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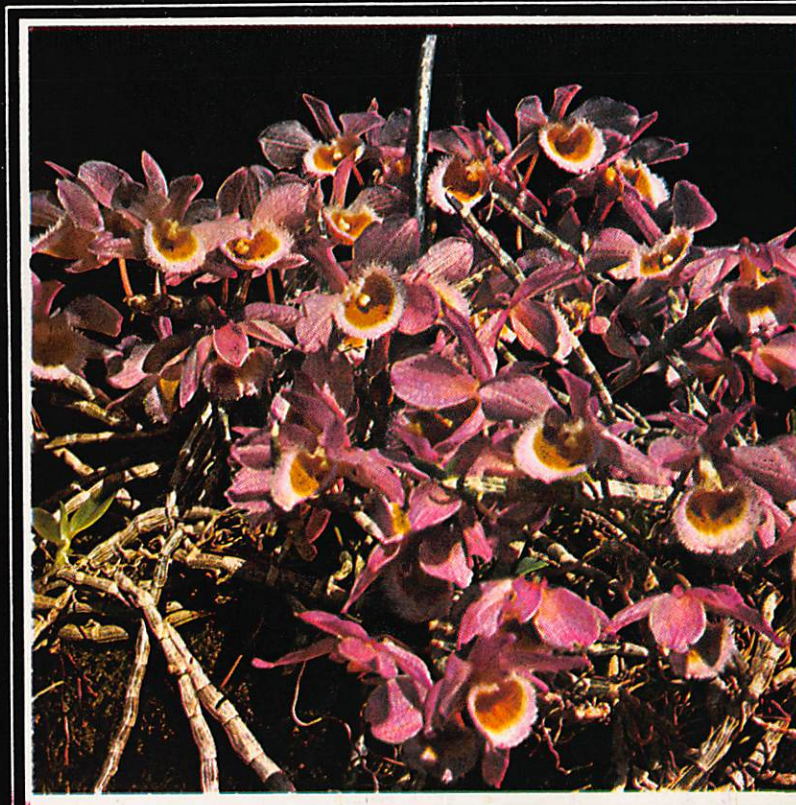
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PRESIDENT'S REPORT

Membership

With the affiliation of the Whangarei Orchid Society during the year the membership of the Council has now reached a total of ten Societies and Clubs. That interest in orchids and their culture has in no way abated is shown by the continued increase in membership of all Orchid Clubs and Societies.

Magazine

The magazine 'Orchids in New Zealand' is now well established and continues to fill some of the need for orchid information in this country. With the decrease in bulk postings of magazines to Societies and a large increase in the number of individual postings, your Executive found it necessary to create a subscription and distribution Department, thus relieving the Editor of this work. Mrs. Kath Bruce of New Plymouth has been appointed to the magazine committee and will be in charge of this department.

Judging

The training of judges for Award and Show judging has progressed well, and in some areas it appears that Judging Panels could be in action in the coming year. I thank Mr. Blackmore and his Committee for the great wealth of knowledge and experience in orchid judging that they have so freely given for our benefit. Our thanks also to all those Trainee Judges who have worked so diligently to fit themselves for the judging of orchids.

Programme and Speaker Committee

A committee chaired by Mr. Bryan Clark was appointed to compile lists of speakers, meeting programmes etc., that could be available to member societies. A list of speakers on orchid subjects will shortly be circulated to Societies and Mr. Clark reports that slide programmes are slowly being built up. This could be facilitated if orchid growers, when photographing an orchid flower, took two photographs and forwarded one to Mr. Clark. This committee is working on your behalf, for your benefit, so please help.

John Easton Memorial Award

This fine award, donated by Mr. Andrew Easton, of Eugene, Oregon, U.S.A., in memory

of his father, is to be made annually for 'The most outstanding contribution to the culture and promotion of orchids in N.Z.' and administered by the Hawke's Bay Orchid Society. We would ask all Societies to assist the Hawke's Bay Orchid Society in their administration of the Award by putting forward suitable nominations when called upon.

Quarantine Regulations

We in New Zealand are fortunate that quarantine regulations allow us to import orchid plants and for the importer to quarantine the plants. For this system to be allowed to continue by the Department of Agriculture and Fisheries, it is imperative that importers adhere strictly to the requirements of the regulations and co-operate to the fullest with the department's Officers.

My thanks to all Council members for so rapidly advancing the study and cultivation of orchids in New Zealand.

TOM FRENCH — President.

Show Exhibition Dates

CHANGE OF DATE

Poverty Bay-East Coast Orchid Society

Spring Show.
Friday, 16th September, 1977.
Saturday, 17th September, 1977.

Wairarapa Orchid Circle

Spring Show.
Friday, 30th September, 1977.
Saturday, 1st October, 1977.
Sunday, 2nd October, 1977.
Venue: Masterton Town Hall.

Hawke's Bay Orchid Society

Spring Show.
Friday, 14th Oct., 1977: 1 p.m. to 8.30 p.m.
Saturday, 15th Oct., 1977: 10.30 a.m. to 8 p.m.
Sunday, 16th Oct., 1977: 11 a.m. to 3.30 p.m.
St. John Ambulance Hall, Southland Road, Hastings.

AWARDS

by Mrs. J. Mendoza, Lower Hutt.

I have been asked by a number of by no means beginner growers, the meaning or significance of the various letters which appear after the varietal names of many orchids, "and why bother copying them onto new labels?" After explaining that the difference between F.C.C. and H.C.C. is about that between a Ph.D. and a B.A. on an academic level, it occurred to me that there might be place for explanation in "Orchids in New Zealand".

AWARDS

F.C.C. — First Class Certificate

Awarded by the Royal Horticultural Society (RHS), the American Orchid Society (AOS) and the Orchid Digest Corporation (ODC), but using different systems of scoring.

For AOS and ODC awards, judged on a points system, the score must be 89.6 or more points. RHS awards are made by proposal and vote by a council of experts, after consideration of paintings of all previously awarded varieties of the submitted grex.

When investing in a plant with the F.C.C. award, the date of the award should be taken into consideration. Although many old-awarded plants are still sought-after, especially for breeding, e.g. SLC. Anzac 'Orchidhurst' FCC/RHS (1938) C.Suavior 'Aquinii' FCC/RHS (1937) and Cym. Alexanderi 'Westonbirt' (1922), standards have changed and many of the early FCC's wouldn't rate a second look today.

A.M. — Award of Merit

RHS; for AOS and ODC, score must be 80 to 89.5 points.

H.C.C. — Highly Commended Certificate

For AOS and ODC, score must be 75 to 79.5 points.

G.M. — Gold Medal

Compares with the FCC of AOS and ODC.

S.M. — Silver Medal

Equivalent of AM of AOS and ODC.

B.M. — Bronze Medal

Equals HCC.

SOCIETIES

RHS — Royal Horticultural Society
AOS — American Orchid Society
ODC — Orchid Digest Corporation

CSA — Cymbidium Society of America
(Cymbidiums and Paphiopedilums)
AOC — Australian Orchid Council
HOS — Honolulu Orchid Society
OST — Orchid Society of Thailand
OSSEA — Orchid Society of South East Asia
(formerly Malayan Orchid Society)
TOS — Taiwan Orchid Society
DOG — Deutschen Orchideen-Gesellschaft
2WOC — Second World Orchid Conference
6WOC — Sixth World Orchid Conference
8WOC — Eighth World Orchid Conference.
Now work out for yourselves what awards and what organisation, have been made to the following well known orchids.
Cymbidium Barcelona 'Magic Wand' AM/AOS
BM/5WOC
Cymbidium Lillian Stewart 'Coronation' FCC/RHS AM/AOS
BLC. Malworth 'Orchidglade' FCC/AOS AM/RHS GM/8WOC.

Vandas, Phalaenopsis and related genera tend to have only one award, obviously because of their monopodial growth habit, relative difficulty of transport and lack of divisions and mericlones. Most of the awards granted to these genera are from:
SFOS — South Florida Orchid Society — NOT San Francisco!
2HOC — Second Hawaiian Orchid Conference
RHT — Royal Horticultural Society of Thailand
SSPC — Siam Society of Plant Culture

SOCIETY INFORMATION

WAIRARAPA

Secretary: Mrs. I. Booth,
112 Essex Street, Masterton Ph. 6343

POVERTY BAY EAST COAST

Secretary: Mrs. Marie Jacobs,
6 Buchanan Street, Gisborne. Ph. 89-531.

TARANAKI

Secretary: Mrs. D. Whittaker,
2 Nelson Street, Waitara. Ph. 8896.

OTAGO

Secretary: Mr. M. L. Young,
61 Argyle Street, Mosgiel, Dunedin.

keep the surroundings moist at all times. With any luck new growths will appear within a month or so, and after about another two or three months the plant should be repotted into the standard mix and in the smallest pot that will accommodate the roots comfortably.

Some Intergeneric Hybrids: Interest in mixed-genera hybrids has increased greatly in recent years, and many beautiful and spectacular varieties are now available. The inclusion of Miltonias in the crosses has resulted in hybrids with large labellums and without the poorer lasting qualities of this parent. Oncidium's impart the branching habit of the inflorescence, and the taller growth of most of the species used in hybridising. Most of these inter-generics are if anything, easier to grow than their parents. The list of possible inter-generics is bewildering, but the most common, in addition to the Odontiodas are:—

Odontonia = Odontoglossum x Miltonia
 Odontocidium = Odontoglossum x Oncidium
 Wilsonara = Odontoglossum x Oncidium x Cochlioda
 Vuylstekeara = Odontoglossum x Miltonia x Cochlioda

The inclusion of a few of these hybrids will add to the interest and colour of any collection. Members of the Odontoglossum family may not be the easiest to grow, but they are among the most rewarding.

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SOCIETY NEWS

HAWKE'S BAY NEWS

In the last few months the H.B.O.S. has made two excursions into the homes of our native epiphytes in search of specimens to send to Harvard University in America, where they have an orchid species section in their herbarium. In the first trip, which was to the Rotorua district, epiphytes were collected from trees which had been felled for milling. The second trip was made to the Wakarara-Ruahine Ranges to get some terrestrial orchids. Again we were relatively successful, but did not collect as many different species as we had hoped.

Have you ever wondered if it were possible to win an AOS award with a plant grown or raised in New Zealand? Well, it has been done twice now! The first was with the standard Cymbidium, Coraki 'Margaret', and now it has been done with a miniature Cymbidium, Kuranda 'Arthur Dawson'. Good work, Arthur! Kuranda was made in Australia by crossing 'suave' with 'madidum'. The cross was made by Emma Menninger, while visiting Kuranda, just north of Cairns. Arthur obtained a seedling which he grew to flowering size when it was seen by Andrew Easton on one of his trips home from America. He considered it was of award potential and took a division back with him to America. There, Ernest Hetherington, well-known in the U.S.A. and World orchid circles, saw it and he was so taken with its award possibilities, that he took it to Los Angeles for judging. On 29th June, 1976, it was awarded an HCC/AOS with 79 pts. This plant flowers on the present, as well as on the previous two years' growths at Christmas (in N.Z.). It is being crossed with 'ensifolium' (a late summer flowerer) in the hope of getting an all-the-year miniature season.

Cover Photo:

Dendrobium loddigesii, a native of China introduced to horticulture 1832-33 by Messrs. Loddiges. This beautiful dwarf species of creeping habit has lilac flowers 4 cm across and the lip has a large orange-yellow disc bordered with pale rose lilac. Photo by courtesy of G. Fuller.

ORCHID HUNTING IN NEW ZEALAND - 3

by Ros Bickerstaff, 12 Enfield Road, Napier.

Lake Wakatipu — The area round Queenstown.

When on holiday with the family in a tourist resort like Queenstown, the natural thing to do is to go sightseeing, and "do" all the trips. Orchid hunting takes second place. However, at the back of one's mind there is always that little thought that "I might be lucky and see something". And, no matter where one goes that thought persists; it becomes part of the "subconscious mind"; for, at odd moments one looks at trees for epiphytes, or the fields and sides of roads for terrestrials.

Well, after our trip to the Dart River (which I told you about in No. 2), we made many short excursions around the district. On one occasion, we crossed the Kawarau River and went up to the Deer Park, on the heights overlooking the Lake, where there was a wonderful view of the whole area. After seeing the various kinds of deer, goats, thar, etc., I got the urge to wander over the tussocky slopes. It was not long before I saw something that needed closer examination. Beside a clump of tussock was what looked like a variety of *Microtis*, the orchid that is known as the 'onion-leafed' orchid because of its close similarity to an onion leaf. There was a small clump of these and luckily a few had flower spikes. Naturally, I stooped to have a closer look to see if it was the common *Microtis unifolia* or one of the other varieties. But, instead of seeing the little green-capped cluster of flowers, here was a cluster of darker coloured flowers which looked quite peculiar — the flowers were inverted with their lips turned upwards. It was one of the *Prasophyllum* species. After a close examination I decided that it was *Prasophyllum colensoi*. About five to ten metres away I saw more onion-leaves among the tussocks. These all turned out to be *Microtis unifolia*, and even though I searched for quite a while I couldn't find any more *Prasophyllum colensoi*. Just like in other parts of New Zealand, here, *Microtis* is very common; it grows in the fields and is readily seen at the sides of paths and tracks, especially

where the soil is poor. Clay and stony slopes allow the plants to be seen quite easily, although they can be seen on tussocky country if one looks closely enough.

I was still trying to locate a plant or two of blue *Thelymitra* but so far I had seen none on my trips around the countryside. The blue varieties of this genus are usually found in cool districts (*T. decora*) or in moist spots close to lakes and swampy ground (*T. venosa*). I had previously found specimens of these and others in the Manapouri, Lakes Monowai-Huaroko, and in the Chaslands areas of Southland, so I knew what I was looking for.

As I had not yet done any trout fishing, I took the family over a very dusty road to L. Moke, hoping to try my luck. It turned out a scorching day, with practically no shade. It was not long before I was reeling in, to take the family back to shade beside L. Wakatipu — with no fish, and no orchids! Very soon, I was browsing around and spotting something — *Thelymitras* — and many had flower spikes!

These were truly 'sun orchids'. They were growing on an open slope in full sun close to the lake. Many had their flower buds well developed, but none were in flower. A faint tinge of pale blue could be distinguished between the sepals, but it was very pale! I collected a few specimens but none showed any desire to open over the next few days so that I could name them. I brought them back home and planted them in containers; at present, they are once again in spike — and in a week or two I hope to be able to put a name on them — (that is, if the sun shines sufficiently to open the flowers). *Thelymitras* are notorious for failing to open and yet being able to pollinate themselves without opening their flowers; so I may have to wait another year, judging by the weather we are having lately. From their foliage, it is quite possible that they are another colour variation of *Thelymitra longifolia* — I'm hopefully waiting!

Temperature and Humidity in Glasshouses

by C. G. Green, M.Sc.,
7 Arapiko St., Johnsonville, Wellington 4.

In glasshouses, as in the atmosphere, warm surfaces will heat the air locally and it will rise in convection currents. A cold roof will cool the air in contact with it which will then be heavier and will descend. In both these cases the mixing of the air will result in a fairly even distribution of temperature and humidity within the glasshouse.

If the floor is colder than the roof however, the air is in a "stable" condition. The warm relatively light air is at the top and the cold relatively dense air at the bottom. The air is stagnant and if considerable differences in temperature and humidity existed at different levels they would not be shown up by a single instrument.

I have no idea how significant such stratification of the air might be, but the readings of a single instrument would not be representative of other levels. Someone who is interested might like to take a series of readings with an instrument on a string hung at different distances from the floor. It could be raised or lowered by perhaps half a metre at intervals of ten or fifteen minutes with as little disturbance as possible to the air by the person taking the readings. It would be advisable to repeat the series immediately with the instruments moving in the opposite direction to check against any overall change during the period of the readings.

This may be of no significance at all. I am a meteorologist with, regrettably, no leaning towards horticulture. I thought that it might be worth drawing attention to this matter. If anyone does the experiment and finds it significant he could report through your pages. If it is, the stratification could be destroyed by a small fan, if necessary blowing up or down a wide tube. Without the tube you might stir only the top (or bottom) half of the glasshouse.



You cannot strengthen the weak by weakening the strong.

CYMBIDIUMS

The new seasons list of flowering size plants, mericlones and back bulb propagations comprises over 200 varieties, many of which are offered for the first time in New Zealand. They cover a wide range of colour including brown, pink, red, orange, yellow, green, rose, gold, emerald, apricot and pastel shades with a flowering season extending from May to December.

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AUCKLAND 9

trolled under-bench sprays and fans are fine—especially if there is no-one home during the day—but they are expensive.

Ventilation: With the high humidity required for good growth, and the comparatively cool temperatures that Odonts, in particular, appreciate, it is very important to ensure plenty of air movement and ventilation. Stagnant air conditions will almost certainly lead to fungus diseases which may well prove fatal. A small fan running continuously will keep air on the move in the house, and fresh air should be admitted except in cold windy weather. In some parts of the country the air gets very dry during the summer months, and its admission in significant quantities into the glasshouse poses humidity problems. In these situations some form of humidifier or evaporative cooler would be a help—if not a necessity in some cases.

Fertilisers: Odonts and Miltonias appreciate some supplementary food during the growing season, provided it is given sparingly. Any of the well-balanced commercial fertilisers can be used, but should be applied at no more than half the supplier's recommended rate. A light top-dressing of bone meal in the spring is a useful and safe start for the season; but don't overdo it: too little is preferable to too much!

Propagation: Most plants can be propagated by division, which is best carried out at normal re-potting time. It is not easy to get new growths from single back-bulbs of either Odonts or Miltonias, but most divisions of a green bulb plus a bulb-in-leaf will start a new growth if conditions are favourable. An easy way is to place the division in moist sphagnum in a pot, and enclose the lot inside a plastic bag. This is inflated, tied up, and suspended in a warm shady spot in the glasshouse where it can remain without any further attention for two or three months. By this time there should be a well-rooted growth which can be re-potted in a small pot in standard mix with a little added moss. Both genera grow readily from seed and mature in about four years from sowing.

Pests and Diseases: Good culture is by far the best insurance against disease, the most

common of which is the too-familiar dark coloured fungal leaf infection. This usually starts at the leaf tip or margins, and, unless checked, spreads fairly rapidly towards the bulb. The presence of this disease is almost always indicative of some cultural deficiency—too cold, too little light, too little fresh air, sodden compost, or some combination of these. A permanent cure requires the identification and correction of the cause; a temporary cure or a check to the spread of the complaint can be affected by cutting off the diseased portion of the leaf and painting the cut with a Captan or Thiram paste. Spraying with fungicide will provide some protection against disease, but is generally unnecessary if growing conditions are correct.

Pests vary with the season. Moths are a menace in the autumn as they lay eggs which give rise to grubs whose depredations are difficult to detect until considerable damage is done. Aphids, and sometimes red spider, can be a nuisance at any time of the year. Pyrethrum spray will control all pests except red spider, which requires a much more poisonous dose for its demise. Provided the number of plants involved is not too large, the best way to eliminate the pest is to wipe each leaf lightly with a soft cloth impregnated with Malathion. Use the wettable powder rather than the emulsion. Soak the cloth in about double the normal spray concentration and wring it out lightly before use.

Sick Plants: All growers find from time to time that they have a sick plant on their hands. With these genera the usual maladies are fungus-affected leaves, loss of roots, and general debility. A plant thus afflicted requires fairly drastic treatment. One which has been found effective is as follows: Remove the plant from its pot, cut back the affected leaves well below the diseased part, wash out all compost, trim back all dead roots, and remove any dead pseudo-bulbs; then totally immerse the plant for about half an hour in a good fungicide such as Captan or Thiram at double-spraying strength. Hang it up until dry before potting it in a small (preferably plastic) pot, using sphagnum moss in just-moist condition. Place the plant in a shaded position and

These proportions may be varied, and any of the last three ingredients may be omitted without any great loss in quality. Blood and bone can be added at the rate of about a dessertspoonful per 2 gal. (or 10 litres) of the mix. The whole should be dampened at least a day before use, and not allowed to dry out in the interval.

As an alternative, Beck's standard orchid mix with the fines screened out and a little moss added, is very satisfactory. It, too should be dampened a day or so before use.

With a free draining compost, as above, the use of crocks in the bottom of the pots is unnecessary. Instead, use coarse bark.

Watering: If the plants are in good heart they will be growing continuously, and it is surprising how much growth they can put on during the winter months; the compost must be moist at all times. Growth normally quickens during the spring months, slows down during the summer—when the plants can become uncomfortable as temperatures rise—and quickens again in the cool of the Autumn. Water should be supplied liberally during the main growing season, with intervals between applications to allow the mix to drain until it is just moist, before more water is applied. Rainwater is preferable to tap water, but whatever is used should be no cooler than water stored in the glasshouse.

Temperature: Modern Odont hybrids thrive best if the temperature range can be controlled within fairly narrow limits, though they will tolerate occasional substantial excesses of both heat and cold. It is probably more difficult for most growers to keep summer temperatures down, than winter temperatures up, to the desirable levels. Growing-season temperatures between 14 degrees C at night and 21 degrees C in the daytime are good. Shading ventilation, and perhaps evaporative cooling should be such as to prevent peak temperatures going beyond 32 degrees C. At the other end of the scale, heating should be used to prevent temperatures falling much below 10 degree C. *Odontoglossum crispum*, one of the most beautiful orchids, and one of the coolest growing species, whose native habitat is high in the Colombian mountains, will thrive in the

shadow of the leaves in a cymbidium shade house. It is quite comfortable in minimum winter temperatures of 7 degrees C, provided it has plenty of fresh air at all times.

Miltonias require a higher average temperature than Odonts, and are less tolerant of wide temperature variation. They do best with growing season temperatures of between 15 degrees C and 21 degrees C. The minimum temperature should not be allowed to fall much below 12 degrees C.

Light: Neither Odonts nor Miltonias will tolerate bright summertime sunlight which will quickly cause severe burning. They do, however, appreciate full sun in the winter months, and the subdued sunlight of early morning and late afternoon during the rest of the year. Good light is essential for good health; and a touch of sunburn is preferable to black rot, to which this family is susceptible when conditions are not to their liking. If a shade wash is used on the glass it must be painted on the outside where it will serve the dual purpose of reducing the light intensity and reflecting much of the heat of the sun. The heaviest shading of mid-summer should be gradually reduced as autumn approaches, until the glass is clear before mid-winter.

Humidity: In their native habitat Odonts and Miltonias live in conditions of high humidity, and for best results in cultivation special efforts must be made to ensure that the glasshouse conditions represent a close equivalent. It is well worthwhile buying a hygrometer to measure the relative humidity of the air. Most people will be surprised at how fast and how far the humidity falls as the glasshouse temperature rises. The difference between average and superior growth and flowering of these genera can almost always be attributed to the difference in control of the air-moisture content. A relative humidity of 70 per cent should be the objective for daylight hours with night-time readings in the 80's or 90's. To meet the daylight optimum of 70 per cent relative humidity during the summer, it will be necessary to keep floors and benches continually wet. Fine spraying overhead on warm days will help, but the leaves should dry out before nightfall. Automatically con-

Notes while on Overseas Trip

March-April, 1977

by Kathleen Black

My rushed visit to Santa Barbara included Peterson Bros. as well as Gallup and Stribling. The former are mainly cut flower Cymbidium growers and sell through the U.S.A.; flowers are packed singly each in its own tube, ensuring freshness on arrival as well as keeping handling costs to a minimum for the retailers. It must be realised however, this form of selling requires a large population to support both labour and quantity.

Outstanding Cymbidiums in flower at Petersons:

FORT KNOX cross — these flowers are huge, beautiful throats, stems straight and tall. GREEN GLASS cross — deep greens with red throats, all markedly free flowering.

FANFARE 'ST. FRANCIS' — nearly over (it's an early).

FANFARE 'SIERRA SPRINGS' — in full bloom, both are lovely greens.

JUNGFRAU 'DOS PUEBLOS' — top white.

LILLIAN STEWART 'ADMIRATION' — tall elegant pink, a mass of flower.

Plants grown in fir bark, superbly cultured, all on benches with gravel underneath and concrete paths throughout. Peterson Bros. are busy developing another property at Carpinteria, one house of 1 acre already producing. Eventually their entire operation will be from this centre, probably 1978. Visitors are welcome if you phone for appointment.

Gallup and Stribling — colossal in size as this firm produces Paphiopedilums, Phalaenopsis and a large variety of indoor plants as well as Cymbidiums, both standard and miniature. To give you an approximation of size is of no use at all, but I can tell you, the centre paths take a truck (3.5 metres wide), side walls 3.5 metres high, houses airy and light. Both these nurseries at Santa Barbara use extractor fans to keep their plants cool. JUNGFRAU 'DOS PEUBLOS' at Gallup and Stribling, rows and rows as far as the eye could see! In various stages of development, this, their

top commercial white-throat carries slight blush.

Very impressed with some first flowering seedlings shown to me by Mr. Gary Gallup, superb quality in shape and substance and prolific too, these will be meristemmed for later sales. Noted a VIA CORTEY, green with red lip, several DORAMA x JOAN OF ARC, too many to list!

Plants stand on deep gravel, watering is overhead, mainly because of vast areas to be covered. Both these properties notable for their cleanliness, not a sick plant anywhere, not a yellow leaf, not a weed! Take note all growers, including me!

Now on my way to U.K., more next issue.

'The man with a new idea is a crank until the idea succeeds'

(Mark Twain)

THE GOLDEN COAST ORCHID SOCIETY INVITES YOU

to

A WINTER DISPLAY AND SPECIAL MEETING on

SUNDAY, JULY 17,

at the Waikanae Memorial Hall, commencing at 11 a.m. departing 4 p.m.

FEATURES of the Day include

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with commentaries

SALES TABLE

Half-hour lectures

Demonstrations of Techniques

Morning Tea, Light buffet Lunch, Afternoon Tea

COME AND MEET OTHER ORCHID LOVERS AND SEE WHAT THEY GROW, ENJOY A DAY ON THE GOLDEN COAST

A Guide to better Growing of Cymbidiums

by Gordon Maney.

T.L.C. or Tender Loving Care of orchids is a much used phrase among orchid growers but common sense in the handling of plants from a tiny mericlone or seedling from flask is the real key to a well grown plant. Equally, the cutting up and potting of plants during the growing season is just as vital. A small seedling, mericlone or backbulb with growth must be started off in the smallest pot it can fit into, 6 cm usually, and left to grow until the root system has filled the pot. It is well to remember that all orchids are at their best when root-bound, particularly Cymbidiums.

In the early stages of growth of young plants one learns to recognise when potting on is necessary. Even so, the real test is when they are knocked out of the pots and the root systems are examined. Progressive potting is from 6 cm to 10 cm to 15 cm and then to 20 cm pots. It is vital to leave each change till the roots have filled the pot, not as one often sees, plants grossly overpotted, with little or no hope of the root system ever filling the pot. Yes, we have all been guilty of potting a plant into a bigger container, to perhaps, we think, save time, or because it is the growing season and the roots being vigorous will soon fill the pot. Not so I'm afraid. If you do succeed in growing a vigorous plant it will take at least another year longer to cope with the larger pot.

This is often the case when cutting up plants. Generally we take a large Cymbidium well grown in a 25 cm or 9 litre bucket, cut it in half and put both halves into the same size containers; this is where we make our biggest mistake. Certainly there will be a lot of roots, but usually both pieces will fit into 20 cm pots. If the plant is really large you may have to break it into three but still be sure you do not overpot; the third piece may fit into a 15 cm pot.

It is better to pot on if necessary at the end of March even if spikes are showing, it will do no harm.

New Orchid Hybrid

During a three day visit to Singapore at the end of March, 1977, Mrs. Muldoon, wife of the New Zealand Prime Minister, had an orchid named in her honour. It is Renantanda Thea Muldoon, a hybrid between Vanda limbata, a species native to Java, and Renanthera coccinea, found in Thailand, Indo-China and southern China.

Renantanda Thea Muldoon, originated by the Botanic Gardens, has a branched inflorescence with numerous tiny brick red to deep red flowers.

Hard Cane Dendrobiums

are orchids that provide a lovely splash of colour during those dismal winter months, and because of their compact habit occupy little of the precious space in the warm glasshouse. They are fast growing, given reasonable conditions, and those offered below should flower next season.

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Expect large, full shaped, red purple blooms. From experience of previous D.Sensation crosses we know this cross will be of excellent quality.

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ODONTOGLOSSUMS AND SOME OF THEIR RELATIONS

by F. R. Askin

Odontoglossums are probably the most important members of a very large and diverse family of orchids which includes Miltonias, Oncidiums, and Cochliodas. We will not deal here with Oncidiums except incidentally where they have been inter-bred with Odontoglossums. We will confine our attentions mainly to the culture of modern hybrids of Odontoglossums and Odontiodas (Odontoglossum x Cochlioda)—collectively referred to as Odonts—and Miltonias.

There is evidence of a revival of the popularity of these plants which were among the most favoured orchids in England a hundred years ago. Odonts in particular have almost everything going for them: they are wondrously decorative in colour and shape, their lasting qualities are excellent, they are compact in growth, modest in size, and extraordinarily generous in flower production. Miltonias—the "pansy orchids"—have an appeal all of their own, but although the flowers will last several weeks on the plant, they will wilt within an hour of cutting if not immediately placed in water.

Members of this family of epiphytes are found growing in their native state over a wide area of tropical and sub-tropical Central America, the warmer growing ones generally at the lower altitudes, while the cooler growing varieties are found in the uplands and central mountains, some at elevations around 3000 metres. At these latitudes there is not a very marked difference between winter and summer conditions, nor between day and night temperatures. Rainfall is plentiful and humidity high. For the most part they do not have a fixed flowering season, continue in growth during the whole year, and bloom as the growths mature. These characteristics should give us a lead on the conditions we should aim at for cultivated varieties.

Most modern hybrids have been derived from a wide mix of species, with the consequence that their tolerance of cultural conditions is usually greater than that of their

jungle ancestors. This is just as well, for most amateurs have only one glasshouse though it may be divided into two or three sections with different temperature ranges. So there will always be some degree of compromise, trial and error, and shifting around of individual plants in the search for the conditions that suit them best.

Potting. On most counts plastic pots are preferable to clays, but as some plants, and Miltonias in particular, are liable to become top-heavy, the heavier clay pots are more stable. Whichever are chosen should be just big enough to contain the roots and allow for, at most, three years growth.

Potting-on of a plant in good condition can be done at any time of the year, but during September and October, after spring-flowering, is usually the best time. March and April are also suitable months. Remove the old compost carefully so as not to damage the growing root tips. Cut away dead roots and leafless pseudobulbs in excess of two, and generally tidy up the plant. And remember: the extent of the live root system should determine the size of the new pot. If there are few live roots their chances of survival will be reduced if they are submerged in a mass of compost which is likely to stay wet for more than two or three days after watering.

Compost: Odonts and Miltonias can be grown equally well in the same mix. There is no "best" brew: the plants will thrive in a variety of mixes provided other cultural requirements are satisfied. Bark-based mixes are now widely used, and the following ingredients make up a good free-draining growing medium that should last up to three years before it deteriorates significantly. All bark should be screened over an $\frac{1}{8}$ " sieve and the fines discarded.

Bark $\frac{1}{8}$ " to say $\frac{3}{4}$ "	8 parts by volume
Charcoal Chips	1 part by volume
Fibrous peat	1 part by volume
Chopped Sphagnum moss	1 part by volume

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M123 V. Josephine Van Brero x Ascda. Yip Sum Wah.	\$4.00
4877 Ascda. Medasand (yellow) x V. Saeng Pra-Artitya (red).	\$5.00
2914 V. Yupin (red) x V. sanderana, T Orchids No. 16	\$5.00
4866 Ascda. Guo Chia Long 'Prachuab' x V. coerulea No. 8 AM/RHT	\$4.00
4583 V. Rothschildiana (dark blue) x Ascda. Medasand AM/OST	\$5.00
4880 V. Jennie Hashimoto x Ascda. Medasand	\$4.00
2892 (V. Ohuoh x Eisenhower) (yellow) x V. Hilo Queen 'Meo'	\$4.00
2863 V. sanderana x V. Rothschildiana (dark blue)	\$4.00
4885 Ascda. Mangkiatkul 'Ployphommas' (deep red) x Ascda. Medasand. No. 7.	\$4.00

Plants sent post free on order \$20 or over, bare root.

On smaller order add \$1.00 for packing and postage.

As some crosses are limited in quantity, advise second choice. All plants are well rooted and vigorous. Approx. 10cm to 12cm leaf growth or larger.

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CATTLEYS IN AN UNHEATED GLASSHOUSE

by Pam Boon

There has been an enquiry about growing Cattleya plants in unheated glasshouses and as there are no articles on hand the Editor has asked me to provide one. Orchid growing is a fine hobby to share and my husband and I do share in this delightful pastime so I keep asking myself why he is not doing the writing!

There are many lovely orchids and I would be hard pressed to name my favourite half dozen genera but at the top of the list must go the Cattleyas. Need I qualify this statement? Perhaps it is because they do so well for me, or maybe I like their neat habit and magnificent colour range, or the fact I can have them as house plants and they have no set flowering time. Now I must describe the local climate and tell you of our personal experiences.

We live two blocks from the sea, hidden from the rest of New Zealand behind a tall hill called Mt. Egmont. The southerly winds are cold and often strong and we seem to remember them more than any other. However with the sea being so close and the nature of climate being what it is, we do not suffer more than one degree of frost in the winter months. Before being smitten with orchids we were and still are, keen gardeners and while waiting for a glasshouse to be built, had an ever increasing number of plants in the house. It got so bad that friends asked us when we were going to move out. Two trays of Phalaenopsis seedlings went to bed every night under a cardboard box but the mature Cattleya plant kept on flowering two and three times a year. It had no permanent resting place as everything had to be shifted around for watering and they all ended up somewhere or other. The glasshouse was finally built and we could breathe again in the house. Some plants did not take too kindly to the change and others liked it. The Cattleya, now with several small mates, seemed to like the shift. However, the babies did better with a little more light that was available and the growth seemed to harden. Plastic pots are clean and available so we use them, ponga fibre is clean and

available so we use it and when that runs out, as I am told it will, then something else equally easy such as fine shingle or bark chips will suffice. For the very tiny babies we added some sphagnum moss, this holds more moisture than the fibre and tiny roots do not penetrate very far to start with so water must be kept nearer to top of the pot. Anything for an easy life.

Our glasshouse faces north and is heated by the sun, has a solid south wall with high opening vents, under bench vents to the north and a door both east and west. The Cattleyas live in plastic pots on the waist high bench which is made of wooden slats. In our conditions we find that community pots (small pots crammed with small plants) do very well and when they are too big for the first size pot they go into one a little larger. Ten cm pots hold plants with a good root system and strong top growth and at this stage of their lives can cope with the world, either in the house or glasshouse.

We prefer to change pots when they have out-grown the ones they are in, when there is a new growth high enough to see easily and therefore avoid any damage. This family, on the whole, is not monstrous and a 10cm pot will hold a flowering plant and a 20cm pot a specimen plant.

We all need food—animals, plants and soil—more when we are growing and less when we get old. Cattleyas, with sympodial growth habit, become old and then young again and just to let we humans know what is going on, they even show us with new roots when it is time to start giving them more food. We have not run any experiments with plant foods so I am unable to make any comparisons but find that a complete fertilizer (any proprietary line) seems to be of benefit given at the right time.

When we think of food we think of drink, now this is a knotty one as there is no absolute guide or rule to follow regarding watering. Those with experience know, learners have to feel their way. Water is necessary

and if plants could talk they would ask for a bath every so often. For Cattleyas the best policy seems to be, dry out, bath, dry out, bath. This will be more frequent in the summer than the winter. Bath means bath and not just a quick shower.

Cattleyas do well in an intermediate house, so do I. If it gets hot and stuffy I open the windows and doors and when it gets cold I put on more clothes, putting plastic underlining on the glasshouse acts the same way.

The unheated glasshouse has a winter temperature range of 4 degrees C on a very cold night to 27 degrees C on a fine day. Summer temperatures range from 15 degrees C at night to 32 degrees C during the day—and higher if the ventilators and doors are left inadvertently shut. We do our best to maintain the humidity between 60 and 70 per cent during the day.

None of us are quite so vigorous during the winter, but many of the Cattleyas are at their best, that is, flowering. I have on the table before me as I write a *Potinara* with three brilliant blooms, inspiration if you like. I hope our experience will encourage others to grow this family of orchids, for they are worthwhile, and in a climate such as ours, an unheated glasshouse is satisfactory.

SOCIETY INFORMATION

BAY OF PLENTY

Secretary: Mr. J. B. Douglas,
46 Grey Street, Kawerau. Ph. 8330

GOLDEN COAST

Secretary: Mr. J. Matthews,
P.O. Box 11 Waikanae. Ph. 6161 Waikanae

HAWKE'S BAY

Secretary: Mrs. N. F. Allen
Pakowhai, R.D.3, Napier. Ph. 83-050 Napier

HUTT VALLEY

Secretary: Mr. L. Wyatt,
43 Hardy Street, Waterloo Ph. 695-101 Lower
Hutt

MANAWATU

Secretary: Mr. J. G. Jackson,
18 Hurley Place, Palmerston North. Ph. 83-348

SOCIETY NEWS

HOSPITALITY ON THE GOLDEN COAST

The Golden Coast Orchid Society offers hospitality to all members of other societies when they have their Special Meeting and Orchid Display on July 17 and it is hoped that 'busloads' will come and enjoy this big day on the Coast — the first of its kind this Society has held.

Already noted for its fine displays, spirit of informality and friendliness at its monthly meetings, members have planned for this occasion short talks by experts in their special fields, and demonstrations of techniques in growing, etc.

Visitors are asked to bring their own plants for display, and there will be a sales table which they are invited to assist in stocking. Light luncheon, morning and afternoon tea provided.

It would be appreciated if intending societies and visitors let the Golden Coast Society know what numbers to expect, to help with catering. Address: Secretary, P.O. Box 11, Waikanae.

Cultural Notes – In Brief July-August

from Bruce Douglas

Watch for slugs chewing flower spikes and aphids have a quick breeding cycle so watch these also. Keep plants free from pests and disease by spraying, baiting and feeding. Wash pots and get mixes ready for potting from the end of September on. All orchids will be into growth soon so feeding is necessary, little and often. Start shading when the sun increases in strength. As mixes dry out quicker in spring, be watchful. Tie up *Cymbidium* spikes as they grow.

At an orchid display some time back, two elderly ladies were overheard to say one to the other, "Look dear, the cotton wool plant". One particular grower had used cotton wool round the stems of his *Cymbidium* spikes as a slug control method. You can try it if you wish. Slugs for some reason do not like crossing dry cotton wool though they cross most other things, don't they?

PUKEKURA CORNER

by G. Fuller, N.D.H. (N.Z.) Curator Pukekura Park, New Plymouth.



Cymbidium lowianum Rchb.f. 'concolor' Rolfe.

In the months ahead when the *Cymbidium* buffs are raving and raging over the merits or otherwise of their latest acquisitions, I will be revelling in the satisfaction of knowing that thanks to foresight and generosity of one of the country's keen growers, the Pukekura Park collection contains a plant of this special and important form of *C. lowianum*. While they are wondering whether the hybrid about to flower for the first time is going to exhibit the 'non-staining' characteristic of albinism so much sought after, I will be admiring the charm of the species which did most to make this possible, for it was the introduction of this form into hybridising which initiated the non-staining characteristics in *Cymbidiums*.

C. lowianum was introduced into cultivation

(from Burma) in 1877 and from it the first man made hybrid *Cymbidium* appeared in 1889 (Veitch). Unfortunately I have not been able to trace the circumstances of the introduction of this 'concolor' form but can well imagine that it would have created a minor sensation. It is rather significant that plants of the clone have survived to this day.

C. lowianum is characterised by long arching spikes of up to 30 or 40 blooms, greenish in colour, overlaid with a reddish cast which tends to detract from the clarity of the base colouring — perhaps one of its hybridising drawbacks. The lip is always very strongly marked with a red-crimson dart which shows up in striking contrast. Not so in the 'concolor' form however for it is the essence of purity. Gone is any tendency to mudiness over the greenish-yellow basal colouring of sepals and petals and the distinctive crimson dart is subdued into yellow on an otherwise almost pure white labellum. Growth habit is the same, though I doubt whether there is sufficient vigour to produce 30 blooms to a spike. However it will be interesting to see its full potential in this country when fully grown. Growing conditions are identical with those of the average *Cymbidium* and our plant blooms from October to December with long lasting flowers.

I must confess that it is one of the few *Cymbidiums* which each year has me grovelling about trying to determine whether that new break is a flower spike or just another growth.

"Excuse me, I'll just sneak out again and . . . oh!!!

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