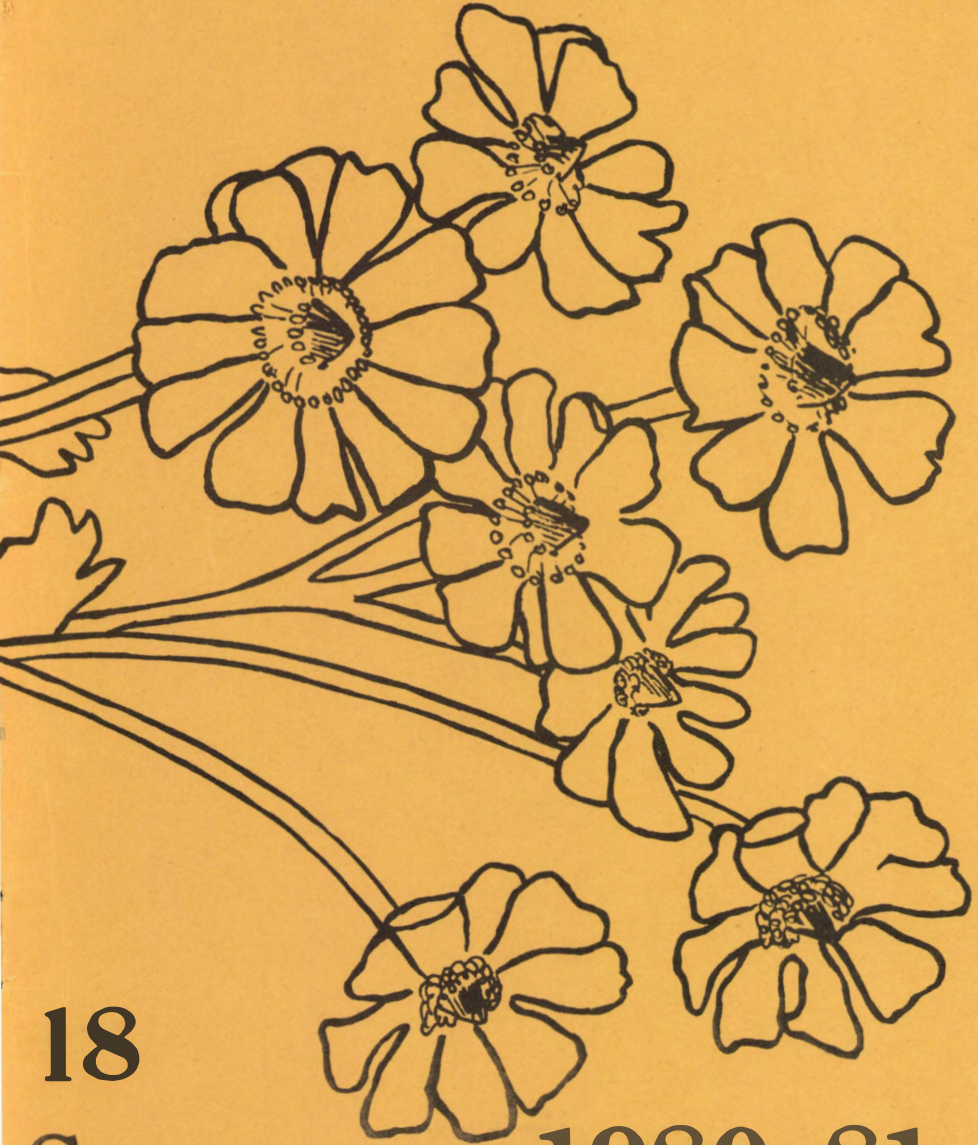


# Horticulture

in New Zealand

Bulletin of the Royal New Zealand Institute of Horticulture (Inc.)



18

Summer

1980~81

# HORTICULTURE

IN NEW ZEALAND



BULLETIN OF THE ROYAL NZ INSTITUTE OF HORTICULTURE  
NUMBER 18, SUMMER 1980-81

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ROYAL NEW ZEALAND INSTITUTE OF HORTICULTURE (INC).

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P.O. Box 12, Lincoln College.

*Bulletin Editor* : Mrs Barbara McCartney.

The Editor welcomes articles, letters and news items for consideration for publication. Contributions should be addressed to the Bulletin Editor, P.O.Box 12, Lincoln College.

Views expressed are not necessarily those of RNZIH.

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# A Christmas Message -

Like a yacht tacking into the wind in order to maintain its course, the Institute over its fifty six years of existence has made many changes, but its general direction has remained the same. The course, or putting it another way, the objectives of the Institute, must always be (among others) to encourage and foster horticulture.

Horticulture is a very diverse field of study and over the years this diversity has seen the growth of specialisation often to the detriment of the Institute, and there still exists a need for a central and general horticultural organisation which is active and creative at district and national levels.

The distribution of the Annual Journal has more than doubled in the past three years to 440, and this increased circulation can be attributed to its quality. The Bulletin with its new lease of life is now bridging the communications gap between members. The Notable and Historic Trees registration scheme is now of significance and the Institute will also be playing a developing role in the Plant Evaluation Scheme which it has just launched through its Regional Horticulture Committee.

More than ever before the Institute is serving New Zealand in a very substantial manner in horticultural education. With enrolments now at 728 it is catering for more students through its Certificate and Diploma courses than both Massey University and Lincoln College through their Diploma and Degree courses combined.

The Institute concerns itself primarily with amenity or environmental horticulture and it is here that it makes its biggest contribution to the environmental qualities within communities. This message is to congratulate District Councils personally for their continued interest and support of Institute objectives in their own areas.

We are doing a lot now but we can still do more to improve the environment within our communities by promoting the values of amenity horticulture.

May goodwill, peace and prosperity be with you for Xmas and the year ahead.

J.O.TAYLOR,  
Chairman,  
NATIONAL EXECUTIVE.





# Notable & Historic Trees

## WHAT IS THE TREE REGISTRATION SCHEME?

In 1977 the RNZIH introduced a national scheme to promote the preservation and protection of New Zealand's Historic and Notable Trees. Since its inception, 24 trees, or groups of trees, throughout New Zealand, have been placed on the Register.

## YOUR SUPPORT IS NEEDED -

with your valued support and enthusiasm, the Registration scheme will be given increased weight. This in turn will enable the Institute to seek increased legal powers on a national basis to protect and preserve trees.

Caring for our heritage is part of protecting New Zealand's landscape.

## HOW DOES THE SCHEME WORK?

The Scheme involves the labelling of trees by the Notable and Historic Trees Committee as being of national importance. A metal label is provided for such trees and the Registration is given national as well as local publicity.

While the scheme requires the support of owners, through publicising the value of existing trees, there is a better chance that their value can be recognised.

To have a tree placed on the register, a Registration Form must be obtained, completed and forwarded to the Notable and Historic Trees Committee. The form seeks such information as the botanic description of the tree, its age and vital statistics, together with its location, health and other relevant details.

The Committee has a list of established criteria and if the tree, or group of trees, fulfils the criteria, it is placed on the Register. *The Committee circulates information on the tree to the media and local bodies.* The RNZIH Registration does not have the legal backing that Registration and Designation on a District Scheme can have. However, once recognised as being of national importance by the Institute, the Committee takes steps to encourage local bodies to protect the tree through their District Schemes.

The scheme uses the Forestry Mensuration Reports on historic and notable trees prepared by S.W. Burstall as a basis for assessment, where they cover the area applicable. There are, however, other trees not included in Burstall's reports which are worthy of registration.

## HOW CAN YOU HELP?

The Institute would value greater support from -

- Local District Councils of the Institute
- More Tree Registration Officers
- Parks Departments and local body staff.

The Committee is working hard to protect our heritage. Please support them. Your interest will be valued.

## NOTABLE & HISTORIC TREES

The following trees have been registered recently :

- a) 2 Spanish chestnuts, *Castanea sativa*, in Pauatahanui, Wellington.
- b) 1 Spanish chestnut, *Castanea sativa*, in Havelock North.
- c) 2 group registrations in Blenheim, including the following trees to be labelled separately :
  - 2 big-trees, *Sequoiadendron giganteum*
  - 1 camphor, *Cinnamomum camphora*
  - 1 ginkgo, *Ginkgo biloba*
  - 1 silver birch, *Betula pendula*
  - 1 English elm, *Ulmus procera*
  - 1 common horse-chestnut, *Aesculus hippocastanum*
  - 2 *Magnolia grandiflora*
  - 6 limes, *Tilia x europaea*.

The following areas are represented by Tree Registration Officers:

Poverty Bay - Mr W.H. Way, P.O. Box 52, Gisborne

North Taranaki - Mr G. Fuller, 25 Victoria Road, New Plymouth

Canterbury - Mr W. Fielding-Cottrell, Springs Road, Christchurch R.D.3

Waikato - Mr E.W.E. Butcher, 9 Martin Street, Hamilton

Otago - Mr S. Kemp, C/- M.A.F., Private Bag, Dunedin  
and  
Mr N. Struthers, 90 Bush Road, Mosgiel.

Auckland - Mr A. Tagg, 5 Avicé Crescent, Remuera, Auckland 5

Wellington - Mr R. Mole, C/- Parks & Recreation, Box 2199, Wellington

Marlborough - Mr B.Soper, 36 Coleman's Road, Blenheim

Wairoa (Hawkes Bay) - Mr B.Teague, 35 Freyberg Street, Wairoa

Nelson - Mr D. Bell, Director of Parks, Box 645, Nelson.

In areas not represented by a Tree Registration Officer, you should contact the Secretary of the RNZIH District Council (addresses inside back cover.)

NOTABLE & HISTORIC TREES COMMITTEE, P.O.BOX 11379, WELLINGTON.

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Mr Graeme Nind, who has served as President of the RNZIH Wellington District Council, and on the Notable and Historic Trees Committee, leaves the capital city to take up the position of Superintendent of Parks, Waimairi County Council, in Christchurch, in the new year,

and

Dr David Aldous, a regular contributor to this Bulletin, leaves Massey University to become Deputy-Principal of Burnley Horticultural College, Melbourne.

We wish them both well in their new situations.

# District News



## AUCKLAND :

Our Grand Garden Gala has passed - the day was fine and Mr and Mrs Bull's garden colourful with camellias, azaleas and primulas, the stalls laden with plants and garden produce. Everyone was most generous with their time and support. We estimate that over 300 people visited the garden and thanks to them and the garage sale held on the following Saturday, we have added just under \$1500 to our funds. This money will supplement the \$1 capitation we receive from the paid yearly subscriptions and enable us to continue our programme of Horticultural Education in the Auckland area as well as finance for such things as newsletters, classes in show judging, student classes, and, of course, the winter lecture series. This effort should make the Auckland Council financially viable for several years.

It would be most surprising if most of our members did not go to the International Orchid Show at Ellerslie and join in with the general admiration of the exhibits. Mrs Takle has contributed the following report :

"It is very easy to run out of superlatives at this Show. Each stand had its beautiful elegant blooms and also its collection of species. This latter group displayed small fascinating orchids which the average gardener will probably never have the opportunity of seeing again for many years. Just a few noted were a *Lycaste* of a deep green shade, a *Dendrobium* like a small orange-coloured Cactus, and the NZ native orchid *Chiloglottis*. The *Miltonia* ranged in colour from pale pinks to an almost dark wine shade. The large *Cattleya* were as always breathtakingly beautiful but a small apricot-shaded bloom seemed to herald a new colour break. A very dainty *Sarcochilus hartmanii* like a spray of white violets was greatly admired and a large basket of *Coelogyne cristata* showing dozens of soft white flowers made a spectacular centre of one display. *Odontoglossum*, *Phalaenopsis*, *Oncidium*, *Vanda*, *Cymbidium*, *Dendrobium* and *Laelia* were all there vying with each other in their exquisite beauty. The Show was a credit to the organisers and exhibitors and a delight to the viewers.

Tufa - with the renewed popularity of rock gardening, many stones are needed to support soil at different levels and to keep plant roots cool. As an alternative to scoria rocks, one can use pongas, logs, concrete slabs or make tufa shapes which will blend with the natural surroundings. The real tufa cut from its land formation in other parts of the world can be almost copied in your own garden workshop by using the following mix :

Sand one part  
Cement one part  
Peat two parts.

These proportions (by bulk, not by weight) are mixed together with water to a firm creamy consistency and put into moulds of an uneven shape to look like natural stone. In time these homemade rocks will weather and complement the rock plants.

## DISTRICT COUNCIL NEWS -

Acacia - When we think of *Acacia* our minds automatically turn to the ones native to Australia and no thought is given to those of African origin. One off-putting characteristic of the African spp is their tendency to produce numerous vicious thorns - but the colour of the flowers ranging from deepest yellow to creamy whites and the beauty of their bark equal the Australians.

A summer flowering *Acacia* is *A. borleae* (2-2½m) with bright yellow sweetly scented flowers for about 10 weeks; *A. davyi* is of upright habit and 2.5m height and has unusual bark patterns; *A. rehmanniana* grows 4-5m and because of its generous spread provides good shade. It has beautiful velvety foliage and remarkable bark colourations and white capitate inflorescences.

### BAY OF PLENTY :

The members of our branch were involved in two major operations recently. Each year we organise and run the 'Gardens of the Year' competition. This is sponsored by the Tauranga City Council, who provide the prizes. Our District Council arranges publicity, the schedule and the judges. The judging is based on marks, and the schedule caters for all kinds of private gardens, new gardens, vegetable gardens, and also commercial premises. The prizes were presented at our October meeting by the Director of Parks. Slides were shown of some of the previous garden winners, and of local parks and public gardens. The Director, Mr W. Turner, gave an interesting talk on present parks and recreation areas, and future plans.

National Rose Show - after much discussion our Council decided that this year we would not compete, but put on a comprehensive exhibition, and a large sales table. The exhibition was planned on a global scale, with flowers and plant material representing different countries. The first was, of course, New Zealand material, mostly foliage. Every exhibit was carefully labelled with the correct name, and habitat. The most colourful displays were African flowers, followed in order by Australian, Asian, American and European flora. Many appreciative remarks were passed on the detailed information available and the beauty of the specimens. It was a very colourful and neat display, which excited much interest. Some spectators asked if we had obtained the materials from all over New Zealand, but we assured them that everything came from local gardens. Our aim was to be educational as well as pleasing. The sales table did good business, adding needed funds for our Council.

### WELLINGTON :

Committee members, Bob Lowe and Brian Pollock, organised and conducted a well-attended and successful, mid-week, student training day in October. Of the 20 students who attended, 5 were from Masterton. The theory side covered pests and diseases and identification, of which many students have little first-hand knowledge. On the practical side, preparation of students for the Oral and Practical examinations at all three levels was covered. From comments heard afterwards, students think it well worthwhile attending. A need is felt to extend the number of sessions being held to provide better coverage of certain subjects and is currently being investigated by Bob Lowe.

Our September outing to the Hutt Valley, hosted by the Camellia Society, was an outstanding success. There was a large attendance and the weather was perfect.

## DISTRICT COUNCIL NEWS -

The first garden we visited, Mrs Clear's in Fairfield, was attractively laid out, well planted and labelled, and with many unusual plants in bloom. On the cool, moist side of the house, alpine treasures such as *Fritillaria acmopetala* with green and yellowy bells, *Fritillaria meleagris* the Snakeshead Fritillary, with slender stems and dull purple chequered bells, a lavender flowered *Calochortus* sp., *Erythronium hendersonii*, one of the Dog's Tooth Violets with mottled leaves and a dancing Turk's cap flower of lilac with purple markings. A wonderful display of *Myosotidium hortensia*, the Chatham Islands forgetmenot, a small area of different species of *Muscari*, and many others too numerous to mention. The sunny side featured vines, Irises and Camellias, plus other rare and unusual shrubs.

The second garden we visited belonged to Mrs Hansen, where we saw beds of magnificent *Narcissi*, a tiny, double white *Spiraea*, and a wonderful collection of Camellias, Ferns and Azaleas. This garden with its long lawn, bush shrubbery and gay garden plots is a delightful place.

Miss Todd's garden in Wairere Road, by contrast, is set on the western hills of the Hutt with a commanding view of the Wellington Harbour, but because of the lie of the land is sheltered from the southerlies. The house is approached down a winding drive with an extensive built-up bed on the left, planted in rockery plants. There was a profusion of bloom from top to bottom and all round the wall in all the crevices. Directly in front of the house was a large brick paved area forming a lovely, private and warm patio. We noticed *Tulipa saxatilis*, the satin tulip, in bloom - a bright lilac-pink flower with a golden centre. Behind the house the sloping section is laid out in terraces and a walled garden and lawn area. The polyanthus here were the biggest flowered we had ever seen. Other features - *Moraea glaucopsis*, *Narcissus* spp. and hybrids, *Trillium chloropetalum*, *Anemone pulsatilla*. Great use was made of forgetmenots, and *Primula malacoides* as ground cover. The effect was a charming blend of soft blues and pinks and purple, creating the feeling of an old world garden.

### WHANGAREI :

Mr Kevin Young demonstrated to the November meeting the method of dividing old established clumps of Gerberas. Gerberas are usually divided when clumps become large and untidy or if flowers become smaller. Plant out only strong divisions with fresh young growth, cut back roots to 100mm and leave only short young leaves. Do not allow flowering until well established. Gerberas require a light well-drained soil in a sunny open position. Trim back foliage late winter, apply side dressing of balanced fertiliser not high in nitrogen. Spray regularly with Dithane M45 or Dithane 278, avoid planting too deeply and water around plants not over foliage. Give good soaking every ten days during dry periods. Dividing and replanting is best carried out during September-November.

### From the Whangarei Native Forest and Bird Protection Society -

The Sweetwater Nursery of the Forest Service has despatched nearly 7 million pine seedlings for planting this season. The Forest Service used all but 1½ million which were sold to various companies planting in Northland.



## DISTRICT COUNCIL NEWS -

Over 50,000 young Kauri trees have been supplied for planting - mainly in the Auckland conservancy. On Great Barrier Island an interesting experiment is being tried with 5,000 of these Kauris. Last season an observant and enterprising forestry worker on the Island used the waxed cardboard boxes in which the seedlings had arrived as a mulch around the base of some trees. The effect on the trees through controlled transpiration and weed control was so spectacular that the Forest Service has produced ready cut cardboard pieces for a trial on these 50,000 trees this season.

### SOUTH TARANAKI :

In fulfilment of an obligation imposed in terms of the main source of our interest income, the Larcom bequest, Executive members of the District Council have dealt with three applications for tree planting assistance. These have been almost entirely native species acquired for the Opunake and Manaia schools and for the immediate surroundings of the historic Manaia Redoubt. The cost of the three plantings, approximately \$100, will be met by the District Council from its investment earnings. We acknowledge the work of Council members in the two areas concerned, Mrs Winsome Sarten and Mrs Melva Yarrow, and our Patron, Mr Rod Syme, for his continuing interest and activity. Mr Syme has given much valued advice on native material suitable for coastal and inland plantings in all our projects of this nature over a great many years, including his most notable effort in recent times, the beautification of the formerly bleak surroundings of the Eventide Home for the aged at Eltham.

It should be noted that surplus money from a grant by the Historic Places Trust for renovation of the Manaia Redoubt has been used also for tree plantings, so that the overall effect of the two combined plantings should be quite impressive. We feel that gradually the District Council has achieved much in many places throughout the area of its jurisdiction, and, as further applications are received, it will continue to do more in recognition of the merits of our own indigenous flora.

### POVERTY BAY HORTICULTURAL SOCIETY :

Surely the view from the new Whareata Forestry building on a sparkling Spring day must rank high in beautiful scenes of the world. This was the beginning of a day-tour enjoyed by horticultural members who were shown planned roadside picnic areas planted with exotic and native trees. We were taken to a ridge to view the site for the city water lake - already well-established trees are growing to what will be the water edge. Boating events and picnic areas are envisaged in a 10-year plan.

Our Rose and Iris Show on 1st and 2nd November was enhanced by roses, fuchsias and mini roses brought from Feilding by Mr Alan Mason's nursery, and Irises displayed by Mr Punton together with Hippeastrums exhibited by Mr van der Velde, added to the beauty of the occasion.

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Did you know that it always rains at the end of a dry spell?

## THE NEW ZEALAND PASSION FOR THE FERN

(Abridged from the article by Theima Strongman, printed in "The Press", Christchurch, September 1980.)

During the middle of the last century, Victorians both in New Zealand and Britain developed a passion for ferns. This passion became a mania and the fern frond pattern was used in every conceivable manner for domestic decoration.

The fern became the symbol of taste for the Gothic style - its intricate pattern and natural shadowy, sombre environment mirroring the dark, awesome feelings of the architecture and the heavily complex serenity of the drawing room.

In Christchurch this style is reflected in the architecture of the Arts Centre and Museum. The fern also became the botanical symbol for New Zealand and in its early days New Zealand was known as "The Land of Ferns".

The Victorian passion for collecting helped to stimulate the mania for ferns. While some Victorians collected countries and peoples for the Empire, others made collections of shells, fossils, dried seaweeds, pressed wild flowers - and ferns. Both the invention of the microscope for close examination of the spores, and a method of producing thinner glass for conservatories, gave support to the growing interest, but perhaps most important of all was the invention of the Wardian Case.

Nathaniel Bagshaw Ward discovered the principles of "The Case" at the beginning of the 19th century while observing the chrysalis of a hawk moth caterpillar which he had imprisoned within a loosely stoppered glass jar. He noticed also the growth inside the bottle of a fern, which was thriving although not being watered. The water expired by the fronds simply condensed on the sides of the bottle and ran down to the roots of the plant, to be recycled.

With the help of his friend George Loddiges, a prominent London nurseryman and importer of exotic plants, whose collection rivalled that of Kew, Ward developed his idea and presented it to the esteemed Linnean Society. In June 1833 Ward and Loddiges sent plants to Australia in a Wardian Case, which arrived there safely in November of that year. From that time it became possible to send plants easily throughout the world. On the return journey to London the Wardian Case contained the fern *Gleichenia microphylla*, never before seen alive in Britain.

The renowned photographer, Dr Barker, brought plants in a case from England to Christchurch aboard the Charlotte Jane (1850). Although the case smashed on landing, he managed to salvage some of the plants. In the meanwhile the Wardian Case had introduced precious ferns into the drawing rooms of the English middle classes.

In 1853 the Director of Kew Gardens, Mr Hooker, produced "A Handbook of New Zealand Flora" which included a section on ferns, and early settlers set eagerly to work to collect and classify new varieties. In 1861 the wife of Commissioner-General Jones produced a booklet on Ferns which was published in Auckland, and in 1875 there appeared a book called "Ferns which grow in New Zealand and adjacent islands, plainly described by H.E.S.L."

## THE NZ PASSION FOR THE FERN - CONT

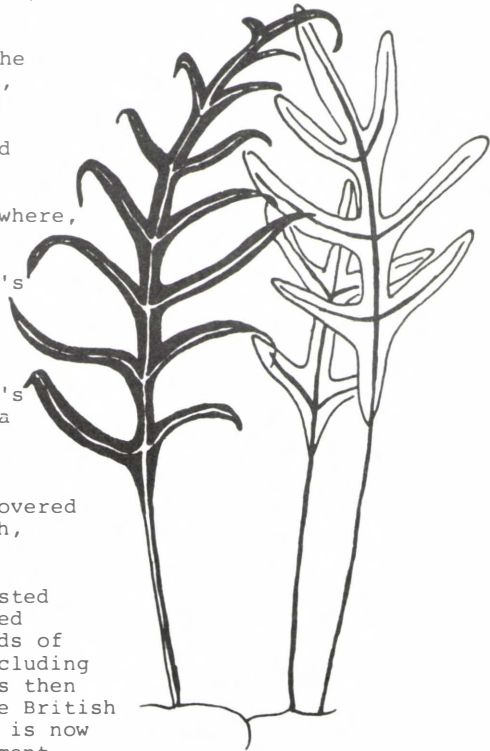
The first academic book of New Zealand ferns was written in 1882 by a Dunedin schoolmaster, George Thomson. Pteridomania must have been gathering momentum, and Mr Thomson exhorted people to grow the living fern instead of the "tawdry wax or cloth flowers one sometimes sees in the drawing room". Thomson's book was discussed in the "Lyttelton Times" and the reviewer commented that although the book contained hints for cultivation, it lacked information on growing ferns from spores. He urged his readers to try this, and that to draw each different stage of development would not only be pleasant but "useful to science".

Christchurch nurseries featured ferns too - Thomas Abbott's in Papanui Road had a fernery 36' by 12' which was described as being a splendid natural habitat for ferns. It contained 200 varieties, including *Murelas (Marattias) fraxinea* and *salicina* which grew near the Rotomahana Hot Springs, and Abbott's new, gold fern, *Gymnogramum peruviana*.

Andrew Duncan's nursery included the stag's horn fern and two new ferns, *Nothoclaena asrea* and *Nephrolepis duffii*. This was the first fernery built in Christchurch and contained tree ferns and ferns growing in baskets from the roof, with spores dropping off and germinating everywhere, even on decaying wood.

At this time the foreman at Duncan's was Christopher Mudd, who had been a botanist on the Prince of Wales' visit to India in 1875-6. John Coker of Coker's Hotel hired Mudd to design a fernery in the hotel's small backyard. This fernery was a reproduction of a cliff, 12' high with a miniature mountain torrent leading to "a winding river which carries the water away". It was covered with ferns, both native and British, and bright green moss.

The fernery at Adams and Son consisted of a lattice roof covered with oiled and green stained calico. Thousands of British ferns were grown there, including the *Osmunda* or Royal Fern which was then rapidly being exterminated from the British countryside by avid collectors and is now rarely seen in its natural environment.



## THE NZ PASSION FOR THE FERN - CONT

In Wanganui in 1890, H.C.Field published a book called "Ferns of New Zealand", in which he claimed that New Zealand probably had a greater number and variety of ferns than any country of equal area. He attributed this to our many local climates. His acknowledgements include the work of Armstrong at the Botanical Garden, Thomas Abbott, Robert Brown, of Christchurch, and "several ladies in various parts of the colony who might not care to see their names in print."

Robert Brown, a shoemaker and world expert on mosses, who lived at Merivale in Christchurch, knew the whereabouts in the Port Hills of the rare fern *Gymnogramma rutaefolia*. When asked for evidence of this he would steal away in the early morning to avoid being followed and return with a single frond. It was rediscovered in 1920.

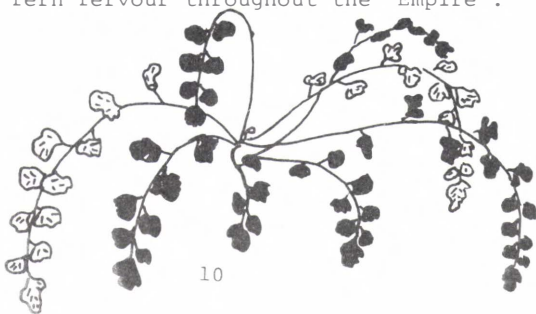
Tree ferns in England were fetching between 5 pounds and 47 pounds in the late 19th century, and in 1898 the Wellington firm of Judd advertised in the "Canterbury Times" to export ferns and provide albums for tourists. The firm of A. and S. Reid of Christchurch at the turn of the century was described as native seed and fern collectors.

In 1906 the beautiful fernery which was built for the Christchurch Exhibition in Hagley Park was "a spot of delightful sylvan restfulness." About 80 species of fern were shown, there was a bush bridge of tree fern trunks over the pond, and the timbers overhead resembled tree trunks.

Perhaps the strongest NZ passion for ferns was felt by Dobbie of Auckland. His book, written in 1921, went into several later editions. In these are included accounts of his fern forages into the bush with his friend Mr Cameron. The book is scholarly but full of enthusiasm.

Wardian Cases in drawing rooms have been replaced by bottle gardens in the lounge. The Mona Vale fernery is alive and well, having been transported from the 1906 Christchurch Exhibition, but stocked primarily with native plants and other shade lovers. The fernery at the Botanical Gardens still contains many of the old favourites - the beautiful Prince of Wales' Feathers Fern crouches under the more invasive ferns; *Marattia* stands poised, and elegant and delicate maidenheads still tremble.

The fernery is a little tired and confused now, but perhaps it is waiting for a mutation of the pteridomania virus to spread a new epidemic of fern fervour throughout the "Empire".





## CABBAGES THAT BOLT -

*(Reprinted from Cassell's Popular Gardening, Special Edition)*

"To bolt" is a good old-fashioned garden verb. It may not be altogether elegant, but it is undoubtedly expressive! Who first hit on the idea of indicating the running to seed of a vegetable with one single, comprehensive word is not known. He was a genius in his way, and if he had added to his good deeds by telling us what causes bolting, and how it may be prevented, he would have deserved a statue.

A bed of Cabbage in spring is an exceedingly valuable thing in a garden, and there are probably very few who do not wait impatiently for the turning in. Now Cabbages which bolt do not turn in; they throw up a flower stem, and are worthless as a vegetable. It is not often that a whole bed goes. Sometimes three or four in a row will bolt and the rest turn in. In other cases every other plant in a row will go.

What is the cause of bolting? To begin with, it is to some extent a question of variety. Some, at all events, are much less liable to go than others when summer sown. Mainly, bolting arises from a wet, growing autumn following a dry summer.

Can bolting be prevented? One thing is worth trying, and that is transplantation in spring. The percentage of "bolters" is fewer among transplanted than among non-transplanted Cabbages.



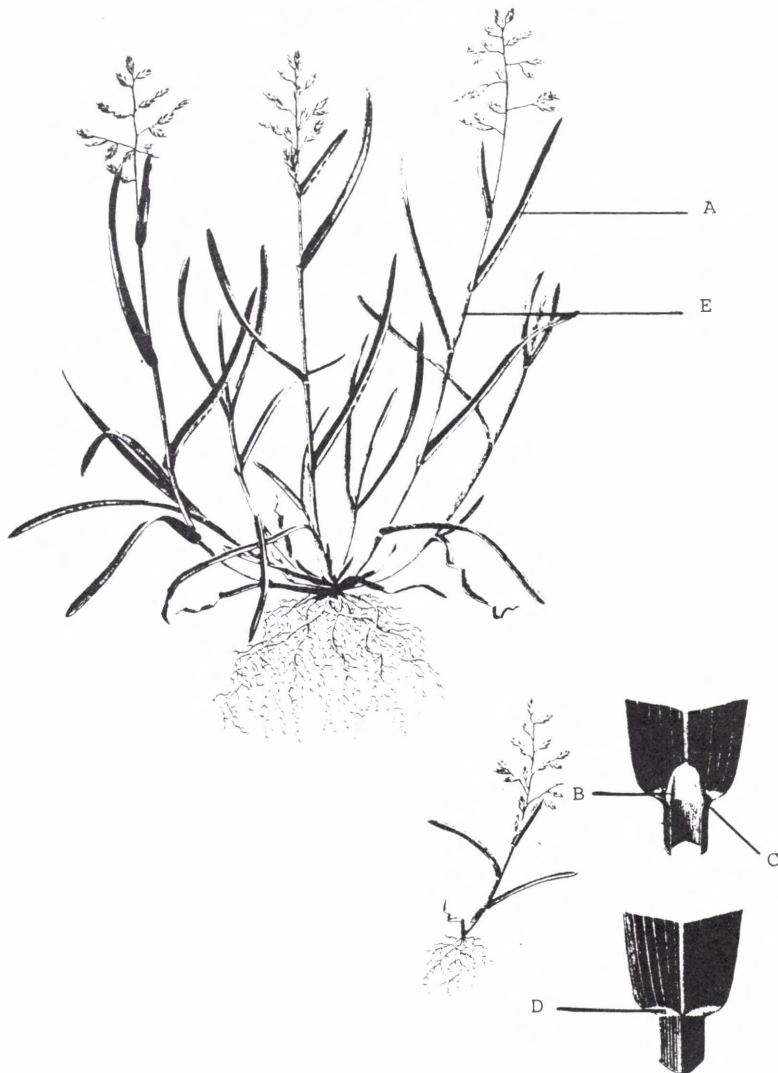
Bolting is encouraged by sowing too early or late in the year. It is best to make two or three summer sowings, and so find out which suits the locality where one may be situated.

Some cultivators affirm that Cabbage bolting may be prevented to a great extent by inserting a small knife blade through the stem about 2" from the ground, placing a piece of wood the same thickness as the blade of the knife in the insertion, where it must remain until the Cabbage is ready to cut! This must be done as soon as the "bolt" is perceived. Success is doubtful!

# Know Your Turfgrass - 10

D.E. ALDOUS

Annual bluegrass (*Poa annua*)



## KNOW YOUR TURFGRASS - 10

*Poa annua*

- A. Venation : leaf folded in the bud, blade entirely without hairs, usually light green, boat shaped tip.
- B. Ligule : white, long, membranous, rounded at the apex.
- C. Auricles : absent.
- D. Collar : narrow and continuous.
- E. Sheath : split and keeled, compressed, smooth.

**REMARKS :** Often considered a weed, annual bluegrass is a common constituent of New Zealand turf areas. Originally a native of Europe, this grass is now distributed throughout most temperate countries. Annual bluegrass grows vigorously in cool, moist weather, or damp, shaded locations, and is a prolific seeder. In hot weather, annual bluegrass dies or fades out leaving unsightly dead patches. In contrast a perennial *Poa annua* could prove to be a useful turf cover and there is documentation that perennial forms do exist.

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*This is the final of this series, and our thanks are extended to Dr Aldous for this contribution to our Bulletin.*

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## WORLD GARDENS TOUR -

Dalgety Tours announce the 1981 World Spring Gardens Tour, personally escorted by Mr H.G. Gilpin, AHRIH, the former Director of Parks, Christchurch.

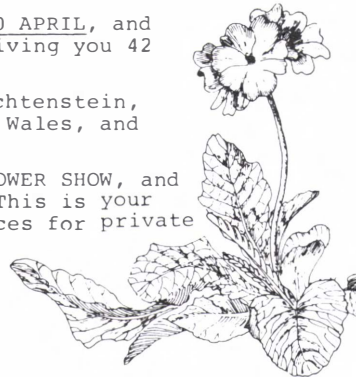
This exciting tour will depart on MONDAY 20 APRIL, and return to New Zealand on SUNDAY 31 MAY - giving you 42 days travelling through :

USA, Spain, Holland, Germany, Austria, Leichtenstein, Switzerland, France, England, Scotland and Wales, and returning home through Singapore.

Have YOU ever wanted to see the CHELSEA FLOWER SHOW, and the most beautiful gardens of the world? This is your opportunity. There will be plenty of chances for private sightseeing as well.

For further information contact :

Miss Ann M. Kelly,  
Senior Travel Officer,  
DALGETY TRAVEL,  
P.O. Box 908,  
CHRISTCHURCH.



## RNZIH REGIONAL HORTICULTURE COMMITTEE - ANNUAL REPORT

AS PRESENTED AT THE AGM - MAY 1980

Under its terms of reference the work of Regional Horticulture has been directed mainly to :

1. Establishing and furthering the Notable and Historic Trees Scheme.
2. Investigating the need for and a method of evaluating ornamental trees and shrubs. This has been called the Plant Evaluation Scheme.
3. Maintaining a judge's register and dealing with any matters pertaining to judging. This has included the review of the Floral Art Handbook for reprinting.
4. Maintaining a watching brief on environmental matters.
5. Generally trying to maintain liaison and strengthen District Council activities.

Meetings have been held quarterly prior to the National Executive meeting and have taken the form of convening a P.E.S. Committee meeting followed by a Notable and Historic Trees Committee meeting. In this way it has been possible to involve the National Executive members Messrs. G. Mander and M. Steven in the work of these committees.

The P.E.S. Committee has had many meetings during the year - members Messrs C. Gill, K. Davey, A. Mason, R. Nanson and Mrs Shepherd. One meeting was held with Mr Whitmore of the Plant Varieties Office.

We are now in a position to offer and institute a Plant Evaluation Scheme for testing new plant materials developed in New Zealand or for testing imported plant material where there is a need. The Plant Varieties Office is aware of our scheme and may wish to use it in the event of their being required to evaluate ornamentals. The committee has prepared a brochure to introduce the scheme and asks for support from all members to make the scheme a success.

With its introduction, Mr Chris Gill will be handling most of the work but he has the full support of the P.E.S. Committee who will continue to work for the best scheme possible and suited to the requirements of the RNZIH and National Executive has provided Mr Gill with funds to operate the scheme.

The Notable and Historic Trees Committee has continued to process those trees submitted through individuals or District Councils. There are now 21 trees on the register. There is still a disappointing lack of support for the scheme from some areas. A new publicity brochure is available for distribution and an application for an Environmental Grant has been made with the intention that if granted, the money can be used towards greater publicity.

Judging - Liaison was maintained with Auckland District Council when their recent Judges' Courses was held. They are to be congratulated on the success of the venture and that in so doing



## REGIONAL HORTICULTURE ANNUAL REPORT -

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they kept the name of the RNZIH as a leader in this field.

Work on the revision of the Floral Art Handbook was completed by December 1979 but there has been a delay in preparing the typescript for presentation to the printer. It is hoped that the new issue will be available shortly as there have been requests for the book.

It is with regret that Mr Ken Davey has had to resign from the National Executive but it is hoped to keep him informed of Regional Horticulture matters, in particular the P.E.S. Scheme. He has been invaluable during all discussions on this scheme and several of our meetings have been held at Levin. We wish him every success in his new position in New Plymouth.

With the introduction and establishment of the P.E.S. Scheme, Regional Horticulture invites suggestions from District Councils and members for new projects for 1980/81.

In conclusion, as Chairman I wish to express my sincere thanks for the keen and friendly teamwork we have in Regional Horticulture and its two sub-committees and for the progress which has been made. We ask members to support the schemes introduced. I would also like to thank Ashley Foubister and John Taylor for help and advice received during the year.

R.W.SHEPHERD,  
Chairman,  
RNZIH Regional Horticulture.

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*It has been proposed that the Regional Horticulture Committee submit quarterly reports of its activities for publication in this Bulletin for the interest of members.*

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### ORDER YOUR 1980 RNZIH JOURNAL NOW :

This is a record of progress in the field of horticultural science with authoritative articles by New Zealand's leading professional and amateur horticulturists. The 1980 edition includes articles on :

- Seed dormancy in Passionfruit
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- Vegetation of Norfolk Island
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- Horticultural exports
- The potential for horticulture in New Zealand
- Biological control as an alternative to chemicals

If you have not already ordered your copy, you can do so by forwarding \$5.50 (student rate = \$4.50) to :

The Secretary, RNZIH, P.O. Box 12,  
Lincoln College, Canterbury.

The Journal will be posted out as soon as it comes to hand.

# Plant Evaluation Scheme ~

Over the last few years considerable time and effort have been put in by the Committee in order to implement a scheme for Plant Evaluation.

Committee member Alan Mason, while overseas in 1978, spent much of his own invaluable time with David Palmer, botanist at Wisley, and Jim George of U.P.O.V. (Union for the Protection of new varieties of Plants), both of whom are mainly involved with Plant Variety Rights in Europe.

Alan returned with a great deal of information which confirmed the consensus of opinion of the committee that any work involving plant evaluation and subsequent issuing of variety rights would need to be handled by a full-time body, which would be beyond the scope of this committee and the Institute as a whole.

The committee worked closely with Mr Norris of the Plant Varieties Office, then in Wellington, and from him we learned that the Government would be giving consideration to amending the Plant Varieties Act to include a wider range of ornamentals mainly of New Zealand origin.

The export potential that may accrue from New Zealand plants appeared to be the main reason for amending the Act.

It seemed likely that New Zealand would in the near future become a full member of U.P.O.V. and the requirements of that body include that a full and detailed description of any plant be carried out before rights would be issued. From a perusal of a copy of these requirements it became obvious that this work could be undertaken only by a part or full-time botanist.

At this time Mr Norris was unable to elaborate further, but he felt that the Government would involve interested organisations, such as the RNZIH, on any plant evaluation work that might be undertaken by the state.

Your committee has kept and will be keeping a close watch on any further developments in respect of amending the Plant Varieties Act to include a greater number of ornamentals in comparison with fruit and vegetables.

While it appears that any Plant Evaluation for requirements of U.P.O.V. will be undertaken by the Government, the committee is still of the opinion that some form of evaluation should be undertaken by the Institute with a re-direction towards the preservation of any new ornamentals that are at present in the country. To this end, we feel that the acquisition of plant material will be from the following sources :

## PLANT EVALUATION SCHEME -

1. Plant material on Research Stations which has been imported for other purposes (i.e. Viburnums and Vaccinum for fruit research) that could have ornamental potential.
2. Suitable NZ raised cultivars, both of native and exotic origins from members of the Institute, interested Nurserymen, (the Nurserymen's Association has shown a willingness to participate in such a scheme) or persons or organisations.

We invite the submission of propagating material in the foregoing categories for distribution and evaluation.

The following criteria should be met before submitting plant material :

1. Material of trees and shrubs only, excluding roses.
2. Plant or plants which in the opinion of the sub-committee could have ornamental potential.
3. Any material should have significant horticultural features that differ from existing plants currently in cultivation.
4. All relevant information concerning the origin of the plant should, where possible, be furnished along with the name and address of the sender.

All propagating material should be sent directly to :

Mr R.C. Gill,  
Deputy Director,  
Parks & Reserves Department,  
Upper Hutt City Corporation,  
Private Bag,  
UPPER HUTT.

The following is a copy of the P.E.S. brochure issued in May and tabled at the A.G.M. in Hamilton. Copies may be obtained from Regional Horticulture, RNZIH, P.O. Box 11379, Wellington :

## RNZIH PLANT EVALUATION SCHEME :

### OBJECTIVES

The promotion through evaluation of new plant material with the following objectives :

1. To ensure that new plant material of both overseas and NZ origin, after thorough testing, is preserved and distributed to the public of New Zealand.
2. To encourage the breeding of new plant varieties by NZ breeders and more especially those plants of native origins.

## PLANT EVALUATION SCHEME -

3. To promote to the public at large these plants and encourage their use in both public and private gardens.
4. To give recognition to raisers of new plants for their time, efforts and dedication to the wellbeing of horticulture in New Zealand.

### IMPLEMENTATION

In the first instance, and until the scheme is fully operative, trees and shrubs (excluding roses) only will be eligible for testing. All horticulturally minded persons will have the opportunity to participate in the scheme, and submit plant material which in their opinion is of superior quality in one or all characteristics from that already in cultivation.

The Scheme will operate through the Parks Department of the Upper Hutt City Council, who will act as a receiving point for the plant material, propagate, if required, and re-distribute it to the various testing stations that have been set up throughout New Zealand. Steps to be taken are :

1. Persons wishing to have material evaluated should first apply to Mr R.C. Gill, of the Upper Hutt City Council, Private Bag, Upper Hutt, for an initial recording sheet.
2. The sheet when completed should be returned to the above with a minimum of 10 plants or enough propagating material to produce the number of plants required.
3. This material, in the case of live plants, will be distributed immediately or, in the case of cuttings, scions, etc., be propagated for subsequent re-distribution to the various testing stations.
4. The testing stations will evaluate the material submitted through a system of comparisons with existing varieties and report their findings to the P.E.S. Committee.

### LENGTH OF TESTING

This will to a large extent depend on the type of plant submitted. For example, trees which may take a number of years to reach maturity, will obviously need to be evaluated for a longer period than say a shrub which may take only 18 months to reach mature proportions. However, the testing period will not be indefinite and a maximum of six years has been placed on the period of evaluation.

### HOW WILL YOU BENEFIT FROM THE SCHEME ?

If material submitted is, in the opinion of the P.E.S. Committee, of such a standard as to warrant distribution to the public, the raiser of such a plant will have two choices of action :



## PLANT EVALUATION SCHEME -

1. To apply to the Plant Varieties Office of the Ministry of Agriculture and Fisheries for Plant Selector's Rights. This is an involved process with a large monetary outlay to the applicant, and in the opinion of the Committee will be beyond most applicants to this scheme. However, further information on Plant Selectors' Rights may be obtained by writing to the Plant Varieties Office, Ministry of Agriculture and Fisheries.
2. For a nominal fee, the RNZIH is prepared to act as agent for breeders and to negotiate with reputable nurserymen for the rights to propagate and distribute the plant concerned, with the possibility of royalties accruing from such a venture.

### SECURITY OF MATERIAL SUBMITTED

All care and attention will be given to plants under testing. However, the RNZIH cannot be responsible for any person or persons who may remove the whole or part of the plant concerned.

### CONCLUSIONS

This scheme should prove a worthwhile addition to the development of amenity horticulture in New Zealand, but it can be effective only if you are prepared to help by submitting new material for evaluation.

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The committee has established a number of trial areas throughout New Zealand and is very pleased with the co-operation received. It has also continued a close liaison with Mr Whitmore of the Plant Varieties Office of MAF, now situated in Canterbury. At a meeting with Mr Whitmore on February 13 1980, the following conclusions were drawn from the discussion :

1. Cost to a breeder applying for Plant Selector's Rights -  
\$250 plus \$25 for Professional Direction.  
Annual renewal fee 2nd & 3rd years - \$50 p.a.  
4th year - \$50  
5th year - \$100
2. Because of this high cost to the small amateur breeder, the RNZIH could pursue the line of acting as agent for a breeder if they see the plant has sufficient merit, and arrange propagation through the Nurserymen's Association or through a propagating firm.
3. The P.V.O. has as yet no scheme in operation for ornamentals but on receipt of an application, will devise a suitable scheme.
4. The P.V.O. could be interested in using RNZIH trial grounds and evaluating our plants in our trial grounds.
5. The RNZIH could assist the P.V.O. by testing plants coming into New Zealand under U.P.O.V.

PLANT EVALUATION SCHEME -

6. Plant Selectors' Rights and Plant Evaluation are different - the former covers breeding possibilities.
7. The P.V.O. could be interested in the results of our trials.
8. P.V.O. Museum Collection is to be housed at Lincoln.

With all the facts in mind, the P.E.S. Committee has launched its Plant Evaluation Scheme. Perusal of the brochure highlights the aims and objectives with special reference to the preservation and distribution of new plant material in New Zealand.

The future success of this Scheme will rely heavily on the involvement of all horticulturally minded persons and their willingness to submit plant material for evaluation. Materials in hand for testing cover a few Viburnums, some Hebes, and one crab-apple.

The type of material being sought for testing and evaluation can be summarised as follows :

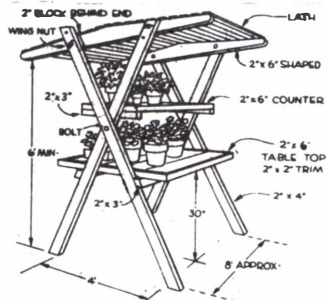
- a) New hybrids, cultivars and forms of trees and shrubs of both native and exotic origin.
- b) Plants that are distinct from existing subjects already in cultivation.

We invite all members and interested persons or organisations to take advantage of the scheme which is designed to improve and serve the needs of ornamental horticulture in New Zealand.

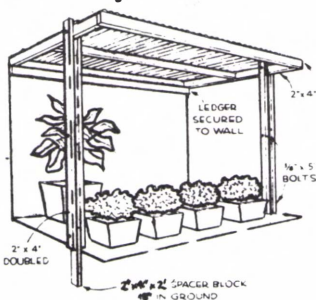
This article is submitted by the Committee of the RNZIH Plant Evaluation Scheme and Regional Horticulture. Members are Messrs. C.Gill, R.Nanson, A.Mason, G.Mander, M. Stevens, Prof. R.Rowe, K. Davey, Mrs R.Shepherd.

November 1980

## Substantial Shade Structures for plants



Scissor frame has adjustable overhead to protect shade loving plants on a warm terrace. Lath overhead of 1 by 2-inch wood strips is covered by reed or split bamboo to cut afternoon sun, breeze. Paint frame bright color to contrast with reed color.



Built-up posts of 2 by 4-inch members are spaced apart to receive the overhead rafters and the wood pin that goes into the ground. The overhead shade may be lightweight corrugated asbestos board or corrugated plastic.

## CHRISTCHURCH NDH STUDENT WINS SCHOLARSHIP -

Miss Carol Thornton, who works for the Christchurch City Council Parks and Recreation Department, has won a Canterbury Horticultural Society's scholarship.

She is the first woman to be awarded the P.C. Browne Horticultural Scholarship in Horticulture. This scholarship assists the recipient to gain further horticultural knowledge in Australia, providing air fares to Melbourne, \$100 spending money, and arranged employment. Carol will work on an exchange programme in the Melbourne Botanic Gardens, combining practical and technical skills. Then she hopes to move around, gaining work experience in various botanic gardens.

This is the final year of Carol's four year apprenticeship. She gained the National Certificate in Horticulture in 1979, and is currently working towards the National Diploma.

Carol has always liked gardening, and since she lives on a market garden, decided she needed training in the ornamental side of horticulture. Much of her apprenticeship has been spent indoors under glass. She found the indoor work at the Botanic Gardens particularly creative, and the propagation of plants at the department's nursery provided some absorbing new skills. Carol's present stint with the landscaping gang is hard work, and keeps her fit.

Our congratulations to Carol on being awarded this Scholarship.

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## Seed & Plant Exchange

From the U.S. we have the following request :

"I am preparing a manuscript on the family Araceae, and I am searching for live specimens in the following genera :

1. *Amorphophallus*
2. *Arisaema*
3. *Typhonium*
4. *Alocasia*
5. Any other Araceae species native to New Zealand
6. *Thomsonia nepalensis*

I would appreciate any assistance you can give me in obtaining some species mentioned in the above list, and I will gladly pay the airmail postage and for any other cost incurred.

J. Richard Shelton, Professor of Biology (Retired)  
1100 East Sante Fe Avenue,  
Fullerton, California 92631, U.S.A."

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*If you can help Professor Shelton with this request, please contact the Editor, P.O.Box 12, Lincoln College, who will forward the import labels necessary.*

## RNZIH ANNUAL GENERAL MEETING & CONFERENCE -

CHRISTCHURCH, SATURDAY & SUNDAY MAY 2ND-3RD 1981, AT THE  
CANTERBURY MUSEUM MEETING CENTRE.

The Canterbury committee is drawing up an instructive and entertaining programme which will include the business requirements of the A.G.M. (as brief as is possible), the Banks Memorial Lecture, educational films, demonstrations and talks, visits to outstanding features of Christchurch and a social get-together.

Visits being investigated are to : New Zealand's leading Chrysanthemum exporter; Australasia's largest mushroom farm; New Zealand's largest rose (cut-flower) grower; the outstanding wild life zoo at Orana Park; and Zealandia's new \$4m glasshouse complex.

To cover anticipated costs a registration fee will be struck on a user-pay basis.

Programme details and an intention to attend form will be mailed with the next Bulletin.

### REMITTS TO THE A.G.M. :

District Councils and members in general should now be thinking about matters of national horticultural importance which should be discussed at the Annual General Meeting. Members are reminded that all matters of business, including remits, for consideration at the A.G.M., must be received by the Secretary NO LATER THAN 15th FEBRUARY 1981.

## ASSOCIATES OF HONOUR -

Nominations are invited for the award of Associate of Honour of the RNZIH, which must be made to the Secretary by 15th FEBRUARY 1981. In accordance with Rule 3(b(ii)(C) as amended at the 1980 A.G.M., the National Executive shall elect and notify not more than three Associates of Honour, two Executive meetings prior to the Annual General Meeting, to permit presentation of the awards to the recipients at the ensuing A.G.M.

Nominations may be made by the National Executive, District Councils, or by an elected Associate of Honour.

ELECTION OF OFFICERS - A.G.M. 1981

NOMINATIONS FOR NATIONAL EXECUTIVE

Nominations for election to the National Executive in 1981 are being called for, and must be received by the Secretary on or before 10th March 1981.

Rule 5(b)(i) of the Rules of the RNZIH states :

"A person standing for election to the Executive must be proposed and seconded by members of the Institute. Such nominations must be signed by the person proposed, signifying his/her eligibility for, and acceptance of, nomination, and willingness to serve on the Executive for a period of three years.

Any members wishing to submit nominations should complete the cut-out form below and return it to the Secretary, P.O. Box 12, Lincoln College, Canterbury. In the event of more nominations being received than there are vacancies on the Executive, a postal ballot will be conducted to determine the elected members.

The following members are due for retirement by rotation, and are eligible for re-election :

- Mr R.J. Ballinger, Blenheim
- Mr G.G. Henderson, Dunedin
- Mrs R.W. Shepherd, Wellington
- Professor J.A. Veale, Palmerston North

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NOMINATION FORM

NATIONAL EXECUTIVE - ROYAL NZ INSTITUTE OF HORTICULTURE INC.

I wish to nominate \_\_\_\_\_  
(Full name)

as a member of the National Executive of RNZIH.

PROPOSER : \_\_\_\_\_

SECONDED BY : \_\_\_\_\_

ACCEPTED BY : \_\_\_\_\_

CITATION : (Brief comment (40-50 words) on candidate's eligibility for nomination, horticultural affiliations, etc.)

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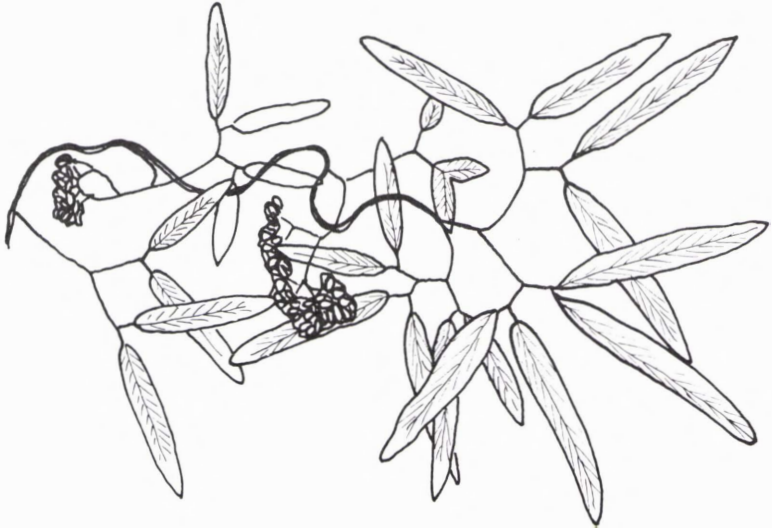
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# Welcome

to the following new members :

Mr G.C. Evans, Dunedin  
Mr T.S. Lupton, Wellington  
Mrs J.F.H. Savage, Nelson  
Mr P. Maunsell, Wellington  
Mr. Donald Scott, Otago  
Mr S.J. Wheeler, Christchurch  
Mr M.F. Geenty, Waikato  
Mr S. Taylor, Canterbury  
Mrs B. Olliver, Whangarei  
Temai Nursery, "  
Clarke's Nursery, "  
Mr J. Griggs, "  
Dr U.M. Torrie, "  
Mrs S. Gray, "  
Miss B.R. Deighton, Taranaki  
Mr & Mrs A.J. Paterson, Auckland  
Mrs S. Donohue, "  
Mr & Mrs J.F. Short, "  
Mrs R.O. Brown, Dunedin  
Mr C. Antill, Christchurch

Mr G.T. Callanan, Clyde  
Mr D.D. Dunn, Thames  
Ms J. Shields, Manawatu  
Mr P. Versloot, Patumahoe  
Mr N.W. Williams, Auckland  
Mr R.M. Unkovich, Auckland  
Ms H.A.P. Young, Manawatu  
Mr N.W. Bendien, Christchurch  
Mr D.M. Cameron, Auckland  
Mr P.J. Gilchrist, Otago  
Ms K.M. Hunt, Wellington  
Ms A.M. Meacham, Wellington  
Ms D.J. Miller, Tauranga  
Mr G.J. Rieger, Manawatu  
Mr A.E. Shepherd, Gisborne  
Mr R.B. Sides, Tauranga





DISTRICT COUNCIL SECRETARIES

AUCKLAND :

Mrs K.J. Veal, FRIH,  
9 Gray Crescent,  
Torbay, AUCKLAND 10.

BAY OF PLENTY :

Mrs D.A. Hardwick, AHRIH,  
Minden Road,  
Te Puna, TAURANGA.

CANTERBURY :

Mr Roy Edwards,  
Dept. Horticulture, Landscape  
& Parks,  
Lincoln College, CANTERBURY.

MANAWATU :

Dr E.O.Campbell, FRIH,  
26 Frederick Street,  
PALMERSTON NORTH.

NORTH TARANAKI :

Mrs Marie Ward,  
52 Lyn Street,  
NEW PLYMOUTH.

OTAGO :

Mr G. Paterson, FRIH,  
P.O. Box 5195,  
DUNEDIN.

POVERTY BAY :

Poverty Bay Hort.Society,  
P.O. Box 1275,  
GISBORNE. (Liaison only)

SOUTHLAND :

Mr G.A.R. Petrie, AHRIH,  
Rochdale Road,  
INVERCARGILL.

SOUTH TARANAKI :

Miss E.A. Free,  
23 Egmont Street,  
HAWERA.

WAIKATO :

Mrs R.P. Towers,  
9 Clark Place,  
HAMILTON.

WELLINGTON :

Mrs Diane Menzies, FRIH,  
7 Halia Road, Days Bay,  
WELLINGTON.

WHANGAREI :

Mrs M. Kennedy, AHRIH,  
14a Takahe Street,  
Tikipunga, WHANGAREI.

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RNZIH Notable & Historic Trees Committee - P.O. Box 11-379,  
WELLINGTON.

RNZIH Regional Horticulture Sub-Committee - P.O. Box 11-379,  
WELLINGTON.

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Subscriptions should be sent to : the Secretary, RNZIH,  
P.O.Box 12, Lincoln College,  
Canterbury.

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Get in touch with your District Secretary and become involved  
with local RNZIH affairs.

