (PETER PAN x MATANA) 'ACROPOLIS' greens for Mother's	•	
Day		n
V817 PIPÉTA 'SUTHERLAND' Aug/Sept deep red maroon Mini	\$10	n
V914 STARBRIGHT 'CAPELLA' Early July long stems of pink		
flowers	\$10	n
V929 SWAN LAKE 'MARGOT' Sept cut flower or show novelty	JO IU	"
V939 PELLEAS 'DEVONSHIRE' HCC/AOS Early Aug rust red novelty	\$10	<i>"</i>
ORDER 6 AND GET 1 EXTRA FREE, 12 AND GET 2 EXTRA FREE — OUR	CHOI	CE
Further descriptions and pictures (colour) in VALLEY ORCHIBURKE ORCHIDS 1982 catalogues — 30c stamp please.		

# free over \$30 order. One each of these 3 terrific red standards for \$20

TAPESTRY 'ZITA'

TAPESTRY 'RED DUKE'
Min leaf 15cm

TAPESTRY 'CHERRY CITY'

Lots of exceptional goodies on our sales bench at our nursery

# **BURKE'S ORCHIDS**

White Horse Drive, Mokorua Whakatane. Phone 88-648 or at our Agents:—

**CONNELLY FLOWERS LTD** 

43 Nayland St, Sumner Christchurch, Ph. 26-5073 ROYLYN ORCHIDS

201 Eskdale Rd, Glenfield, Auckland, Ph. 482-352

# John Hannah Orchids Ltd.



Paul & Bronwyn Leahy

Walters Road, R.D. 2, Papakura Phone 298-4287

**■ MERICLONE FLASKS — CYMBIDIUMS** 

5s \$15.00, 25s \$45.00 Imported 40+ \$75.00

● SEEDLING FLASKS — CYMBIDIUMS

Standards \$49.50 (approx. 45) Miniatures \$53.50 (approx. 45)

• SEEDLING FLASKS — PAPHIOPEDILUM

Large range \$42.50 (approx. 25)

#### **DISCOUNTS AVAILABLE FOR QUANTITY**

We also have a large range of mericlone and seedling plants in 3" pots at very competitive prices. Visit us and see our range, write or phone for lists. Many old faithfuls and lots of new exciting clones and crosses.

#### **GENUINE WHOLESALE ENQUIRIES WELCOME**

Sole New Zealand Agent for-

# Featherhill Exotic Plants

Santa Barbara, California, U.S.A. (ANDY & CAROL EASTON)