

4

Horticulture

in New Zealand

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



WINTER 1977

Editorial

Students and their Position in the Institute

We have over 400 active students enrolled with the Institute. A large part of their tuition comes from the Technical Correspondence Institute in Wellington while the administration of the examination system and the responsibility and arranging of courses belongs to the Institute's Secretary on behalf of the examining board and under the supervision of Institute office-bearers. The remainder of the work done on behalf of students is carried out by the diligent efforts of many Institute members.

There is a comprehensive range of courses with schedules on general horticulture, vegetables, fruit, nursery production and apiculture. Also there is a horticultural salesman's certificate. The four main schedules or types of National Diploma each have approximately 20 subjects. Each subject has an examiner. Some fees are paid to examiners but a great deal of the guidance, correspondence, examination and marking is done voluntarily. For example practical examinations usually take a whole day with a dozen or more examiners giving up their time to run this activity. Training and education (we don't know the difference) of students is a major part of the Institute's affairs, receiving much help from Institute members.

Should students be made to become members of the R.N.Z.I.H.? A remit to the annual conference recommended this, but feelings were not unaminously in favour of it. The A.G.M. resolved that student membership be examined by the Executive, particularly in view of legal implications. Few students are members of the Institute, yet it is interesting to note that university students pay up to 3 times the Institute's subscription to compulsorily join the University Students Association. The Institute would benefit greatly if its membership jumped by 10 or 20% and no doubt it could afford bigger and better publications which could benefit general members and students alike.

M.B. Thomas

R.N.Z.I.H. Annual General Meeting

WELLINGTON, 28TH. MAY, 1977.

EXTRACTS FROM MINUTES.

Associates of Honour Citations were read for the following-

Mrs. Kennedy, Whangarei.
Mr. P. Skellerup, Christchurch.
Mr. A. Healy, Christchurch.

Policy and Objectives Professor Morrison explained his report (Bulletin No.3) and concluded that the Institute should receive greater financial help for the training of students in horticulture.

Publications The effectiveness of the Institute's publications was discussed. It was suggested that more horticulture research material be published and that all members should take the Journal.

Students as Members The Canterbury District Council put forward a remit suggesting that all students of horticulture be invited to join the Institute at an appropriate student subscription rate. It was decided that the legal aspects of compulsory membership would be looked into. It was also decided that a list of all student members be sent to local District Councils as soon as possible for servicing of students in that district. (This is a major job but will be undertaken as time allows - Chairman).

Presentation to Mr. Lemmon This was made by Mr. Jack Living who spoke of Mr. Lemmon's contributions to the Institute, particularly in the examination field, and the tremendous amount of work involved. Mr. Lemmon was presented with a cheque and a reclining chair and Mrs. Lemmon with flowers.

District Council Boundaries A remit from Canterbury suggested that the boundaries be defined for more efficient servicing of students and members. There is concern about members in isolated districts without a District Council who are not being serviced by Councils at the moment and definition of boundaries may solve this problem. It was decided that the Executive would investigate the remit.

Subscriptions It was decided that subscription rates be advertised in the Journal or Bulletin, or as a separate insert to the R.N.Z.I.H. publicity brochure. Capitation to District Councils was discussed and an immediate rise from 50c to \$1.00 was decided upon.

Award of Garden Excellence Miss Joan Dingley spoke to the remit that the National Executive be asked to reconsider its decision to discontinue the Award. Miss Dingley stated:

"This Award has contributed to horticulture in New Zealand in creating an awareness of good from bad cultivars of plants suitable to grow in New Zealand gardens.

It has shown the necessity to define and name cultivars in plant species uncommon in cultivation in temperate climates in the Northern Hemisphere but highly suitable for amenity horticulture in this country.

It has evaluated local cultivars of both indigenous and introduced plants.

The Award has been especially valuable for guidance for gardeners in the more or less frost free areas in the Auckland-North Auckland areas."

It was argued in the past that the Award could not give sufficient attention to areas other than Auckland. However, there is a need for assessing nominated plants under suitable conditions. Mr. C. Gill, (Assistant Director, Upper Hutt Parks Dept.) has offered to assist with testing procedures.

Circular to Horticultural Groups A remit from the Wellington District Council suggested a circular be prepared by the National Executive to be distributed by Regional Councils to all splinter groups emphasising the need and obligation to nourish and maintain the R.N.Z.I.H. as the parent body of horticulture.

It was finally decided that a circular would be prepared which would be distributed by the National Executive at its discretion.

Preservation of Native Forests It was decided that the Institute support the principle of the preservation of indigenous forests, particularly those in the central North Island

Associated Members A remit from the Bay of Plenty raised the question of the possibility of local or associated membership to their District Council. Mr. D.A. Hardwick, Secretary of the Council, submitted the following :

"Since the local Horticultural Society went into recess a number of years ago, the District Council has been the principal body with an overall interest in horticulture in Tauranga, and has successfully held regular meetings, conducted shows, etc. However, membership is down to a fairly hard core of fairly dedicated personnel with a

genuine interest in horticulture. To get anywhere on a district basis it is necessary to tap what we believe to be the substantial numbers in the area who are enthusiastic amateurs and garden lovers and get them involved in some way. We believe that these people can be induced to join an active local horticultural body, but would not be interested to the extent of paying what is now a fairly substantial subscription most of which goes to the national administration of horticulture, which seems very remote from them. In saying this we are not decrying what is done on a national basis. We desire to keep the District Council of the Institute as the leading horticultural body in the district, but without the backing of others locally it is doubtful whether this will be possible.

At the same time it is desired to make provision for the District Council to be a co-ordinating body for all other horticultural interests in the District, hence the provision for associate membership by other organisations. These would include local branches of specialist societies, womens' garden clubs etc. They would probably be required to pay a higher rate than individual associate members.

The rules are so drafted as to make it clear that associate members do not become full members of the Royal New Zealand Institute of Horticulture and that in the final essence control in the district remains in the hands of Royal New Zealand Institute of Horticulture members."

The Bay of Plenty also submitted a set of draft rules with suggestions covering the position of associated members within the Institute. Associated members would take part in Branch activities, be eligible for membership of the local Executive, but not be appointed President or Vice-President of the District Council. Subscriptions paid would be fixed by the District Councils at general meetings.

It was decided that the Bay of Plenty would introduce associated membership this year in an informal way. Meanwhile the remit would be considered by the National Executive for implementation at the next A.G.M.

African Violets Under Lights

VAL WOOD*

I have been growing African Violets under fluorescent lights for about 5 years, after seeing an article in the "N.Z. Gardener" complete with pictures of lovely healthy plants in flower under light fixtures.

Being married to an electrician has been a big help in getting started in indoor light gardening. My first fluorescent light was hung from the ceiling in a rather Heath Robinson manner, and the African Violets were perched on cardboard boxes. The plants lapped up the extra light - the leaves took on a healthy green shine, the plants flattened out, and in no time masses of tiny buds and blooms appeared.

I now have a three-tiered slotted steel stand with a double fluorescent fitting under each shelf. Each tube is 40 watts and 4 feet long, and a double fitting will light a shelf 24 inches wide. The shelves are about 20 inches apart and by the time the lights are in place the plants stand 15 inches below the lights.

An automatic time switch gives the plants a 12 hours on and 12 hours off cycle - the rest being necessary so the plants can utilize fertilizer. Under lights the plants grew more quickly and come into flower in half the time taken previously and hence frequent applications of fertilizer are necessary to keep them strong and healthy. I use a variety of liquid house-plant fertilizers, a different one each time, and about $\frac{1}{4}$ the strength recommended on the bottle. One application of fertilizer a week and watering with warm water about every three days keeps my plants strong and healthy. The temperature should not fall below 17°C or rise above 25°C.

Potting mix should be a loose, porous type of soilless mix and I find a good proportion of components to be one third peat, one third perlite and one third vermiculite.

Although many other plants are suitable for growing under lights I have as yet only tried members of the Gesneriad family, including *Sinningia* 'Pollbaby', *Gloxinia* and *Episcia* as well as about 250 varieties of African Violets. These have all grown successfully under lights and I can thoroughly recommend this method.

* 164 Clyde Street, Hamilton.

The International Plant Propagators' Society

New Zealand Chapter-at-Large

NOELYN PARR *

The move to start a Chapter here in New Zealand was initiated by Jim Wells of Redbank Nurseries, New Jersey, U.S.A. through correspondence with Ellaby Martin of Martin's Nurseries, Hamilton. This was not the first time such a development had been contemplated, but Mr. Martin felt the time was right for exploring the possibilities in greater depth. With the support of some existing members of the Society living in New Zealand, and some people interested in propagation, Mr. Martin and Mr. Lycette of Waikato University arranged the inaugural meeting for September 1972 to coincide with Mr. Jim Wells' visit to Hamilton.

The Society had previously existed in the early twenties but had died a natural death as the depression developed, mainly because, under the economic duress of the time, people with specialised knowledge felt unwilling to share. However in 1951 in Cleveland, Ohio, the foundations of today's organisation were laid. Jim Wells proposed, and I quote, "The Society should be organised on the basis of craftsmanship, for the purpose of bringing together people with a knowledge and experience which should be recorded and disseminated so that people everywhere benefit, and growers of the future would have a record from which they could learn." From these ideals the Society grew into an organisation composed of the Eastern and Western Regions of the U.S.A., the Region of Great Britain and Ireland, the Region of Australia, and the New Zealand Chapter. Membership in the N.Z. Chapter is open to residents of New Zealand and the South Pacific area. Membership is restricted to individuals (not firms), who are personally engaged in plant propagation, plant propagation management, research or teaching, and who are willing to participate actively in the Society by attending meetings and sharing their knowledge and experiences with other members.

Meetings are held annually. In N.Z. the meetings have been two day conferences where members have the opportunity to present papers and participate in discussion. The papers presented at these meetings in themselves record the versatility and broad coverage of current horticultural practice in N.Z. Proceedings from the meetings held by the different world regions are collected, published and distributed to all members. One or two enthusiastically supported field days are also held each year.

After five years the N.Z. Chapter membership now stands at 125. This achievement is not only the result of enjoyable meetings and field days, but also of the realisation and recognition by the individual, working in isolation, that he cannot generate enough ideas, think up new methods, innovate, test and evaluate

* President, N.Z. Chapter, Plant Propagators' Society.

and still carry on his every-day job. He or she needs the stimulus of other minds, an opportunity to pause, sit back with similarly thinking folk, look at a problem together, argue, discuss and eventually arrive at an answer.

Such collecting and re-distribution of ideas from one to another is what I.P.P.S. is all about. The philosophy of the locked glasshouse door has no place in this Society.

Environment and Conservation Organisations of New Zealand

The Royal N.Z. Institute of Horticulture is a member of ECO, Environment and Conservation Organisations of New Zealand. ECO is a national alliance of 51 societies concerned with conservation, natural resources and the environment which represents at national level the views and interests of its members. It is run by an executive of representatives of the 11 "A" class members, (national organisations like The Royal Forest & Bird Protection Society, the Native Forest Action Council and the National Council of Women); and 3 elected representatives of the 40 "B" class members, which are mainly local environmental societies or scientific societies.

Current ECO activities include a submission on the proposed Reserves Bill, another submission to the Royal Commission on Nuclear Power, and an Annual Conference on the theme of Energy Conservation held on 28 - 29 May in the YWCA, Upper Willis Street, Wellington. Speakers included Sir Frank Holmes, Professor Fred H. Knelman (distinguished Canadian energy authority), Dr. Garth Harris and Mr. Guy Salmon.

ECO can only be as effective as its member organisations want it to be. If there is an issue which you think should be pursued at the national level, why not put forward a motion suggesting that ECO be asked to take up the matter. In this way ECO will become an increasing effective voice for the broad concerns of New Zealand environmentalists.

ECO's Chairman is Dr. Ian Prior, and the Secretary is Mr. Bruce Henderson, P.O. Box 11-057, Wellington.

Horticulture Programme, N.Z.I.A.S. Convention, 1977

DUNEDIN, 15 - 19 AUGUST.

HORTICULTURE UNDER SCRUTINY

On Wednesday, August 17th., there will be a one-day discussion and evaluation of the contributions that science, engineering, economics and the design arts are making in horticulture and a look at aspects that are not yet being utilised.

Are there problems that the producer and consumer see that the professional should be aware of?

In order to examine this the Institute has asked the following speakers to lead the discussion by presenting papers in their own fields :-

9.00 1 SCIENCE:

to

9.30

Dr. Errol Hewitt

Scientist, Plant Diseases
Division, D.S.I.R.

Dr. Hewitt is a specialist
in plant physiology who
has examined a number
of pure and applied aspects
of fruit production.

10 minutes

Discussion time.

9.40 2 ENGINEERING:

to

10.10

Mr. John Dunn

Senior Experimental
Officer, Agricultural
Engineering Institute,
Lincoln College.

Mr. Dunn has specialised
in horticultural
engineering for harvesting,
cultivation and irrigation.

10 minutes

Discussion time.

10.20

MORNING TEA.

10.40 3 ECONOMICS:

to

11.10

Mr. Alex Smith

Until recently Mr. Smith
was Horticultural
Advisory Officer
specialising in
management, with M.A.F.

10 Minutes			Discussion time.
11.20 to 11.50	4	<u>DESIGN ARTS:</u> Mr. Alan Petrie	Landscape Architect, Dept.of Lands and Survey, Te Anau. Mr. Petrie completed a diploma at Wellington Polytech in design art and followed this with a post-graduate diploma in landscape architecture at Lincoln College.
10 minutes			Discussion time.
12 noon.			LUNCH.
1.00 to 1.20	5	<u>HORTICULTURAL PRODUCER:</u> Mr. Alan Naish	A Glasshouse vegetable and Nursery producer from Kakanui,Oamaru.
1.20 to 1.40	6	<u>HORTICULTURAL PRODUCER:</u> Mr. Peter Taylor	Fruitgrower,Alexandra. A Director of N.Z. Fruitgrowers Federation.
15 minutes			Discussion time.
1.55 to 2.25	7	<u>PARKS & RESERVES:</u> Mr. Gavin Henderson	A.H.R.I.H. (N.Z.). Director,Parks & Gardens, Dunedin.
2.25 to 2.45	8	<u>HOME GARDENS:</u> Mrs.Barbara Cave	
15 minutes			Discussion time.
3.00			AFTERNOON TEA.
3.30			Discussion and President's remarks.

The morning session is to be chaired by the Institute's President, Dr. J.D. Atkinson, O.B.E., D.Sc., M.Sc. and the afternoon session by its Vice-President Mr. H.Warburton, O.B.E., A.H.R.I.H. (N.Z.).

BANKS LECTURE:

The Royal N.Z. Institute of Horticulture hosts a lecture each year to commemorate the visit to New Zealand of Sir Joseph Banks.

The lecture is published in the Institute's Annual Journal and a botanist or horticulturist of reknown is invited to deliver it on a subject in which he has made special study.

This year Professor G.T.S.Baylis has accepted our invitation and will speak on a subject in which he has established an international reputation and a vigorous research school. He has focussed attention on our native flora as a result.

"Endomycorrhizas in our Native Flora".

Their study has demonstrated the importance of endomycorrhizas in a wide group of plants.

The public,visiting agricultural scientists and Institute members are invited to this talk and it is hoped that both public and horticultural producers will attend the day sessions.

Professor Baylis is Professor of Botany,Otago University, having been appointed there directly from the Navy in which he served during two wars. He has built up an international reputation in Ecology and Mycology over these years. He has been a member of the Institute since 1955, its representative on Mt. Aspiring National Park Board, and his two historical houses in Dunedin bear witness to his horticultural abilities.

Notice to N.D.H. Students

1. Write to the new Secretary of the Institute if you have any enquiries regarding examinations.
(P.O. Box 12, Lincoln College, Canterbury).
2. For senior students working on theses:
The Institute's collection of theses is growing rapidly. Copies are available for borrowing from Lincoln College via the N.Z. Libraries' Interloan Service. Theses are listed inside the back covers of R.N.Z.I.H. Annual Journals.
3. The following are available from the R.N.Z.I.H. Secretary:
 - A guide for students
 - Past examination papers
 - A scale of examination fees.

'Gasoline Tree' May Produce Motor Fuel

REPRINTED BY KIND PERMISSION OF THE DOMINION, WELLINGTON.

SAN FRANCISCO. - A Nobel Prize-winning scientist has said it soon may be possible to grow a "gasoline tree" that will supply abundant fuel for cars and trucks indefinitely.

Dr. Melvin Calvin told a meeting of the American Chemical Society he believes petrol can be made from certain plants of the genus *euphorbia* which produce a milky juice called latex, a hydrocarbon chemically similar to petroleum.

He cited the rubber tree as an example of the family of plants that could be grown on oil plantations in the southwestern United States and in other countries with tropical and temperate climates.

The rubber tree produces hydrocarbon directly with an efficiency almost as great as sugar cane for making carbohydrate. Rubber, however has a high molecular weight, causing it to coagulate and become solid.

"If we could decipher that mechanism and control it so that we might create a smaller hydrocarbon molecule, we might be able to generate a gasoline tree," Dr Calvin told fellow chemists.

He said he was studying some plants in the genus *euphorbia* that have molecular weights below 50,000. Among them are the lathyrus, a shrub that grows well in northern California, and tirucalli, another which flourishes in the hot, dry climate of southern California.

Dr. Calvin is also studying a type of milk weed whose "milk" is one-third hydrocarbon and two-thirds water. In order to use it as fuel the water would have to be removed. This could be accomplished easily by physical or chemical methods.

He wants to begin planting a gasoline farm in southern California. The fuel trees would grow in dry areas not suitable for food crops. He estimates a possible yield of perhaps 25 barrels per acre each year.

Dr. Calvin was awarded the Nobel Prize in 1961 for discovering the complex chemistry of photo-synthesis.

International Horticultural Congress

The twentieth International Horticultural Congress is to be held in Sydney, Australia from 15 - 23 August 1978, under the aegis of the International Society for Horticultural Science. This will be the first occasion that the congress has been held in the Southern Hemisphere.

The principal objective of the Congress is to exchange technical and scientific information in all spheres of horticultural activity. The Congress is open to all and will cater for the interests of technologists, scientists and practising horticulturists.

Although the Congress will be centred at the University of Sydney, the opening ceremony will be performed in the Sydney Opera House on the 15 August. Formal working sessions will commence on the 16th. and end on the 23rd., with mid-Congress break on the 19th and 20th.

The Congress will comprise eight sections, two devoted to the broad field of horticulture while the remaining six will deal with specific commodities. The commodity sections will cater for contributions of general, practical, technical and scientific interest in such aspects as taxonomy, varieties, breeding, selection, propagation, planting, management, weed control, irrigation, soils, nutrition, plant protection, pre-harvest physiology, biochemistry, harvesting, handling, storage, marketing quality control, engineering, mechanisation and economics.

Section 1: Interdisciplinary

This section will include papers of general horticultural interest with topics including plant improvement, nomenclature, plant variety protection, marketing, education, horticulture and the environment.

Section 2: Post Harvest Horticulture

Emphasis will be on recent achievements, current problems and directions technology should follow. Topics will include factors affecting post harvest quality, life of fruits, vegetables and cut flowers from harvest to consumer, and post harvest physiology.

Section 3: Citrus

Improving quality and availability of citrus fruit and products.

Section 4: Viticulture

The grapevine - how it functions.

Section 5: Temperate Fruits

The aim will be to anticipate and emphasise developments and trends which will affect the economic production of major and minor fruit crops over the next decade.

Section 6: Sub Tropical and Tropical Fruits

Research into problems which urgently need attention.

Section 7: Vegetables

Vegetable growing from the equator to the pole. The complete range of vegetables will be covered from both the commercial and home garden view.

Section 8 : Ornamental Horticulture

A comprehensive programme will provide for floriculture, protected cultivation, environmental horticulture and amateur horticulture.

Topics will include propagation of ornamental species, cultivation of Australian native plants, landscape and amenity horticulture, chemical control of flowering, nursery practices, mechanisation, communication and education.

Displays including photographs and diagrams will be prepared and on show. Abstracts of all papers will be published in book form and issued at the Congress.

Tours

Pre and post congress tours of horticultural and scenic interest taking in the various Australian States, New Zealand and Papua New Guinea will be offered. The tours will run concurrently and each will occupy five days and four nights.

Further details of Congress and information on tours etc can be obtained by writing to:

The Secretary,
XXth International Horticultural Congress,
157 Liverpool Street,
Sydney.

The International Society for Horticulture is interested in recruiting more members. Anyone interested in joining should write for details to:

Mr. I.G. Forbes,
International Society for Horticultural
Science,
Ministry of Agriculture & Fisheries,
P.O.Box 2298,
Wellington.

District News

North Taranaki: Last year the North Taranaki District Council assisted with a special Spring Show for Centennial Year. A Floral Painting Competition for children and adults was staged with sections on natives and exotics in black and white, water colours, and oils. This year Mr. McDowell, the President, has underway an exhibit concerning the Institute's activities which will be on display in the New Plymouth Public Library in November. A "Flower of the Week" display is arranged regularly in the Library Foyer.

Activities for the remainder of the year:

- August 20: Evening Meeting: Mr.R.Lambert,
Taranaki Museum.
- August 27: Half Day Trip: Local gardens.
- September 17: Evening Meeting: Mr.Keith Adams -
"Nepal".
- September 24: Day Trip: Waiongona District.
- October 15: Evening Meeting: Mr.Walter Fowlie.
- October 29: Day Trip. Central Taranaki.
- October 31 Monday to Friday Trip to Masterton
November 1-4: District.
- November 19: Evening Meeting: Programme to be
arranged.
- November 26: New Plymouth and District gardens.

Waikato: A seminar entitled "Your Garden" will be held on SATURDAY, 6th.August,1977, commencing at 9 a.m. at the Ruakura Farmers' Hall.

Cost to members; \$3.50 single,\$6.00 double.

Cost to public: \$4.00 single,\$7.00 double.

(Morning tea,lunch and afternoon tea are included in charge).

The seminar will incorporate a series of practical demonstrations and displays for all aspects of the garden. Registration can be made with the Waikato District Council Secretary.

Wellington: A very successful evening was held in the Shell House Theatre on May 26th., hosted by Shell Oil representatives. It was a more technical evening than usual with a very intereted group of members attending including some apprentices. The films shown were:

"Pesticides in Focus". One of the most difficult films to be made by the Shell Film Unit in recent years because it set out to tackle the alleged harmful effects of pesticides on man and his environment. We were shown the elaborate processes used in the testing of pesticides and the stringent requirements set for margins of safety and the tolerances that were allowable. "The River Must Live". An environmental film study of river pollution in Europe and how it can be overcome by the treatment of urban and industrial wastes.

After the film showing our hosts, Messrs. McGahon and McLean, spoke to us about their products on display. A lively discussion followed afterwards.

Over supper members glanced at books about weeds on show and the weed specimens brought along for identification.

Other activities this year have included two pruning demonstrations, two planting demonstrations and a talk by Eion Scarrow on horticulture and landscaping in China.

Auckland: The District Council wish to remind all members about the Institute seed exchange. Those wishing to participate should send for a seed list, enclosing a stamped, self-addressed envelope, to:

Dr. M.G. Goodey,
81 Gladstone Road,
Parnell,
Auckland 1.

After receiving your seed list, orders can then be placed with Dr. Goodey who will send seeds to you free of cost. Orders are limited to 10 packets per member. To ensure that the seed exchange continues, stamps to the value of the postage paid should be sent to Dr. Goodey. Contributors of seed are needed (please date when collected) and all contributors will receive precedence in seed orders.

The programme of the Auckland District Council this year has included the following :-

A visit to the Mangatangi Dam to inspect work done by the A.R.A. Forestry Division in establishing kauri trees.

An address on "Plants of North Borneo" by Mrs. Janet Watkins who lived there for 2½ years and gained a wide knowledge of the native plants.

The Annual General Meeting at which Mrs. Joy Amos, senior advisory officer with the M.A.F., spoke on her trip abroad, "Looking for Potential Markets for the Export of N.Z. Plants and Cut Flowers".

A smorgasbord dinner at "Sorrento" One Tree Hill.

International Dendrologists Visit New Zealand

Earlier this year a group from the International Dendrology Society visited New Zealand on a four week tour as part of their 25th. anniversary celebration. They travelled extensively throughout the country, looking at our trees and shrubs, forests and parks.

The leader of the tour was Lady Anne Palmer of Devon, England. She addresses the following remarks to all involved in horticulture in New Zealand:

"During the last 3 weeks 35 members of the International Dendrology Society, including representatives from the U.K., U.S.A., West Germany, Belgium, Holland, Ireland and France, accompanied by New Zealand members, have been touring the two main islands of New Zealand. We have received the warmest of welcomes and the utmost in hospitality and cooperation, and have had a wonderful opportunity to see at first hand the remarkable variety and luxuriance of the tree and plant life, both indigenous and exotic, which must be without parallel in the temperate parts of the world. We have visited many of the superb National Parks of both islands and have seen something of the outstanding efforts being made by ecologists, scientists, land holders, farmers and ordinary folk to preserve and enhance this remarkable national heritage for the future benefit of New Zealand and the world.

This is an age when disastrous inroads have been and are still being made into the natural plant cover over much of the world, but there is at the same time in informed circles, a growing realisation of the vital need to preserve, conserve and enhance what is still left of the Earth's Green Mantle.

We hope and believe that the outstandingly good work being done in New Zealand has the full support of the New Zealand Government and people. There is a wealth of experience too on conservation matters in the countries we represent from which much tangible help and advice would be forthcoming if desired.

We should like to give all the moral support and encouragement that we can, and will try to ensure that there is a better realisation in our own countries, not only of the marvellous quality and variety of the tree and plant life of New Zealand, but of the noble efforts being made to conserve and enhance this magnificent natural heritage."

DISTRICT COUNCIL SECRETARIES

Auckland:

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

Poverty Bay:

Mrs. A.I. Pole,
Darwin Road,
GISBORNE

Bay of Plenty:

Mrs. D. A. Hardwick
F.R.I.H.N.Z.,
Minden Road,
Te Puna,
TAURANGA.

Southland:

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

Canterbury:

Mr. G. R. Bethwaite,
162 Halswell Junction Road,
Halswell,
CHRISTCHURCH.

South Taranaki:

Miss. C. Free, B.E.M.,
23 Egmont Street,
HAWERA

Manawatu:

Hon. Secretary,
R.N.Z.I.H. District Council,
P.O.Box 1905,
PALMERSTON NORTH.

Waikato:

Mrs. S.A. Payne,
120 Comries Road,
Chartwell,
HAMILTON.

North Taranaki:

Mr. C.I. McDowell,
35 Fitzroy Street,
NEW PLYMOUTH

Wellington:

Mrs. D. Menzies,
"Authene",
Main Road,
Akatarawa,
UPPER HUTT.

North Wairoa:

Mr. C. F. McKavanagh,
F.R.I.H.N.Z.,
Naihue R.D.2,
DARGAVILLE.

Otago:

Mrs. R. Bagley,
11 Ascog Road,
Ravensbourne,
DUNEDIN.

Whangarei:

Mr. John D. Sholl,
13 McInnes Avenue,
Kamo,
WHANGAREI.

ROYAL NEW ZEALAND INSTITUTE OF HORTICULTURE

Annual Subscription Rates

General member and Fellows	\$ 7.50
Husband/Wife joint membership (where neither is a national member).....	\$10.00
National members	\$15.00
Small non-commercial societies.....	\$ 7.50
Firms, companies (commercial)	\$ 7.50
National non-commercial societies.....	\$15.00
National commercial organizations.....	\$30.00

Subscriptions should be sent to the Secretary, R.N.Z.I.H.,
P.O. Box 12, Lincoln College.

Get in touch with your District Secretary and become involved
with local R.N.Z.I.H. affairs.

