

# ORCHIDS IN NEW ZEALAND



MAY/JUNE 1982

# Beck's...

## ORCHID MIXES

- |                |                 |
|----------------|-----------------|
| ★ Proven       | ★ Fast Drainage |
| ★ Ready to use | ★ Screened      |
| ★ Free flowing | ★ Fertilised    |

**BECK'S ORCHID MIX IS BAGGED IN DRY CONDITION AND SHOULD BE DAMPED PREFERABLY THE DAY BEFORE USE.**



*Available in four sizes for your convenience from the following suppliers:*

**A. Beck, R.D.2, Ngatea, Hauraki Plains**

- |                        |  |
|------------------------|--|
| <b>Auckland:</b>       | <b>Asquith Nurseries, 67 Asquith Ave, Mt Albert. Ph. 862-826</b> |
|                        | <b>Linwood Orchids, Muriwai Rd, R.D.1, Waimauku</b>              |
| <b>Gisborne:</b>       | <b>Tom Grimson, 162 Stout St, Gisborne. Ph. 4450</b>             |
| <b>Hamilton:</b>       | <b>Youngs Orchids, Cambridge Rd, Tamahere. Ph. 65-411</b>        |
| <b>Hastings:</b>       | <b>Bryan Clark, R.D.5, Hastings. Ph. 88-734</b>                  |
| <b>Masterton:</b>      | <b>Arthur Morris, 24 Sussex St. Ph. 6854</b>                     |
| <b>New Plymouth:</b>   | <b>Gordon Bruce, 509 Carrington Rd. Ph. 34-583</b>               |
| <b>Palmerston Nth:</b> | <b>Hadfield Orchids, 409 Tremaine Ave. Ph. 83-489</b>            |
| <b>Waikanae:</b>       | <b>Norm Porter, 443 Te Moana Rd. Ph. 6977</b>                    |
| <b>Wellington:</b>     | <b>Avalon Orchids, 23 Mabey St. Lower Hutt. Ph. 67-7729</b>      |

# ORCHIDS IN NEW ZEALAND

Volume 7, No. 6

Published bi-monthly.

May—June

OFFICIAL PUBLICATION OF THE ORCHID COUNCIL OF NEW ZEALAND — ISSN 0110-5256

---

## COUNCIL 1981-82

**Patron:** His Excellency, the Hon. Sir David Beattie, G.C.M.G., Q.C.

**President:** Mr W. Ross-Taylor, Golden Coast Orchid Society

**Immediate Past President:** Mr T. French, Taranaki Orchid Society

**Vice Presidents:**

Mr D. Bell, Waikato Orchid Society; Mr M.D. Leahy, N.Z. Orchid Society

**Committee:**

Dr R.A. Cooper, Wellington Orchid Society; Mr M. Gard, Hawkes Bay Orchid Society; Mr H.L. Godwin, North Shore Orchid Society; Mr R. Maunder, Bay of Plenty Orchid Society; Mr D. Timbrell, Canterbury Orchid, Begonia and Fern Society.

**Secretary/Treasurer:** Mr D. Lawson, 36 Horopito Street, Waikanae

**Editor:** Mr G. Boon, 30B Waiwaka Terrace, New Plymouth

**Distribution:** Mrs B. Godwin, 47 Alton Avenue, Northcote, Auckland 9.

**Registrar General:**

Mr F.E.J. Mason, North Shore Orchid Society, 11 Maleme Avenue, Belmont, Auckland 9

---

## Contents

**Page:**

- 130 Cattleyas and their Basic Culture by Doug Burgess
  - 134 Pukekura Corner by George Fuller
  - 136 Cymbidium Plant Culture by Gordon Maney
  - 140 Fertilisers and Orchids by P.C. Tomlinson
- 

**Annual Subscriptions, including postage:** New Zealand \$5.50; Surface rate: overseas, \$NZ7.50

**Advertising Rates:** Available on request.

**All manuscripts, photographs, news items etc. to reach Editor six weeks prior to publication.**

**Views and opinions expressed by contributors are not necessarily those of the Orchid Council of N.Z.**

**The Orchid Council does not assume responsibility for any transaction between advertisers and readers.**

---

**Cover photo:**

We have done it all now! Last issue cover photo, not only upside down but wrong caption to boot. Now we really have Dendrobium Malones 'Jupiter,' a very desirable clone. The last cover, for those who wish to look back, is Masdevallea militaris, another excellent picture by Mr A.B. Porter of Australia.

## AN INTRODUCTION TO CATTLEYS AND THEIR BASIC CULTURE

— Doug Burgess —

These notes were prepared for a talk to members and visitors to the Cultural Session at our Labour Weekend Show. As a comprehensive discussion on *Cattleyas*, it is published for the information of members, and to make it available as a permanent reference on this desirable group of plants.

# Cattleyas and their Basic Culture

Ex Wellington Orchid Society Vol. 5 No. 6, November '81

Let us begin with a look at some of the literature and periodicals that are of immense value to the novice grower:

Orchids for Everyone — Various contributors; You Can Grow Cattleya Orchids — Mary Noble; Home Orchid Growing — Rebecca Northern; Orchid Care — Walter Richter; A Golden Guide — Orchids; Orchids in New Zealand; Australian Orchid Review; American Orchid Society Bulletin; American Orchid Society Awards Quarterly; American Orchid Society Handbook on Orchid Culture; Local Society Newsletters.

Almost all, if not all, of these are available from our Society Library. Also, many commercial catalogues such as — Stewarts, Vacherot & Lecoufle, Jones & Scullys are very interesting, colourful and keep one up-to-date with the latest releases. These are available annually at moderate cost and are advertised in the American Orchid Society Bulletin; additionally, the first two mentioned are represented in New Zealand by — Stewarts by Corbans Orchids, Henderson; and Vacherot & Lecoufle by Blacks Orchids, Levin, whom, I am sure, will arrange supply.

Now, let us elaborate on "WHAT IS A CATTLEYA?"

Certainly, there is the genus *Cattleya* and then the broad field where one says, "I grow *Cattleyas*....as an overall generalisation of *Cattleyas* and their various intergenerics. These

genera are probably the most popular orchids grown throughout the world, but ironically, this is not so in New Zealand. Why, is hard to fathom. Surely, they require an amount of heat to grow them to their optimum. Indeed, their flowers have not the lasting quality of other genera, but aren't they beautiful? No wonder that they are known as the "Queen of Orchids."\*

Returning to the genus *Cattleya*, let us now have a brief appraisal of its history.

The story of the genus is an interesting one: it was founded by Dr Lindley, the well-known botanist, in 1824, and named after William Cattley, an eminent horticulturalist and one of the first amateurs to create a private collection of orchids. The first *Cattleyas* were brought to England from Brazil in 1818, tied round a consignment of other tropical plants (lichens). On examination, Cattley realised that these thick-leaved plants were unusual and rescued them. When the first one came into flower, it was studied by Dr Lindley who found it to be an entirely new genus and named it after its owner.

There are about 50 known species, most of which are epiphytic or lithophytic, i.e. they establish themselves on other plants (although not drawing nourishment from them as do parasites) or on rock formations. They are native to Central and South America, from Mexico to Bolivia,

Paraguay and Argentina, and are concentrated in the Andes and the Brazilian forests. They are found in a range of natural habitats from the dense steamy jungles of the Amazon region, where they anchor themselves to trees . . . but are also found as high as 3,300 metres in the Andes where the night temperatures touch freezing point.

*Cattleyas* can be divided into two main groups according to their growth type: unifoliate, with a single large broad leaf and club-shaped pseudobulbs joined by a creeping rhizome, and bifoliate with longer, more cylindrical pseudobulbs, a pair of short leaves and smaller, heavier flowers.

To further amplify the descriptions of the two types: the single leaf type is often referred to as the 'Labiata' group, and the flowers feature the wide frilled petals and lip with which most people are familiar. The 'Bifoliate' group have the smaller, more waxy flowers, some with a spade or fiddle-shaped lip and a remarkable array of colours and markings.

Also in hybridisation the two groups have been interbred and it is not unusual to see plants displaying both characteristics in their growth habit.

Species in the labiata (unifoliate) group are:

*dowiana, eldorado, gaskelliana, labiata* (the one first brought to the notice of English Horticulturalists), *lawrenceana, lueddemanniana, luteola, maxima, mendelii, mossiae, percivaliana, rex, schroederiae, trianaei, warneri, warszewiczii*.

The bifoliate group contains: *aclandiae, amethystoglossa, aurantiaca, bicolor, bowringiana, citrina, \*\*deckeri, dolosa, elongata, forbesii, granulosa, guttata, intermedia, leopoldii, loddigesii, nobilior, schilleriana, skinneri, velutina, violacea, walkeriana*.

And so having this short insight into the genus *Cattleya*, we now

look at other members of the alliance which are within our immediate field.

We start with *Brassavola* of which there are some 15 species, indigenous to Central/Tropical American countries and accordingly they relish fairly bright sunlight and are warm growers, which when bred to the *Cattleya* produce *Brassocattleya* — Bc.

Best known and most widely used in hybridising is *Brassavola digbyana*, a greenish-white with an enormous deeply fringed lip which adds size and edging when bred with *Cattleyas*.

Next we learn that there are some 30 species of *Laelia*, again from tropical American countries ranging from Mexico to Argentina, but mostly widespread in Brazil. Of smaller stature and with smaller and more open-shaped flowers than has *Cattleya*, their brilliant colour, especially in the yellow and orange shades, relates to their usage in hybridising with *Cattleya* and the resultant *Laeliocattleya* — written Lc.

Some well known species which orchid growers come in contact with frequently are — *anceps, cinnabarina, flava, gouldiana, harpophylla, purpurata* and *tenebrosa*.

Now, why all this hybridising? Always a breeder is striving for improvement in form, i.e. shape, size, substance, floriferousness and above all, colour of the resultant flowers.

So with our *Cattleya, Brassocattleya* and *Laeliocattleya*; we go one stage further and make a multi-generic — *Brassolaeliocattleya* Blc.

Fine, all this produces beautiful whites, mauves, greens, purplish reds, yellows and oranges. The latter colours especially from the use of *C. dowiana, C. aurantiaca* and such *Laelia* species as *cinnabarina, flava, harpophylla,*

*tenebrosa*, etc.

To further improve colour, especially in our quest for clear bright reds as well as sunset and autumn tones, we introduce a bright scarlet red — *Sophronitis* — a delightful little species native to Brazil and with the wonderful characteristics of being cooler growing. Of six species, only one — *coccinea* — has achieved prominence and been used extensively.

Thus we breed — *Sophronitis* — with *Laelia* and the result is *Sopholaelia* — *Sl.* This creates a beautiful little orchid, multiple flowering and of good shape and colour. But this is not all — we want increased size and a more filled in and rounded flower. In comes *Cattleya* and now we have a *Sopholaeliocattleya* — *Slc.*

Size improves, we have great colour, but not content, we go one stage further — we introduce our *Sopholaeliocattleya* to an infusion of *Brassovola* and produce a quadrageneric cross which, thank goodness, does not become a *Sophrabrassolaeliocattleya*, but a *Potinara* — *Pot.*

Suffice to state we have touched on the better known creations, but hybridists never rest and new intergenerics are appearing with great rapidity.

Genera involved in these extensions include — *Barkeria*, *Broughtonia*, *Cattleyopsis*, *Diacrum*, *Domingoa*, *Epidendrum*, *Hexadesmia*, *Laeliopsis*, *Leptotes*, *Schomburgkia*, *Sophronitella* and *Tetramicra*.

Recourse to various books and publications will enable those interested to follow up this extensive field.

We now turn our attention to the basic culture of these lovely orchids. It is possible to have a plant in flower, just about any month of the year — the main flowering seasons being autumn,

winter and early spring. There are means of adjusting flowering times but these are of use to commercial growers rather than to hobbyists.

### Temperature and Humidity

*Cattleyas* can withstand quite hot weather provided ventilation and humidity are adequate. They thrive best however, when grown at between 18°C (65°F) and 23°C (75°F) during the day and 13°C (55°F) and 15°C (60°F) at night. Humidity at 50% is ideal and a slight increase is desirable as the temperature rises. These conditions are fairly difficult for hobbyists to maintain and it becomes a compromise situation for most of us.

### Light/Shade and Air Movement

Because they require abundant but not too intense light to grow and flower well, it is most essential for adequate air movement at all times. This is to keep the leaf surfaces cool, prevent sunburn, maintain a nice buoyant atmosphere as well as to aid the evaporation of water spillage on plants.

### Watering

Being natural epiphytes, their roots undergo a rapid and regular cycle of drenching and drying and it is necessary for us to approximate this natural cycle in our culture. Because we use pot culture almost entirely it is most necessary to maintain an individual scrutiny of our plants to ensure that we duplicate the required conditions. Experience dictates the frequency of watering but basically a pot that appears dry and feels light when lifted is ready for watering.

### Potting

The use of 'Becks' mix either straight from the bag or adjusted to a grower's own formula sees us using a media strong in bark content. Bark has a fairly low absorbency and is bereft of any nutrients so it is necessary for us to provide fertiliser to maintain the plants growing cycle.

## Feeding

Each grower has his own feeding programme and this, of course, is related to culture and conditions pertaining to the environment provided. As a general rule, *Cattleyas* require a high nitrogen fertiliser when grown in bark and I use the following feeding programme when the plants are in active growth —

1. Apply a light sprinkling of dried blood to the surface of the media. Subsequent waterings take an amount of food to the roots.

2. Each alternate fortnight sees the application of Lush and Phostrogen as separate feed. Both are applied in dilute solution at about half the makers' recommended strength. Occasionally I vary the diet by giving an application of Alaska.

The application of these fertilisers tend to create a build-up of salts which, if allowed to accumulate, will cause damage to the roots by burning. It is therefore necessary to leach out these salts by flushing with clear water on the alternate waterings.

One can also apply food by foliar spraying or applying slow-release pellets to the upper region of the media, but the whole feeding programme should be balanced and relative to the growth factor of the collection.

Overall, it is the environment provided that relates to the success or otherwise of growing orchids and as I heard said recently by an eminent Australian grower — "*Culture is 90% of growing, the other 10% is feeding and watering.*"

IN CONCLUSION I will mention that we do come across problems in orchid growing, from insects, diseases, and physiological disturbances. Good culture allied to regular spraying of a combination

insecticide — fungicide — miticide — should maintain a collection in good shape.

Always adhere to the manufacturer's warnings as to the danger to your health and well-being when using these toxic substances.

Prevention of problems is far better than having to seek a cure. However, if one arises, identify and treat immediately.

There is much written on this very complex subject and I suggest that you avail yourselves of some of the books from the Library should the need arise.

*\*(Ref. AOS Handbook, p.14; 'Orchids for Everyone' p.102).*

*\*\*Botanically this is now included in the genus Encyclia.  
Ed.*



## CANTERBURY ORCHID, BEGONIA AND FERN SOCIETY

NOTICE of forthcoming Seminar.  
To be held in the Horticultural Hall,  
Christchurch, 16th and 17th October  
1982.

Topics will include Cymbidium,  
Paphiopedilum, Photography, Virus  
and others.

See future issues for further details.

### A.G.M. — CONZED

The Annual General Meeting of the above organisation will be held at the Golden Shears Motor Inn, Masterton, on Saturday 22nd May, 1982, commencing 1.00 pm.

# PUKEKURA CORNER

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



## **Masdevallia militaris** **Rchb. f.**

When we think of military uniforms we have visions of drab greens and browns which relate most to camouflage but such has not always been the case. There was a day when they were of scarlet and red, to be seen in utmost splendour and their approach was intended to arouse emotions of admiration or terror, depending on whether they were 'ours' or 'theirs.'

It was during this flamboyant era just over 100 years ago that Masdevallias were being described and if only the accompanying illustration was in colour, the significance of my introduction would be very apparent, for the intended allusion of the colour and shape of the bloom of *M. militaris* to a military tunic of that time is very apt.

In previous references to Masdevallias I have rambled on about fascinating adaptations for ensuring pollination, diminutive size, dull colours, etc. but in the section to which this species belongs we have a colour range likely to turn a Cymbidium enthusiast ashen and even Cattleya fans could be expected to feel a little uneasy if 'colour' is their thing. Turn the lights down low and try to visualise the spectrum reflected from botanical description: 'bright cinnabar red toned with crimson 'or' bright fiery red often shaded crimson or violet-rose'. Then we have 'bright crimson — scarlet mottled yellow' and even 'orange — vermilion flushed rose purple! The mind boggles! Quick, turn the lights up again before I go into ecstasy. And we haven't had mentioned yet the gilding on the lily that places these orchids in a very special category for me — the fact that those exciting colours have an iridescence arising from one basic colour being overlaid by hairs of another forming a 'pile' to give a 'shot' effect.



*M. militaris* comes from Colombia where the Andes of the South American continent tower up at the line of the equator to form a contradiction in climate, for they are so high that they are bathed in cooling cloud. This ensures the constant presence of moisture and cool, equable temperatures, so different to what we associate with the equator but fortunately, conditions which can be reasonably well simulated in many parts of New Zealand with some ingenuity and not very great expense. If we note that in nature, though bathed frequently in mist and rain, they are still 'perching' plants and always well — drained, we have most of the keys to their successful cultivation.

It is a great thrill to see so many enthusiasts in New Zealand realizing the great potential for *Masdevallias* here and the range available is quite astonishing. There is no doubt that for floral display relative to size of plant, range of colours from drab to brilliant, fascination in floral form and challenge in cultivation, there are few plants that come anywhere near *Masdevallias*. But back to our chosen species.

The plant is typical of most in the genus, being a tight cluster of rather leathery strap-like leaves 100 to 150mm tall blunt-ended and tapering down to the base where in most orchids one would expect to find a pseudobulb but because in *Masdevallias* the climatic conditions of the alpine natural habitat do not include a dry period which must be survived, these are absent, (a fact which must never be overlooked in cultivation!) In spring to early summer, slender flowering stems, each bearing a single bud emerge from the bracts surrounding the base of the leaves and elongate to 300 to 400mm. All *Masdevallia* species seem to exhibit considerable colour varieties and to

a lesser degree shape, but the bloom depicted is about 55mm across and I will simplify colour description by suggesting that the basic colour is scarlet. The delicately diffused veins however are what I suppose is vermillion and these being iridescent give the bloom tremendous eye-catching appeal. It would be a strange person whose head would not be turned for a closer look at the blooms of this orchid. The species is sometimes found under the name *M. ignea* (igneous meaning incandescent red, bright scarlet.)

Several cultural requirements have already been indicated and these apply for practically all species. Avoiding great extremes of temperature and humidity variation is very important and the plants should not be subjected to long periods of dryness. Methods of achieving this will vary from one locality to another, but attention to shading and ventilation are more important than with many orchids but one should not fall into the trap of assuming that heavy shading is the one answer. Temperatures a few degrees above freezing can be tolerated provided plants are a little on the drier side during periods of such risk and shifting them from floor level to bench according to season is another ploy.

The plants seem adaptable to most mixes in general use, but as the roots are fine, large particles should be removed unless watering and humidifying are to be heavy. As with *Odontoglossums*, over-potting should be avoided, 10 to 20mm being ample clearance to the pot edge according to size and it is likely that annual repotting, avoiding the weather extremes of mid-summer and winter, could be to advantage. Any type of conventional container is suitable though it must be noted that a section of *Masdevallias* now segregated off into a separate

genus called *Dracula* (yes, and there is even one naughty species called *D. vampira*) have pendulous flowering habits which require special attention. Propagation is by division of the clumps preferably when root action is apparent.

It will have been noted that in common with *Disa uniflora* (which coincidentally has similiar colouring characteristics to this species), *Masdevallas* do not seem to know what orchids are supposed to look like in that the sepals instead of the petals are doing all the work, the petals are minute and that crowning glory of the 'conventional' orchid, the labellum, is almost microscopic.

If I may pursue the military theme of the opening paragraph, I am tempted to steal a recruiting slogan famous in both great wars and, pointing the finger at *M. militaris*, conclude with 'The orchid connoisseurs of this country certainly need YOU!'

## CYMBIDIUM PLANT CULTURE FOR MAY — JUNE

*by Gordon Maney*

These two months are a lot more important than many growers realise. If you have done as I suggested for March—April you are taking the precautions needed against the slugs and snails and bugs. However don't relax your vigilance against the 'Spoilers' because that's what they are. I'm sure if we knew of the countless thousands of blooms lost each season through lack of common sense care we would be staggered.

Once the cold weather sets in with frosts in many places, we tend naturally to cut down on our watering and if bad weather continues we wait till it improves.

An attack from Red Spider Mite would be a disaster now with your spikes well advanced, particularly the early ones. I have used for three years now a spray called VYDATE L made by Neil Cropper Ltd, this is a systemic and must be used with every possible care. It can be sprayed on flowers without harm and can be mixed with most fungicides such as Captan or Dithane etc. for use at this time of the year. When flowers are out I only use it on its own as of course the fungicides leave a residue.

The main thing is to keep your benches and walkways damp at all times and although this won't stop red spider, it does help.

The next thing to watch for is the training of your spikes, this is most important for a good display and is I'm afraid often overlooked. Whatever method you use for staking, tie the spike very gently to begin with as they are very tender at this stage.

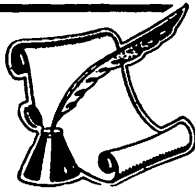
I try each year to scrub out my houses — the benches and walls etc. and of course any rubbish lying around will harbour bugs of all descriptions as I've already mentioned.

The movement of air in a Cymbidium house or any house where orchids are grown is I feel, of vital importance. An electric fan is inexpensive to run and providing it is big enough for your flowering house, will stop spotting of the flowers and generally improve the health of the plants. My houses are fitted with two thermostats, one for summer and a reverse thermostat for winter. This relieves your mind if you are in a frost area, and also if you have watered and the day turns really cold, as indeed it can.

Through May and June I feed with a liquid fertiliser at half strength every two weeks or once a month at full strength.

This is the great time of anticipation.

## LETTERS TO THE EDITOR



Dear Sir,

First of all I wish to say how much I enjoy the magazine, which must take a lot of hard work and time to put together. I read every inch of them.

I also would like to mention the articles lately about virus by 'Aquarius' and J.E.W. of Auckland, and I quite agree with them. I have been growing orchids for the past seven years and learning all the time. To start with I bought 13 large plants (Cymbidiums) from a person who sells quite a lot and recently I decided to send some leaves to the MAF for virus testing. All but three were positive! Imagine how I felt putting them in the incinerator. I feel that people should take every care to sell only clean plants. It is not fair to pass on virus plants for gain. Fortunately I have always had the Cymbidiums in a separate house from the Cattleyas which are thriving. I know my collection is very few, but expensive to me and I really learnt the hard way and hope that some people will think of these things before selling to innocent folk. There's more to life than just greedily making money.

Sincerely,  
W.G.T.

*With the tremendous upsurge in orchid growing over the past 10 years, more people are becoming sellers and 'swappers' which means that a greater number of diseased plants are no doubt in circulation. The situation now is that many sellers probably do not know much more about orchids than the buyers. Perhaps we have reached a situation of 'Caveat emptor' in the orchid world, which I am sad to say is of no benefit to the industry as a whole.*

Ed.

Dear Editor:

The Jan-Feb, 1982 issue of Orchids in New Zealand had two short articles on New Zealand native orchids. In George Fuller's column on *Earina mucronata*, he stressed the need to protect the native orchids from indiscriminate collection. Bruce MacKay, on the other hand, deplored the lack of interest in native New Zealand orchids, destruction of their habitat and the need to carry out rescue operations. Finally he suggests more interest in growing New Zealand native orchids. On the surface these might appear to be diverging views, since more interest in growing can lead to an increase in their removal from native habitats. I believe that both viewpoints are valid and not necessarily mutually exclusive.

As a newcomer to the New Zealand scene, I have been amazed at the difference in attitude toward native orchids here and in Australia. My observations on New Zealand attitudes to native orchids would echo those of Bruce MacKay. In Melbourne, where we spent some months in 1977, there is a very active Native Orchid Society — whose members have become extremely successful in growing terrestrials (as well as epiphytes) as pot plants in shade houses. They have been quite successful also in expanding interest in native orchids and in educating the public to protect orchids in the wild. A booklet the society printed ("Native Orchids in Melbourne") sold 2,000 copies during their Spring 1981 show.

Perhaps the time has come to form a nationwide group centered around New Zealand Native Orchids. Such a "Society" might be formed as an affiliate of the New Zealand Orchid Council — and possibly affiliated with the Australasian Native Orchid Society

on a broader base. Such an Organization could include the following among its goals:

1. Bringing together orchid people with a common interest in native species. (Many of these people don't know each other — or even about each other.)
2. The preservation and protection of native orchids and their habitats.
3. The promotion of a greater interest and pride in New Zealand native orchids.
4. Developing a seed bank and tuber bank of native species to provide plant material for interested growers — and thus help protect plants in their native habitat. (This appears to work well for the Melbourne society).
5. To learn how to grow optimally both epiphytic and terrestrial native orchid species and to disseminate this knowledge to others.
6. Mount rescue operation to save plants threatened by bulldozers, saws and other dangers. To relocate in suitable habitats or to grow on.

The above are a few possible goals — others will have other ideas. To quote advertising heard often since coming to New Zealand — "If anyone can a Kiwi can." Let us combine efforts to the dual goals of preserving native orchids in their natural habitats and to increase interest and pride in these native orchids.

Jim Harper,  
28 Rata Street,  
Palmerston North.

*I would refer readers to Mrs Dorothy Cooper's  
in next column.  
Ed.*

## NATIVE ORCHID SOCIETY

*by Dorothy Cooper, Lower Hutt*

It must surely have struck other readers of the last issue of 'Orchids in N.Z.' that there are two opposing views on N.Z. native orchids.

George Fuller follows my line of thinking, that left in the bush orchids can be admired by others, taken home and lost — another is lost to our heritage.

Bruce Mackay however says — where are all the natives? Why aren't we doing more to grow them?

Apart from a few of the commoner *Pterostylis* species, most amateur growers only seem to be able to grow some of the epiphytic species 'permanently.' It is certainly not because I am ashamed of our native orchids that I do not wish to exploit them — at their expense, by entering them competitively in shows. By all means save them from bull-dozers etc. but remember that most are very hard to grow and maintain in good condition for more than a couple of seasons, and I think that is good enough reason to study and record them where they belong, leaving them for future New Zealanders to enjoy.

As I pointed out in my book — imagine several hundred interested people taking natives from our bush, losing them, taking more etc. It would not be very long before many species became extinct. Rare plants would be gathered as 'prize' specimens, and would be lost to future interested parties.

Australian species seem to be easier to cultivate — even in N.Z., and the Australasian Native Orchid Society is a very large organisation in Australia.

I toyed with the idea of setting up a branch of the ANOS in N.Z. but the procedures involved seem to be a little difficult for us at this time as

we will be such a widespread group, so I have started off with a cyclostyled newsheet containing articles of a wide interest to all those keen on native orchids.

Anyone who ordered my book through the Wellington Orchid Society will automatically get a copy of this as I have kept a list of their names and addresses. Anyone else interested in receiving it could drop me a line and your name will be added to the mailing list.

I must say I much prefer going on field trips with Botanical Society members who are quite happy to look, study and record, than with members or orchid societies whose members are often not satisfied unless they can collect plants to 'grow' at home, and I think we have to re-evaluate why we are interested in natives, as part of our heritage, or such reasons as temporary 'self satisfaction.'

Both in England and Australia, the last members of some species have disappeared in certain areas because as soon as the public hear of its location they are out to 'have it.' These countries now have very strict regulations governing their native orchids and I know of several cases in New Zealand where 'discoverers' tend to regulate those shown the plants in order to protect them. Another suggestion has been to leave the public in their usual state of apathy — don't set up a native orchid society and the plants have more chance of surviving!

Thus there are problems deciding on the aim of a New Zealand Society for native orchids. What I had in mind to start with, was to incorporate reader's contributions on what grows in their area (locations not too specific), flowering times, abundance of species etc. and any articles of interest. This would enable New Zealand-wide data to be collated to the benefit of all, without any loss to plants in their native habitat, and

until we come up with a viable way to raise seeds, tubers and plants could be left alone.

Judging from the interest in my book there are many who may be interested in forming a native orchid society, so if we haven't already got your name, please drop me a line and I will put you on the mailing list.

---

## WINTER SHOWS

### NORTH SHORE ORCHID SOCIETY

29th May, 10 am to 6 pm

30th May, 10 am to 6 pm

Returned Soldiers Hall, The Strand, Takapuna.

### WELLINGTON ORCHID SOCIETY

19th June, 11 am to 5 pm

20th June, 11 am to 4 pm

Brooklyn Community Hall, Wellington

### NEW ZEALAND ORCHID SOCIETY

9th July, 10 am to 9 pm

10th July, 10 am to 9 pm

11th July, 10 am to 5 pm

Mt Albert War Memorial Hall

### GOLDEN COAST ORCHID SOCIETY

24th July, 9 am to 4.30 pm

25th July, 9 am to 4.30 pm

Southwards Museum Complex, Paraparaumu

---

*Manawatu Orchid Society — thank you for your very generous donation of \$250 towards the cost of the magazine production. We endeavour constantly to maintain the standard and have in fact increased the size of the journal over recent times. This has been helped considerably by the generous donations from Societies especially in the face of rising prices.*

**WANTED:**

LYCASTES — anyone interested in exchanging plants or pollen, please contact Ron Maunder, Box 2107, Tauranga.

# Fertilisers and Orchids

Continued: P.C. Tomlinson, *Wellington Orchid Society*

Some of the older books on orchid culture indicate that the application of fertilisers is not necessary; some even suggest that those who apply fertilisers to their plants are cheating in their culture! However, most authorities now agree that some supplementary feeding is desirable in order to achieve vigorous healthy growth with maximum flowering, although other environmental factors must be appropriate for the plant's potential to be obtained.

Early growers utilised soot, and animal manures in weak solutions, thrown on to the floor of the glasshouse, relying on the air to carry nutrients to the plants. Obviously this system gave only minimal benefit to the plants. More adventurous growers took containers of cow manure, or soot or similar products, and soaked this in larger containers of water. When a solution the colour of weak tea was obtained, this was applied direct to the plants, which gave improved results. With the resultant increased growth and improved flowering, growers gained confidence in the use of supplementary feeding, leading to experimentation with the wide range of materials available. While many natural animal and plant products continue to be used, growers can now select from a bewildering range of alternative products.

The fertilisers available to the grower fall into two broad categories — organic and inorganic materials. Organic fertilisers are obtained from plant or animal sources, and include the farmyard animal manures noted above, and

also the liquid fish and seaweed solutions, blood and bone, hoof and horn, and similar products. Generally these are comparatively safe materials to use as they supply the elements in relatively dilute concentrations.

The inorganic fertilisers comprise rocks and minerals containing the required elements, which may or may not have been subsequently refined and the specially manufactured solid or liquid preparations now so commonly seen. These products are usually scientifically formulated, often for a specific crop or cultural situation, and can be very concentrated when purchased. Generally, greater care must be exercised in their use. The recommended rates of dilution must also be carefully followed as they can easily be made up into working strength solutions which can not only harm the plants but could even kill them. Because of the manner in which they are formulated, however, they often allow more precise feeding of particular elements, which is often of particular importance to commercial growers or those wishing to indulge in cultural experiments.

It will be obvious that different fertilisers can supply different elements. Apart from water, which makes up around 90% of the weight of the average orchid plant, carbon, hydrogen and oxygen comprise the main mineral elements it contains, but as these are easily available to the plant it is unnecessary to supply them in fertilisers. Of the other thirteen elements proved to be essential for growth, those required in the greatest quantities, and most likely to be in short supply, are

nitrogen, phosphorus and potassium, and it is these elements most fertilisers aim to supply. Generally the fertilisers containing these materials contain the other minerals required as well, and apart from unusual situations, no specific allowance for the other elements is necessary.

In considering individual fertilisers, therefore, the levels of nitrogen (element symbol N), phosphorus (P) and potassium (K) are important. The concentration of these elements in a particular formulation is usually expressed as a percentage in the order N:P:K, in what is generally known as the "N:P:K Ratio" or "Elemental Analysis." Most commercially available products will carry this identification, and any product available in commercial quantities (in packages of over 50kg) is required by law to do so. Obviously the information enables the most effective product to be selected for the purpose required. A list of many available fertilisers is given below with their elemental analysis figures as advertised. As formulations can change, and products with the same name but manufactured by different companies can have differing analysis, each product must be checked when purchased.

For comparison of products to be valid the form of mineral elements in a fertiliser should be analysed on a standard basis. It is now generally accepted that the minerals in their elemental form should be specified. Unfortunately, by historical convention, and by practice in some overseas countries, other chemical forms of the minerals are sometimes quoted. In some published or advertised elemental ratings, the analytical basis is not specified, and therefore misleading comparisons are possible. Products available in commercial quantities

should show the analysis on the basis of the minerals in the elemental form, as this is required by law.

Unfortunately, some products available to the amateur grower will not be analysed on this basis. The most commonly used alternative method of showing the minerals is in the chemical form of oxides; phosphorus shown as phosphorus pentoxide or  $P_2O_5$  and potassium as potassium oxide or  $K_2O$ . If these are shown, the accepted element percentages can be calculated by applying the factors .44 for  $P_2O_5$  to obtain the phosphorus level, and .83 for  $K_2O$  to obtain the potassium level.

**CHOICE OF FERTILISERS:** As has already been shown, nitrogen, phosphorus and potassium are most likely to be the elements in short supply. As plant needs vary during the year depending on the stage of its growth, fertiliser needs also vary. During periods of rapid growth the plant can accept and use larger amounts of fertiliser; but less frequent and more dilute applications are appropriate when growth is slower such as during the winter months.

**Nitrogen** is essential as a component of proteins and chlorophyll, and is required for strong vegetative growth. Where deficiencies of this element occur plants are stunted and may mature too early. Yellowing of the leaves takes place and they eventually fall off. Too great a supply can lead to excessive vegetative growth and retard flowering.

**Phosphorus** is primarily involved with energy transfer and as a regulator of vital activity. A deficiency leads to stunting but the leaves, instead of turning yellow, become dark green.

**Potassium** is required for strong healthy growth; a deficiency leads to dwarfness, with the leaves

frequently scorched and dead.

The deficiency symptoms noted are general indicators only, although other cultural practices can in certain circumstances produce similar signs in the plant.

During periods of rapid growth in the spring high nitrogen fertilisers are generally recommended as being the most appropriate by most authorities; materials having a N:P:K ratio of 30:10:10 or similar being often suggested. Later in the season, during the period when flower bud initiation can be expected, and during actual flowering, the level of nitrogen should be reduced, and increased phosphorus, and to a lesser extent, increased potassium, given i.e. 10:20:10 or 10:20:15 fertilisers used.

As soon as the potting mix is watered, bacterial and fungal action commences to break down the organic material, which in itself releases nutrients which become available to the plant. The organisms involved however require nitrogen to complete this process. Especially where pine bark is utilised, but to a lesser extent with the other organically based mixes, the breakdown organisms can use up virtually all of the available nitrogen, leaving little available for the plant. Most authorities therefore, suggest that bark mixes receive high nitrogen fertilisers, whereas for plants growing in other media more balanced fertilisers may be appropriate.

### **FERTILISERS AND THEIR N:P:K ELEMENTAL ANALYSIS**

The following is a list of many commonly available fertilisers with their elemental analysis. The list is not complete, but is given to indicate some of the products that are available in this country. It should, however, be noted that the suitability of materials for orchids

has not been ascertained, and rates of application would require independent assessment by an intending user. The information is believed to be accurate, but as the data is derived from a number of sources and advertised claims, it should be used as a guide only. Average analysis figures are given for many products, although actual analysis of similar products from differing manufacturers can show significant variation, especially for the organically based products.

### **FERTILISER APPLICATION**

When fertilisers are applied, the elements they contain become available to the plant. However certain changes to the material can take place, and they can be converted to a form that makes them unavailable. Over a period of time increased concentrations of the salts can build up, sometimes to a level where the health of the plant can be affected. It is therefore essential that the pots be thoroughly flushed with clean water every month or so, especially if a regime of heavy fertiliser applications has been followed, to ensure this does not occur.

Because of the porous nature of most potting mixes, and the relatively large quantities of water used during the watering process significant amounts of the fertiliser will be lost in the water that drains away. Fairly frequent fertiliser applications are therefore generally necessary. Some products are now available from which the elements are released over a period of time, one application therefore providing a benefit for some months. Such fertilisers obviously have many practical advantages.

Most of the beneficial elements contained in a fertiliser are absorbed by the plant in solution via the roots. Some however can be absorbed by the leaves. For this



**PRODUCT**

	<b><u>N</u></b>	<b><u>P</u></b>	<b><u>K</u></b>
* Alaska liquid fish fertiliser	5	1	1
Ammonium sulphate	21	0	0
Ammophos (timed release)	12	10	10
* Animal manures — cattle	.6	.1	.5
— horse	.7	.1	.6
— sheep	1.4	.2	1
— chicken	1.6	.4	.4
Baby Bio	10	4	2
Basic slag (18—20%)	0	8	0
* Blood and Bone, Meat and Bone, Hoof and Horn	6	7	0
* Bone Dust	4	8	0
Calcium ammonium nitrate (Nitrolime)	26	0	0
Coopers Granulated Plant Food — Rose	6	6	14
— Citrus	11	11	10
— General Purpose	13	9	13
Cropmaster Premium	15	17	15
Extra	12	15	10
DAP	18	20	0
* Dried Blood	13	0	0
Liquid nitrogen	20	0	0
Liquiphos	8	5	10
Lush	32	5	10
Magamp (timed release)	7	17	5
* Maxicrop seaweed liquid	5	5	6
Osmocote (timed release) flower formulation	18	1.8	8
— house plant formulation	18	2.1	8
Phostabs (timed release)	9	4	21
Phostrogen	10	5	22
Pokon	16	21	27
Potassic superphosphate 15%	0	7	7
30%	0	6	14
50%	0	4	25
Potassium chloride (syn.Muriate of Potash)	0	0	48
Potassium sulphate	0	0	40
Rustica — blue	12	5	17
— yellow	15	7	12
Superphosphate	0	9	0
Urea	46	0	0
Utility pot plant fertiliser	8	5	3
* Wood ash	.1	.3	1
Yates Cannon Ball (timed release)	12	12	12
* Organically derived fertilisers.			

reason several fertilisers can be easily utilised; a top-dressing of one type, with another used in dilute form sprayed onto the foliage. The use of more than one type of fertiliser is often advantageous. While the aim is to supply nitrogen phosphorous and potassium, the other essential elements are usually contained as "Impurities" of the products containing these three elements, but in varying concentrations. By utilising more than one product, we can be more certain that adequate supplies of the other elements are being made available.

Plants will only absorb the elements they require, in the quantity dictated by their growth. As they cannot store appreciable quantities for future use, a continuous supply of the nutrients is necessary. If a large quantity of fertiliser is applied at one time, much of the benefit can be lost by the material being leached out of the area penetrated by the roots before the plant can take advantage of it. For this reason it is better to supply a little fertiliser often. This will generally ensure the most economical use of the material, and can also reduce the risk of damaging sensitive parts of the plants (such as the young roots) by concentrations being too strong.

All fertilisers can harm the plant if applied too strongly, and care must be taken when solutions are being prepared. It is always safer to err on the weak side but apply more often. With dry materials do not allow the fertiliser to come into actual contact with any part of the plant, but apply around the edge of the pot, allowing the water to carry the nutrients to the roots. With all fertilisers, but especially with some inorganic manufactured products, the level of dilution must be accurately assessed. Usually strengths of 25% to 50% of the manufacturer's general

recommendations regarding rates of dilution should initially be utilised, until experience has been gained with the product over at least some months.

Fertilisers may be applied as a dressing to the top of the pot, mixed into the potting media, or as a liquid. Watering and the application of a liquid fertiliser can often be combined. A simple system for dilute application of fertiliser is to fill a watering hose sprinkler rose with one of the slow release fertilisers (such as "Magamp"). The use of proportioners on the watering hose can also prove effective for liquid preparations.

Before a new product is tried it is advisable to check if other growers have used it. If no information is available on the use of the material on orchids, try it on a few plants only first.

When a fertiliser is applied in liquid form, certain precautions should be taken, because of the particular nature of many orchid potting mixes. Some of the common mixes, especially those containing pinebark can be very difficult to wet because of surface tension. Such materials should be wetted with plain water first. After leaving for some minutes and ensuring that it is thoroughly dampened, the fertiliser solution can be applied. This helps to reduce build up of salts and ensures more economical use of the fertiliser.

## **EXAMPLES OF FERTILISING PROGRAMMES FOR ORCHIDS**

It is not intended to make specific recommendations for fertilising programmes, because each grower manages his plants in his own way and with his own potting mixes. Any recommendations must be based on either research, experimentation or experience. General recommendations have, however, been published by successful

growers in this country, and these are outlined below.

For Cymbidiums a dry feed composed of four parts of dried blood, four parts of superphosphate and one part of sulphate of potash can be added to the top of the compost twice each year; once early in Spring and again around January. The mix is applied at the rate of one desertspoon full to a 10 litre bucket or equivalent, on the compost and not amongst the pseudobulbs, and well watered in. During the main growing season additional feeding with a liquid manure at the rate of a desertspoon full per 10 litres of water, can be applied with every second watering.

In pine bark mixes a spring application of a 30:10:10 fertiliser can be followed by a 10:20:15 mixture around Christmas time to encourage flowering.

Cymbidiums are generally regarded as being gross feeders, being able to take, and give results from, relatively heavy applications of nutrients. Most other orchid types cannot take such strong applications, and while the same principles apply, significantly greater rates of dilution are generally recommended. For *Odontoglossum* a balanced fertiliser is often recommended, applied at no more than half the manufacturer's recommended dilute rate. A light top-dressing of bone meal in the early spring is often also suggested. *Paphiopedilums* are said to require little additional feeding other than that supplied by a well balanced potting mix being broken down by natural processes and releasing the elements, although very dilute low nitrogen high phosphorous supplementary fertilisers are sometimes suggested.

## SOCIETY NEWS

*A warm welcome to the new Wairoa Orchid Society. We wish all your members every success and a happy time orchiding. The Secretary is Mrs R. Gasson, PO Box 191, Wairoa.*

*Hello again to Rotorua Orchid Society, who have now joined the Council. The Secretary here is Mrs Glen Anderson, 421 Pukehangi Road, Rotorua.*

*I am sure that both these societies will be very pleased to hear news and views from the other societies in New Zealand.*

*The Orchid Council of New Zealand wish to thank the following Societies for making such generous donations:*

<i>Bay of Plenty Orchid Society</i>	<i>\$100</i>
<i>Golden Coast Orchid Society</i>	<i>\$200</i>
<i>Hawkes Bay Orchid Society</i>	<i>\$300</i>
<i>Waikato Orchid Society</i>	<i>\$150</i>

*This is very much appreciated.*

*I wish to correct an error. The Whangarei Orchid Society have donated \$100 not \$50 as previously published. Thank you Whangarei, sorry for the mistake. We really do appreciate your generosity.*

*A very big thank you to Mr Andrew Easton of Featherhill Exotic Plants for your donation of \$140 towards the cost of colour plates. This item is singularly the most expensive that we have in producing the magazine.*

## VALE

### ALBERT HUGH BLACKMORE

*An era in the short history of the Orchid Council of New Zealand has elapsed with the peaceful passing of Albert Blackmore at his residence, 34A Evelyn Place, Northcote, Auckland on 1st April 1982.*

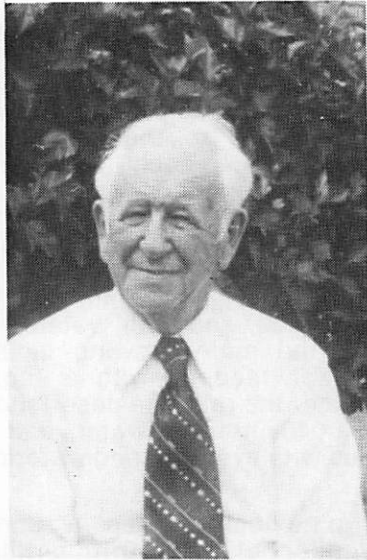
*A very moving service was held at St John the Baptist Anglican Church, Northcote, which was well attended by a large number of close friends and members from local orchid societies.*

*On behalf of all members of New Zealand orchid fraternities it is my sad duty to express genuine grief and loving comfort to his wife, Elsie and the family in their sudden bereavement. May these next days and weeks be fortified in the knowledge that your 'Blackie,' as he is endearingly known to those of us fortunate enough to have been associated with him in the orchid scene, will always be remembered for his many fine and friendly attributes.*

*Albert was a life member of both the New Zealand and North Shore Orchid Societies being the founder Patron of the latter. A life judge of the N.Z.O.S. and was Chairman of the Committee set up to formulate the rules and judging standards for the Orchid Council of New Zealand, later becoming the first Registrar General for that organisation. Due to his determination and dogged ability he achieved his objective in forming the Regional Judging Panels. Albert was the first recipient of the John Easton Award and also received an Award of Honour from the Orchid Council of New Zealand.*

*His stirring and untiring efforts will long be remembered.*

*Bus Rae*



## SPRING SHOWS

### SOUTH AUCKLAND ORCHID SOCIETY

11th September, for times, contact  
12th September, Secretary—Soc. News  
Community Centre, Great South Road,  
Papakura

### WHANGAREI ORCHID SOCIETY

17th September, 12 noon to 8 pm  
18th September, 10 am to 5 pm  
19th September, 10 am to 4 pm  
Forum North, Rust Avenue

### HUTT VALLEY ORCHID CIRCLE

18th September, 2 pm to 6 pm  
19th September, 11 am to 5 pm  
Hutt Horticultural Hall, Laings Road,  
Lower Hutt. Show also on 12th and 13th  
November in conjunction with Rose Show  
Details from Secretary.

### GOLDEN COAST ORCHID SOCIETY

23rd September, 9 am to 8.30 pm  
24th September, 9 am to 5.30 pm  
25th September, 9 am to 6.30 pm  
Coastlands Mall, Paraparaumu

### TAURANGA AND BAY OF PLENTY ORCHID SOCIETIES

24th September, 9 am to 9 pm  
25th September, 10 am to 4 pm  
Wesley Church Hall, 13th Avenue,  
Tauranga

**NEW ZEALAND ORCHID SOCIETY**

24th September, 10 am to 9 pm  
 25th September, 10 am to 9 pm  
 26th September, 10 am to 5 pm  
 Mt Albert War Memorial Hall

**POVERTY BAY EAST COAST ORCHID SOCIETY**

24th September, 12 noon to 9 pm  
 25th September, 10 am to 6 pm  
 26th September, 10 am to 4 pm  
 Archery Club Hall, Gisborne.

**SOUTH TARANAKI ORCHID SOCIETY**

25th September, 1 pm to 6 pm  
 26th September, 10 am to 4 pm  
 Hawera Community Centre

**MANAWATU ORCHID SOCIETY**

1st October 11 am to 9 pm  
 2nd October, 10 am to 5 pm  
 All Saints Church Memorial Hall, The Square, Palmerston North

**THAMES VALLEY ORCHID SOCIETY**

1st October, 10 am to 6 pm  
 2nd October, 10 am to 4 pm  
 War Memorial Hall, Mary St, Thames

**WAIRAPA ORCHID CIRCLE**

3rd October, 11 am to 4 pm  
 Senior Citizens Hall, Cole St, Masterton

**HAWKES BAY ORCHID SOCIETY**

8th October, 1 pm to 8.30 pm  
 9th October, 10.30 am to 8 pm  
 10th October, 10 am to 4 pm  
 Centennial Hall, McLean Park, Napier

**NORTH SHORE ORCHID SOCIETY**

8th October, 1 pm to 9 pm  
 9th October, 9 am to 5.30 pm  
 10th October, 9 am to 4.30 pm  
 North Shore Training College, Aorangi Drive, Northcote.

**TARANAKI ORCHID SOCIETY**

8th October, 1 pm to 9 pm  
 9th October, 10 am to 8 pm  
 10th October, 10 am to 4 pm  
 Coronation Hall, Gill St, New Plymouth

**CANTERBURY ORCHID, BEGONIA & FERN SOCIETY**

16th October, 1 pm, 9 pm  
 17th October, 10 am to 4.30 pm  
 Horticultural Hall, 151 Cambridge Terrace, Christchurch 1. The above show will be held in conjunction with second South Island Orchid Seminar. See notice elsewhere in magazine.

**DANNEVIRKE & DISTRICT ORCHID SOCIETY**

22nd October, 8 am to 4.30 pm  
 Regent Theatre, High St, Dannevirke

**WELLINGTON ORCHID SOCIETY**

23rd October, 11 am to 5 pm  
 24th October, 11 am to 5 pm  
 25th October, 11 am to 5 pm  
 St Oran's College, High St, Lower Hutt

**NELSON ORCHID SOCIETY**

To be advised.

**ORCHID SOCIETY OF SOUTHLAND**

To be advised.

**OTAGO ORCHID CLUB**

No show this year.

**SOUTH CANTERBURY ORCHID SOCIETY**

No show this year.

## SOCIETY INFORMATION

**Bay of Plenty Orchid Society**

Meeting: 2nd Sunday of month  
 December, 1st Sunday  
 January, no meeting.

Time: 1.30 pm  
 President: Mr P. Nichole  
 Secretary: Mrs J. Blackwood,  
 250 Pohutukawa Ave,  
 Ohope Beach. Phone: 796  
 Ohope.

**Canterbury Orchid, Begonia & Fern Society**

Meeting: First Monday of month  
 Time: 8.00 pm  
 President: Dr. M. MacSaveney  
 Secretary: Mr J.G. Marshall,  
 6 Gamblins Rd, Ch Ch.2.  
 Phone: 326-533 Ch. Ch.

**Dannevirke & District Orchid Society**

Meeting: 2nd Monday of month  
 Time: 7.30 pm  
 President: Mrs Scott  
 Secretary: Mr L.N. Feck,  
 10 Trafalgar St, Dannevirke  
 Phone: 7914 Dannevirke

**Golden Coast Orchid Society**

Meeting: 2nd Monday of month  
 (Feb—Nov inclusive)  
 Time: 7.30 pm  
 President: Mr W. Ross-Taylor  
 Secretary: Mrs Betty Norman,  
 60 The Esplanade, Raumati  
 South. Phone: 86-959  
 Paraparaumu

**Hawkes Bay Orchid Society**

Meeting: 1st Monday of month  
 except January  
 Time: 8.00 pm  
 President: Mr M.R. Gard  
 Secretary: Mrs N.F. Allen,  
 R.D.3, Napier. Phone:  
 83-050 Napier

**Hutt Valley Orchid Circle**

Meeting: 3rd Monday of month  
 Time: 8.00 pm  
 President: Mr Frank Taylor  
 Secretary: Mr Jack Francis,  
 17 Ranfurly St, Trantham.  
 Phone: 287-829 Wellington

**Manawatu Orchid Society**

Meeting: 2nd Thursday of month  
Time: 7.45 pm  
President: Mr N.G. Wood  
Secretary: Mr J.G. Jackson,  
18 Hurley Place,  
Palmerston Nth. Phone:  
83-348 Palmerston Nth.

**New Zealand Orchid Society**

Meeting: 3rd Wednesday of month  
(Feb—Nov)  
Time: Learners 7.00 pm  
Main meeting 8.00 pm  
President: Mr F.A. Ballard  
Secretary: Mr C.H. Brindle,  
24 McIntyre Rd, Mangere  
Bridge. Phone: 669-001  
Auckland.

**North Shore Orchid Society**

Meeting: 1st Sunday of month  
(Feb—Dec)  
Time: 1.00 pm  
President: Mr Roy Clareburt  
Secretary: Mrs Margaret Tucker,  
PO Box 33-493, Takapuna.  
Phone: 456-692 Auckland

**Orchid Society of Southland**

Meeting: 1st Tuesday of month  
Time: 7.30 pm  
President: Mr John McDonald  
Secretary: Mr Ray Dodd,  
Taiepa Rd, R.D.9, Otatara.  
Phone: 80-067 Invercargill

**Otago Orchid Society**

Meeting: 4th Wednesday of month  
Time: 7.30 pm  
President: Mr G.H. Gee  
Secretary: Mr M.L. Young,  
61 Argyle St, Mosgiel.  
Phone: 6550 Mosgiel

**Poverty Bay East Coast Orchid Society**

Meeting: 2nd Monday of month  
Time: 7.30 pm  
President: Mrs R. Bell  
Secretary: Mrs L. Fitzgerald,  
Box 795, Gisborne. Phone:  
6872 Gisborne

**South Auckland Orchid Society**

Meeting: 1st Tuesday of month  
(Feb—Dec)  
Time: 7.30 pm  
President: Mr Harold Prince  
Secretary: Valerie Burnside,  
74 Red Hill Rd, Papakura.  
Phone: 298-3205 Papakura

**South Canterbury Orchid Society**

Meeting: 1st Tuesday of month  
Time: 7.30 pm  
President: Mr R. Barrett  
Secretary: Mrs J. Sheard,  
225 King St, Temuka.  
Phone: 1494 Temuka

**South Taranaki Orchid Society**

Meeting: 3rd Thursday of month  
Time: 7.30 pm  
President: Mr Eric Lander  
Secretary: Mrs Jacky Parkinson,  
9 Cameron St, Hawera.  
Phone: 7404 Hawera

**Taranaki Orchid Society**

Meeting: 2nd Tuesday of month  
Time: 7.30 pm  
President: Mr G. Bruce  
Secretary: Mrs Ruth Scheliin,  
47A Endeavour St, New  
Plymouth. Phone: 511-514  
New Plymouth

**Tauranga Orchid Society**

Meeting: 3rd Tuesday of month  
(Feb—Dec)  
Time: 7.30 pm  
President: Mr R. Maunder  
Secretary: Mrs B. Burgess,  
C/- Box 2107, Tauranga  
South. Phone: 25570  
Tauranga

**Thames Valley Orchid Society**

Meeting: Last Sunday of month  
(Jan—Nov)  
Time: 2.00 pm  
President: Mr Alan Benson  
Secretary: Mr Gordon McKenzie,  
PO Box 60, Thames.  
Phone: 86-720 Thames

**Wairarapa Orchid Circle**

Meeting: 1st Sunday of month  
Time: 2.00 pm  
President: Mr L. Lloyd  
Secretary: Mrs R.K. Booth,  
112 Essex St, Masterton.  
Phone: 86-343 Masterton

**Wellington Orchid Society**

Meeting: 1st Monday of month  
(Feb—Dec)  
Time: 8.00 pm  
President: Dr. R. Cooper  
Secretary: Mrs L.G. Cosnett,  
35 Clyma St, Upper Hutt.  
Phone: 288-429 Wellington

**Whangarei Orchid Society**

Meeting: 1st Wednesday of month  
Time: 7.30 pm  
President: Mr Sid Wray  
Secretary: Mrs Pam Buntan,  
17 Graham St, Whangarei.  
Phone: 88-497 Whangarei

---

*If your Society does not appear in the above list, or, if the information is incorrect please write to the Editor before 31st May 1982.*

# Win

a lovely prize of six silver coated Orchid Teaspoons kindly donated by:

**W.J. DEED PRINTING LTD**

All you have to do is write 500—750 words on "My methods of growing some N.Z. native terrestrial orchids."

Send your entries to:

**Editor,  
"Orchids in New Zealand,"  
30B Waiwaka Terrace,  
New Plymouth**

**OPEN TO ALL**

**Closing date: 31st July, 1982**

## LATE NOTICE

### Marlborough Orchid Society

**Meeting:** 4th Sunday of months June, July & August.  
4th Thursday of month from September to May.

**Time:** Sundays — 1.30 pm  
Thursdays — 8.00 pm

**President:** Dr K.H. Patterson

**Secretary:** Mrs J.M. Patterson, 42 Maxwell Road, Blenheim. Phone: 87-088, Blenheim.

**Show Date:** 18th September 2.00—8.30 pm. St Christophers Hall, Weld Street, Blenheim.

### Wanganui Orchid Club

**Meeting:** 1st Wednesday of month.

**Time:** 7.30 pm

**President:** Mrs Joyce Harker.

**Secretary:** Mrs Frances Harvey, 46 College Street, Wanganui. Phone 55-607, Wanganui.

**Show Date:** 16th October, 12 noon to 5.00 pm

17th October, 9.00 am to 5.00 pm. Wanganui Memorial Hall.

# ONE DAY ORCHID SEMINAR Saturday 21st August

**CHATEAU CARAVEL CONFERENCE CENTRE ROTORUA**

Organised by

**THE ROTORUA ORCHID SOCIETY**

This seminar is aimed at providing comprehensive information on the cultivation of all types of orchids, and will be of particular interest to non-commercial growers.

Guest Speakers include:

**MR NORM PORTER  
MR GEORGE FULLER  
MR TOM FRENCH**

Plus other orchid specialists.

The cost will be \$20 which includes morning and afternoon teas and a superb smorgasbord lunch.

**REGISTRATIONS:** To Mrs G. Anderson, 421 Pukehangi Road, Rotorua, by 31st July.

**ORCHID COUNCIL OF  
NEW ZEALAND  
SLIDE LIBRARY**

15 slide programmes now  
available for loan to Societies  
and Judging Panels

**Secretaries**

*If you have not received notice  
please contact:  
Slide Programme Librarian,  
Mrs Beryl Goadger,  
9 Somerset Grove,  
Tauranga.*

**O.C.N.Z. list of speakers also available**

**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

**ORCHID BOOKS**

from

**ORCHID SPECIES**

**THE MANUAL OF CULTIVATED  
ORCHID SPECIES** by Hawkes. An  
indispensable book for the  
serious orchidist **\$110.00**

**SANDERS ORCHID GUIDE** (1927  
edition). 450 pages full of  
culture notes and descriptions  
of thousands of species. **\$ 17.50**

**GROWING ORCHIDS: CYMBIDIUM AND  
SLIPPERS** by Rentoul. Written for  
Australian and New Zealand  
conditions. Packed with  
information and photographs. **\$ 29.50**  
(Hardback) **\$ 36.50**

**GROWING ORCHIDS: CATTLEYS AND  
OTHER EPIPHYTES** by Rentoul.  
Book 2 of this series. These are  
not just species books, many  
modern hybrids are covered **\$ 29.50**  
(Hardback) **\$ 36.50**

**ORCHIDS FOR EVERYONE** by  
Britain's foremost growers. An  
excellent all-round beginner's  
book, well-illustrated **\$ 22.50**

**SANDERS HYBRID LISTS  
1976—1980.** Complete your set  
with this latest edition of all  
registered orchid hybrids **\$ 35.00**

**HOME ORCHID GROWING** by R.T.  
Norten. The standard  
reference on orchid growing —  
a big book full of information **\$ 42.00**

**ORCHIDS AS INDOOR PLANTS** by  
Rittershausen. All you need to  
know about growing plants  
inside. **\$ 17.50**

**Prices Include Postage Anywhere in  
New Zealand**

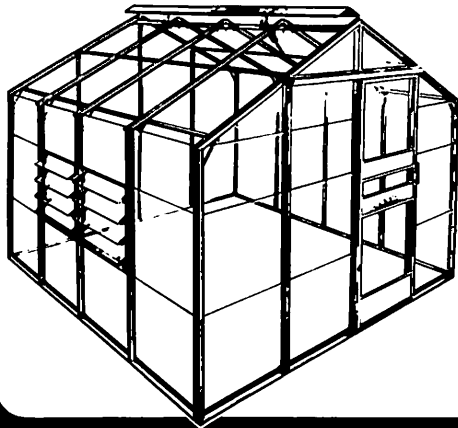
**KEITH & SHIRLEY GOODWIN**


**PO Box 2039, Rotorua**

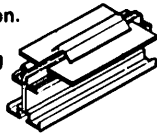


# 8 reasons why you should buy a

**Leisurgro**  
Aluminium Glasshouse



- 1 Unique Aluminium Construction.
- 2 No clips, no putty, long lasting PVC weatherseal.
- 3 Simple assembly with only a spanner and screwdriver.
- 4 Modular construction gives an endless range of sizes inc. a conservatory lean-to.
- 5 Louvres and ventilation ridge exceeds minimum ventilation requirements.
- 6 Sliding door on nylon rollers, finger light operation.
- 7 Awarded designmark for good design. 
- 8 There are so many more reasons but we've run out of room so send the coupon below and find out more.



Return to Patterson & Viskovich Ltd., P. O. Box 938, Napier.  
Please send me more information about Leisurgro.

Name .....

Address .....

Any purchase can be charged to your Diners Club. 

## CYMBIDIUM FLASKS

My 1982 list contains mainly early flowering varieties in both seedlings and mericlones to give a wide range of colour for this period of the flowering season together with miniature and novelty varieties to form a comprehensive list for the hobby and commercial grower.

<b>Seedling flasks contain</b>	<b>40 — 60 plants at \$40.00 each</b>
<b>Mericlone flasks contain</b>	<b>25 — 30 plants at \$60.00 each</b>
<b>Mericlone flasks containing</b>	<b>10 plants at \$27.50 each</b>

## CYMBIDIUM PLANTS

This list is now ready and features flowering size plants, seedlings, mericlones and community pots.

## ODONTOGLOSSUM ALLIANCE

Mericlones and seedlings of Odontoglossums, Odontonias, Vuylstekeara, Wilsonaras and Odontiodas in small to large flowering plants, from \$6.50 to \$20.00.

**LYCASTE seedlings also available**

Send for list now:

### **NORM PORTER "Cymbidium Orchid Specialist"**

Nursery: 23 Paraea Street  
Waikanae

PHONE: 6977

Mail to: 443 Te Moana Road  
Waikanae

**FREIGHT PAID ON ORDERS OVER \$30.00**

# **SOUTH PACIFIC ORCHIDS LIMITED**

## **NAPIER, NEW ZEALAND**

Cymbidium Orchid Hybridisers, Growers, Exporters Tissue Culture Specialists  
Telephone 442-990 P.O. Box 4150, Napier

### **ORDER NOW**

**Cymbidium mericlone flasks of 5's, 10's, 25's**  
**Clone and Seedling plantouts.**  
**Flowering size plants**

Apply personally to the nursery or to one of our agents.

<b>CANTERBURY</b>	Mr A. Campbell, 21 Blakes Rd. Prebbleton, Canterbury. Phone 49-6695
<b>WHAKATANE</b>	Mr H. Carter, Arawa Orchids, 31 Arawa Rd. Whakatane. Phone 6060.
<b>LOWER HUTT</b>	Mrs L. Ferretti, 23 Mabey Rd. Lower Hutt. Phone 67-7729
<b>ROTORUA</b>	Mr K. Goodwin, 283 Spencer Rd. Tarawera, Rotorua. PO Box 2039, Rotorua. Phone 53-113
<b>TAURANGA</b>	Mr E G & Mrs G V Jones, Longview Orchard, Bethlehem RD 1, Tauranga. Phone 64-668
<b>PALMERSTON NORTH</b>	Mr G. Maney, Mana Orchids, 7 Harrow Place, Palmerston North. Phone 79-439
<b>AUCKLAND</b>	Mr K. Nicholson, 32A Oakland Ave. Papatoetoe, Auckland. Phone 27-83872.
<b>NEW PLYMOUTH</b>	Mrs E. Reardon, Omata Gardens, RD 4, New Plymouth. Phone 51-2227
<b>MASTERTON</b>	Mrs F. Spicer, 83 Upper Plain Rd. Masterton. Phone 80-698
<b>WHANGAREI</b>	Mr K. Walls, 73 Anzac Rd. Whangarei. Phone Bus: 84-967. Home 84-252.
<b>NELSON</b>	Mr C. Williams, 782 Main Rd. Stoke, Nelson. Phone 76-018
<b>AUSTRALIA</b>	Mr D. Kemp, Cymbidium Farm, 155 Young St. Parkside, South Australia, 5063. Phone (08) 272-6253

Interested in having your plant cloned; seeds planted and replanted? We now provide this service, apply to Mr Tony Minnett, Nursery for details.



**McBEANS**  
**ORCHIDS**  
(AUSTRALIA) PTY. LTD.

Our new and enlarged 1982 colour catalogue is now available post free for \$1.00, refundable on your first order of \$10.00 or over.

**ROWLAND & McCARLIE**  
Annandale Road, R.D. 1, Kumeu

**ROWMAC**  
ORCHIDS

## ORCHID GROWERS

A New Service Is Available  
Within Auckland

A Monthly Spray Program For The Control of

**MITES  
NEMATODES  
FUNGI  
INSECTS**

The Sprays which are the very best available.  
are highly Toxic so are unavailable to the  
General Public

Now

For a small charge these will be applied for you  
by a Registered Chemical Applicator who also  
grows and loves Orchids.

Protect your Valuable Crop

COMMERCIAL RATES ON APPLICATION

Contact:

**HORTICULTURAL SPRAY  
SERVICES**

15 Addington Ave, Manurewa  
Phone: 266-7254

## ORCHID BOOKS

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

## TWIN OAKS BOOKS

4343 Causeway Drive, Lowell,  
Michigan U.S.A.  
Phone: (616) 897-7479  
MASTERCARD AND VISA

## QUALITY ORCHIDS

For The  
**CONNOISSEUR**

YAMAMOTO

DENDROBIUMS

CYMBIDIUM SEEDLING  
FLASK LIST AVAILABLE  
AGENTS FOR BECK'S MIX

MINIATURES  
CATT. MERICLONES  
CATT. SEEDLINGS & CYM. MERICLONES  
CYM. SEEDLINGS



*Linwood Orchids*

(LIL & RON  
CROUCH)

Muriwai Rd, R.D.1, Waimauku Phone: 411-8267

# **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

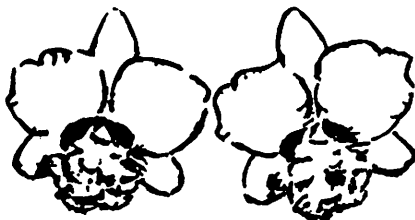
## **L & R ORCHIDS**

21 Jellicoe Avenue, Tuakau

Phone: 68-392

VISITORS WELCOME

Please make prior arrangement  
if possible



*The Cattleya Sellers*

R.D.2 Waiuku, South Auckland  
Phone: Otatau 753

Caryl & John Sellers

**Cattleya, Cymbidium and  
Dendrobium Flasks ex R.G.  
& I. Price, Queensland.**

**— \$25.00 each —**

## **SPECIAL OFFER**

Buy any six flasks and choose  
another one FREE — subject to  
stocks available. Write for lists.

**DIRECT FROM THAILAND — IN  
QUARANTINE NOW**

Flowering sized plants of  
**C. Queen Sirikit 'Diamond  
Crown' AM**

**— \$30.00 each —**

Orders accepted.

# **TINOPAI ORCHIDS**

From the Beall Company Vashon Island USA

- \* Crispum type Odontoglossums**
- \* Cattleyas**
- \* Paphiopedilums**

**Plus our range of Cymbidium seedlings and mericlones**

*Some of the years specials from:*

## **TINOPAI ORCHIDS**

**9 Fairmount Road, Titirangi, Auckland 7  
Phone: 605-560**

## *Tissue Culture Media*

Culture flasks and petri dishes prefilled with sterile culture media are now available.

Standard orchid media or individual formulations can be prepared to order.

**For further information about our confidential service please contact:**

## **LIFETECH LABORATORIES LTD**

55 View Road, Glenfield  
Telephone: Auckland 444-7146

# INDEX 1981—82

	Page
Annual Report, Seventh	2
Cattleyas, Basic Culture	130
Cattleyas in Southland	82
Cultural Notes, Cymbidium	120, 136
Cymbidium Companions	15, 33, 114
Cymbidium Culture, New Thoughts on	17
Cymbidium Insigne 'album,' More about	12
Fertilizers and Orchids	117, 140
Glasshouse, And then a Glasshouse shading	114
Growth and Development	58, 94
Hidden Ones, The	71
Improving the Odds	88
Just Think	119
Kiwi Heritage	93
Low Budget Heating	87
Native Orchid Society	138
OCNZ Awards 1978/80	70, 97
Odontoglossum, The Genus	65
Orchid Production & Potential	106
Orchid Hunting in N.Z.	31
Orchids in Singapore	68
Pukekura Corner	34, 69, 90, 112, 134
Some Native Orchids of NSW	41, 63
Southern Comfort	39
Spraying Equipment	44
Stanhopea 'Evet's'	4
What Price Orchid Bargains	8

## INDEX by AUTHOR

	Page
Ashbridge, Murray	68
Bickerstaff, Ros	15, 31, 33, 114
Brundel, David J.	106
Bryant, Alvin	17
Burgess, Doug.	130
Collyns, Irene	4
Cooper, Dorothy	138
Cosnett, Brian	
French, Tom	2
Fuller, George	34, 69, 90, 112, 114, 134
Harding, Mrs Ray	72
Leahy, Des	12
Maney, Gordon	120, 136
Mayhead, Phil	65
Monkhouse, Syd	8
MacKay, Bruce	93
McDonald, John	82
Rowland, F.L.	119
Sheaffe, Percy H.	41, 63
Sylvester, Gordon	71
Tomlinson, P.C.	58, 94, 117, 140
Tuawhenua Hoa	39
Wyatt, Philip	88
Young, Lyn	87

# **BURKE'S ORCHIDS**

## **Mini Punnet**

Our answer to the mini flask

Six established MERICLONES or SEEDLINGS of the same variety or cross from BURKE'S or VALLEY ORCHID'S flask listing at 1/3 of listed flask rate (minimum plant leaf length 10cm).

No more deflasking worries

Quality PLANTS at least two months from flask

Who wouldn't be tempted

Six too many? SHARE with a friend.

**BURKE'S and VALLEY ORCHID'S 1982 CATALOGUES  
AVAILABLE NOW**

**Send 30cent stamp please.**

**Our Plants and Flasks are also available through**

### **Auckland**

Raylyn Orchids  
201 Eskdale Road  
Glenfield, Auckland  
Ph. 482-352

### **South Island**

Connelly's Orchids  
87 Taylors Mistake Road,  
Christchurch 8  
Ph. Sumner 6656

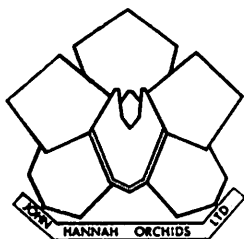
Other North Island Distributors to be arranged.

## **Burke's Orchids**

White Horse Drive, Mokorua, Whakatane  
Phone: 88-648

N.Z. Agent for Valley Orchids, Adelaide, Australia

# 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)