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NEW ZEALAND PLANTS AND GARDENS

The Official Journal of the Royal New
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Volume VII.

JUNE, 1967.

No. 3

WINTER WORK

The winter season is one of considerable importance for horticultural societies. It is during the period of long winter evenings that members of a horticultural society have the opportunity to meet at regular intervals. Most societies now have a Ladies' Floral Group. It is a good plan if this group meets on the afternoon of the monthly meeting and demonstrates its skill in making floral arrangements. The evening session can start with a talk, by a knowledgeable member, on the flowers used and how to grow them. These will serve as a valuable guide of what can be grown in local gardens each month. Fruit and vegetables in season could be added to the display. The main feature of the evening would be an address by some authoritative horticulturalist, usually a guest speaker.

When considering guest speakers for the winter season a severe curb should be kept on specialist subjects. Addresses devoted to chrysanthemums, carnations, dahlias etc. have only a limited appeal. Usually the greatest support is given to subjects of general interest. Every horticultural society should remember that each year there are people who are facing for the first time in their lives, the problems attending the making of a garden. He or she will join their local horticultural society largely with the idea of obtaining help with their problems. This shows very clearly that help for the beginner should form an important part of the policy of a horticultural society, particularly if it is in a district in the course of development. Addresses on garden lay-out by authoritative speakers followed by a general discussion of the subject from the aspect of local conditions is always valuable.

There are certain subjects that can form the basis of an address but should be given in some garden where a demonstration can be given. Fruit tree pruning is a good example and a demonstration given by a qualified person in a garden where there are established fruit trees will provide more valuable instruction in a quarter of an hour than an hour's lecturing. Sometimes it is possible to obtain the co-operation of the Horticulture Division of the Department of Agriculture, whose demonstrations, held occasionally are always practical and enlightening.

The flower shows for next season are organised during the winter. This is usually done by a small but select committee, nominated to deal with the organisation. Many headaches will be avoided if such a committee will read through and digest this Institute's Handbook *Flowers for Shows. A Guide for Horticultural Shows and Floral Art Displays* (available from the Dominion Secretary, Box 450, Wellington).

G. A. R. PHILLIPS,
Editor.

THE PRESERVATION OF NEW ZEALAND PLANTS AT THE OTARI NATIVE PLANT MUSEUM, WELLINGTON

R. H. MOLE, *Curator*

About $2\frac{3}{4}$ million people inhabit New Zealand's 104,000 square miles compared to 52 million in the United Kingdom's 94,000 square miles. This country at present, cannot therefore be said to be over populated, but even here, because of man's need, vast tracts, once clothed by nature's greenery, have been brought into cultivation. In addition, man's folly, by burning and/or overgrazing other areas, has created degraded land especially in the higher regions of the South Island.

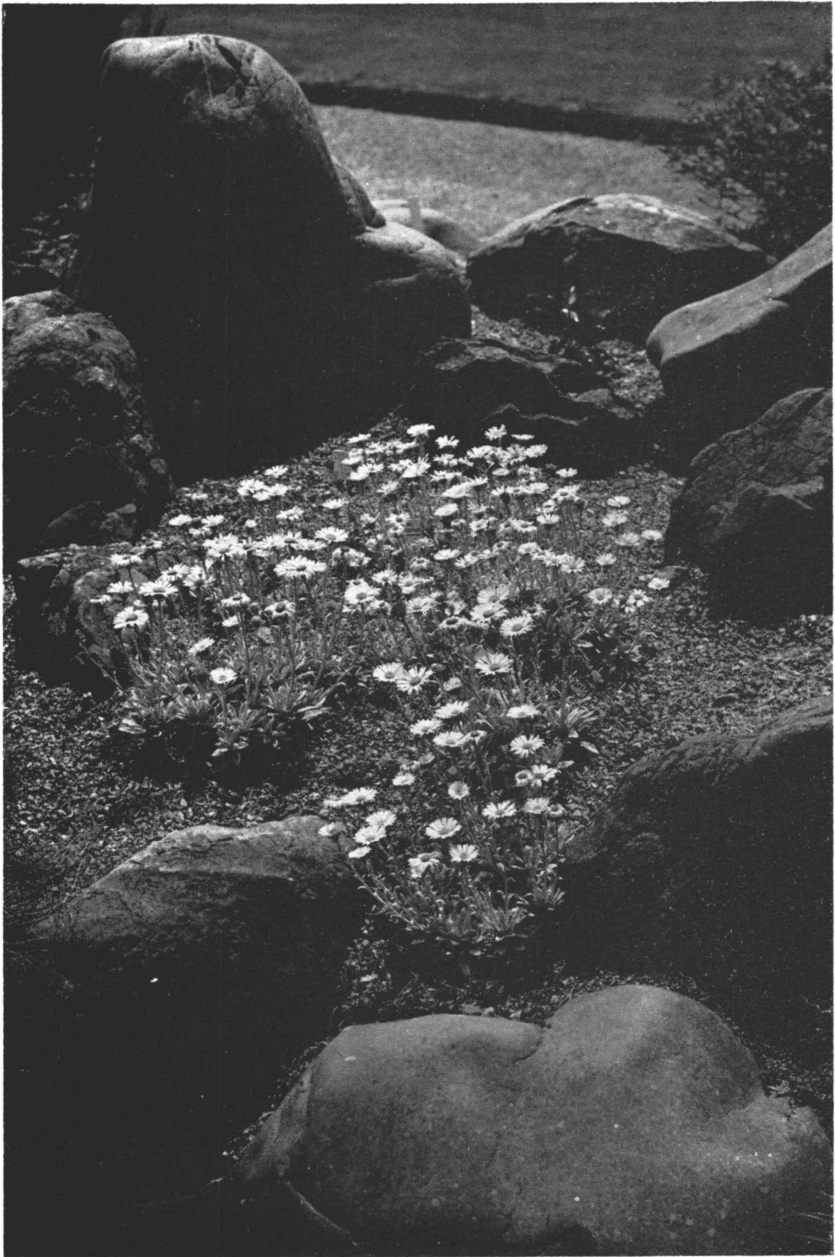
For whatever reason land has been, or is being, developed (or degraded) native plant life suffers in consequence. Even in areas where the bulldozers and earthmovers have not made their way, plants die or are mutilated by the depredations of various introduced noxious animals.

To some (perhaps the majority) the eradication of native plant life is of no significance, but to others it represents a tragic loss—irreplaceable in some instances.

It would seem that in the future the only remnants of natural plant associations in this, and all other developed countries, will be found in the sanctuaries of native reserves and on isolated islands uninhabited by man and noxious animals.

Certain gardens and reserves, in addition to the wild plants growing naturally there, have introduced others as a means of preserving them. Perhaps the most outstanding garden of this type is at Kirstenbosch, Cape Province, South Africa, along with other subsidiary reserves. Each establishment is devoted solely to the culture of as many as possible of the diversified plant groups which make up South Africa's flamboyant flora of about 16,000 species.

The 1,000 acres or so which constitute Kings Park, Perth, Western Australia is another recently created botanic garden and native reserve. Western Australia has a colourful flora of about 6000 species but over



Leaves covered with white tomentum, plus a floriferous nature, make CELMISIA INCANA an attractive species for inclusion in the rock garden at Otari.



The western face of the main rockery. At extreme right, in bloom, is *HEBE DIOSMIFOLIA*. To the left of the towering stems of the sedge, *GAHNIA RIGIDA*, is seen the terminal clusters of recurved leaves belonging to *DRACOPHYLLUM TRAVERSI*.

1,000,000 acres of virgin land are being ploughed under each year! In efforts to preserve as many wild plants as possible, wise forethought has resulted in the development of Kings Park wherein at least 4000 species of horticultural interest are planned to become established.

Many botanic gardens throughout the world have a section devoted to the country's native plants, but few establishments, it would seem, are devoted solely to this specialised culture. New Zealand's main representative in this field is the Otari Open-Air Native Plant Museum, Wellington.

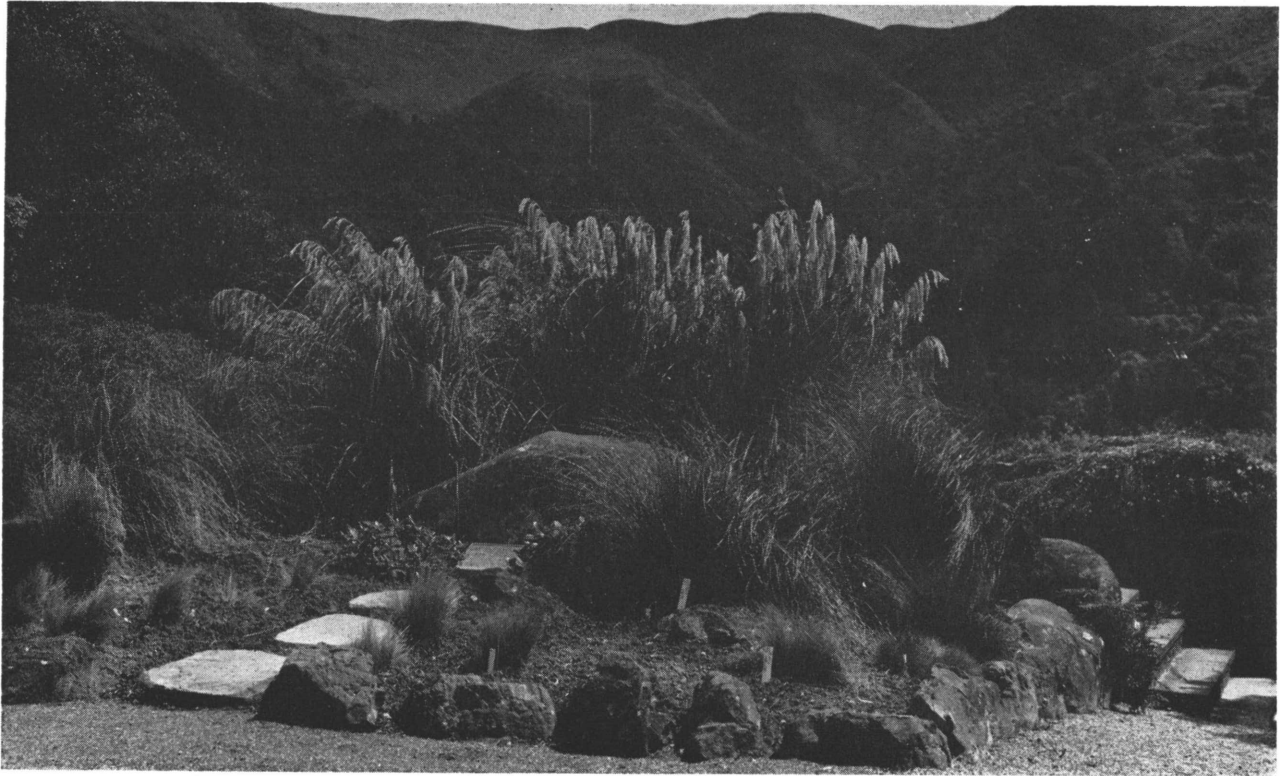
This native plant sanctuary consists of about 150 acres and was originally called Wilton's Bush—the name by which many people still refer to the property. It was proclaimed a Scenic Reserve in 1907 when the land was bought by the Government. The City Council also contributed towards the cost, and in 1918, the property came solely under the jurisdiction of the City Council Parks and Reserves Department.

In 1927 "A Scheme for the Development and Arrangement of the Otari Open-Air Native Plant Museum" was prepared by Dr L. Cockayne (then Honorary Botanist to the Council), together with Mr J. G. Mackenzie, at that time Director of Parks and Reserves. The four-point development of scheme was as follows:

- (1) to establish a collection of all New Zealand species possible to cultivate in the Museum.
- (2) to produce artificially various important types of the primitive vegetation of New Zealand.
- (3) to restore the present bush area to its original form, both as to its structure and composition.
- (4) to illustrate in various ways the use of indigenous plants for horticultural purposes for the information of those desirous of using such plants in their own gardens.

The Reserves Committee of the City Council accepted this scheme and Dr Cockayne, assisted by Mr A. McKay, Officer-in-Charge at Otari, did much to further the development of the property up to the time of his death in 1934.

Since this time, Dr Cockayne's plans have been followed as closely as possible. In 1947, Mr W. B. Brockie was appointed Curator and during the following 15 years the build up of native plant material at Otari continued. One of the main developments undertaken in this period was the establishment of a large rock garden near to the main entrance. This feature has enabled some of the alpine gems of the New Zealand flora to be cultivated under lowland conditions.



The tawny plumes of toetoe (CORTADERIA FULVIDA) hang over the large rock which marks the grave of Dr. & Mrs L. Cockayne.

To the east of the rock garden a larger border caters for many trees and shrubs of hybrid origin as well as those bearing variegated foliage.

Nearby (north-west) a large rock marks the grave of Dr and Mrs Cockayne. Today the tawny plumes of Toetoe wave in the wind over the rock while other grass species have been planted in the same section.

Adjoining the above area is what is called the 'look-out' — a vantage point from which much of the bush section is readily seen. A sizeable wooden bench seat presented to Otari in 1932 by Her Excellency, the Lady Bledisloe, is positioned on the lookout.

Below this vantage point several large borders contain many shrubs and small trees, the genera *Olearia*, *Pittosporum*, *Coprosma* and *Hebe* being especially represented. The lower path in this section leads into the main bush area wherein, located alongside the main Kaiwharawhara stream, a pleasant picnic site has been made.

To the east of the main entrance near the Wilton Road many introduced native species are growing. One border in this area is devoted entirely to *Carmichaelia* species, while across the nearby lawn, but within the bush margin, a quarter-acre site has recently been developed into a fernery.

Some 150 species of flowering plants, gymnosperms and ferns are represented in the natural bush area while the balance—over 600 species, varieties and hybrids—is made up of plants introduced to the property. Some of these plants have been brought to Otari from places as far afield as Campbell Island (the most southerly of New Zealand's outlying island groups) and the Kermadec Islands situated some 600 miles north-east of Kerr Point.

At international level, present-day plant taxonomists, cytologists, etc. seek to work with living plant material of known wild origin. In this field the Otari Native Plant Museum, together with gardens of a similar code, should play a role of increasing importance as the wild plants of the world gradually diminish under the impact of man's doings.

In view of the comprehensive collection of plants now gathered together at Otari, the home gardener or nature lover is able to familiarize himself with a wide range of plants native to this country, and witness the various ways in which native plants may be used in the home garden.

The Museum provides the largest single collection of native plant species in New Zealand, and surely all lovers of plant life will echo the words of Dr Cockayne as inscribed on the plaque by his grave.

'Will our descendent's prize this unique heritage from the dim past and preserve these sanctuaries intact.'

ACCLIMATISATION OF PLANTS AND BULBS FROM THE NORTHERN HEMISPHERE

K. H. MARCUSSEN

(Horticultural Advisory Officer, Department of Agriculture, Christchurch)

All plants go through an annual cycle of development. New growth usually develops in spring, hardens off during late summer and autumn, after which a period of dormancy follows during winter. Time of flowering, in general, being incidental and not necessarily associated with the growth cycle from the present point of view.

But there are variations. The period of dormancy may not necessarily be during winter, e.g., spring flowering bulbs. They go into dormancy in mid-summer, and commence their cycle of visual growth with vigorous root development as soon as they are planted in autumn.

The best time to import from the Northern Hemisphere for acclimatisation in New Zealand is at the beginning of the period of dormancy in the country of origin. This varies according to species, but dispatch usually should be September or October. Air transit is preferable and should be used if at all practical.

Trees and Shrubs

Trees and shrubs arriving here at that time, say October, will acclimatise easily. The dormancy period is shortened, but this seldom affects the plants very much and they enter growth in the season normal to our climate. Little special attention is required except possible shading of evergreens because their foliage has been developed at a lesser light intensity than we have in New Zealand. Losses from such imports usually are small.

If, however, trees and shrubs are sent by ship they are up to 2 months in transit and sometimes under varying conditions. That, on its own, can seriously affect their condition. They will arrive in New Zealand about December when temperatures have become high and the sunlight is at the maximum. Conditions are at the worst for breaking the plants' dormancy and bring them into "spring growth".

If a consignment of plants arriving in December has to be dealt with and acclimatised they should be placed in a shade house, in as cold a position as possible. Overhead sprinkling must be given frequently during warm and windy weather and the plants really nursed along. The aim should be to get them into full growth quickly and then to harden this growth so that they will be able to withstand winter conditions. For late arrivals, it is preferable to grow them in containers so that they can be moved into a cold glasshouse in the autumn — if deemed necessary.

Budding Eyes

Roses usually are imported in the form of bud sticks and as they can be held in refrigerated store prior to dispatch (which is always

by air) the time for dispatch must be decided in accordance to suitability of the root stock. That will vary from district to district (from October to December); the stock will be suitable for budding earlier in the year in Auckland than in Christchurch. For southern district, at least, it is preferable to have one-year-old stock ready for budding. Rose stocks are usually cut back as soon as the buds have taken so that growth is forced and a flowering will take place the first season. This can be of importance as imported roses cannot be released from Post Entry Quarantine until after the second flowering.

Herbaceous Plants

Carnations and chrysanthemums are the plants of this type most commonly imported. They should be given glasshouse space so that they can be acclimatised without being affected by the climatic conditions, which, especially for carnations, may result in foliage diseases becoming established, thus complicating the Post Entry Quarantine. These two species can be imported at any time of the year when good stocks are available overseas. For perpetual flowering carnations there is no season, but if no facilities are available for giving chrysanthemums an "artificial day length", they should be imported in our spring/early summer so that they can be grown and brought into flower naturally.

For most types of herbaceous plants, October is the best month for arrival and no complications should arise in acclimatisation.

Tubers

Anemones and Ranunculus are the main import in this group and can be treated as ordinary stock. They normally can be held over for a full year without loss of viability and are consequently excellent stock for general planting. Dahlias should be imported as soon as dormancy has been reached overseas and sent by air. On arrival they should be planted out and will acclimatise fairly readily during the first season. Little special care will be required in most cases. The same applies to most other plant material imported as tubers.

Spring Flowering Bulbs

The major imports in this group are of Iris, hyacinths, Narcissus and tulips. There may also be other bulbs involved but their handling, in general, should be similar. The time of arrival of commercial quantities depends on shipping and varies from year to year. So does the state of the bulbs. They come at any time from October to December.

A site should be prepared in as cold a situation as possible and the soil should be moist for planting. Planting should be done without delay and if delivery is late in the year it is advisable to mulch with straw to keep the soil cool, hoping for root development in line with shoot formation. Provided the mulch compacts down it can be left on; but when the shoots break through, foliage development must not be hindered by the mulch.

The planting area should be away from other bulb crops, so that

it is not subject to transmission of pests and diseases from established crops. That is particularly important with tulips where tulip fire (*Botrytis tulipa*) can be carried over in an out-of-season crop. If only small quantities are involved it is a good idea to grow them in pots or boxes; that makes it easier to give them the best conditions — and they are easier to keep under observation. Such containers should be kept mulched on the southern side of a hedge or building, or dug into the ground in a cool spot, but their water requirement should be ensured.

Bulbs that are acclimatising will usually flower out of season at least the first time, but from the point of view of bulb development, it is better not to use them as cut flowers. The flowers only should be picked off as they develop and the stems left as they contain chlorophyll and will assist bulb build up. But often the flowers will be found to be dried up. That is due to wrong temperature during their early stage of development, while they were still within the bulbs — during transit. After flowering the foliage will ripen and may stay on for quite a while. It is so much the better if this happens — never be in a hurry with them. When they have died down they may be lifted, but most bulbs are left in for two seasons during acclimatisation.

Tulips are the most difficult bulbs to acclimatise and losses usually are very great. The other bulbs commonly imported give relatively less trouble. Hyacinths can be imported as “retarded” bulbs which have been held at specific temperatures to slow up their development during “dormancy”; they are the least troublesome, but with them also it is not uncommon to find “dried up flowers”, as described above.

Summer Flowering Bulbs and Corms

They are the easiest to deal with and usually they cause little trouble. Their growing season is relatively short so they can be lifted immediately on becoming dormant and arrive in New Zealand in time for normal planting. Lily bulbs are an exception and should never be imported in our autumn unless a glasshouse is available in which to plant them on arrival.

General

It is more trouble to acclimatise plants and bulbs from overseas than to plant locally grown plants, and usually there are extra costs involved. Nothing, therefore, should be imported which is available in this country. Imports then must be considered valuable material and worth looking after.

Most plants are covered by Plant Quarantine Regulations and can only be imported under permit issued by the Director, Horticulture Division, but even when that is not required they should be grown in a quarantine area isolated from other plants of the same or allied species to safeguard their health.

Spraying should be carried out as a routine, both for pests and diseases. If there are any doubts about the programme the Horticultural Officer at the local Department of Agriculture should be consulted.

THE USE OF PLANTS IN THE MODERN DECORATING SPHERE

*An Address given at the 1967 Annual Conference by
JOHN O. TAYLOR (Cashmere)*

For too long ornamental horticulture has trailed behind in the race for recognition of a place of importance among the many things which we consider essential in our homes and communities. In days gone by large estates would have a large gardening staff and a conservatory where palms and pot plants were grown to decorate the mansion. This was for the few. The average home of 50 and 100 years ago was not suitable for growing plants indoors and few nurseries produced plants which were sought after by the suburban home dweller.

Alongside the development of the wider street, with its grass berm, its street trees and its underground wiring has come the wooden home with larger windows, better insulation and ventilation and the merging of houses with gardens.

The patio, the planter trough, the indoor garden and the appreciation of house plants have become synonymous with gracious living. Take away any of these modern sophistications and we take a step backwards which is something no advancing country will tolerate.

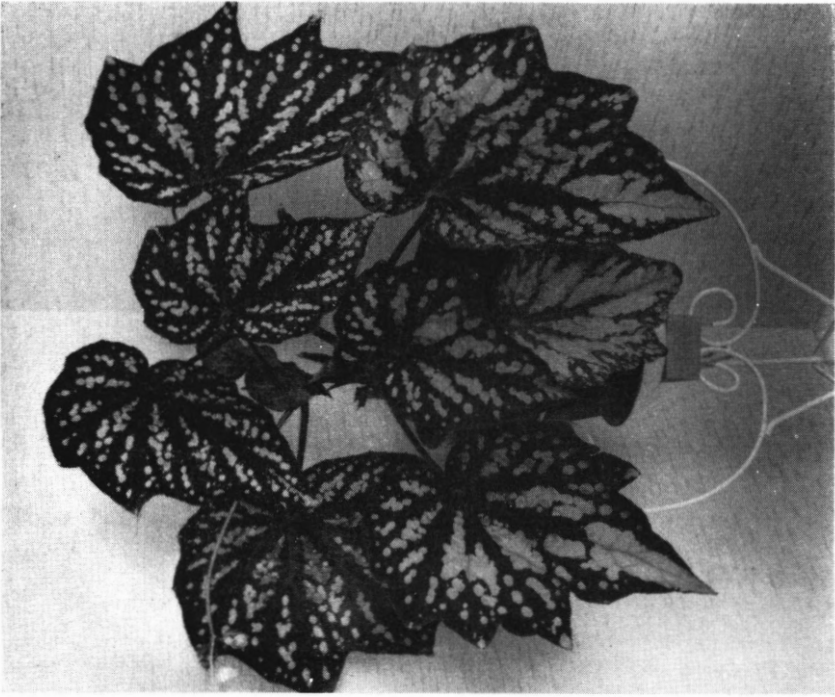
The demand for house plants has risen sharply over the past ten years. This is a world wide phenomenon and not just a local aberration. With this demand has come increased knowledge and understanding of house plant requirements. Also the demand has increased for better plants and for varieties which are particularly suited to indoor cultivation. Just as the home owner requires a more durable house paint or a superior floor polish so, too, does he require a more interesting and amenable house plant.

It rests with the producer and retailer of plants the responsibility of ensuring that only plants which are eminently suitable for indoor cultivation are offered for sale. Customers should be informed of peculiar requirements of special subjects if trust is to be engendered between seller and buyer. Not always can the supplier be blamed however for the deterioration or death of a plant. Many disappointments could be avoided if the seller possessed knowledge of the requirements of a plant and passed this on to the buyer.

In some homes, in very favoured situations, almost any type of plant can be grown successfully but it is intended here to discuss only those plants, which when given fair and regular care can be expected to adorn a home for a given period of time.

Some basic principles in the care of house plants must be stressed.

1. *Correct Watering:* Give water when the soil is beginning to dry out and before wilting occurs. Water well to ensure penetration throughout the ball of soil. Some plants, especially pot-bound plants will re-



BEGONIA REX



PHILODENDRON SODIROI

quire daily watering during the summer, while others during winter or cold weather may only need watering perhaps once a week. Never water a plant when the soil is wet.

2. *Situation*: In the average room there is a well lit—or sunny situation for a house plant, and there is also a shady and cool situation. A knowledge of the plant and its growth habit will assist in the selection of the correct location. For instance, the *Poinsettia*, being a semi-deciduous sun-loving shrub from Mexico will be happier in the sunniest place in the room while *Monstera deliciosa* also from Mexico, but from the floor of the jungle will be happiest growing in the shadiest part of the room.

3. *Potting and Feeding*: Potting on from a smaller pot to a larger one is a pleasant task for the enthusiast. To put a very small plant into a large pot is not recommended. Apart from the unhappy appearance many plants do not thrive if over-potted. Many types of prepared composts are available.

Feeding should be carried out every two or three weeks during the growing period (spring and summer for most plants, but autumn and winter for others such as the Cyclamen and poinsettia). Again many proprietary plant foods are available and instructions on the containers must be implicitly followed.

4. *Insect and pest control*: Being away from their natural environment some plants become infested with aphid, red spider mites, scale insects and other pests more readily than otherwise when biological control (natural enemies) can keep infestation in check. The use of modern therapeutants such as malathion, for aphid, summer oil for scale insects, and Karathane for some fungi diseases makes control relatively simple.

Among the superior type of house plant may be listed the following:

FOR SHADY SITUATIONS:

- Monstera deliciosa* (Fruit salad plant).
- Philodendron bipinnatifidum* (large handsome foliage).
- Philodendron scandens* (climbing, heart shaped leaves).
- Philodendron andreaeanum* (large leaves with light veins).
- Kentia forsteriana* (Kentia Palm)
- Dracaena deremensis* var *bausei*
- Dracaena fragrans* var *lindenii*
- Hedera varieties* (Ivies)
- Phoenix roebelenii*
- Vriisia splendens*

FOR WELL-LIT BUT NOT SUNNY SITUATIONS:

- Araucaria excelsa* (Norfolk Island Pine)
- Ficus elastic* var *decora* (large leaved rubber)
- Diefenbachia bausei*
- Sanseveria trifasciata* var *laurentii* (Golden striped sanseveria)
- Dracaena fragrans*
- Chamaedorea elegans*
- Scindapsis aureus* (Marble Queen)

FLOWERING PLANTS — REQUIRING PLENTY OF LIGHT:

- Begonia metallica* (Pink flowers, bronze-green leaves)
Begonia Pres Carnot (Waxy pink flowers)
Begonia Haageana (large grey-green hairy leaves)
Cyclamen persicum (mid winter flowering)
Euphorbia pulcherrima (Poinsettia) mid-winter flowering)
Coleus Blumei hybrids (Coloured leaves)
Hoya carnosae (Wax Flower)

HELICHRYSUMS

W. R. STEVENS (*Wanganui*)

Amongst all the families of flowering plants, that of Compositae ranks as one of the largest, consisting of over 20,000 species. The members of this family are found in many parts of the world, and range from annuals and perennials to shrubs and small trees. In one genus alone, *Helichrysum*, there are over three hundred species, the greatest number occurring in Australia and South Africa. Even New Zealand has over a dozen species with their varieties.

In this genus, the flower heads are usually terminal, consisting of tiny florets collected together in a head. These are surrounded by bracts either in one row, or overlapping in several rows, usually having the appearance of a single flower. Botanically very close to *Helichrysum* are the *Helipterums*—in fact the only difference between the two is that in *Helipterum* the pappus is plumose, whereas in *Helichrysum* it is barbellate. Dr J. Hutchison of the Royal Botanic Gardens, Kew, states that this is a very artificial distinction, which may well be dispensed with, and the two genera absorbed into one. From the purely horticultural view anything that helps to simplify botanical names would be very welcome, but as he made this suggestion over thirty years ago, and nothing has eventuated, I would not like to really be optimistic as to when the change will occur.

In the main the culture of *Helichrysums* does not present many difficulties, but there are one or two essentials that are necessary for successful flowering. The first is drainage. This should be really sharp, particularly in areas having over twenty inches of rain. Also it is as well to remember that a great many species close their flowers in dull weather, and it is therefore important to have sufficient sunshine to induce the flowers to open.

In Australia and South Africa, I have seen quite a number of species growing wild. The soil was rather thin and hungry, in nearly all cases. In cultivation I have found that they welcome a fairly rich soil, or at least a soil containing an abundance of humus. The following notes describe some that I grow or have grown in *Wanganui*. Most of them have grown very well, but it has been quite obvious to me that they would do far better in a lighter soil.

Helichrysum argyrophyllum: This is a low growing perennial, with silvery grey foliage, and bright yellow flowers. Even without the flowers, it looks attractive as a mat, and is easily grown. However as it increases, it is inclined to have a slightly open centre, and fresh planting should be made every two or three years. The flowering period generally commences about the middle of March and continues until the end of April. The leaves are about half an inch wide, and the flowers a little larger. A very useful plant for rockeries, or cascading over walls.

Helichrysum retortum: To my mind this is one of the best species from all points of view. Small grey leaves are set close together. The stiff outer bracts are brownish and the inside around the yellow centre are flushed at the base with purple, paling to white at the tips. This purple soon fades in the sun, and the flower then has the appearance of a large white daisy. A bit slow to start growth, but when established, forms a mound up to two feet across, much higher in the centre. Flowers in November, and needs full exposure to the sun for the flowers to open. I first read about this species over thirty years ago, and for years I tried to procure seed without success. However in 1964 my wife and I went to South Africa on a collecting tour, although as it was in the off-season, there was no seed available. We did not find any quantity of it growing wild, but whenever we did, it was growing in sandy soil along the coast. In desperation we brought back cuttings with us, and despite the long journey, they arrived here in fair condition. We managed to root quite a number, and it is now well established with us.

H. vestitum: In the early part of this century, the flowers of this species were dried and exported to Germany and Japan. A considerable trade of these "immortelles" was built up, and continued until the commencement of the First World War. As a boy I remember the glass bowls with these pure white flowers inside them, that were extensively used in the cemeteries. In growth, the stem and leaves are thickly clothed with whitish tomentum, and the unbranched flower stem rises to one or two feet high. The silvery-white, inch wide flowers occur in summer, and when fully open have a dark centre. I have grown and flowered this species several times, but it is definitely not happy with me, and takes the first opportunity of departing. The seed germinates quite freely and the plants do not give any trouble until they are of flowering age. In nature it occurs on rock hillsides in thin hungry soil, always sharply drained. Of all the species I have grown this is the most beautiful—and the most exasperating. Just at the period of their growth when they look promising they decide the effort is too much, and one by one they die out.

H. fulgidum: This is a well branched shrubby plant, up to three feet. The term "shrub" is perhaps misleading, as the growth is annual, dying down every year. Although it is a true perennial, it is better treated as an annual, as it quickly reaches flowering age. The bright gold "everlastings" are about an inch across, and occur in March to June.

I would not say it was outstanding, but it does deserve a place in a large herbaceous border. Very easily grown, and caterpillars have a great fondness for the flowers.

Helipterum canescens: This is a small branched, rather straggling shrub, up to three feet, with silvery foliage. The flowers are a bright rosy pink, and make excellent dried flowers. It is very late flowering with me, mostly early May, when I begin to think it is never going to appear. The trouble is if we do not get full sun in May, it refuses to open fully, and half its beauty is lost. I can never get it to live more than three years, so it is advisable to have a few young plants coming on to replace the old stock. It can be propagated from cuttings, although seed is the normal method of increasing it.

Helipterum speciosissimum: Another shrub up to two feet, with rather stout stems. The large cream coloured flowers are often two inches across, and can be dried quite successfully.

The plants that I have described so far are all from South Africa. The following two species are from Australia, and are of a totally different type.

Helichrysum cordatum: This is a scrambler which needs some form of support. In Western Australia, I have seen it take over any small



HELICHRYSUM (while flowered)

shrub which grew near it, and its long flexuose stems grew through and over it. The pure white flower heads are very small and numerous in clusters, giving an extremely dainty effect.

Helichrysum diosmifolium: This is a fast growing shrub, often up to ten feet. Quite large panicles of off-white flowers in early summer. An easily grown, and showy shrub, but it has rather an unpleasant odour when bruised or crushed.

NOTES FROM THE CHRISTCHURCH BOTANIC GARDENS

L. T. METCALFE, N.D.H. (N.Z.) Assistant Curator.

The weather in Christchurch over the past few months has, on the whole, been very pleasant. Rainfall for the whole period has been considerably below average while temperatures have been warmer than normal. There appears to have been less wind than usual and a prevalence of warm north-westerly conditions. If the main part of last summer was not particularly good we have been more than compensated by the late summer-autumn period. The only discordant note was the exceptionally dry conditions which have prevailed for the greater part of this period. There have been occasional falls of rain but nothing of any consequence until recently and in some parts soil conditions are still very dry. Continual watering has been necessary and even now in early May most sprinklers are still in use in the Botanic Gardens.

This year the fine weather enabled the planting of spring bedding displays to be completed in record time and we had one of the best planting seasons ever. The quality of the plants used was very good, and together with timely rains following the main planting should ensure some fine displays in the spring.

At this time of the year, once the planting of spring bedding displays is finished and before the normal, seasonal winter work is commenced, attention usually focuses on any alterations and capital works which are to be undertaken. As a garden is a living thing it is a constant state of change, and as the years pass, alterations to the plantings or layout become necessary. This necessity must be recognised otherwise a garden stagnates and ceases to be viable. Two projects being undertaken in the Christchurch Botanic Gardens this year involve the reconstruction of the existing Clematis garden to a new design, and the enlargement of the Erica border into a proper Heath garden.

The old Clematis garden situated near the Propagating Department was constructed some years ago and while originally it served its purpose and was quite attractive, the growth of associated plants together with other factors brought it to the stage where reconstruction became necessary. One of the faults of the old Clematis Garden was that

many of the plants were not easily viewed by the public due to their distance from the pathway. Therefore the whole area was completely redesigned to provide more pathways and make the garden more of a feature.

The area involved is roughly rectangular and measures approximately 112 by 48 feet. It faces to the west and is bounded on the eastern side by an old brick wall which gives it a certain amount of character. The main feature of the new Clematis garden will be a pergola 48 feet in length. Two mature lancewoods (*Pseudopanax ferox*) are already growing in the area, although the plan calls for the removal of one to a different position. A seat and table carved from Oamaru stone and presented by a local citizen will be set up in a sunny corner and will complete the layout.

The other major alteration to the layout of the Botanic Gardens is the construction of a Heath garden. The present *Erica* border is situated just opposite the Rock garden and was dug out from the sloping edge of the Harper Lawn in 1947. While it has always provided a good display of some hardy heaths, particularly during the winter months, it has been too narrow to permit the display of an extensive collection of *Erica* species and cultivars.

The plan is to enlarge the present border and extend out onto the Harper Lawn with a series of informal beds separated by grass walks. This will give considerable scope and will enable a fairly comprehensive collection to be grown. The accent will be on the hardy species of *Erica*, but trial plantings of some of the South African species of *Erica* will be made in order to determine which are hardy under general garden conditions in Christchurch. Already considerable numbers of plants have been grown on in the nursery, for ready planting out as soon as the ground has been prepared. The main species to be represented are *Erica carnea*, *E. tetralix*, *E. cincerea*, *E. mediterranea*, and *E. vagans*. Hybrids and cultivars of these will feature largely, with the numerous cultivars of *E. carnea* forming the largest group. South African species to be grown include *Erica cerinthoides*, *E. canaliculata*, *E. cruenta*, and *E. bowieana* together with cultivars such as *E. 'Parkeri'* and *E. 'Wilmorei'*, and as already stated others will be tried for hardiness. Other plants to be grown in the Heath Garden will include *Calluna vulgaris* together with its cultivars, and *Daboecia cantabrica*.

Another project, now nearing completion, which has been steadily progressing for some time is the erection of two new display houses. One is to house and display a collection of carnivorous plants and the other for displaying alpine plants. The house for carnivorous plants extends from the end of Garrick Cactus and Succulent House and measures approximately 18 by 24 feet. Although it has been completed for some time it is not yet open to the public due to the length of time it has taken to build up suitable stocks of carnivorous plants. However it is expected that a limited number will be on display later this year. For the past four years the Botanic Gardens has been steadily amassing a

collection of carnivorous plants obtained mainly from sources overseas but native species are also represented. Although stocks of individual species are still small there is the nucleus of a good collection.

The alpine house is separate from the main range of display houses and is adjacent to No. 5 display house which will house the carnivorous plants. It is 30 feet long by 13 feet wide with benches running along either side. The main feature of the house is that the maximum amount of ventilation is required. To many people, growing alpine and rock garden plants in glasshouses seems unnecessary. However the fact is that many of these plants can be grown much better where their growing conditions can be more or less controlled. In the case of bulbs and other plants with delicate flowers they can be displayed to perfection, their flowers undamaged by weather and in all cases the plants are more easily viewed by the public than if they are grown in a large rock garden. A large collection of plants has been built up in readiness for the opening of this house and a wide range of native alpine plants will feature prominently. Some species of *Celmisa*, and *Aciphylla* in particular lend themselves to pot culture and when well grown are really handsome. The construction of this house should be completed in the near future.

PUBLICITY THROUGH N.Z. BROADCASTING CORPORATION

Mr J. D. Taylor, who is in charge of the Rural Broadcast given over national stations at 12.30 p.m. each day, has advised that he would welcome any news of horticultural interest for this session. This would include such things as advance notice of forthcoming shows, talks open to the public, news, demonstrations, presentation of Certificates, particular garden displays etc. etc. At the conclusion of the national broadcast, regional stations continue the session so that local information can be given.

Will all members of the Royal New Zealand Institute of Horticulture please undertake to inform all horticultural associations in their district that this Broadcasting service is available. Now that we have made the approach to Broadcasting and paved the way we do sincerely trust that all within the Institute will do what they can to make it work successfully for the benefit of horticulture in New Zealand.

The information should be given to the following people C/- the local Broadcasting Station in the districts named.

Auckland, Hamilton, Waikato, Rotorua, Bay of Plenty: Mr Colin Follas or Mr H. Carlisle, Box 489, Hamilton.

Wellington, Palmerston North: Mr F. Torley, Palmerston North.

East Coast, Gisborne, Hawke's Bay: Mr P. Coates.

Canterbury: Mr Jim Scoullar.

Otago: Mr G. Curran.

Southland: Mr A. Trotter.

New Plymouth: Mr Bob Mills.

Wairarapa: Mr J. Brown.

Timaru: Mr D. Rowe.

Blenheim: Mr Crawford.

ANNUAL REPORT OF THE DOMINION COUNCIL FOR THE YEAR ENDED 30th SEPTEMBER, 1966.

Ladies and Gentlemen,

The Dominion Council has much pleasure in presenting the Annual Report for the year ended 30th September, 1966, which is the forty-fourth Annual Report of the Royal New Zealand Institute of Horticulture Inc.

1. *Meetings:*

- (a) *Annual Conference 1966:* The 43rd Annual General Meeting and Conference of Delegates was held in New Plymouth on 17th February 1966. The local District Council extended cordial hospitality to those attending. The Conference was officially opened by the Minister of Agriculture, Hon. B. E. Talboys. It was a well attended and successful Conference. *The Banks Lecture* was delivered by Mr D. A. Watkins, Managing Director of Ivon Watkins—Dow Ltd., and his subject was "Industry and Horticulture—Partners in Progress." The Lecture was published in *New Zealand Plants and Gardens* Vol. VI No. VI, March 1966.
- (b) *Dominion Council:* The Dominion Council met on four occasions during the year and the average attendance at those meetings was 19. Greater attendances at these meetings would be very welcome and District Councils and affiliated bodies are urged to endeavour to be represented at these meetings.
- (c) *Sub-committees and Examining Board:* The Dominion Council again acknowledges with gratitude the co-operation and help received from the various sub-committees and the Examining Board. They have met regularly throughout the year, attending to the specialised business delegated to them.

2. *In Memoriam:*

It is with most sincere regret that the Dominion Council records the passing of several esteemed members during the year. Their passing is keenly felt and our sympathies are extended to their relatives.

3. *Membership:*

The total membership stands at 1602, including 39 Associates of Honour. A strong membership is vital to the well-being of the Institute and District Councils are urged to do all they can to enrol new members. We welcome all new members who joined during the year. During the year the Dominion Council conferred "fellowships" upon 12 members.

4. *Finance:*

- (a) *Annual Accounts:* These are appended to this Report. The effect of the increase in membership subscriptions approved at the 1965 Dominion Conference is reflected in the accounts. The new rates applied from 1st October 1965. The financial strength of the Institute rests upon a strong membership, which must be increased, and present members are urged to help by enrolling new members.
- (b) *Trust Accounts:* These are clearly set out in the Annual Accounts. Trust funds are properly invested.
- (c) *Publications Account and Loder Cup Account:* These, too, are clearly set forth. The financial assistance received from the Internal Affairs Department for the Journal is sincerely acknowledged with thanks.
- (d) *Examinations Grant:* The Dominion Council acknowledges also with thanks the capitation received from the Department of Agriculture for examination purposes.
- (e) *J. R. McKenzie Trust:* A grant of £100 from the J. R. McKenzie

Trust for 1966 is acknowledged with appreciation. This sum was received after the 30th September and therefore will appear in the next year's Annual Accounts. The J. R. McKenzie Trust Board is the major shareholder in McKenzies (N.Z.) Ltd., Department Stores, and derives its distributable income from profits earned by McKenzies Stores.

- (f) *Policy and Finance:* During the previous year members of the Dominion Council met especially to discuss the general affairs of the Institute, its future policy and finance. Arising from these discussions a circular was sent to affiliated organisations, kindred societies, and district councils for comments and suggestions on ways whereby the Institute's work and influence might be extended and made more effective. A sub-committee from the Canterbury District Council was appointed to continue the follow-up of these discussions and to bring down a constructive report to the Dominion Council. This sub-committee has convened meetings of representatives of horticultural producer organisations, scientific, academic and advisory services and interests. These meetings were held with a view to discussing matters of common concern to horticultural bodies and to explore the need for unification in the horticultural industry, in horticultural education and other pursuits leading possibly, if found desirable and necessary, to the setting up of a forum or council. The place of the Institute in any such unified Council, of course, is of moment to the Dominion Council and members, but it would appear that the Institute's greatest contribution in future could lie in the field of horticultural education. It is realised, nevertheless that, while there are issues of common concern and interest existing between large-scale commercial and professional horticulture and the hobbyist groups, there is also much diversity, so that there can scarcely be an immediate union of all parties into a closely integrated organisation serving all respective interests. There still remains a pressing need for forward looking, both in regard to policy and finance for the Institute. A review of the finances relating to the conduct of the Examinations is at present in hand with a view to obtaining some major relief from the weight of expense that now falls upon the Institute's general funds. The Dominion Secretary's office gives considerable service to the Examinations at a rate of remuneration far below what is comparable with present day costs. The Dominion Council will be giving further detailed consideration to these matters in the ensuing years.

5. *Nomenclature:*

The membership of the Nomenclature Committee was increased after last Dominion Conference and the members have done most valuable work.

Progress is now being made in the study of Hebe cultivars in New Plymouth and Otari to complement the existing collection in Christchurch. Further information is being obtained concerning overseas cultivars of Hebe.

During the year the Committee has given guidance to a number of people on the correct method of naming new cultivars of *Pittosporum*, *Grevillea* and other plants. In general, New Zealand horticulturists are well aware of the correct method of naming plants in accordance with the International Code of Nomenclature and the Institute's Nomenclature Committee is playing an important part in this educative aspect. Our warmest thanks are expressed to the members of this Committee for their painstaking and specialised work.

6. *New Zealand Plants & Gardens'*

The Publications Committee has ensured that "New Zealand Plants and Gardens" has maintained its high standard of publication throughout the year. It has also discussed the questions of Judging Certificates and Publicity, particularly the Award of Garden Excellence, so that the public at large will be aware of the Institute's activities through an authoritative journal. The Dominion Council expresses appreciation again to the editor, Mr G. R. Phil-

lips, who has played an important part in maintaining the journal at its highly regarded level. In spite of failing health Mr Phillips has given devoted and meticulous attention to each quarterly issue and has produced a journal of which we can justifiably be proud.

Index to Volume V was published during the year. Advertising revenue has been maintained, but an increase would be welcome to help meet printing costs.

The Dominion Council has appreciated the work of this sub-committee throughout the year.

7. *Historic and Notable Trees:*

Definite progress is being made in the compilation of information on Historic and Notable Trees in New Zealand. Mr R. W. Burstall of the New Zealand Forest Service, Rotorua, has had a great personal interest in this subject and generously offered to compile Dominion-wide records of such trees, with notes where appropriate, on behalf of the Institute. He is using the mass of information that has been collected in recent years, along with his own valuable notes and personal knowledge. A lot of additional information had been received from recent publicity arranged by the Dominion Secretary.

Members of the Publications Committee have met Mr Burstall and discussed this work with him. It is hoped that the subject will be of sufficient national interest to justify publishing as a book with adequate illustrations.

The assistance received from Mr Burstall, District Councils, the Research Institute of the New Zealand Forest Service, and others in this rather protracted checking work is sincerely appreciated. Other officers of the New Zealand Forest Service who have given valuable help are the Director General (Mr A. L. Poole), Mr W. H. Jolliffe, Mr W. J. Wendelken and Mr M. G. Dunne.

8. *Horticultural and Floral Art Show Handbook — re-styled, "Flowers for Shows:"*

At the last Dominion Conference, it was stated that the Institute's Show Handbook was being published by a commercial firm of publishers. However, satisfactory arrangements could not finally be reached so that the Institute boldly decided to print and publish this Handbook as its own responsibility.

Mr G. A. R. Phillips acted as technical Editor, and the firm of Swales, Hurst & Co., Ltd., carried out the printing. By the due date, November 30, 1966, "Flowers for Shows," a Guide for Horticultural shows and Floral Art Displays, was finally published. Reviews and reports received since indicate that this Handbook will fill a long felt need throughout the Dominion and thanks to good publicity by the Dominion Secretary and his staff, over 1000 copies were sold before publication. Since then sale have continued at a steady level. 3000 copies were printed. Distribution is being undertaken by the Dominion Secretary. The Dominion Council appeals to each member of the Institute to purchase a copy and also encourage friends and members of associated horticultural groups to do likewise. The Institute is gaining in national standing, as well as financially, through this publication, and has achieved further progress in horticultural education and advancement. The Dominion Council acknowledges its debt of gratitude to the sub-committee, under the Convenership of Mr J. P. Salinger, responsible for the entire production of this book. Appropriate acknowledgement of assistance received is printed within the book itself.

9. *Opossum Control:*

The eradication of the opossum menace from our land continues to concern us all. It is a major national task and will not be easily achieved. The Institute sincerely urges the Government to press on with research into ways and means of finally removing this costly little fellow, the opossum, from our fair Dominion.

10. *Arbor Day:*

This annual observance was again fully supported throughout the Dominion by the Institute-taking an active and leading part.

11. *Loder Cup Award:*

This Annual Award is offered to "Lovers of Nature in New Zealand to encourage the protection and cultivation of the incomparable flora of the Dominion." Mr R. Syme, A.H.R.I.H. (N.Z.) serves on the Loder Cup Committee as he nominee of the Institute. The 1966 Award has been made to Mr Oliver Hunter of Lyttelton and our congratulations are extended to him.

12. *Examining Board:*

The Examining Board is appointed by the Dominion Council annually and bears the full responsibility for the conduct and administration of the Institute's examinations. The Institute has full statutory authority to issue diplomas and certificates as follows:

- National Diploma in Horticulture (N.D.H. (N.Z.)).
- National Diploma in Fruit Culture (N.D.F.C. (N.Z.)).
- National Diploma in Apiculture (N.D.Ap. (N.Z.)).
- Certificate in Vegetable Culture (C.V.C. (N.Z.)).
- Certificate in School Gardening (C.S.G. (N.Z.)).
- Seedsman's Certificate (S.C. (N.Z.)).

Under the Chairmanship of Professor H. D. Gordon of Victoria University of Wellington, the Examining Board has given meticulous attention to the Examinations conducted by the Institute. The Board's separate report is appended. Again the Dominion Council places on record its sincere appreciation of the valued assistance received from the District Councils, the City Councils, the Directors of Parks and their staffs at Christchurch and Palmerston North, also officers of Massey University, the Department of Agriculture, and members of the National Beekeepers Association for their excellent help in the conduct of the Oral & Practical examinations. The Dominion Council expresses its warmest thanks to the Examining Board for their loyalty and devotion to this important phase of the Institute's work.

The Board is complimented on its decision to conduct Junior Oral and Practical examinations in Palmerston North in 1966. This should mean much to the students of the Northern districts. The Examining Board will always be concerned to ensure a high standard in the conduct of these examinations, however.

13. *Remits before the 1966 Dominion Conference:*

Details of these remits and the discussion thereon have already been published in the report of the 1966 Conference in the March 1966 issue of N.Z. Plants and Gardens.

- (1) *As regards Venue of Oral and Practical Examinations.*
- (2) *As regards Interpretation of Syllabus for Oral and Practical Examinations.*
- (3) *As regards the curriculum of the Technical Correspondence School with the standards necessary to complete the National Diploma in Horticulture (N.Z.).*

These three remits were referred to the Examining Board and are reported on in the Examining Board's separate Report.

- (4) *As regards Diversification of the Institute's Journal to create greater reader interest.*

The result of requests from the Publications Committee and Editor for more District Council reports and matters of horticultural interest was disappointing.

- (5) *As regards an Award in the form of a Medallion, or Certificate, to be presented to the Banks Lecturer, as a tangible recognition in commemoration of the occasion.*

The Dominion Council resolved to make such a presentation annually, but in the form of a suitable book. This award will commence with the Banks Lecture 1967.

- (6) *As regards increasing membership of the Royal New Zealand Institute of Horticulture, by the affiliation of the various specialist plant Societies, and District Horticultural Societies to the Institute: and the transactions of these Societies being published in "N.Z. Plants and Gardens."*

The Publications Committee considered it not practicable to include the proceedings of specialists organisations without considerably increasing the size and cost of the Journal. Many kindred Societies are already affiliated and already recently letters were widely sent to such organisations soliciting affiliation.

- (7) *As regards co-operation with Ministry of Works and local bodies for the protection and preservation of historic and notable trees, and groups of established trees of aesthetic value.*

District Councils have been requested to offer their co-operation to local bodies and Ministry of Works engineers. The Dominion Council has communicated their willingness to co-operate on behalf of District Councils to the Commissioner of Works and has circularised the names of District Engineers to District Councils.

14. *Banks Lecture:*

In accordance with the adopted recommendations of a special Committee the choice of speaker and subject was widened for the 1966 Conference when the subject was a general horticultural nature by a prominent businessman.

15. *Award of Garden Excellence:*

This Annual Award is now operating, and all District Councils have been informed of the procedure for nominations. The sub-committee handling this work has done excellent work during the year, culminating in 24 plants being granted the Award for 1966. This list of plants, with descriptive notes on each, was published in the "N.Z. Plants & Gardens" December, 1966 issue.

16. *Plant Raisers' Award:*

No nominations were received in 1966.

17. *Anti-Litter:*

No further action has been undertaken during the year by the Dominion Council, but some district Councils have been actively pursuing this campaign joining with local bodies and others to assist in the matter. The Dominion Council is still hopeful that the casting of litter will come to be regarded an offence because it is felt that the problem will not be controlled until it is so regarded officially.

18. *Associates of Honour:*

The Dominion Council's special sub-Committee this year received and considered 12 nominations. Six nominations have been endorsed by the Dominion Council for submission to the 1967 Conference recommending their election as Associates of Honour of the Royal New Zealand Institute of Horticulture (A.H.R.I.H. (N.Z.)). They are:

Mrs N. V. Anderson	Hawera
Mrs M. M. Martin	Whangarei
Mrs Nancy Steen	Auckland
Mrs Jean Stevens	Wanganui
Mr T. F. Archer	Nelson
Mr J. Watling	Christchurch

The distinction of Associate of Honour is conferred only on persons who have rendered distinguished service to horticulture. The maximum number of Associates of Honour at any one time, sanctioned by the Constitution of the Institute, is 50; and the maximum number of recommendations in any one year is limited to six.

19. *District Councils:*

The Dominion Council expresses its sincere thanks to the Executives and members of District Councils who have done so much throughout the year to maintain the work of the Institute at the local level and to present the Institute to the people of their districts. It is through District Councils that the Institute is known, by and large, in district areas. There is so much done at the national level which is not readily known or understood by the general membership and citizens, but District Councils have an opportunity of providing the liaison between Dominion Council and these folk. It is true that District Councils are stronger in some localities than in others, but all can and do play a part, for which the Dominion Council expresses its appreciation and solicits strong loyalty and support throughout the ensuing years. It is pleasing to know that new members are being enrolled in District Councils to replace resignations, etc., but no appreciable increase in overall membership is occurring. It has already been stressed that the strength of the Institute rests upon a strong membership. The work of the Institute merits much stronger membership-strength and it is sincerely hoped that present members will rally their forces throughout the ensuing few years and embark upon a determined effort to increase the membership by a very significant total.

20. *Careers Booklet:*

This booklet has been favourably acclaimed in England where it was reviewed in the *Gardeners' Chronicle*. Over 7000 copies have been distributed in N.Z. It is serving a valuable purpose.

21. *Skilled Horticulturists as Immigrants:*

Opportunities for employment in N.Z. were publicised in the U.K., in the *Gardeners' Chronicle*, following which several enquiries were received. These were circulated widely amongst prospective employers in N.Z.—Parks Departments, Universities, Government Departments, Nurserymen.

22. *National Parks Boards:*

Nominations were submitted to the National Parks Authority for election to the Arthurs Pass and Tongariro Park Boards.

23. *Floral Art Society of N.Z.:*

Application for affiliation from this new national organisation was received during the year. The Dominion President of the F.A.S. has since attended meetings of the Dominion Council, as delegate. Matters relating to the Register of Judges of Floral Art were discussed together and a procedure agreed upon for the setting up of a Register and the issuing of Judges' Certificates.

24. *Judges' Register and Certificates:*

During the year the Dominion Council adopted and set of conditions upon which a Register of Judges could be set up and Certificates could be issued for Judges in all sections of Horticulture and Floral Art shows and exhibitions.

25. *International Horticultural Science Congress:*

August 1966, Maryland, U.S.A. Several members of our Dominion Council attended this important International Congress which is held at four-yearly intervals. Our Institute was officially represented by Dr J. S. Yeates. The N.Z. Government was represented by Mr A. M. W. Greig, Director of Horticulture. Consideration was given by our Dominion Council to the possibility of New extending and invitation for the Congress to be held here in 1974. It was finally considered that the organisation cost would be beyond our capabilities. There is a likelihood of the Congress being held in Australia in 1978 and N.Z. might then be visited by delegates. Our Institute acts as International Registration Authority on Nomenclature for the genera *Leptospermum* and *Hebe*.

26. *New Zealand's National Tree:*

The desire of Mr I. V. Wilson of Southland to have Kowhai adopted as

N.Z.'s National Tree was endorsed by the Dominion Council. The Kowhai flower has already been widely used as a worthy emblem of N.Z., and was the frontispiece illustration in Meninger's book "One Hundred Best Flowering Trees in the World." There are several species of Kowhai, though.

27. *Hen and Chickens Islands Group—Coppermine Island:*

Widespread concern has been expressed at the Government's decision to conduct a geological survey of Coppermine Island which hitherto has been an undisturbed bird sanctuary in original natural condition. The Whangarei District Council has been very active in opposing these official moves. The Dominion Council has kept a close watch on the developments and has been in constant touch with the office of the Minister of Science and the D.S.I.R. Assurance has been given by the Minister's office that only a *survey* is agreed to for now under very stringent conditions and control to minimise absolutely any disturbance of the natural state of the Island. No decision will be made by the Government until after the result of the survey is known. It is expected the result of the survey will be made public.

28. *List of Speakers:*

A list of persons qualified to speak at members' evenings has been circulated widely amongst District Councils who will make good use of this list of speakers and also submit the names of others who might well be added. The list will be kept up-to-date.

29. *Flowers Presented:*

On the occasion of the visits to N.Z. of Her Majesty Queen Elizabeth the Queen Mother in April 1966, a lovely arrangement of flowers was presented to her on arrival at Bluff on behalf of the Institute.

The floral content of the arrangement and Her Majesty's acknowledgement were published in "New Zealand Plants and Gardens" Vol VI, No. VII (June 1966).

Likewise, on her historic visit to New Zealand, Mrs L. B. Johnson, with her husband the President of the United States of America, received an exquisite bouquet from the Institute with the greetings of all members. Her acknowledgement too was published in "New Zealand Plants and Garden" Vol. VII, No. I (December 1966).

30. *Retirements:*

During the year several prominent members of the Dominion Council retired from their normal occupations and in some instances this brought about the termination of their attendance at meetings.

We place on record the Institute's very sincere appreciation of the unstinted service given by these men to horticulture in general throughout their lifetime. They have made very considerable contributions to the affairs of the Institute, too, down the years and our thanks are here warmly expressed.

Mr J. A. McPherson, Director of Parks, Auckland.

Mr E. Hutt, Director of Parks, Wellington.

Mr A. White, Director of Parks, Lower Hutt.

Mr J. A. Hunter, Plants Diseases Division, D.S.I.R., Auckland.

We join to wish them long and happy retirements.

31. *Commonwealth War Graves Commission:*

A further up-to-date report was received from the Commission on the planting of the N.Z. native trees and shrubs in Commonwealth Cemeteries in the Western Desert and Greece.

32. *Australasian and New Zealand Association for Advancement of Science:*

An approach was made to this Association asking for Horticulture to be named in the Session which at present referred only to Agriculture and Forestry.

33. *Publicity:*

District Councils have been urged to appoint their own publicity officers to promote interest in the Institute's activities:

34. *Ministry of Works—Tongariro Power Scheme:*

The Dominion Council urged the Ministry of Works to use native trees as well as exotics, as had been publicised, in their planting and beautifying in the Turangi area of the Tongariro Power Project.

35. *University Chairs of Horticulture—Lincoln College and Massey University:*

It is very gratifying to witness the growth of the Horticulture Departments of these two Universities and to know that greater provision is being made for full degrees and diplomas in horticulture at both. Opportunities in N.Z. for qualified and trained horticulturists are unlimited, and ample provision for high standard academic qualification appears now to have been made at University level. Horticulture must continue to press for greater recognition as an entity in its own right in New Zealand.

36. *Thanks:*

The Dominion Council extends its sincere thanks to all who have contributed to the successful running of the Institute throughout the past year. Particular thanks are expressed to:

- (a) The Government, Ministers of the Crown, and Departmental Officers for their courteous attention to the needs of the Institute whenever they have been brought to their notice.
- (b) Local Bodies for their continued interest and financial support, and the Directors and Superintendents of Reserves.
- (c) Examiners, supervisors and all others who have co-operated to facilitate the conduct of the examinations during the year. Special reference is made again to the fine assistance received from the Director of Reserves and his staff, and officers of the Horticulture Division of the Department of Agriculture and members of the National Beekeepers' Association and City Councils in the holding of the Oral and Practical examinations there at Christchurch and Palmerston North.
- (d) District Council Presidents and Executives who have continued to maintain an active front in their respective localities.
- (e) The New Zealand Forest Service and Mr R. Burstall for assistance in matters relating to Historic and Notable Trees in New Zealand.
- (f) Mr D. A. Watkins of New Plymouth for his presentation of the Banks Lecture at the 1966 Dominion Conference.
- (g) Mr G. A. R. Phillips, of Paraparaumu, who has been editor of the Institute's Journal "N.Z. Plants & Gardens" for the past years and who, in spite of failing health, has continued to maintain an excellence of quality and standard in the Journal throughout the year. Also for his assistance as editor of the book "Flowers for Shows."

37. *Conclusion:*

As Dominion President I wish to place on record my personal sincere thanks to all members of the Dominion Council and of District Councils and all others who have worked solidly throughout the year in the interests of the Institute and of horticulture.

Our scientific age is demanding higher standards of education and levels of attainment. The impact of this demand is felt even in horticultural endeavours, as expressed recently by one who exclaimed that a higher education was needed now "even to grow cabbages." But in calling for higher levels of achievement this age is providing also many more avenues of service and opportunities of horticultural employment. Education has in fact become more and

more a basic requirement in the competitive race of progress in our day. Learning is found in the school—education begins at an early age in the home! True education is an admixture of learning and training.

The Institute continues to fulfil an important function in the Commercial and Professional horticultural life of our community through its diploma and certificate examination courses. In these the Institute is reaching into and providing for both learning and training. In those courses, too, these two elements are combined to equip and fit young men and women for worthwhile and rewarding full-time horticultural careers. The Institute can therefore be proud of the contribution it is making in this way to the well-being of our nation. Since 1927 the Institute has been providing basic education qualifications for horticulturists in New Zealand. During this time it has issued 720 diplomas and certificates of qualifications. Looking ahead, it is possible that the Institute's principal function will lie increasingly in serving the educational needs of New Zealand horticulture. Then let us be ready to accept our responsibilities in this and ensure the strength of our resources for the task.

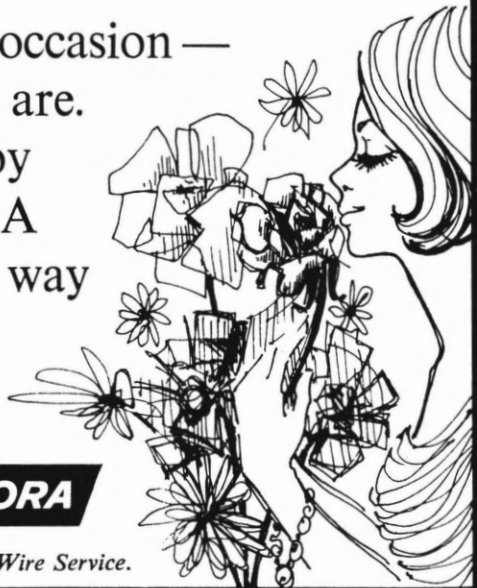
But horticulture is not merely a trade or profession. It has a distinct and vital cultural value and this must not be lost sight of in our scientific and materialistic age, for if culture is destroyed and lost to us the very soul and balance of life will go.

Then let us firmly resolve to hold on and to continue encouraging and promoting the cultural art of horticulture in happy partnership with educational and material pursuits for the lasting benefit of mankind.

On behalf of the Dominion Council,

J. F. LIVING, F.R.I.H. (N.Z.),
Dominion President.

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**REPORT ON PROCEEDINGS OF FORTY-FOURTH ANNUAL
MEETING AND CONFERENCE OF DELEGATES HELD IN
NELSON ON THURSDAY, 2nd MARCH, 1967, COMMENCING
AT 9.00 A.M.**

Present: Mr J. F. Living F.R.I.H. (N.Z.) Dominion President presided over the Conference which was attended by approximately 50 delegates, members and representatives of affiliated organisations.

Apologies for non-attendance were received from the Hon. B. E. Talboys, Minister of Agriculture, and 20 other members. Several messages expressing good wishes for the Conference were received, including one from His Excellency the Governor-General.

The Dominion President, Mr J. F. Living, extended a welcome to all delegates and visitors, particularly the Mayor and Mayoress of Nelson, Mr and Mrs D. Strawbridge, Mr H. Osborne of Hastings, Chairman of New Zealand Fruitgrowers Federation, Mr and Mrs I. Firth of Northcote, Victoria, Mrs B. Eyre, and the Chairman of Parks and Reserves Committees from other centres. Flowers were presented to Mrs D. Strawbridge and Mrs J. F. Living.

The Mayor of Nelson in declaring the Conference open said that Nelson, with efficient road transport and the fourth busiest airport is no longer isolated. Everything seems to grow readily in Nelson and the work of the Cawthron Institute has been of benefit to the whole of New Zealand. It was a matter of regret that the District Council of the Royal New Zealand Institute of Horticulture was not now active in Nelson but he hoped it could be revived again. He felt its work was of great value to the whole of the country: in the cities and towns it is most necessary to maintain beautification comparable with the natural beauty of the country and its scenic attractions. Mr F. A. Parnell, of Auckland, thanked Mr Strawbridge for his welcome and said it was apparent from the general appearance of Nelson that a large percentage of the people take pride in their gardens.

In Memoriam: The Dominion President asked those present to stand in memory of several honoured members who had passed away during the year, referring particularly to Mr D. C. Mackenzie and Mr A. H. Cockayne (Associates of Honour of the Institute), Mrs C. Walden, Messrs K. C. Hockey and C. Grant.

Procedure Rules: These rules, as defined on page 4 of the Conference Papers were formerly adopted as Rules of Procedure for the Conference.

Dominion President's Address:—

In a brief address Mr J. F. Living said how impressed he had been when flying over New Zealand with the green countryside compared with that of Australia. Tremendous strides have been made in agricultural development in the last five years and we have been asked to increase our agricultural production. We must also endeavour to increase horticulture. We live in what is known as "God's Own Country" and what are we doing to justify this privilege? The Institute has the opportunity to give a lead. In the past year the Institute has made efforts to bring about unification in the various branches of horticulture. Probably our share in this move will be educational—the Diplomas serve those not able to attend University and through knowledge gained, professional, commercial and amateur horticulture is improved.

ANNUAL REPORT

Resolved that the Annual Report be taken as read: it had been previously circulated.

Arising from the Annual Report a brief statement on the *Award of Garden Excellence* was presented by Miss J. Dingley of Auckland. This Award had been in operation for 2 years and thirty-eight Awards made to good garden

plants giving good average results in normal conditions. The Committee asked for full co-operation in soliciting reports on plants from all parts of the Dominion. It was essential in the Award that plants must be available for purchase. Several members expressed concern as to how knowledge of these Awards was getting through to the public. The following arrangements had been made:

1. The Horticultural Trades Association had been asked to note in catalogues which plants have been given the Award.
2. The list has been published in the monthly newsletter sent out by Whangarei District Council.
3. A special plot of these plants is to be planted in the New Plymouth Parks.
4. All television and radio garden session speakers have been supplied with the 1966 list by the Dominion Secretary and invited to use it in their sessions.
5. The New Zealand Women's Weekly Gardening notes include reference to these plants.

Also arising from the Annual Report Mr J. O. Taylor (of Christchurch) gave a further report on the *Unification of Horticulture*. It had been felt that there were a great many horticultural organisations, each going their way. A meeting had been called drawing together all these organisations to see if there were a common concern in the field of horticultural education. Various individual organisations are looking at the Institute's examinations and Diplomas in relation to their respective needs. At the present time a constitution is being considered; although slow moving, in time there will be a unified body. The Government has already intimated that unification would be welcomed. The committee which began this investigation also set out to examine the Institute's finances—it has been revealed that the Dominion Secretary was not being paid for his personal services a sum commensurate with that of a qualified secretary. Examination expenses are falling heavily on the Institute's funds and it was considered that these expenses must be placed on a separate footing. During discussion it was pointed out that the Institute while accepting all phases of horticulture must retain its identity and influence in any unification scheme.

Then, too, Mr S. W. Burstall (of Rotorua) reported on the checking of *Historical and Notable Trees*. The then Director-General of Forests had, in 1959, issued instructions that all historic and large trees should be measured and recorded and every endeavour be made to preserve them. What will happen to these trees in 100 years? In some cases fantastic growth has occurred in the last few years. Mrs M. Martin of Whangarei asked what could be done to prevent vandalism on notable trees. Trees can be protected by local body by-laws.

Also arising, Mr J. P. Salinger (of Wellington) spoke of the book "*Flowers for Shows*." This is a milestone in the history of the Institute. Sales have been helped by an upsurge of interest in Floral Art and there has been favourable comment about the book from Australia and Great Britain as well as all over New Zealand. 1500 copies had been sold already and future sales depended on the co-operation of individuals and District Councils who would need to publicise it at every opportunity. Mrs K. Reynolds of Whangarei said that as a judge she cannot recommend the book too highly; it is just the answer for judges. The Dominion President asked that the book be commended to all.

Mr A. M. W. Greig stated that he had attended the 17th *International Horticultural Congress* at Maryland, U.S.A.: In 1978 the Congress would be held in Australia and he had invited delegates to visit New Zealand either before or after that Congress. He felt the Institute greatly needs the genuine interest and enthusiasm of District Councils especially if these delegates visited New Zealand. He suggested that the Institute might sponsor a scheme of horticultural hostesses who might be available to take visitors to places of interest: there would be great value from organised trips around cities and towns. Mr S. W. Burstall invited any visitors to Rotorua to call on him—he is the "local hostess" there.

Mr H. George said that the lack of membership concerned him—members

seemed concentrated in one area— $\frac{3}{8}$ of the total members were in Taranaki—Waikato districts. North Taranaki had appointed a publicity officer and already there were 10-15 new members—the new membership brochure would be a big help. Membership subscriptions constitute the greater part of income for the Institute. This points to the need for many more members. A stall inviting new members is arranged at each Show in New Plymouth—posters for such a stall would be of great value and he would ask the District Council to provide these. He felt the Journal needed updating to make it more acceptable to the average reader. Perhaps one issue per annum could be scientific, the others more for the home gardener. Mr J. O. Taylor said that an annual issue of the Journal supported by a monthly newsletter might be acceptable.

Mr R. Syme of Hawera reminded the Conference of National Parks Board nominations due in 1967: that more nominations for the Loder Cup Award should be sponsored by District Councils; that an anti-litter campaign should be undertaken by the Internal Affairs Department on the lines of the Water Safety campaign. He also felt that the Institute must establish closer relations with commercial horticulture. In reply to a question he explained that organisations as well as individuals may be nominated for the Loder Cup and that unsuccessful nominations were eligible for re-nomination.

The Annual Report was duly adopted.

Mr J. F. Living announced that Mrs B. Mackenzie of Palmerston North had made a gift of £100 to establish a prize in memory of her husband the late D. C. Mackenzie, an Associate of Honour of the Institute. A motion of appreciation was carried with acclamation.

Annual Accounts: Mr J. F. Living presented and moved the adoption of Annual Accounts for the year ended 30 September, 1966. Mr J. W. Bolton seconded the motion which was carried without discussion.

Rumble Estate: Mr V. C. Davies reported that the Trustees of this estate were still endeavouring to have the terms of the will altered to enable the funds to be used for general purposes for the benefit of horticulture.

Examining Board Report: This was presented by Mr H. G. Gilpin, in the absence of Professor H. D. Gordon, and duly adopted. The 1966 Junior Oral and Practical examination had been held in Palmerston North and students had expressed satisfaction with the facilities provided. The Skellerup Prize would be awarded for the first time at the 1966 examination: the winner had yet to be determined.

Mr H. George seconded the report and said how pleasing it was to see greater numbers of candidates coming forward: he hoped they would all continue through to completion. The examinations continue to be the Institute's most important work.

District Council Reports

These had been circulated in the Conference Papers. Some delegates added short reports to these, including:— Mrs K. Reynolds—Whangarei has submitted lists of gardens open to visitors to the local tourist office.

Mr B. Nicholls (Taupo)—Waipahihi Trust has been made into a Society with representation from Taupo District Council on it.

Mr R. Syme (South Taranaki)—Hawera Horticultural Society with 500 members is one of the strongest in New Zealand yet the South Taranaki District Council has sustained its membership.

Mr K. Scott—South Canterbury District Council are photographing all historic trees in their area and sending the photos to the Forest Service.

Remits:—

From Wellington District Council: That the Institute seek the passing of such legislation (both national and local) as will ensure the protection preservation of historic, notable and amenity trees.

There was considerable support for this remit, and it was stated that there is existing legislation for the protection of historic trees and for the punishment of vandals, if they can be caught. An opinion was expressed that it is not fair to expect private persons to preserve property just because it contains historic trees—this could create hardship—could not local bodies take such properties over? In Otago the Institute's failure to oppose the Fencing Act weighted against the preservation of a tree in a civil action case there.

From Whangarei District Council: That the Institute strongly urge the Government to constitute the islands around the northern coasts of New Zealand fully protected wild life sanctuaries under legislation which will prohibit any activities thereon that might possibly lead to a private or Government undertakings such as will result in permanent damage or loss to the wildlife that now exists in those areas. Whangarei delegates accepted the following amendment to this remit. "That the matter be left to the Dominion Council to take action along the lines stated in the Annual Report Clause 27, page 15." Some felt that action should be taken to prevent surveys but Mr R. Syme, of Hawera, said that after a survey there is ample time for objection. The National Parks Authority was watching the position closely. The amendment was carried.

From Auckland District Council: That the Institute take some steps to draw the attention of Local Bodies to the way in which urban subdividers are rapidly denuding their districts of established vegetation and topsoil to facilitate the ease with which surveys may be conducted and roads and buildings established. In many areas the maturity of the landscape has been completely destroyed and their desirability as residential areas sadly diminished. Many trees planted by early settlers have now matured and are being ruthlessly destroyed by sub-divisions. Local Bodies must step in and save the removal of trees and topsoil. In Manurewa a subdividing scheme left standing trees adding to the value of the section. Mr C. Everett, of Auckland, suggested that enquiries should be made from the United Kingdom about their legislation for the protection of trees. The remit was carried.

From Taupo District Council: That the Dominion Council investigate the present methods and conditions governing the use and practice of hormone weed spraying (including also the type of hormone sprays used) on highways, roads, streets and other public areas with a view to having official measures introduced that will bring such methods and conditions and the selection of sprays under much stricter control (by the responsible Authorities) in order to eliminate the risk of damage and loss of trees, shrubs, vegetation, which, in public opinion, are calculated to be of such aesthetic, horticultural or botanical interest and value that they should be protected and preserved. There seems a lack of appreciation of the danger of sprays. Even parked spray trucks have been known to have an adverse effect on nearby plants. Many kowhais round Taupo, a major tourist area, have been destroyed. It was stated that provisions already exist and contractors are liable for damage caused through negligence. This remit was carried.

From Manawatu District Council: That representations be made to the Government to set up an Advisory Council to make recommendations regarding the problems connected with litter, such a Council to be of the widest possible representation. It was stated that many people urge children to be educated in anti-litter yet schools are always tidy and a constant watch is kept. People look after their own properties yet any public property is always full of rubbish—the Haast Pass Road is already littered. Mr R. Syme of Hawera, said that setting up an investigating committee meant more delay—what was required was a national anti-litter campaign such as the Water-safety and Safety-in-the-Mountain campaigns. The remit was carried with following additional words placed at the be-

ginning "That we urge the Government to adopt an anti-litter campaign on a national scale and . . ."

From Auckland District Council: That the Public Service Commission be approached in an endeavour to ensure that holders of the N.D.H. (N.Z.) receive uniform and more adequate recognition of their qualifications throughout all Departments of the Public Service. Qualified horticulturists were being employed in the following Government Departments—Agriculture, D.S.I.R., Forestry, Justice, Health (Mental Hospitals), Tourist and Works. In some the National Diploma in Horticulture is treated in the same way as the Certificate as Science. The Ministry of Works was demanding the National Diploma in Horticulture qualification. If the State Services Commission would give recognition to the National Diploma in Horticulture a standard could then be set for the outside trade. At present additional qualifications above the Trade Certificate do not bring greater opportunity or reward in the Trade. The remit was amended by the deletion of the words "uniform and" the substitution of "State" for "Public," and duly carried.

From Taupo District Council: That the value and aim of the excellent booklet "Careers in Horticulture" in promoting interest and encouraging full-time careers in horticulture be fully sustained by the Dominion Council by further regular Dominion-wide publicity using every means of publicity available to attract young people into horticultural careers because of the continuing and growing need for skilled horticulturists in New Zealand; the means of publicity to be employed could include special weekly broadcasting session (e.g. Horticultural Round-up) and Newspapers' Careers Supplements. The shortage of skilled horticulturists was emphasized—the Careers booklet has been widely circulated. Interest should be revived in November each year when young people are considering careers. The remit was carried.

From Whangarei District Council: That meetings of the Dominion Council of the Institute be held alternately in Auckland, Wellington and Christchurch so that delegates of District Councils might find it more convenient to attend, so that district councils might not feel so isolated from Headquarters, and so that Dominion Council might become more conversant with the problems of District Councils. It was agreed that this proposition was not practical and the remit was lost.

Election of Officers:—

Patron: His Excellency the Governor - General, Brigadier Sir Bernard Fergusson.

Vice-Patron: The Minister of Agriculture, Hon. B. E. Talboys.

Dominion Presidents Mr J. F. Living. Mr Living stated that he hoped there would be a new nomination next year.

Vice-Presidents:

Auckland	Mr W. H. Rice
Canterbury	Mr J. O. Taylor
Hutt Valley and Bays	Mr A. White
Manawatu	Mr J. G. Muirhead
Nelson	Mr D. Leigh
North Taranaki	Mr W. J. Messenger
Northern Wairoa	Mr R. G. Sills
Otago	Mr C. A. Teschner
South Canterbury	Mr D. C. Scott
South Taranaki	Mr R. Syme
Southland	Dr J. G. Macdonald
Taupo	Mr K. E. Young
Waikato	Mr R. T. Fear
Wanganui	Mr A. C. Whitehead

Wellington
Whangarei

Mr E. Hutt
Mr O. Blumhardt

Auditors: J. L. Arcus and Co.

Dominion Council: Persons who are members of the Institute and representative of the following:

The University Grants Committee: Professor H. D. Gordon.
Massey University: Professor J. A. Veale.
Lincoln College: Professor T. M. Morrison.
Department of Agriculture: Mr A. M. W. Greig.
Horticulture Division: Mr J. P. Salinger.
The New Zealand Forest Service: Mr F. T. Morrison
D.S.I.R. Miss J. Dingley.
Education Department: Mr B. B. Teviotdale.
Housing Division, Ministry of Works: Still to be named.
Horticultural Societies affiliated to the Institute: To be appointed.

Persons representing the following:

The Royal Society: Dr C. Barnicoat.
The N.Z. Fruitgrowers' Federation: Mr H. Osborne.
The N.Z. Vegetable & Produce Growers' Federation: Mr D. W. Goble.
The N.Z. Horticultural Trades Association (Inc.): Mr P. C. Gardner.
The Horticultural Seedsmen's Association: Mr F. E. Cooper.
Teleflower (Inc.): Mrs H. L. Bennett.
Interflora Inc.): Mr H. L. Poole.
The N.Z. Society of Professional Floral Artists: To be appointed.
Royal Forest & Bird Protection Society: Mrs A. J. du Pont.
The National Daffodil Society of N.Z.: Mr A. W. Freeman.
The National Rose Society of N.Z.: Mr J. G. Short.
The Dahlia Society of New Zealand: To be appointed.
The N.Z. Camellia Society: Mr F. T. Clere.
The N.Z. Rhododendron Society: Dr J. S. Yeates.
The N.Z. Gladiolus Council: Mr A. R. Cleaver.
The N.Z. Institute of Park Administration: Mr I. D. Galloway.
The Floral Art Society of N.Z.: Mrs S. R. Dobbs.

Persons elected in their own right:

Sir Robert McAlister.
Mr J. A. McPherson.
Mr E. Hutt.
Mr V. C. Davies, O.B.E.

Associates of Honour: On the unanimous recommendation of the Dominion Council the nomination of the following six persons for election to the distinguished office of Associate of Honour of the Royal New Zealand Institute of Horticulture (A.H.R.I.H. (N.Z.)) came before the Conference.

MRS JEAN STEVENS, of Wanganui.

(Nominated by Dominion Council, endorsed by Wanganui District Council).

MRS MARGARET M. MARTIN, F.R.I.H. (N.Z.), of Kamo, (Whangarei).

(Nominated by Whangarei District Council).

MRS NORMA V. ANDERSON, F.R.I.H. (N.Z.) of Mangatoki.

(Nominated by South Taranaki District Council).

MRS NANCY STEEN, of Auckland.

(Nominated by Auckland District Council).

MR JOHN WATLING, of Halswell (Canterbury).

(Nominated by Canterbury District Council).

MR THOMAS F. A. ARCHER, N.D.F.C. (N.Z.), of Upper Moutere (Nelson).

(Nominated by Wellington District Council).

The number of Associates of Honour at 30th September, 1966 was 39 exclusive of the above six nominations.

Resolved unanimously that these persons be awarded the Associate of Honour. Citations were read by the Secretary and Certificates presented by the Dominion President to those present.

Venue of 1968 Conference: It was decided that the next Conference should be held in Wellington in association with the Conference of the Institute of Parks Administration.

Addresses: At the conclusion of the general business two most interesting addresses were given: Mr J. O. Taylor (Christchurch) spoke on "Indoor Plants in the Modern Decorating Sphere" and Mrs N. Steen (Auckland) on "The Garden and Roses." Dr J. S. Yeates thanked both speakers for their addresses which had given pleasure to all present. Mr V. C. Davies praised the decorations of the Hall which were outstandingly beautiful. This vote of appreciation was carried with acclamation.

Banks Lecture: A most interesting and informative lecture was delivered in the evening by Mr R. J. Ballinger of Blenheim entitled "The New Look in Horticulture." Mr J. F. Living expressed the sincere thanks of the Institute for this fine address.

Closing: Mr J. F. Living thanked Mr D. H. Leigh and members of his staff for all they had done to make the Conference so successful. He moved a special vote of thanks to Mrs B. Eyre for her interest, hospitality and help throughout the Conference.

REPORT OF THE EXAMINING BOARD

On behalf of the Examining Board I have pleasure in submitting the following report for 1966.

(1) Meetings:

The Board met on four occasions during the year with an average attendance of 11 members.

(2) Syllabus of Examinations:

The Examinations Syllabus of the Institute includes the following Diplomas and Certificates.

- (a) National Diploma in Horticulture—N.D.H. (N.Z.).
- (b) National Diploma in Fruit Culture—N.D.F.C. (N.Z.).
- (c) National Diploma in Apiculture—N.D.Ap. (N.Z.).
- (d) Certificate in Vegetable Culture—C.V.C. (N.Z.).
- (e) Certificate in School Gardening—C.S.G. (N.Z.).
- (f) Seedsman's Certificate—S.C. (N.Z.).

(3) Applications for Registration for Examinations:

During the year applications were accepted for new candidates for the following examinations:

	1966	1965
National Diploma in Horticulture	34	31
National Diploma in Fruit Culture	2	2
National Diploma in Apiculture	1	2
Certificate in Vegetable Culture	—	1
Certificate in School Gardening	—	3
Seedsman's Certificate	1	—

(4) 1966 Examinations:

Results — these are appended separately.

Statistics — the following tables will be of interest; 1965 corresponding figures are shown parenthesis.

N.D.H. Examination

	Junior	Intermediate	Diploma
Number of Entries	88 (62)	30 (24)	26 (13)
Number of Passes	56 (38)	21 (20)	17 (9)
Percentage of Passes	63.6 (61.2)	70 (83.3)	65.4 (69.2)
Average marks—Passes only	61 (61.1)	60 (60.5)	61 (64.5)

N.D.F.C. Examination

Number of Entries	4 (5)	4 (4)	10 (9)
Number of Passes	4 (4)	4 (4)	7 (9)
Percentage of Passes	100 (80)	100 (100)	70 (100)
Average marks—Passes only	60 (63.5)	56 (61.7)	60 (60.8)

N.D.Ap. Examination

Number of Entries	4 (—)	— (—)	— (4)
Number of Passes	3 (—)	— (—)	— (4)
Percentage of Passes	75 (—)	— (—)	— (100)
Average marks—Passes only	74 (—)	— (—)	— (81.5)

Extra Certificate — N.D.H. — (2)

	School Gard.	Cert in Veg Cul.
Number of Entries	3 (6)	3 (4)
Number of Passes	2 (5)	3 (3)
Percentages of Passes	66.6 (83.3)	100 (75)
Average marks—Passes only	63 (64.6)	67 (59)

Conduct of Examinations:

Altogether, 78 candidates sat 152 papers in 18 subjects at 15 different centres. These centres are extremely varied. Some candidates sat in Universities, Colleges, City Council or Department of Agriculture offices, Penal Institutions and some even in private homes. Often only one candidate is involved. Every endeavour is made to enable all candidates to sit in the town where they are working. In all 14 examiners were appointed by the Examining Board for written examinations. Their co-operation and prompt marking of papers permitted an early release of the examination results.

Oral and Practical Examinations:

The Oral and Practical examinations for all Intermediate and Diploma candidates were held in Christchurch where the facilities again proved to be very satisfactory and afforded efficient conduct of the examinations for all concerned. The examining Board and the Institute are very much indebted to Mr Gilpin (Director) and the staff of the Christchurch Botanic Gardens for their valued assistance and the facilities offered.

The 1966 examinations for all Junior candidates were conducted in Palmerston North. The ready co-operation and assistance of the late Mr D. C. MacKenzie (Director of Parks), his assistant (Mr Bolton) and staff, Mr J. E. Hume and other officers of his Department, Mr M. Richards and assistants from Massey University, ensured the complete success of the holding of these examinations, somewhat experimentally, in Palmerston North in accordance with the express wish of previous Dominion Conferences.

Help was also received from officers of the Department of Agriculture in Christchurch and Palmerston North in preparation for the examinations, and from members of the National Beekeeper's Association. Members of the Manawatu and Canterbury District Councils arranged billets with local members for candidates who had to stay overnight. Refreshments for candidates and examiners were provided by a voluntary group in Christchurch, by the Palmerston North City Council and Massey University, for which sincere thanks are expressed.

Statistics for Oral and Practical examinations (these are included in the statistics above):

	NDH			NDFC			NDAp	CSG	CVC
	I	II	III	I	II	III			
Number of Entries	19	8	8	3	—	1	1	1	2
Number of Passes	19	5	5	3	—	1	1	1	2

The following completed sections or the whole examination:

National Diploma in Horticulture

Junior Stage: R. M. Breach, Christchurch; D. G. Butcher, Rotorua; Miss P. Edmonson, Coromandel; Miss J. E. Martin, Wellington; G. P. Nind, Wellington; A. C. Peters, Auckland; M. Wiltshire, New Plymouth; Miss J. Cewan, New Plymouth.

Intermediate Stage: T. Woodley, Christchurch; W. T. Scadden, Christchurch; R. C. Gill, Christchurch; G. Paterson, Christchurch.

Diploma—Final: E. H. Latimer, Auckland; G. Mander, Hamilton; R. J. Nanson, Hamilton.

National Diploma in Fruit Culture

Junior Stage: D. A. Austin, Nelson; R. C. Smith, Te Kauwhata.

Intermediate Stage: G. Foxton, Levin.

Certificate in School Gardening—Final: C. R. Walker, Napier.

Certificate in Vegetable Culture—Final: R. D. Bennett, Wellington; M. R. Eales, Palmerston North.

(5) Government Grant for Examinations:

The Examining Board acknowledges with appreciation the capitation granted by the Minister of Agriculture for assistance to the Institute in the conduct of the examinations.

(6) The donation of £25 from the N.Z. Institute of Park Administration is acknowledged with thanks.

(7) Students from Australia:

The acceptance of students from the Botanic Gardens of Adelaide, which would facilitate their obtaining the N.Z. National Diploma in Horticulture, has been approved and it is hoped that this will encourage young Australian Horticulturists to come to N.Z. for additional experience and qualification. There is no equivalent in Australia to the N.Z. Diploma in Horticulture.

(8) **“Guide for Students” booklet:** This booklet has been completely revised and published for the benefit of candidates. It is issued to them free of charge.

(9) **Revision of Examination Prescriptions:** The Board has received recommendations and suggestions for the revision of the prescriptions, with a view to bringing some aspects more into line with modern developments in horticulture practice and education. The comments and recommendations of the trade Organisations (Fruitgrowers, Nurserymen, Vegetable Producers, Beekeepers), the Universities and Technical Correspondence Institute have been invited.

Careful consideration will be given to the inclusion of “Business management” and provision for specialisation in the later stage of the National Diploma in Horticulture. Employers will be asked for greater co-operation and supervision of students’ studies.

(10) Horticultural Salesman’s Certificate:

The need for such a certificate examination is being carefully investigated.

(11) The Plant and Plant Breeding:

Subject for Certificate in Vegetable Culture. The Examining Board has

decided this name should be changed to read "Plant Growth and Seed Production."

(12) **Remits from 1966 Dominion Conference:**

(1) **As regards Venue of Oral and Practical Examinations**

The Board agreed after careful consideration to conduct the **Junior Oral and Practical Examination** in Palmerston North, on a trial basis in 1966.

(2) **As regards the Curriculum of the Technical Correspondence Institute.**

The Examining Board has deferred consideration of this pending the overall review of the whole of the prescriptions for the examinations. The Institute of Horticulture does not undertake to provide tuition—it is an examining body. The Technical Correspondence Institute cannot provide tuition in every subject pertaining to the examinations. Staffing difficulties were against the offering of more tuition classes, nor could they provide tuition for those with only a passing interest in horticulture — they could enrol only those who were making horticulture a career.

(13) **Assistance to Students:**

It is pleasing to know that some district Councils are making special efforts to assist examination candidates with coaching and regular educational lectures especially designed for them.

(14) **Acknowledgements:**

The Examining Board acknowledges with sincere thanks the help and assistance received from all who have been associated with the conduct of the examinations this years.

- (a) The panel of examiners.
- (b) The Christchurch and Palmerston North City Council Parks and Reserves Departments, officers of the Department of Agriculture and Massey University.
- (c) Honorary supervisors at centres for written examinations.
- (d) The Canterbury and Manawatu District Councils for assistance and hospitality with Oral and Practical examinations.
- (e) The Director of Horticulture and Officers of the Horticulture Division.
- (f) The National Beekeeper's Association of New Zealand Inc., for their collaboration and help in matters relating to the National Diploma in Apiculture.

On behalf of the Examining Board,

H. D. GORDON
CHAIRMAN.

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ASSOCIATES OF HONOUR

Citation in support of the Nomination of

Mrs M. M. MARTIN

Mrs Martin has given almost a lifetimes service to horticulture and to botanical research in New Zealand.

As a pupil of Marlborough College, she became interested in Plants, in growing them, collecting them in the wild, and planting them in the home garden.

Returning to Wellington she became Secretary and Assistant to the late *Dr Leonard Cockayne*, C.M.G., F.R.S. a botanist with a world-wide reputation. During a number of years in this capacity Mrs Martin became his active Assistant and Co-director of the Otari Open Air Plant Museum at Wadestown, then only the second such institution in the world.

Besides helping in the planting and labelling Mrs Martin (at her own expense) collected extensively in many parts of New Zealand for the Museum. Collections of plants were made in Marlborough, Nelson, Canterbury, Westland and in the Arthur's Pass area of the Southern Alps. For this latter area a special permit was granted by the Arthur's Pass National Park Board.

Collections of ferns were made in the Akaroa area, in coastal and inland Wellington as well as in Auckland and Northland. Many of these were exceptionally beautiful and rare hybrid forms, some of which were sent to Kew, whilst the rest formed the nucleus of the plantings made by her at Otari.

During the latter part of Mrs Martin's work with Dr Cockayne his sight was impaired and in consequence a great amount of reference work was undertaken by her, in addition to the writing and proof reading of manuscripts—particularly those prepared for the Empire Conference (1932) and that on the Vegetation of the South Island, written for the German publication *Die Vegetation der Erde*. During these years there was a great volume of correspondence with distinguished botanists in many countries, as well as visits from people notable in the plant world, all of which gave Mrs Martin unusual opportunities for increasing her plant lore.

She was a foundation member of the Wellington Botanical Society, a member of various horticultural organisations, leading botanical excursions and helping with flower shows. Motoring and camping in out of the way places throughout the country, always collecting plants, Mrs Martin extended her knowledge of the flora. She maintained a large garden of her own where she grew not only many rare and different natives, but a large number of exotics were raised from seeds sent from many European and African botanical gardens.

Two visits to Australia, one of a year's duration, made Mrs Martin well acquainted with botanical gardens of Sydney, Melbourne, Adelaide and Perth, as well as with the floras of those areas. Her membership of the Field Naturalists Club of Victoria and attendance at many Wild Flower Shows in almost every State was extremely helpful to her as a gardener as well as botanist.

Living in Northland for the last 22 years she has been prominent in horticultural circles during the whole of that time. For many years a member of Whangarei Ladies Gardening Club, its Assistant Secretary for 3 years, a foundation member of the District Council of the Royal N.Z. Inst. of Horticulture.

She is also a member of the Camellia Society, and a Consultant to the Kamo Beautifying Society. Writing for various publications and broadcasting for three years with a panel of gardeners she was able to help with the financial establishment of the local District Council. For many years she has given talks and demonstrations to the many garden clubs in the area as well as at Bay of Islands, Kaikohe and Dargaville. Numberless gifts of plants and cuttings have been made to Societies and individuals and visits of helpful advice made to new gardeners. Over many years Mrs Martin has been a reliable source of information on nomenclature of exotics as well as native—a service freely given at shows as well as to individuals.

For the last 10 years she has edited the District Council's publications.

Citation in support of the Nomination of

Mrs NANCY STEEN

Mrs Nancy Steen has for over 20 years made intensive research into the genus *Rosa*. Growing from a hobby it extended into Mrs Steen becoming a world authority on species and old roses. During her research into rose species establishment she travelled extensively throughout New Zealand and overseas.

Her work has included locating, indentifying and establishing old and species roses in many countries. Without her dedication, many species and the history of them would have been lost to horticulture. Mrs Steen has been responsible for conserving cultivars and species and distributing them for propagation. Throughout her studies on old and species roses she had close liaison with scientific officers in N.Z., U.S.A. and Research Stations in the U.K. in ensuring correct nomenclature.

Her work is acknowledged in all countries and is unprecedented in N.Z. in horticulture. The N.Z. Rose Society in 1961 awarded her Life Membership.

Mrs Steen is a true horticulturist with a love and general interest of many plants and her garden is a visiting place to horticulturists. She is a gardener with a wide knowledge and collection of plant.

Mrs Steen has written many articles for publications throughout the world and is quoted in much literature on old and species roses. She has lectured extensively to horticultural organisations in N.Z.

Mrs Steen is the author of the book "The Charm of Old Roses" and it is a record of her knowledge and work on old and species roses. This book is acclaimed throughout the world as an authoritative reference. It is also to be published in the U.K. and possibly the U.S.A. The book is the first written by a New Zealander on horticultural subject to be published in the U.K. and was this year exhibited at the Frankfurt Fair.

Citation in support of the Nomination of

Mrs JEAN STEVENS

Mrs Jean Stevens has been recognised as an international authority on the genus *Iris* for very many years. She first started to breed tall bearded irises in 1923. Her first notable success was with the cultivar 'Destiny', which was awarded the Bronze Medal of the British Iris Society in 1933. This cultivar was later granted the Award of Merit by the Royal Horticultural Society of England.

In subsequent years other *Iris* cultivars, raised by Mrs Stevens, were granted the Award of Merit by the R.H.S. These included 'Pinnacle', an *Iris* of historic importance throughout *Iris* circles of the world as being the first with white standards and yellow falls. This cultivar received highest honours in Britain and America. The Plant Breeder's Medal of the Royal New Zealand Institute of Horticulture was also granted to Mrs Stevens for 'Pinnacle.' Among other *Iris* cultivars, raised by Mrs Stevens, are 'Rangatira,' 'Magnolia,' and 'Inspiration.' Mrs Stevens also achieved the first known crosses of the rare species *I. juncea* x *I. boissieri* and *I. wattii* x *I. tectorum*. A clone of the latter cross has been named and distributed as 'Queen's Grace.'

In 1953 Mrs Stevens was awarded the Foster Memorial Plaque. This was a unique occasion inasmuch as it was the first time this award had been made outside Britain or America. In 1955 the greatly coveted Hybridiser's Medal of the American Iris Society was awarded to Mrs Stevens. This also was the only occasion on which this award has been made outside the U.S.A.

During recent years Mrs Stevens has achieved the distinction of having been the first *Iris* breeder to have raised the first true pink irises of the amoena group. These hybrids are 'Youthful Charm' and 'Sunset Snows.' By these achievements Mrs Stevens had brought fame to New Zealand in *Iris* circles in many parts of the world.

The Iris and Its Culture was written by Mrs Stevens in 1951, and is the first book of its kind to be published in the Southern Hemisphere. Copiously illustrated in colour and half tone, this book covers every aspect of *Iris* cultivation and breeding for Southern Hemisphere conditions. It has been accepted as a work of international importance.

As Federal President of the Australian and New Zealand Iris Society, and first President of the New Zealand Iris Society, Mrs Stevens has rendered invaluable service to the genus *Iris* in her own country.

Activities in other horticultural directions comprise ten successful years as an exhibitor and judge of daffodils at the leading Daffodil Shows. Among other genera Mrs Stevens has made the first known crosses between species of *Leucadendron*, a hybrid between *L. decorum* and *L. adscendens* being often seen in florists' establishments throughout the Dominion. Mrs Stevens has accompanied her husband on horticultural visits to Australia and South Africa to study the various genera and species under their own natural conditions.

Citation in support of the Nomination of Mrs N. V. ANDERSON

Mrs N. V. Anderson, of Mangatoki, has been well-known in horticultural circles for many years, both in Taranaki and further afield.

One of the original movers for the formation of a District Council of the Royal New N.Z. Institute of Horticulture in South Taranaki, Mrs Anderson was elected to the provisional committee which was set up on 18th November, 1948 and, in June of the following year, was elected one of the original Vice-Presidents. She was re-appointed to this position each year until, in June, 1958, she was elected President in succession to the Mr John Houston. She held this office for four years, and is at present Vice-President.

As an office bearer, Mrs Anderson has taken an active part in Institute affairs. For eighteen years she has been a regular contributor to the programmes at our circuit meetings, with talks and demonstrations on bulb growing, showing and floral art. These talks have all shown the depth of her knowledge and her wide experience.

Having made her home on a farm in a country district, Mrs Anderson spread her influence round her. As leader of the Mangatoki Country-Women's Institute for 25 years, she has given demonstrations and lessons in garden work and floral art in Taranaki, both in schools and at shows. For over 30 years she has been a show exhibitor of cut flowers and decorative work and she has also been a show judge in both cut flowers and decorative work. She is a member of the National Daffodil Society and has been on the Executive of this Society. She is a Life Member of the Eltham Horticultural Society, and last year was Patron of the Taranaki Horticultural Association. She has for years been a committee member of Floral Festivals Inc.

While gardening has been her life-time hobby, daffodils are Mrs Anderson's special love, and she has been a grower of these flowers for 35 years. She has been a successful hybridist, having produced *Beau Geste*, *Mahoe*, *Jimandy* and several other varieties. The quality of her blooms is shown by the awards she has won—

- 1950 Maunder Cup (N.Z. National Award) for doubles (and this particular Cup was won again twelve years later in 1962).
- 1952 Cup for open daffodils (National Award) award for 18 varieties, British raised. This award has also been won in Wellington and in Hamilton.
- 1953 North Island Amateur Daffodil Championship.
- 1956 Gray Cup (N.Z. National Award) for 12 varieties raised in N.Z.
- 1962 Gold Cup (N.Z. National Award) in National Daffodil Show in Stratford, 18 varieties British raised.

In addition, Mrs Anderson has won many local cups, numerous provincial cups, many champion blooms and at a National Show in Lower Hutt the champion bloom of the show.

Citation in support of the Nomination of Mr T. F. A. ARCHER

Mr Archer started orcharding during the depression years in Nelson on a property on the Moutere Hills which he still owned and on which he lived up to the time of his retirement.

Mr Archer always took a keen interest in fruit politics and in any measures for the furtherance of the fruit industry. He was an active member of the Mahana Fruitgrowers' Association from the time of entering the industry and was a member of the Nelson Fruit Advisory Committee prior to becoming Federation Director for Nelson, a position he occupied continuously for 19 years.

The last 19 years he has served as Dominion President of the N.Z. Fruit-growers' Federation.

During this time, the fruitgrowing industry has been alert and progressed rapidly. His dedication to the industry is shown by the fact that he attended all but one of 112 provincial and Dominion Conferences during his period of service. He has now retired on the fiftieth anniversary of the Federation.

Mr Archer has represented the New Zealand Fruit Industry overseas on two occasions at Conferences of organisations connected with fruit production and is highly regarded overseas for his breadth of vision. His other main activity in connection with horticulture has been as a member and later as the Chairman of the Cawthron Institute Trust Board, a position he still occupies. He has also been a member of the Fruit Research Advisory Committee and also of the Council of Federation Farmers.

Citation in support of the Nomination of Mr JOHN WATLING

Since retiring from a life at sea and taking up a farm at Kennedy's Bush Road, Mr John Watling has devoted himself to the establishment of a garden with particular reference to trees and shrubs and other flowering plants.

As a rose grower, Mr Watling has been outstanding and a leading Exhibitor and judge of roses at local and national levels and is regarded as an outstanding authority and demonstrator on all aspects of rose-growing, showing and judging.

As a member of the Canterbury Horticultural Society Committee for 19 years he has served with distinction, being Chairman of the Management Committee, President of the Society for three years. During his association with the Society he has become recognised as an authoritative judge in the many different sections of competitive horticulture both on the show bench and the home and factory garden.

Many awards have been gained by Mr Watling for his outstanding exhibits of noteworthy trees and shrubs, attractively displayed and correctly named, at a variety of shows.

A keen photographer, Mr Watling has built up a very large collection of coloured slides and his library of these visual aids is available to horticultural organisations throughout New Zealand. He is much sought after as a speaker on a wide variety of subjects.

The National Rose Society of New Zealand this year nominated Mr Watling for the 1966 Award of the Frank Penn Memorial Plaque.

During his period in horticulture, Mr Watling has held many important offices in leading horticultural organisations throughout the Dominion.

REPORT ON THE CONFERENCE*BY A DELEGATE*

Members and delegates of the Royal New Zealand Institute of Horticulture met together for the first time on Wednesday evening, 1st March, and joined with delegates of the New Zealand Institute of Park Administration to hear a most interesting lecture by Mr G. Dean, Director of Parks, Auckland City Council, on "Street Trees in Containers." In his lecture Mr Dean pointed out the limitations to planting trees in city streets particularly from the multitude of services underground and also with the problem of overhead wires. Auckland City Council had overcome this problem to a great extent by growing trees in large containers, the surface soil of which was also planted with suitable decorative plant. (An article on this subject by Mr P. Jew appeared in "New Zealand Plants and Gardens" Vol. IV, September, 1965). The lecture was well illustrated with colour slides which clearly indicated the value of this form of horticultural decoration in a large city.

The evening's activities were completed by a short film projected by the Public Relations Officer Mr O'Hagan, entitled "Summer in Nelson."

On Thursday the Conference was opened by the Mayor of Nelson, Mr N. D. Strawbridge. In his address of welcome he stated that Nelsonians were enthusiastic gardeners and that there were many fine specimens of trees and shrubs around the city. He affirmed that planting trees in cities has a marked effect on the character of people and that in general urban authorities are becoming more aware of this. In addition in Nelson there has been a great deal of enthusiasm in planting in gardens of the newer areas. He pointed out that in 1923 Thomas Cawthron founded an endowment for research, which has developed into the internationally famous Cawthron Institute.

In addition Nelson Province itself had a wide variety of agriculture and horticulture while forestry was also important especially the growing of Radiata Pine, half of the forests in the area being privately owned. He mentioned the acquisition of Isel Park with its fine trees, which was originally a private home, and in conclusion he commended the Institute for its work and extended a welcome to Nelson to all members attending the Conference.

In the afternoon members had the pleasure of short talks by Mrs N Steen and Mr I. O. Taylor. Earlier in the Conference Mrs Steen had been made an Associate of Honour of the Royal New Zealand Institute of Horticulture and her address clearly indicated why this honour had been bestowed upon her. She talked about the various way in which roses were grown in gardens, the pleasure and interests she had obtained in building up a collection of old fashioned roses and particularly stressed that in her own garden she mingled roses with other plants such as fuchsias or those with grey foliage or blue flowers. One could have willingly heard more and wished to see the garden itself.

DISTRICT COUNCIL REPORTS

NORTH TARANAKI

FEBRUARY: A bus load of enthusiastic members and friends made the journey to North Egmont on a fine Saturday this month. An unexpected meeting at the Hostel with Mr Rupert Larsen, a former custodian of the old house and a ranger proved most fortunate. He was able to give many interesting points about features of the mountain that were new to us.

After lunch at the Hostel one group walked the Ngatoro Track through typical Egmont high altitude forest. Another more energetic group set out to walk the road to the Hen and Chickens and the T.V. translator but only two reached there. One feature was the interesting cloud formations made by the high winds.

MARCH: The Taranaki Anniversary day weekend trip to Te Aroha got away to a good start on Saturday morning. Following a pleasant journey north the first garden visited was that of Mr and Mrs Tyrell at Tatanui near Morrinsville. On the Saturday evening the party was entertained by the St Mark's Horticultural Society with slides, supper and conversation. On Sunday morning Mrs Evison's garden with its extensive orchid houses and Mr T. Gordon's with picturesque water lily ponds were visited.

Following lunch at Mr Gordon's the bus set off for Tauranga via the Waihi-Tauranga road. Although misty rain hid from view the Tauranga harbour, a visit to 'Marineland' sea aquarium situated in an old quarry at Mt Manganui made the trip well worth while. On Monday morning a conducted tour through the Morrinsville Dairy Company's new butter factory followed by an inspection of the Parks and Reserves nurseries at Hamilton completed a most interesting weekend.

Later in March a bus full of members and friends together with several cars spent an interesting day exploring local gardens in New Plymouth. So much of interest was found that the day proved all too short. First, two small gardens were visited. An inspection of Mr Howard Okey's collection of conifers and Mrs Okey's cacti showed just what can be achieved on a small section. The other worked by Mr Doug Leighton, a craftsman in stone work, showed how the artistic blending of stone and plants can provide a most interesting garden. The third, a larger garden, was designed by the owners so that it could be left for periods of up to six or eight weeks or even longer without showing too many ill-effects. Use of coloured foliage plants, flowering shrubs, and the extensive use of ground covers, sawdust and compost mulches made this possible.

Lunch time at Mt Bryan, a recently developed seaside park proved both relaxing and horticulturally interesting with plantings suitable to the exposed sea-front situation.

During the afternoon a visit was paid to Mr and Mrs Tom French's new garden a Bell Block. Extensive plantings of shrubs will, as the plants mature provide the basis of what promises to be a delightful garden. The day concluded with a cup of tea on the lawns of a garden planted on the site of an old Maori meeting place and owned by Mrs Langman at Bell Block.

In the evening Mr R. E. Lycette of the University of Waikato gave a most stimulating address, illustrated with excellent slides on "The Floral Regions of South Africa." Following as it did on the recent visit of Mr and Mrs Middlemann, in January, this talk dealt with many plants and regions not touched on by the Middlemann's. Mr Lycette took first a cross section through the northern part of southern Africa east and west and then another line north and south through the same region.

Altogether this was an exhausting but extremely interesting day.

Dominion Conference:

Five delegates from the North Taranaki District Council made the trip to Nelson for the Dominion Conference. The general opinion of our delegates seems to be that the Conference was rather flat. It seemed to lack any dynamic force, contentious topics, or outstanding speakers. It appeared to make no impact on the city of Nelson and was entirely over-shadowed by the conference of the Institute of Park Administration. We are very pleased to see that the Dominion Council has called for suggestions for the 1968 conference in Wellington and we hope that those forthcoming will result in a more representative and a much brighter meeting.

APRIL: The first student speaker for 1967, Mr Philip Allen of Duncan and Davies Nursery, New Plymouth, took for his subject the species *Cotoneaster*. *Cotoneaster cornubia* of rather upright growth and quite tall he recommended as a worthwhile garden shrub, and while *C. conspicua*, a more dense bushy-growing plant was rather similar to it, *C. microphylla* with somewhat larger leaves, was a darker green. *C. thymifolius* much smaller in habit had much smaller leaves. Mr Allen considered that of all the flat types *C. horizontalis* gave the best display of berries, but, although *C. horizontalis* 'Superba,' a much more vigorous form of *horizontalis*, did not berry so profusely its larger leaves gave an excellent display of autumn colour. *C. dammeri*, an extremely prostrate variety and an excellent ground cover was to be newly released in New Zealand this year.

To grow *Cotoneasters* as standards, seedlings of hybrid origin and vigorous growth should be obtained and should be grown to a height of about five feet. On to these standards *C. conspicua* and *C. microphylla* may be budded quite successfully. While the early growth of such buds could be quite fantastic they settled down in the second year. Mr Allen suggested that an interesting experiment would be to bud on to one of these four foot stocks buds of *C. dammeri* which one would rather expect to go down, spread out and become rather artistic.

Finally Mr Allen said that one of the advantages of these modern *cotoneasters* was that they were not subject to fireblight as were some of the earlier varieties. This was a very successful and interesting talk. Some very interesting specimens brought to this meeting were ably described by Mr A. D. Jellyman. Some of the more interesting are noted below.

Luculia gratissima, a sweet-scented flowering shrub which does very well in Taranaki, likes quite a rich soil and a warmish situation. As the flowers come on the terminal growth of the current season *Luculia* should be cut back when flowering has finished to produce vigorous growth and big heads of flowers the following year.

Aconitum (monkshood) a perennial not often seen in New Plymouth is an attractive blue flowering plant. *Pernettya mucronata*, belonging to the erica family, likes an acid soil and will even tolerate some brackishness. Although it has basal suckers and will spread freely if not checked it is a most attractive shrub and the white flowers are followed by fleshy deep-red fruits which remain on the bush all winter untouched by birds.

Abutilon—a very attractive white-flowered type was displayed. *Abutilon megapotamicum* is a rather graceful shrub with very striking two-toned flowers. *Iochroma cyaneum*, rather uncommon shrub of the potato family forms a relatively upright bush with cylindrical flowers of an unusual purple colour. *Lantana sellowiana* is a very useful bush for covering banks. *Plumbago capensis*, a semi - scrambling plant is also very good for covering a sunny bank or as a ground cover. It is a good blue-flowered shrub. *Duranta repens* is another good lilac-blue flowered shrub.

The guest speaker of the evening was Mr J. E. Hume, Horticultural Superintendent, Department of Agriculture, Palmerston North, who spoke on "Plant Protection in the Home Garden." He dealt in some detail with the damage caused to garden plants by nematodes, commonly known as eelworms, and suggested suitable remedies. Mr Hume pointed out that eelworm infestation could usually be detected by the presence of nodules on the roots of the affected plants. These nodules are similar in appearance to the nitrogen nodules on legumes. Not only vegetables but a number of flower plants are also subject to the ravages of eelworm. It was suggested that a portion only of the garden be treated with a fumigant each year, preferably when the temperature of the soil was above 55 degrees Fahrenheit.

It was also suggested that planting of *Tagetes* in the infested areas helped to control one species of eelworm.

Mr Hume also stressed the importance of the control of acidity in the soil and the presence of such trace elements as boron, manganese, iron and magnesium but especially boron, in the control of various diseases. However he pointed out that these elements should be handled with care to avoid excesses causing toxic condition in the soil.

This was a very able discourse fully appreciated by the large audience.

WAIKATO

It is always interesting to hear of people's impressions of horticulture in other countries and at the February meeting Mr H. M. Hammond, one of the founder members of the District Council, entertained a large audience. The world famous garden at Bodnant in North Wales were described with the help of some excellent slides, including some of the spectacular Laburnum walk. Laburnums are striking trees in Europe and are covered with the beautiful golden racemes of flower every spring; unfortunately here in the North Island they are far less free flowering. Floral arrangement enthusiasts were most interested in Mr Hammond's description of the decoration of Westminster Abbey by a concerted effort of many local organisations.

MARCH: Members of kindred organisations were invited to attend a talk by Dr Falla, formerly Director of the Dominion Museum, on the preservation of nature in New Zealand. Excellently illustrated by slides he showed much of what had been done, and how an awakening sense of responsibility was saving some of our irreplaceable natural assets. Slides of animal, plant, and bird life and their incidence relative to land development made many realise how much New Zealand has been changed by the comparatively short presence of man here. A sequence of photos of the Auckland Islands created much interest. It is by the efforts over many years of such people as Dr Falla that so much has been saved which otherwise would have been lost to uncontrolled land development.

APRIL: At this meeting a most comprehensive talk on New Zealand gardens was given by Mrs Barbara Matthews, the Associate Editor of the "New Zealand Gardener." With her wide knowledge of gardens gathered during her extensive journeys in both the North and South Islands Mr Matthews was able to show how domestic horticulture has progressed in a relatively short time. Being a most skilful photographer the range of slides shown were of a very high standard and well illustrated her subject. It is most interesting to observe how a typical N.Z. style of gardening is gradually evolving, particularly in the use of colour from all sources.

APRIL: Early in April a busload of members enjoyed a visit to Mount Tara-wera, the scene of the eruption in 1886, when a great area of land was convulsed and much of the former configuration destroyed. Recovery is slowly taking place but many traces remain. The actual ascent to the top was by Landrovers belonging to the local Search and Rescue Organisation, who also provided a

guide whose description of the eruption and its aftermath revealed how the entire area was changed so suddenly and so drastically. From the peak, 3460 feet above sea level magnificent views were seen of White Island, the Central peaks massif, and the many lakes and forests. Several rare native plants and the re-colonisation of affected areas were observed. The striking colours of stones and soil were noticeable as those of the many varying shades of the flora. The weather was very fine and although undoubtedly an energetic tour it was considered by those taking part to be a most enjoyable day.

Two members, both professional horticulturists, have recently been successful in gaining the National Diploma in Horticulture and their Diplomas were presented at the April meeting by Dr D. Rogers, Mayor of Hamilton. They were Mr G. Mander and Mr R. J. Nanson, both of Hamilton. Mr Nanson was also awarded the Cockayne Memorial Medal for gaining the highest number of marks in the final examination. Both members are keen supporters of the local District Council, and to them go the congratulations and good wishes of all the members.

SOUTH TARANAKI

NOVEMBER: Day trips have provided much of interest and information for South Taranaki members during the summer months. Some 70 members and their friends spent a very interesting and enjoyable day in November visiting garden in and around Hawera. Coming from as far afield as Patea, Opunake and Kaponga, the visitors gathered at King Edward Park, where interesting features were pointed out by the Superintendent, Mr H. T. Beveridge. Special note was taken of the re-arranged azaleas and also of camellias largely given by the Camellia Society after their New Zealand Convention held in Hawera several years ago.

From the Park, the party moved to the garden of Mr & Mrs D. Ross, Waihi Road where, on a sloping section with built up rock walls, Mr Ross has established a garden of plants in considerable variety. Also on Waihi Road is the large garden of Mr R. H. Leece where visitors admired native trees, early roses and an extensive orchard containing a large variety of fruits presided over by a lordly plum tree so large that it has to be propped up by a number of concrete poles. After lunch, there was the garden of Mr & Mrs I. Edmonston where rhododendrons were especially admired; then that of Mr & Mrs R. Syme where irises, roses and primulas gave colour amongst the many shrubs, and then the farm of Mr & Mrs G. Ogle, of Turuturu Road, where is established another garden of considerable variety.

Afternoon tea saw the visitors at Turuturu Mokai, soon to celebrate the centenary of its last battle, where a short talk by Mr Syme reminded listeners of the age of the redoubt and of its five circling and supporting redoubts, with one exception, lost to sight.

This very interesting day had been preceded by another trip where a party, also numbering 70, spent a most interesting and informative morning being shown over his beautiful garden by Mr B. Hollard of Kaponga. Situated on the slopes of Mt Egmont, this 5-acre garden was a blaze of colour and fragrance—rhododendrons in profusion, azaleas, camellias towering above tiny irises, primroses and other flowering ground plants, a vivid contrast to long established rimu and other natives.

FEBRUARY brought a smaller party a most delightful day trip to New Plymouth. En route, a morning call at Inglewood at the home of Mr & Mrs

W. J. Messenger was a visit to an attractive garden with masses of stately lilies and an enormous *Kalmia latifolia*. This must be a wonderful sight in full bloom! Against a back-drop of Egmont wearing a glistening cloak of unseasonable snow, we were entertained to a garden morning tea—scones garnished with raspberry jam, brothers of the raspberries still seen growing in the well-kept "berry house." Mr Messenger kindly joined our bus, and we called at "Tupare" to be greeted by Mr Russell Matthews and to be introduced to Mr Chas Puddle, arrived in New Zealand only the previous day from "Bodnant." Lunch at Belt Road Motor Camp, from which vantage point Mr Messenger showed us something of the progress already made in the extension of Port Taranaki.

Our next call was in Doralto Road, New Plymouth, where Mrs Collins kindly showed us over her large garden—sloping banks, bush-covered, hybridized lilies, trees in variety, and a shade house with fuchsias and begonias. We were also invited to visit Mr & Mrs George on Elliott Road, and here, too, we found a garden of variety on a sloping section, every inch of which was carefully tended. A most hospitable host and hostess entertained us to afternoon tea and kindly invited us to "Come again." We shall love to do that. Our last visit on this pleasant day was to Mr & Mrs Lornie. Here, on a sloping bush-covered section, they have built a house the front of which "floats" above a garden of succulents and looks out over a green vista. This section appears to be a natural habitat for fuchsias, and here they were, numbers of them, growing tall and hanging their lovely blooms over the paths and garden benches and tables.

APRIL: Our last trip, took us to Wanganui with a visit to the National Chrysanthemum Show as its focal point. An invitation to visit Mrs W. Simpson led us first to Whenuakura. Here, on a sloping section set high and looking out over a lovely vista of rolling farmlands past Patea to the sea, is a garden as yet only six years old; but, with shelter provided by bush and old pine trees, recent plantings of trees and shrubs are flourishing. Back to the main road and, at Kai Iwi, we turned inland, followed a winding road for 4 or 5 miles and then creeping into the bush-covered drive to "Bushy Park," the gracious old Moore homestead whose Hereford cattle and horses have found their way to many parts of New Zealand and also overseas. Bequeathed by Mr Moore to the Forest & Bird Protection Society, this property is now a picnic spot where visitors are welcome and where they may enjoy bush walks and study the abundant bird life.

On arriving in Wanganui, our first visit was to the beautiful little Maori Church of St Paul at Putiki. Here we were graciously welcomed by Mrs Tairoa and members of the Vestry, and introduced to Mr Smart of the Wanganui Museum who had come to tell us something of the history of the Church. It was of special interest to a party from South Taranaki to learn that the first missionaries to visit the Wanganui area in 1836 were from Hawera—two members of the Ngati-Ruanui Tribe. Some details of the history of the memorials in the church and of the meanings of symbols used in the weaving and in the making of the tukutuku panels were also given by Mr Smart. The thanks of the party were offered by Mr Rod Syme, who voiced the regret expressed by all members that the time they able to spend at Putiki was so short. The National Chrysanthemum Show, held in the Memorial Hall, provided a wealth of lovely blooms for admiration, and beautiful floral arrangements drew complimentary comments. A very pleasant day for the travellers ended with a visit to Virginia Gardens.

And now, our circuit meetings will commence. The first will be in Hawera in May, and we are looking forward to it with anticipation. As yet the programme is mystery for us—it is to be provided by members of the North Taranaki District Council, and we know it will be good.



GARDENERS!

USE TWO OF NATURE'S OWN INSECTICIDES

PYROX PEST KILLER

— formulated from Pyrethrum — a natural insecticide, for effective control of Aphids, Caterpillars, Plant Bugs, Leaf Hoppers, Ants, Earwigs, Woodlice and other susceptible insects. Apply by garden spray or syringe.

ATA DERRIS DUST

— formulated from Rotenone (extract of Derris Root) a natural insecticide for effective control of White Butterfly, Diamond Back - Moth, Grey Cabbage Aphid, Tomato Caterpillars and other susceptible insects. Sprinkle from the $\frac{1}{2}$ lb. or 1 lb. can or available in "puffer pack".

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