

VOL. VII      DECEMBER, 1967.      No. V.

**NEW ZEALAND  
PLANTS & GARDENS**

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**THE JOURNAL OF THE  
ROYAL NEW ZEALAND  
INSTITUTE OF  
HORTICULTURE  
(INCORPORATED)**

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# NEW ZEALAND PLANTS AND GARDENS

The Official Journal of the Royal New  
Zealand Institute of Horticulture (Inc.)

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Volume VII

DECEMBER 1967.

No. 5

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## CHRISTMAS GREETINGS

In my capacity of Dominion President of the Royal N.Z. Institute of Horticulture (Inc.) it is a great privilege to convey to all members and friends of the Institute Christmas and New Year Greetings.

Horticulture is on the march and many interesting developments are taking place particularly in the scientific and transport fields. This is particularly important to our economy for horticulture is one area that is able to answer effectively the call for increased diversification of our export trade. Horticulture and the horticulturist are assuming positions of importance in the community and the economy and there are signs that this will continue at an ever increasing rate. Not only is the material aspect important but aesthetic considerations also are snowballing as the populus realises that it is losing something as cities, towns and motorways sprawl across the landscape. The landscape architect and the horticulturist will be fulfilling a very real need here.

The Institute is an examining body and is vitally concerned that horticultural education keeps up with and meets the needs of the times. It is hoped to be able to report progress in this field in the near future, possibly at the next Conference.

Membership is perhaps lagging and this is one way in which members could help the Institute for it is evident that there are many outside who should be within the fold.

It gives me much pleasure, on behalf of the Dominion Council, Mr Lemmon, Miss Young and myself to extend to you all a Happy Christmas and a bright and prosperous New Year.

J. F. LIVING,

Dominion President.

## EDITORIAL

**THE SPECIALIST**

Two events of great significance were noted recently. The Hereford Rose Society recently celebrated its centenary and claims to be the oldest specialist horticultural society in the world. It may well be. Their claim will certainly not be contested by any New Zealand organisation. The above society may also claim to be the parent of the Royal National Rose Society which founded in 1876 had 109,500 members on the 31st December, 1966; surely the world's largest horticultural society. It was rather amusing recently to read in "The Magic World of Roses", an American publication by Michael Bassity, 'The American Rose Society, the largest flower organisation in existence, currently lists more than 17,500 members.'

The second event was as follows. Recently your Acting Editor spoke to a specialist Society in the north of the South Island and among the business of the evening was the threatened demise of the local horticultural society. To the credit of the specialist society they agreed to undertake rescue operations and this is the proper attitude for there is room for both types of horticultural body and, with the exercise of a bit of tact and common sense, they may exist together harmoniously and to their mutual benefit. Nevertheless there is a very real danger for the plethora of specialist societies in conjunction with modern entertainment and educational media such as the Radio and TV are dire threats to the existence of the *old fashioned horticultural society*. There is our cue. To survive horticultural societies in common with many other similar organisations must modernise or die. Specialisation is forced upon us by the times and is by no means confined to horticulture societies. One cause is the small modern suburban section which does not permit the old fashioned type of garden with its many different plantings. Growth in activities beyond the home and the automobile are also among many influences playing their part in this tendency to specialise. The trend to specialise has always been present but modern conditions have accentuated it.

How to modernise is now the question? The Canterbury Horticultural Society, which is nearly 120 years old, is probably the strongest in New Zealand and has adopted a cellular structure incorporating many specialist groups one of the strongest being their Floral Art Circle. Others are concerned with particular flowers. Owing to national tie-ups it is not always possible to form a group for a particular flower and here the district specialist society will affiliate with the C.H.S. and the two bodies will work in the closest possible harmony. A helping factor is that the C.H.S. owns its own building, the Horticultural Building, which includes three halls and many other facilities. This provides

a headquarters for most horticultural society activities in Christchurch.

Six Shows are held annually and every second year there is the well known Summer Exhibition in Hagley Park and generally the co-operation between the C.H.S. and the specialist groups, integrated or otherwise, is excellent. Of course differences arise from time to time but generally goodwill prevails and these are overcome.

It is not claimed that everything is perfect. The C.H.S. has well over two thousand members and the largest specialist society, The N.Z. Lily Society, has over eight hundred members, but these figures are by no means good enough for a city that claims to be The Garden City of New Zealand.

It should never be the policy of specialist societies to force the local horticultural society out of business nor should horticultural societies give the game away by default. Where shows conflict some agreement should be reached on their conduct as few areas are able to stage two worthwhile shows for one particular flower. It may be accepted that one specialist show will be a moneymaker whilst two will both run at a loss. A policy of sharing may be profitable and a specialist society must remember that they do not have a monopoly of, or a copyright in, their particular flower. Flowers are there for all of us to enjoy.

Finally we all know the old definition of a specialist, "Someone who knows more and more about less and less." Yes we even have specialising within the structure of specialist societies. Not only do some collect plants of their particular speciality to the detriment of their gardens but we find persons concerned with particular facets such as garden competitions, exhibiting, judging, administration, floral photography and flower arrangement. These special specialities may be so time consuming as to cause serious deterioration in the garden that led to their adoption. One specialisation that should be encouraged above all others is hybridisation for our New Zealand is wonderfully endowed for this fascinating activity.

Generally our horticultural society administrators have an acute sense of stewardship but human nature being what it is deviations occasionally occur. We should all examine our motives searchingly from time to time to ensure that we do not identify the society's interest with our own self interest. Careful attention to this point will prevent the occasional strife, bitterness and heartburnings that occur now and again.

Some sanctuary is necessary from the hustle and bustle of modern life and horticulture provides many of us with the ideal relaxation. Let us keep this sanctuary unprofaned by any versions of 'The Power Game'.

JOHN GOVER.

**THE AWARD OF EXCELLENCE 1967**

In accordance with the conditions adopted by the Dominion Conference in 1965 the Dominion Council has given the 'Award of Garden Excellence' for 1967 to the following list of plants. These plants are of outstanding merit in the garden in that they will give a good garden display without any special garden care and are relatively easy to obtain. As the climate in New Zealand is such that in the extreme north it verges on the sub-tropical climate whilst in the extreme south it may be classified as cold temperate, there are relatively few plants that will flourish throughout the country; therefore notes are appended to the plants given the award to indicate their suitability for growing in the different parts of New Zealand.

**Shrubs and Small Trees***Aucuba japonica* 'Crontonoides'

This species is a dioecious evergreen shrub 4-6ft high, grown for its attractive foliage and berries. This cultivar is a female form with foliage heavily spotted and marked with gold. If the red berries are wanted another male variety must be grown near it; it is especially suitable for growing in shady damp situations. It will flourish in most parts of New Zealand.

*Callistemon citrinus* 'Splendens'

At present this cultivar is one of the most attractive forms of the Australian Bottlebrush. It forms an open shrub of 6-8ft high. Its crimson flowers are freely produced in November and sometimes again in the autumn. It benefits from continuous pruning. It will stand salt spray and wind. It grows rather slowly in the southern parts of New Zealand. In the Auckland area it is susceptible to a leaf curling mite and must be sprayed with D.D.T. when the new growth first appears and afterwards at fortnightly intervals until the new growth becomes mature.

*Calluna vulgaris* 'H. E. Beale'

This is one of the most popular heaths and is suitable for planting in most districts in New Zealand south of the Auckland City. As with all heaths it thrives on the poorest but acid soils and will withstand exposure to frosts and snow. This cultivar grows about 2ft high and produces in the autumn sprays of silver mauve flowers; its growth form is such that it is excellent for ground cover or bedding. It was found in the New Forest in the south of England and was given the 'Award of Garden Merit' by the Royal Horticulture Society in 1942.

*Coprosma repens* 'Variegata'

In this variegated form of the shore Coprosma or Taupata the attractive glossy green leaves are margined with cream or yellow; it will withstand salt spray but is frost tender. Its repent form makes it suitable for a ground cover on banks or for training up a wall. It will grow in most coastal areas throughout New Zealand but it must be borne in mind that it is frost tender. (Ed.: picture on page 153 'N.Z. Plants and gardens', September, 1967.)

*Grevillea fasciculata*

This dwarf semitrailing species rarely grows more than 9in high and is most suitable for growing as ground cover on warm sunny banks or rockeries. It is covered for most of the year with orange coloured spidery flowers. It will resist light frosts.

*Hebe* 'Inspiration'

This cultivar is reported to be a hybrid between *H. diosmifolia* and *H. speciosa*; it forms a shrub of approximately 4ft high with strong bushy habit. It is free flowering and its violet coloured flower spikes are produced over a long period at the ends of its branches. It will grow in most parts of New Zealand.

*Magnolia* x 'Soulangeana'

A hybrid raised in 1827 by M. Soulange Bodin in his garden near Paris from seed of *M. heptapeta* crossed with *M. obovata*. The flowers are white within and purple tinged without. It flowers early in the spring. In the North Island there are many shapely trees of over fifty years old and more than twenty feet high which year after year are covered with flowers; it has been described as one of the safest hybrid Magnolia for general planting. It was awarded the R.H.S. award of garden merit in 1932. It will grow in most parts of New Zealand but in the southern parts if grown in exposed positions it is liable to be damaged by the late frosts.

*Malus coronaria* 'Charlottae'

The double flowered form of Western type of the North American wild sweet crab was found growing near Waukegan, Illinois, in 1902. It forms a medium sized tree 6-10ft high with lobed and toothed leaves like a hawthorn which will give brilliant autumn colours. The double flowers are produced late in the spring, pale pink and sweetly scented.

It grows well in most parts of New Zealand, especially south of Auckland city.

*Nerium oleander* 'Punctatum'

In New Zealand this cultivar is one of the few free flowering forms and in some years it will bloom continuously over the summer season. It forms a shrub up to 6-9ft high of graceful form. It is suitable for planting in coastal areas and is resistant to salt spray.

It is frost tender and only suitable for planting in the South Island in very warm sheltered positions.

When planting *Nerium spp.* it must be remembered that if eaten all parts of the plant are extremely poisonous to animals and human beings.

*Pittosporum tenuifolium* 'Rotundifolium'

This cultivar of this indigenous species has a light foliage form; it forms a shrub of approximately 5ft high; the small round leaves are variegated with cream white; it is suitable for planting in shady situations and is hardy in most parts of New Zealand.

*Prunus subhirtella* 'Pendula'

This weeping form of this early flowering Japanese cherry can be most attractive when worked on standards 4-7ft high. In time it will assume a form akin to a weeping willow. There is considerable variation in flower form and colour; care should be taken to select a good flower form. A pink flowered form is the one most commonly grown. It may be grown throughout the country but in North Auckland it is rather shy in flowering.

*Rosa* 'Cecile Brunner'

This cultivar is often known as the 'sweet heart rose'. Thomas in "Shrub roses of to-day" states that it is a seedling Polypom x Mm. de Tartas raised in 1881. It is not a rose for park bedding as its flowers are not showy but for a small garden especially if room only for 1 or 2 roses. Its miniature, fragrant, perfectly formed pale silvery pink flowers are produced almost all through the year on a small bush only 2-4ft high. It is suitable for planting anywhere in New Zealand. Its excellence is demonstrated by the fact that it has been in cultivation for over 80 years in most countries with a temperate climate.

*Thuja occidentalis* 'Rheingold'

This dwarf persistent juvenile form of *Thuja* grows from 3-5ft high; its form is stout, conspicuously branched and each branch is pyramid shaped but the branches are crowded, thin and flexible; the tips are rose tinted in summer and the leaves are linear and scalelike, and golden to brownish yellow colour.



It was raised from seed by Vollant, a nurseryman in Lubeck in Germany, and was first exhibited in London in 1902.

It is among the most widely grown of the dwarf conifers and it is hardy in most parts of New Zealand.

*Tibouchina langsdorffiana* 'Grandiflora'

This shrub is probably better known to the nursery trade in New Zealand as *T. semi-decandra* 'Grandiflora'. It is a handsome shrub with attractive leaves and striking purple flowers which are produced throughout the year. It is suitable for planting in groups of shrubs in the warmer parts of New Zealand. It is frost tender and in the southern parts of New Zealand it can only be recommended for planting in warm sheltered positions.

### Herbaceous Plants and Bulbs

*Lobelia fulgens* 'Queen Victoria'

This species is more colourful than *L. cardinalis* or the species and is the commonly grown cultivar in New Zealand. Its foliage is deep purple coloured and the flowers are brilliant crimson red and are borne on a spike some 4-5ft high in late autumn. It needs wet soil conditions but a warm situation. In some parts of New Zealand, the clumps may need lifting in the late autumn to a warmer, well drained, situation. It will grow in most places in New Zealand. In the north it needs a damp situation.

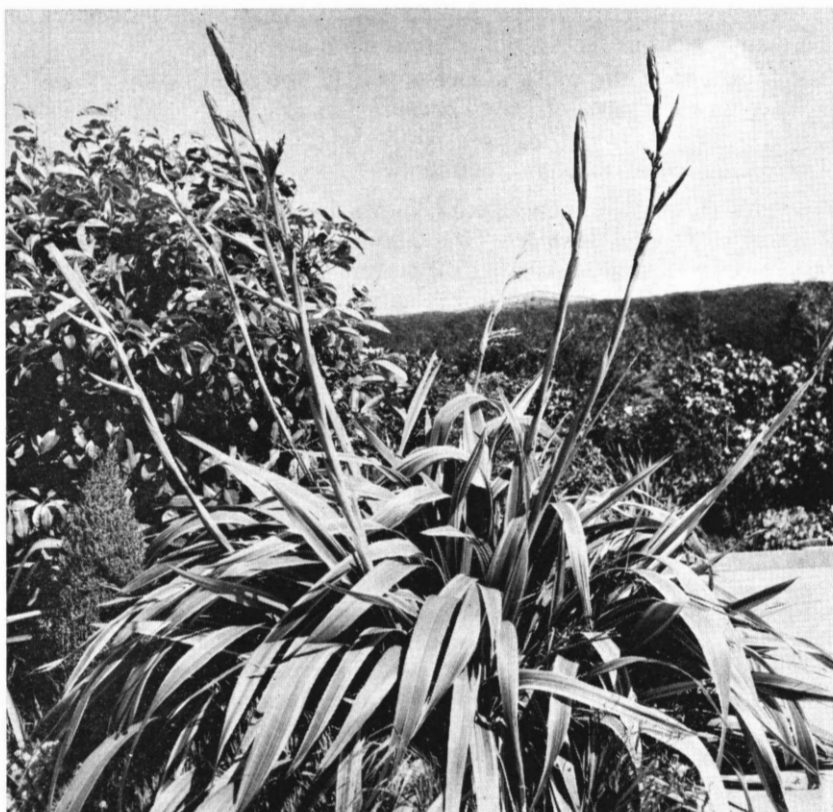
*Kniphofia* 'Ernest Mitchel'

In November this cultivar produces spikes of up to 5ft high of brilliant citron yellow flowers; they are freely produced making an excellent garden display. It is a popular variety in the Auckland Province but is hardy throughout New Zealand.

*Cyclamen neapolitanum*

This easily grown European species of *Cyclamen* is valuable either as a rock garden plant or as ground cover in shrubberies where there is an adequate supply of leaf mould. Its small pink or white flowers are produced in profusion throughout the autumn. The leaves, shaped like those of an ivy, are beautifully marked in grey or white on a dark green ground. It was given the Award of Garden Merit of the Royal Horticulture Society in 1925.

It is hardy throughout New Zealand.



*Phormium colensoi* 'Tricolor' approaching the flowering stage.

*Phormium colensoi* 'Tricolor'.

A most attractive form of the mountain flax. It was obtained by nurserymen from the Maoris who highly prized and cultivated this decorative variety. It grows from 2-2½ft high and leaves are variegated green and white with red margins. It is suitable as a large plant for rock gardens or for a tub plant. It is hardy throughout New Zealand.

Sub committee for Award of Garden Excellence

Joan M. Dingley (Convenor)

J. A. MacPherson

A. Farnell

H. B. Redgrove

**THE GARDEN AND THE ROSE**

An Address given to the 1967 Annual Conference by  
*NANCY STEEN (Auckland), A.H.R.I.H. (N.Z)*

First of all, I would like to say how honoured I feel this afternoon to have been allowed the privilege of speaking at such a gathering as this—my only regret being that my husband was not able to come with me to Nelson. As I must not trespass on Mr Taylor's time, I shall begin right away by saying that I am not speaking on The Rose Garden; but on The Garden and the Rose—a very different subject and one which I hope will be of more interest to members of the Royal New Zealand Institute of Horticulture. I have just been reviewing a new book on the rose, by Dr E. P. Pal, Director-General of Agricultural Research for India, in which the foreword begins with the words, "If there were no roses, how much poorer the world would be!" and yet, if it was roses, roses, everywhere, we might suffer from a form of mental indigestion caused by too much of a good thing. Because of this and to provide suitable companions for the roses we love, many other worthwhile plants have been included in our scheme in the hope of creating an harmonious whole. Although in the past it was traditional to grow roses in beds, we have found that roses can be interspersed with other plants, and grow in association with them happily, though we do not recommend this form of planting if roses are required for the show bench. While admiring wild roses growing on the lower slopes of the Rocky Mountains, we were interested to see that they were surrounded by asters, aquilegias, delphiniums, silver-foliaged artemesia and carpeting plants. No bare ground was visible, yet all grew happily together, the roses being extremely healthy. When our garden was planted, four formal rose beds were arranged around a rectangular pool in a sunken area in full view of the house. Though lovely at certain seasons, at other times the view from the house was unsatisfying, so after much thought, we decided to remove the roses, and plant the area in grass; and this in spite of our very real love of roses! We have not regretted the change, and roses still hold pride of place in mixed borders around this formal area and along the pergola at the rear.

With the wealth of plant material available in a country so well endowed by nature as ours, it is not difficult to produce attractive gardens of entirely different character, for even a small plot can grow many and varied types of plants, as we noticed and admired in the small courtyard gardens in London, where there was possibly one precious tree, with a seat around it; climbing plants trained to cover bare walls; rock troughs in place of raised beds; and tubs of all types



*Looking from the house across the formal garden to the pergola. Rosa 'Dundee Rambler' on the pergola. R. 'Isapahan'—(Damask) in the foreground*

(Photo—Nancy Steen)

to hold a variety of plants even large shrub roses. These small areas were generally paved as grass was difficult to maintain.

The grouping of plants and their selection for affinity will create quite different garden pictures from mass planting, and yet be full of interest throughout the year. The introduction of plants with unusual foliage is important as a substitute for bloom—bronze, silver or variegated leaves adding colour and novelty. Banks of the lovely summer-flowering, old-fashioned roses such as Gallicas, Damasks, Albas, Centifolias and Mosses; with their scented blooms of rich and unusual colours, can be interspersed with small shrubs and perennials. Silvery leaves look well alongside purple roses, variegated ones near pinks; the crushed strawberry coloured foxglove, *Digitalis mertonensis*, and richly hued fuchsias combined splendidly with maroon shaded roses though a touch of blue from the flower sprays of the low shrub, *Caryopteris clandonensis*, makes a useful colour break. The main thing is to have a definite and pleasant scheme—for us, at any rate, as our aim is to create restful rather than startling effects.

The element of surprise is very valuable and this can be achieved by having small gardens within the garden though a certain overall simplicity of design is essential if harmony is to be the keynote. Hence the necessity for clear cut lawns firmly edged to allow ample space for children's enjoyment. However, we had not envisaged a time when our grandchildren might become cricket or football enthusiasts and practice place-kicking on the main lawn! We try not to discourage them too much for it is amazing how interested in gardens young people can become, and how quickly they learn about the different types of plants. Even the teenagers who use our tennis court soon become knowledgeable visitors.

In principle, we have favoured perimeter planting with uncluttered lawns and narrow borders. This makes maintenance comparatively easy; I say comparatively, because in Auckland's semi-tropical climate, which encourages lush growth, garden work continues throughout the year. There is not much time for armchair gardening, my favourite form of relaxation. In one long narrow border high above the tennis court, wild and semi-wild roses—Musks, Multiflorias, and Wichurianas—climb up through trees and cascade down over a high rock wall. These are healthy roses, requiring no spraying—what a boon to busy gardeners, and what a joy in the future if rose breeders could produce disease-free roses. They can be cut back with large shears immediately after flowering and then left to their own devices till next season. You may be interested to hear of their companions in this border, for between the shrubs and small trees, we grow a number of plants with strap-like foliage. *Iris foetidissima* 'Variegata', a very showy plant—the Australian

*Orthrosanthus multiflorus*; the common green form of the Kangaroo Paw; a lime yellow hemerocallis; and a golden foliaged libertia. Then there are two of our native flaxes—*Phormium colensoi* 'Tricolor' and *Phormium tenax* 'Rubrum'. We had not realised how far enterprising New Zealanders had progressed in producing amazing, almost startling new varieties of flax until we saw what had been achieved within a few years at the Christchurch Botanic Gardens. Those responsible are to be congratulated on breeding what are sure to be very valuable garden plants of the future.

Amongst the shrub roses, Rugosas are firm favourites with us because of their healthy, handsome foliage, scented flowers, and striking hips. Under-planted with the dwarf azaleas Cherry Blossom, Apple Blossom and Rutherford Rose Queen, as well as with ajugas and pulmonarias, they give pleasure throughout the year and cause us a minimum of trouble. Two native shrubs, *Coprosma williamsii* 'Variegata' and *Coprosma repens* 'Variegata' are grown in this same area—with trailing variegated fuchsias and periwinkle to cover rock walls. These plants highlight such a border during the winter months. The fine, recently created Eden Garden in Auckland is completely planted with shrubs and a wonderful job Mr Jack Clark and his assistants have made of it. Anxious to give a few shrubs to the garden but not wishing to present anything that would be incongruous or cause too much trouble, we decided that Rugosa Roses would be suitable and also the fine shrub rose, Nevada. Recently, we went over to Eden Garden to see these roses in bloom. To our horror, we found that all that was left of the lovely Scabrosa and other Rugosas was the prickly stems and the bare midribs of the leaves. This lovely spot is surrounded by bush clad hills which harbour opossums, and what a feast they had had, though strangely Nevada was untouched. I know you can put dried gorse round bushes or net them in; but this would have looked unsightly. I wonder what spray, if any, would keep these pests away.

Rock gardens, and the large tubs and troughs now used extensively on paved areas surrounding small modern homes, accommodate happily not only dwarf cupressus, azaleas, and fuchsias but many old and new miniature roses, as well as small China Roses. A beautiful single pink China Rose was sent to me last year by a generous Nelson old rose enthusiast, Mrs Morris, and it is proving a real treasure. When a suitable soil mixture is used, all these plants thrive in containers out of doors but it is advisable, after two or three years, to replant them in fresh soil.

The old Tea-Roses—not favoured today—grow as vigorously in New Zealand as they do in the South of France and Italy, especially if on their own roots. Hardy old stalwarts, these evergreen roses flower

off and on all year—frequently when no other roses except their near relations, the Chinas, are in bloom. Grown against the white wall of a house, under-planted with *Hebe* 'Tricolor' and *Hebe speciosa* 'Tricolor'; and edged with a dwarf pink begonia, such a border makes a colourful picture. Quite the best of these old Tea Roses, Souvenir d'un Ami, was bred over a hundred years ago and is still admired by visitors. As we garden from year to year, my husband and I feel there is still so much to learn that our interest never flags. We would both like to record our appreciation of the wonderful help we have received from botanists and horticulturalists all over the country for many years. The little we have achieved has been with their help. Thank you.



## **1968 ANNUAL DOMINION CONFERENCE**

of the

**ROYAL NEW ZEALAND INSTITUTE OF  
HORTICULTURE (INC.)**

### **FORTY-FIFTH ANNUAL MEETING & CONFERENCE OF DELEGATES**

NOTICE is hereby given that the forty-fifth Annual Meeting and Conference of Delegates of the Royal New Zealand Institute of Horticulture (Inc.) will be held in Concert Chamber, Town Hall, Wellington, on March 7th, 1968, commencing at 9.00 a.m.

The Annual Banks Lecture will be delivered by Mr F. P. Knight, V.M.H., F.L.S., A.H.R.I.H.(N.Z.), Director of the Royal Horticultural Society's Garden at Wisley, England, at 8 p.m. on the same day. His subject will be: "If Sir Joseph Banks Returned!"

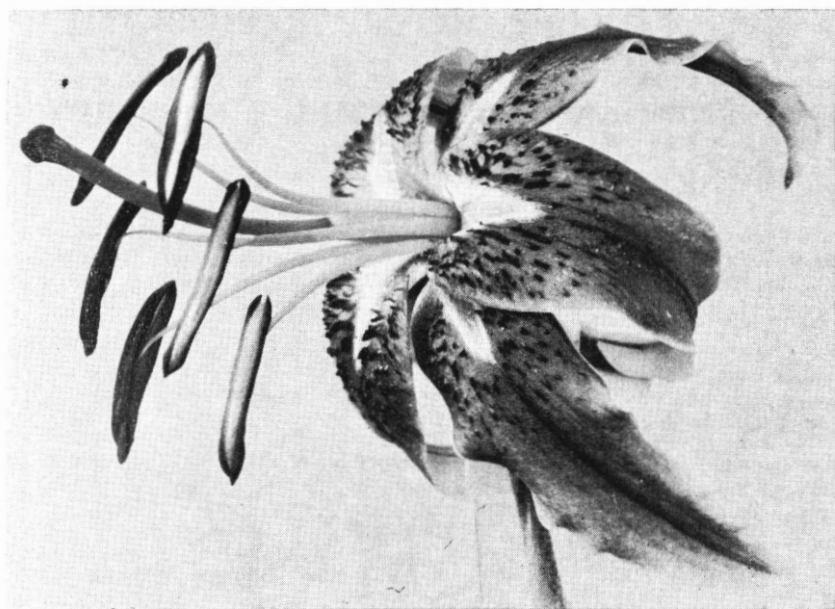
Members of the Institute and delegates from affiliated organisations are especially invited to attend the Dominion Conference and the Banks Lecture, which will be a Public Meeting.

K. J. LEMMON,  
Dominion Secretary.



*One of the colourful borders in Miss Copsey's garden.*

(Photograph—'N.Z. Gardener')



*Lilium 'Black Beauty'*

(Photo—H. F. Barker)



## **GROWTH OF INTEREST IN LILY CULTURE IN NEW ZEALAND AND IN HYBRIDISING AND BREEDING**

*NORA COPSEY (Auckland)*

The New Zealand Lily Society was founded in Christchurch in 1932, being the first Lily Society in the world. It was followed six months later by the Lily Group of the Royal Horticultural Society of England. The Auckland Lily Society was founded in 1944 with a membership of 25, which exceeded 700 by 1950 and has remained thereabout ever since. There is a fair sprinkling of overseas members in Australia, U.S.A., Canada, England, Sweden, South Africa, Kenya, India, Sikkim and Czechoslovakia. If the membership of the two societies is added together their number is greater than that of the North American Lily Society.

From its beginning the Society grew from strength to strength through all sorts of difficulties and setbacks. In the second and third years free seed was distributed. It would have been difficult then to find many members who could have named a dozen lilies correctly. New members now receive six gift packets of seed, and through the Society, seed is obtainable from some of the world's best markets. In those early days difficulty was experienced in obtaining bulbs. Now a bulb sale is held each year, its object being a means of distributing species and cultivars among members at the optimum time of planting and of introducing a wider variety of lilies into members' gardens. At no time has it been considered as a money-making venture and to that end competitive bidding is discouraged.

The Parks Department, as usual, co-operated with the new Society and a trial plot was put aside for its use in the Park's Nursery where the reliability and worth of new lilies and new cultivars of lilies raised by members might be appraised.

A short-lived scheme was initiated also to give information to school gardening classes on growing lilies. Seeds and bulbs were distributed. However, as the peak of the lily crop flowers around Christmas and the New Year the bulbs adorned the gardens at a time when children were not there to view them; nevertheless, several schools do in fact have promising lily plots.

The first all-lily show to be held in New Zealand took place in the S.S. Union Building in Queen Street, Auckland. For the second show the Concert Chamber in the Town Hall was taken and resulted in the best one-day show ever held in Auckland, the reason being that it coincided with the visit of Sir Anthony Eden. His advertised attendance brought a thousand to the hall in a very brief period. The Horticultural Trades' Association joined the Society in 1956 for the first 2-day show

in the large Town Hall, an ambitious project which was entirely successful. Many members still continue their patronage and the Society is grateful to them.

The distribution of seed has been welcome, and numbers of letters are received each year recording success with it, and there is an ever increasing demand in the Horticultural Trade overseas. This applies also to the demand for New Zealand raised bulbs which is insatiable though £5 a bulb retail for named cultivars is a not uncommon figure to pay in Britain. Finally, the big trading firms and chain stores sell bulbs by the thousand in the season. One firm at least sells potted lilies in flower, to their own profit and to the joy of the public who have discovered that pot plants, especially those as exotic as lilies, make most acceptable presents.

Hybridising is encouraged in the Society as a means of raising new and better lilies but a perusal of the Society's bulletins reminds one sadly of Omar Khayyam

'. . . . . heard great argument  
About it and about: but evermore  
Came out by the same door wherein I went'.

Some few lilies will flower in a year from seed, a few more take two years, but most take three years and more. With three years as an average flowering time, twenty years would seem to be a minimum to follow a cross through. Serious work on the hybridising of lilies began about 1925 though some work was done in the 19th century; there seems to have been no follow-up programme.

Prior to the Mendelian theory the method used was simply one of selection and although it was possible to obtain better flowers by perpetuating the best plants, the form of the plants remained the same. With seed, increase in quality and vigour was possible though new cultivars are not necessarily an improvement on old ones. Usually it takes several years to assess the worth of a new form so that although new forms usually command higher prices, outstanding cultivars should not be lightly cast aside.

The lily is easy to pollinate and as one lighthearted member writes: "I would simply float out of the house on a sunny morning, intent on escaping from the dull routine of housework, picking pollen anthers here and pollen anthers there, and mating them with any stigma that happened to be invitingly sticky. There's no more delightful task in the world than coating a pale green stigma with dusty chocolate or newly minted gold dust. Oh, I labelled things sometimes but I am a creature of impulse and naturally if I only intended emptying the teapot on the Daphne bush, I wouldn't be equipped with labels and pencils, would I?"

Dr. Yeates, our best hybridist and leading grower, smiled approval. Wildcat crosses are not for the serious man of business. An amateur is not so handicapped.

Maybe it is the spirit of adventure which prompts the amateur to try his luck in this direction. He wishes to raise something new; he knows that species gathered from around the world from scrub and moorland, from stream or dry hillside cannot be expected to live happily side by side in his garden; he knows, too, that most of the species have much too precarious a life in the garden and hybrids must be bred which have a good constitution and are not temperamental, not easily killed by disease, but are beautiful and superior. But the "Belle of the Ball" is rarely acquired in the first generation. Fine garden plants come from generations of breeding work and selection. After the first important break such as the Aurelian cross we begin to progress to what we have in mind.

These are only elementary thoughts on a vast subject but it would seem that there is a great future for the hybrid lily, and we have as yet only tinged the possibilities. One thought stands out clearly, that the time is ripe for further study of the genus in New Zealand.

More work has been done with the Japanese lilies, the *speciosum* x *auratum* group in New Zealand than with any other group.

A cross of  $\frac{3}{4}$  *auratum* and  $\frac{1}{4}$  *speciosum* produces large flat flowers, *auratum* in shape, many with *speciosum* colouring, some lavender spotted, some rayless.

$\frac{1}{2}$  *speciosum* and  $\frac{1}{2}$  *auratum* flowers are smaller with *speciosum* shape, some with *speciosum* colouring.

$\frac{3}{4}$  *speciosum* and  $\frac{1}{4}$  *auratum* produce fine *speciosum* types which are less reflexed than *speciosum* though the flowers are larger and are deeper in colour. Some are white with lavender spots.

The lesser reflexed shapes are much sought after in floral work. The tendency is towards producing *auratum* cultivars with smaller flowers and less perfume. Dr. Yeates has evolved a pigmy type of *auratum* that is very pleasing.

To extend the flowering time of these popular hybrids both *L. japonicum* and *L. rubellum* (also Japanese lilies) have been introduced into the complex. The flowers are lovely, and many are dwarf which makes them more suited to the average small garden than the 6-8 feet giants that *auratum* can become. They flower early in the season but alas! in our Auckland climate they tend to dwindle away. Neither *japonicum* nor *rubellum* are disposed to stay with us.

Mr Leslie Woodriff of Oregon successfully introduced *L. henryi* into the *speciosum* group. His 'Black Beauty' (see illustration page 206) seemed to open a wider field for further exploitation, but 'Black Beauty',

though a robust lily, is almost sterile and the years roll on. Progress is slow. It may take generations to produce a superior strain despite the fact that leading scientists have supplied hormones to hasten reproduction. And always and ever someone asks if sufficient attention is being paid to the species. Without access to the species it is impossible to judge the progress being made with the hybrids.

Another group which goes under a variety of names — the Cambridge hybrids, the Egmont hybrids, the Rosebank hybrids and what Mr de Graaf calls the Mid-Century hybrids, are not as widely grown as they should be. They flower in two years from seed and are almost trouble free. They come in a wide variety of colours, upward and outward facing, and even pendant, in red and orange colouring right through to the yellows, speckled and plain, and make gorgeous showings over the Christmas/New Year periods. They are the result of multiple crossings of *L. bulbiferum*, *L. dauricum*, *L. hollandicum*, *L. tigrinum* and *L. concolor*, and more latterly *L. davidii* and *L. amabile* var. *luteum* and *L. 'Marlyn Ross'*. Some few are named, but they look best in a kaleidoscope of random planting where they may safely be left to look after themselves. It is interesting to note that a Mr Henry Groom of London made some such cross about 1840.

The *davidii* grouping is also most rewarding. In America similar crossings are known as the Fiesta hybrids. Here they are the Avondale hybrids. They may have up to 20 nodding turkscap flowers. They are *L. dauricum* x *maculatum* crosses with *L. davidii*, and several other lilies. The colouring in some is so dark a red as to be almost black, and there is a full range of colours through the oranges to pure yellows. They are easy to raise; the flowers are dainty, the petals translucent, and the effect quite shattering. Their greatest drawback is their copious supply of pollen.

The yellow tigrinums are also good garden plants. Amongst them are dazzling reds, as well as the better known orange-red types. They multiply with great rapidity by underground bulbs and bulbils in the stem axils and flower over a long season.

The Aurelian hybrids were named by Monsieur Debras of France who flowered a cross between *L. henryi* x *L. leucanthum* 'Centifolium' about 1928. Keen hybridists accepted the challenge of the new cross, and the most beautiful lilies resulted. They fall into three classes:—

- (1) The shape is derived from the trumpet type and comes in a range of colours from white through cream and apricot to deepest gold.
- (2) A truly intermediate group between trumpet and reflex — a short bowl shape in the same wide colour range.
- (3) The reflex type with varying width and length of petal in the same range of colour.

Mr de Graaf has named three clones: (1) 'Golden Clarion' hybrids, (2) 'Heart's Desire' hybrids, and (3) 'Sunburst' hybrids. However, other hybridists have been equally busy, particularly Mr Carlton Yerex and Mr Edgar Kline of the U.S.A. and Mr Gerald Darby of England, and they have given their originations clone names — Aurelian 'Sunshine Flares', 'Green-gold Trumpets', 'Copper Flares', and so on.

Seed has been obtained from the seed exchange and members with skill and perseverance have raised beautiful lilies here. Personally this is the group I like best. To ensure a good seed take it is necessary to use mixed pollen as a certain amount of incompatibility is present, and viable seed is often sparse.

Finally the Golden Regale lilies, a cross between *L. regale* and *L. sulphureum* appeared simultaneously in various parts of the world. Much work has been done with this group in New Zealand and our golden trumpets are second to none. Amongst this grouping are crosses between *L. regale* and *L. sargentiae*: some few were pink margined and pink veined. These were back crossed repeatedly to deepen the colour. The first all over pink trumpets were fuchsia coloured and were not very lovely, but by continual recrossing a more beautiful pink resulted. Most of the work seems to have been done with the Aurelian strain where pink is a recessive colour. As the flower ages it becomes dun coloured and worse. The trumpets are lovely when newly opened; the backs are a symphony in wines and red; but a true pink still eludes the searchers.

The foregoing does not propose to be anything other than a slight attempt to sum up the work being done in New Zealand. Collecting information is difficult as the average grower does not rush into print, and indeed after growing lilies for a number of years may well try something else. I have not mentioned the names of the principal growers as it seems to me to be invidious to do so, as so many have contributed so much to the work of each one of us.

Since growing lilies in New Zealand is not difficult, commercial exploitation would be profitable and the industry might well rival, and indeed surpass the million dollar market of the Bermudas, particularly as our lilies would reach the European markets in the depth of winter, where 5/- to 10/- for a single *auratum* bloom is not an excessive price to ask. Moreover, lilies lend themselves to air transport. In a limp condition they travel well without bruising. In two hours, with an abundance of water and a little warmth they are crisp and fresh. The time must surely come when the Lily Planes will leave with as much regularity as do the Strawberry Planes.

**VISIT OF MR F. P. KNIGHT****Director, Royal Horticultural Society's Garden, Wisley**

It is with much pleasure that we announce the visit to New Zealand next February of Mr F. P. Knight, V.M.H., F.L.S., A.H.R.I.H.(N.Z.), Director of the Royal Horticultural Society's Garden, Wisley, England.

Mr Knight has been invited to visit New Zealand and attend the Annual Conferences of the New Zealand Institute of Park Administration and the Royal New Zealand Institute of Horticulture. The Pukeiti Rhododendron Trust is associated with the invitation. As he moves through New Zealand, Mr Knight will give a series of lectures, including the 1968 Banks Lecture at Wellington on March 7, the M. J. Barnett Memorial Lecture at Christchurch on March 15, and will be the principal guest speaker at the Conference of the Institute of Park Administration in Wellington, 4th-6th March.

Mr Knight's active participation in horticulture commenced as "garden boy" on Werrington Park, Cornwall, whence he later transferred to the Royal Botanic Garden, Edinburgh, and again later to Kew Gardens. For a period Mr Knight was engaged in the Nursery Trade, rising to the position of general manager of Knap Hill Nursery, where he engaged in the hybridising programme of the Knap Hill strain of azaleas. After serving in the Ministry of Home Security during the war years, followed by a period in the R. C. Notcutt Nurseries, Mr Knight was appointed Director of the Royal Horticultural Society's Gardens at Wisley in 1955. He holds the coveted Victoria Medal of Honour of the Royal Horticultural Society; he is a Fellow of the Linnaean Society and, in 1965, was elected an Associate of Honour of the Royal New Zealand Institute of Horticulture. Besides being the author of many articles published in the Royal Horticultural Society Journal and other publications and co-author of "The Propagation of Trees and Shrubs", Mr Knight has taken a leading part in horticultural and forestry education in Britain.

Mrs Knight will accompany her husband and we extend to them both a very warm welcome to our country, looking forward to their visit with keen enthusiasm.

**ITINERARY — SUBJECT TO ALTERATION****February**

- 17 Arrive by air at Auckland (a.m.)
- 18 In Auckland: travel to Hamilton (p.m.)
- 19 At Hamilton
- 20 Depart Hamilton by road for Rotorua
- 21 At Rotorua
- 22 Depart Rotorua by road for New Plymouth (a.m.)
- 23-28 At New Plymouth (including Pukeiti)
- 29 Depart New Plymouth by air for Palmerston North (a.m.)

**March**

- 1 Depart Palmerston North by air for Napier-Hastings (a.m.)
- 3 Depart Napier by air for Wellington (a.m.)
- 3-7 At Annual Conferences of N.Z. Institute of Park Administration and Royal N.Z. Institute of Horticulture, in Wellington
- 8 Depart Wellington by air for Invercargill (a.m.)
- 9 At Invercargill and Gore
- 10 Depart Invercargill by road for Dunedin (a.m.)
- 11 At Dunedin
- 12 Depart Dunedin by road for Timaru (visiting Oamaru and Waimate) (a.m.)
- 13 Depart Timaru by road for Christchurch (visiting Ashburton) (a.m.)
- 14-15 At Christchurch
- 16 Depart Christchurch by air for Nelson (a.m.)
- 17 At Nelson
- 18 Depart Nelson by air for Auckland (a.m.)
- 19 Depart Auckland by air (p.m.) for return to England

**PLANT RAISERS' AWARD**

The Dominion Council has made this award to Mr L. E. Jury, New Plymouth, for the Camellia 'Grand Jury'. Mr Jury's nomination has been fully endorsed and recommended by the New Zealand Camellia Society. Mr Jury is being invited to the Dominion Conference for the presentation of the Medallion.

**UTILITY — PLUS BEAUTY**

BY RENÉE OTTAWAY

What could possibly be more unromantic than sewage waste? The very words probably conjure up visions of revolting sights and smells; the last place, you would think, to find beauty would be a sewage treatment plant. But I assure you, such is *not* the case at the Auckland Purification Works.

Situated at Mangere, on the upper reaches of the Manukau Harbour, they are subject to constant, cold, heavy winds which would normally discourage the most optimistic gardener. But Mr G. Nicholls, a well-known Auckland Horticulturist, is not a man to give in easily, and the gardens surrounding the Treatment buildings are certainly a tribute to his determination and ingenuity.

The borders are planned in alcoves of wind-resistant shrubs such as the yellow-green *Coprosma repens* and sturdy N.Z. Flax, which shelter beds of cinerarias, polyanthus, primulas and lilies.

Sun-loving proteas, leucospermum and ericas flourish in the warmth reflected from the large brick sludge digesters and clumps of ink-blue Professor Blau irises relieve the more predominant yellows.

On dry brick walls behind the offices and laboratory which give shelter from the prevailing wind, are grevilleas, felicias, adenandras and many other shrubs, making a most attractive setting for an essential City amenity.

Further on a grove of flowering peaches flaunted their light and dark pink blossoms. A number of kowhai trees have also been established and in future springs should glow richly against the background of bright green lawns, the darker green of pine-clad Puketutu Island and the blue harbour in the distance.

Sewage sludge has been found most beneficial for the growth of cannas, which last year grew to a phenomenal height in these gardens. It is probable that in the future it may be found possible to use this in conjunction with compost, in New Zealand, as is done in the U.S.A.

With vision and careful planning, what might have been a potential eyesore, has been transformed into a very pleasant garden oasis.



**THE COLOURFUL LEAVES OF SPRING**

DOUGLAS ELLIOTT

DURING the recent spring I've been taking note of the shrubs and trees that have brightly coloured new growth. Some are so colourful they are worth growing for this feature alone. In several others the colours are more subdued and only come second after some other feature.

Let's take a look at the really showy ones first.

Probably the most effective and also the most popular are the photinias. The name "photinia", by the way, is from a Greek word meaning "shining", and this must refer to the young leaves, which look as though they are varnished. The old leaves are comparatively dull.

The commonest form in New Zealand gardens is *Photinia glabra* 'Rubens', which was introduced from Japan about 1930.

You may already be growing this handsome and showy plant as a specimen or a hedge plant. It is a bushy evergreen with tough oval leaves about 3 inches long; the edges are finely serrated. The new leaves and stems are brilliant sealing-wax red.

In our garden here in New Plymouth they are at their best in October and early November. But little spurts of fresh colour come during the summer and autumn, especially if you trim the plant as you do when it is part of a hedge.

We have one old specimen that reached a height of nearly 10ft and looked like growing even taller until I cut it back hard.

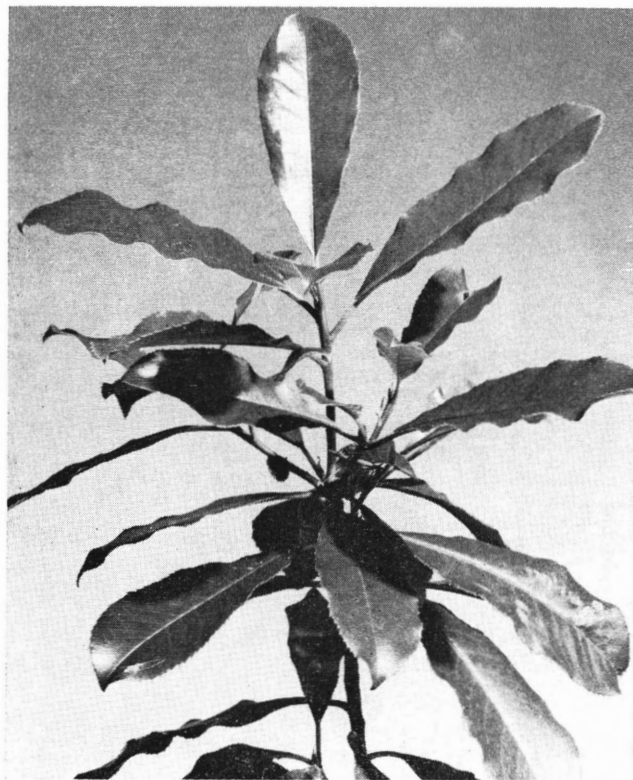
And that brings up a question: Just how hard can you prune these plants?

I've cut several mature specimens down to half their original height and they all grew with renewed vigour. I believe you could cut them down to within a few inches of the ground and they would burst into new growth. Why is this? They belong to that lively group of plants that send out new shoots from buds that look quite dead but are in fact deeply dormant.

So if your 'Rubens' looks ragged and exhausted, cut it back and give it a good dressing of blood and bone and a mulch of compost.

If you plan to use 'Rubens' as a hedge, don't plant it in a windy position. Wind burns the young tips and stunts the growth so badly that in some cases the plants die.

Much more hardy is the variety called *P. g.* 'Robusta'. R. E. Harrison, in his "Handbook of Trees and Shrubs," says it was raised in Hazlewood's Nurseries, Sydney. It is so different from 'Reubens' that



*Photinia serrulata*

(Photograph—Douglas Elliott)



*Photinia glabra* 'Robusta'

(Photograph—Douglas Elliott)

I question whether they belong to the same species. By the way, neither form is mentioned in any horticultural dictionary I have referred to but that doesn't stop them being wonderful plants.

'Robusta' has 6-inch leaves that look less stiff than those of 'Rubens' because they have slightly waved edges.

The colour is a deeper richer red than 'Rubens', very handsome but not so showy. It comes into growth earlier and some of its colour has faded by the time 'Rubens' is at its best. For this reason you can very well plant both in the one garden.

How high will 'Robusta' grow? One of the nursery catalogues says 12ft; so I suppose it will reach at least 15ft. My plants haven't achieved that yet, but one is heading that way. It is pushing up through a flowering cherry ('Shimidsu Sakura') and the red shoots make a pretty contrast with the soft pink cherry blossom.

A new variety, which appears to be a form of 'Robusta', has new leaves of a deeper red, more of a crimson. It is called 'Red Robin'.

I have seen a few specimens of another photinia, *P. serrulata*. This is more of a tree than the others and is capable of growing 30 to 40ft high. The leaves are 6 to 8 inches long and in their infancy are a rich coppery red. This tree also flowers freely—small cream flowers in flattish round clusters. The others flower less freely although an untrimmed 'Rubens' will often put on a good display.

Writing of *P. serrulata* in "Trees and Shrubs Hardy in the British Isles", the late W. J. Bean said, "This is undoubtedly one of the finest evergreens ever introduced."

That is high praise and I doubt if many New Zealand gardeners would agree with Bean because they have a wider choice of evergreens including many too tender for the British Isles. Still, there's no denying this photinia is a handsome tree.

Rather similar in effect to the photinias is *Pieris formosa* 'Forrestii'. This is a very fine form of the old-fashioned shrub you may know as andromeda or lily-of-the-valley bush. It produces its fiery red new growth in October along with the beautiful hanging panicles of white bell-shaped flowers. The leaves are the main feature and hold their wonderful colour for a few weeks. A selected form called 'Wakehurst' has young shoots of a more intense red.

Yet another form is even more spectacular. Here is what Harrison says about it in his handbook: "A newly-raised variety, called *Pieris forrestii* 'Chandlerii', bearing the name of the raiser, a Melbourne nurseryman, is evidently a chance seedling of *P. forrestii*. When we first saw the original plant in the Dandenong nursery in the spring of 1954 we thought that we had never seen a more beautiful foliage shrub. In this form, the young foliage, on unfolding, is a beautiful pinky salmon,



*Pieris formosa* 'Forrestii Wakehurst'

(Photograph—Douglas Elliott)



*Pieris formosa* 'Forrestii'

(Photograph—Douglas Elliott)

changing to a glossy cream, and finally white, before passing off to a deep green. As the new growths appear at slightly different stages, these varying shades from cream to red, set against the rich deep green of the previous season's matured foliage, are indeed a most impressive sight."

I've been told this beauty will soon be available in this country.

Some forms of the common *Pieris japonica* have exceptionally good colouring in the new growth; so if you plan to buy this plant, wait until it starts growing.

*Pieris* like the same conditions as rhododendrons—acid soil that is moist but well drained. Give them plenty of compost or leafmould. A little well-rotted cow manure in the bottom of the planting hole will give them a good start. Mulch with sawdust before the soil dries out in the spring.

*Euonymus pendulus* is an evergreen tree from the Himalayas. The young shoots are coppery-red and pendulous. It grows into a narrow tree about 15ft high.

Two yews are well worth growing for their young growth, which is brilliant gold. In fact it's so brilliant that at a distance you'd mistake it for flowers. It gradually turns green.

The plants are the golden English yew (*Taxus baccata* 'Aurea') and the golden Irish yew (*T.b.* 'Fastigiata Aurea').

They have such extremely different shapes that you could very well plant them in a group. The first, the golden English yew, is a thick round dumpling. The biggest I know is about 4ft high and 5 to 6ft across. The golden Irish yew forms a narrow column 10 to 12ft high.

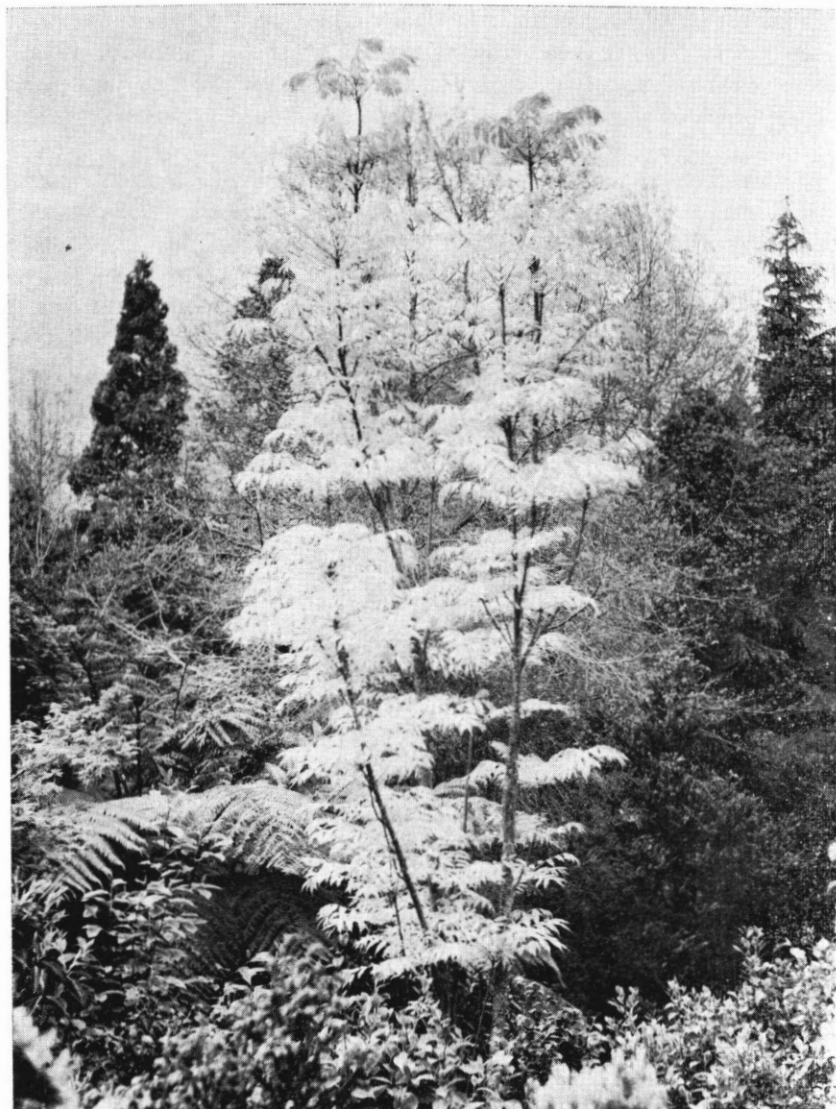
All these plants I've just described are evergreens. Now let's consider two that are deciduous.

The first is *Cedrela sinensis*. I saw it for the first time last October when I was in Auckland. Several nurseries had young plants for sale, and in Mr Jack Clark's garden at New Lynn as well as in the Eden Garden I saw specimens 10 to 15ft high.

It is really spectacular. The young leaves are a pretty soft pink fading to cream and finally turning green. It is very striking against a green background. The plants were all narrow like the Lombardy poplar but will probably spread with age. This tree is so beautiful that I can't understand why it hasn't been available long before this.

It is propagated from root cuttings and some of the young plants in pots had suckers. So nurserymen will soon be able to work up a big stock.

How high will it grow? According to Bean it grows 60 to 70ft high in the wild in China and more than half as high in British gardens.



*Cedrela sinensis* in the garden of Mr Jack Clark, New Lynn, Auckland.

(Photograph—Douglas Elliott)

There seems to be no reason why it shouldn't grow even higher here than in Britain.

*Cedrela* is related to the melia and has the same shaped leaf, pinnate, 1 to 2ft long, and composed of 5 to 12 pairs of leaflets. The flowers are whitish and fragrant in panicles about a foot long. Bean reports that the plant thrives in limey soil. He also says the Chinese cook and eat the young leaves and shoots.

The second deciduous plant is a dwarf Japanese maple, *Acer palmatum* 'Chishio'. The leaves are much smaller than normal and in spring are blood red. They change to green in the summer and back to red in the autumn. The plant is about 4ft high and is a natural bonsai.

Many of the purple varieties of Japanese maple are at their best in spring. All of them like good soil, preferably with a cool root run. Give them shelter to save the tender young leaves from being burnt by wind.

Several other plants have brightly coloured leaves and shoots in the spring but are grown for some other feature. Here are a few examples: many rhododendrons, some conifers, bottlebrush (callistemon), Queensland nut (macadamia), *Eugenia myrtifolia*, wistaria, poplars, and *Prunus campanulata*.



### M. J. BARNETT MEMORIAL LECTURE

The first M. J. Barnett Memorial Lecture will be held in the Horticultural Building, 151 Cambridge Terrace, Christchurch 1, on Friday, March 15th, 1968, commencing at 8 p.m. It will be given by Mr Frank Knight, Director of the Royal Horticultural Society Trial Grounds at Wisley. Mr Knight was a personal friend of the late Mr Barnett and it is most fitting that he should give the inaugural lecture.

The address will be one of a limited number of opportunities of hearing Mr Knight whose tour of New Zealand is sponsored by the Institute of Parks Administration assisted by other organisations.

A cordial invitation is extended to all members of the R.N.Z.I.H. to attend this lecture which will be the horticultural climax in Christchurch during Pan Pacific Festival Week. It is hoped that many will take this opportunity to visit Christchurch with its galaxy of horticultural treats and to hear this fine lecture.

## NOTES FROM THE CHRISTCHURCH BOTANIC GARDENS

L. J. METCALF N.D.H. (N.Z.)

Following one of the driest winters on record both August and September had above average rainfalls and provided a most welcome relief from the drought. However, October turned out to be a dry month with rainfall about 40% below average. At present our rainfall for the year stands at about 17 inches which is about 4 inches below average. Although everything looks quite green at present, the subsoil is rather dry and the moisture is only on the surface, so that we could be in for another dry summer. During the past three months temperatures have been about average or a little warmer.

There is no doubt that one of the outstanding features of the Botanic Gardens is the magnificent trees. There are few visitors who do not admire them and exclaim over their beauty. However there are many residents of Christchurch, and particularly those who work in the Gardens, who are inclined to take them very much for granted. This is no fault of theirs, it is just that through their close and regular association with the trees in the Gardens their sense of appreciation is dulled.

Similarly many of the trees in the Gardens grow finer each year and yet to those of us who work there this fact is apt to go largely unnoticed. Day in and day out, year in and year out we work among the plants in the Botanic Gardens and consequently do not notice the gradual changes which are taking place all around. It usually takes the exclamations of visitors to make us aware of the growth which has taken place over the years. Even old photographs of the Gardens do not always serve to illustrate the growth which has taken place in some of the trees.

The growth of some of the earlier trees planted in the Gardens during the early days must have been quite astonishing. In photographs taken about the turn of the century and in the early years of this century some of the more prominent trees in the Gardens appear to be little smaller than they are today. Some have filled out a little and others have lost a few branches due to storms and gales, but otherwise their appearance was much the same then as it is now.

The Lombardy Poplars for example, even in the early 1900s were very tall and towered head and shoulders above everything else. The groups of *Pinus pinaster* which are such a prominent feature in the Gardens, had also grown quite tall by then, and apart from the fact that they have lost all of their lower branches, they appear to be much the same as when photographed about 50 years ago. Some other trees in the Gardens which appear to have quickly attained large size are, the Big Tree (*Sequoiadendron giganteum*), the Grecian Fir (*Abies*



*cephalonica*), the Soledad Pine (*Pinus torreyana*), and the two cedars (*Cedrus atlantica* and *C. deodara*). However the truth of the matter is that while these trees may have made astonishing growth in their early years, they did not attain their maximum growth and, over the years, have continued growing, but more imperceptibly. They have changed, but not rapidly so.

Of more recent years the so-called Dawn Redwood (*Metasequoia glyptostroboides*) has been a first class example of how quickly some trees can attain a large size. The first one to be planted in the Gardens was planted in 1949 from a 6 inch pot and has never ceased to amaze people with its rapid growth. This particular specimen is on the lawn in front of Townend House and is now over 43 feet in height. Last year the growing tip became fasciated and it did not make the same growth. However, this year growth appears to be normal. For several years now the basal portion of the trunk has shown a pronounced thickening, and a characteristic fluting. This fluting has been noticed on trees of

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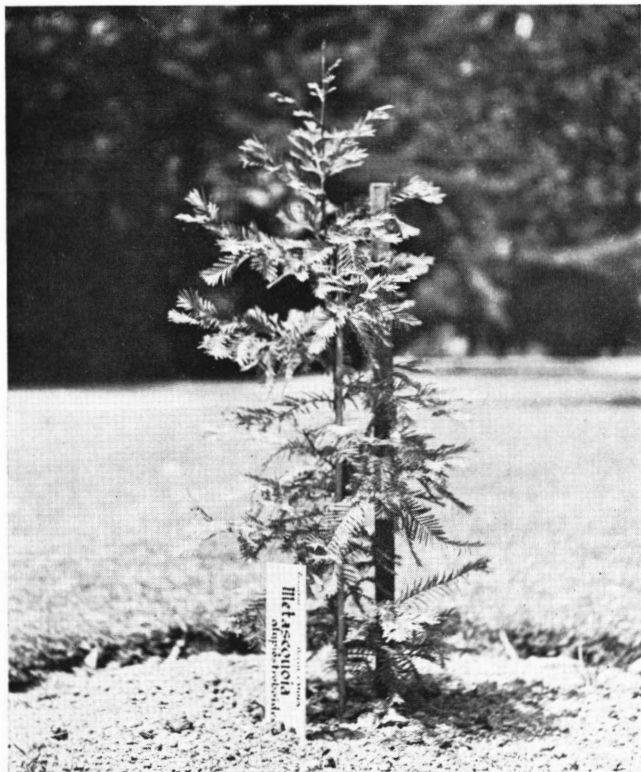
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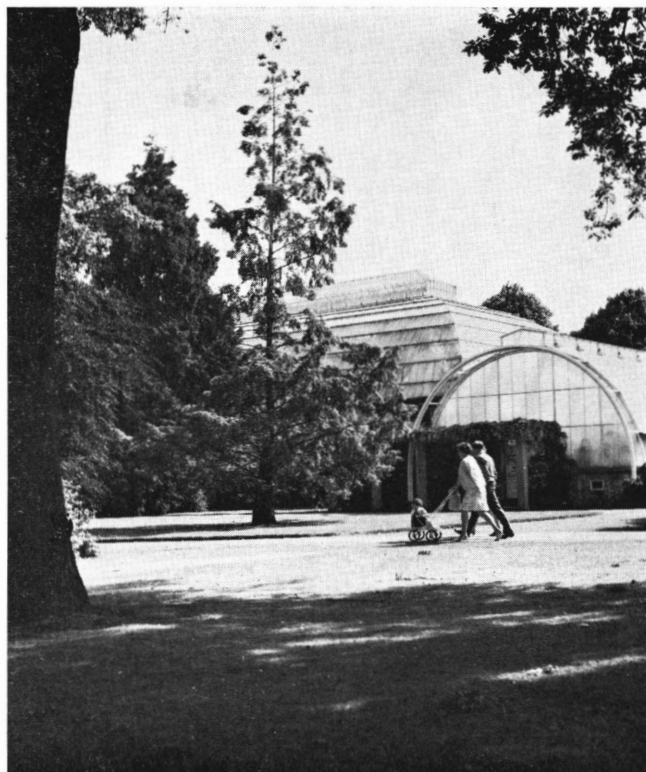
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*Metasequoia glyptostroboides*, the Dawn Redwood,  
Christchurch Botanic Gardens, December, 1949.



*The same tree in November, 1967.*

*Metasequoia* grown overseas and would appear to be a distinctive feature of the plant. One thing all plants of *Metasequoia* have in common is that their owners, or those in charge of them, are extremely proud of their particular specimens. However, no matter how fine one's own specimen happens to be, there seems to be always a better one.

The Chinese name for *Metasequoia* is shui-sa which means water fir or water spruce and alludes to its fondness for growing beside streams or in a wet soil. As one would expect it definitely grows best when given ample moisture. Of the two oldest specimens in the Gardens the first was planted in a sandy loam with ample moisture and this is the specimen already referred to in this article. The second was planted in 1952 in a thin sandy soil overlying a rather dry shingle. It receives little artificial water and while it is only about half the height of the first tree it has proved to be quite drought resistant and even after the driest of weather has never shown any signs of distress.

If some trees in the Gardens appear to have changed little over the years there are others which have grown almost beyond recognition. In different parts of the Gardens growth varies and the same species may do much better in one part than another. For example the Albert Edward Oak (a specimen of *Quercus robur*) which was planted in 1863 is a magnificent specimen over 110 feet in height with a spread of over 100 feet. And yet a specimen of the same species planted by the Duke of Edinburgh in 1869 is only about half the size. Both are growing in similar soil conditions but for some inexplicable reason one has grown so much better than the other.

Most of the trees growing along the southern side of the Archery Lawn are deciduous (e.g. *Fagus sylvatica*, *Tilia cordata*, *T. europea*, *Acer campestre*, etc.) and today are large specimens 80 to 90 feet in height. In a photograph taken about 50 years ago they appear as quite young trees and difficult to recognise as today's specimens. The trees on the Armstrong Lawn all appear to be well established and in the eighty-year-old class. Yet when looking at a photograph of the Armstrong Lawn taken about the beginning of the century it came as quite a surprise to see how few of those trees had been planted then. The same applies in other parts of the Gardens. Trees which look as though they were planted during the early days just do not appear in the photographs. However, no matter whether the trees have changed their appearance greatly over the years or not, they are all a part of one of the main features of the Christchurch Botanic Gardens.

**ISEL PARK**

The "Wisley" of New Zealand

S. J. SAMUELS, NELSON

*"I think that I shall never see  
A Poem lovely as a Tree."*

These lovely lines might well have been etched on the heart of the pioneer, Thos. Marsden (1818-1876), who arrived in New Zealand in 1842, to become within five years the most prominent landowner in the Nelson district. This was in the era when the early settlers devastated the luscious native bush in their frenzy to lay bare the good earth beneath.

It is a comforting thought that even in those far off days men of vision were planting trees, and that some of these self same trees stand fast today, living monuments to their initiative and forethought.

Although titles to his land were not granted until about 1850, Marsden had started his tree planting activities at Isel Park much earlier than that, and some of the very earliest of those he planted gaze down from lofty heights today. He grew his trees from imported seeds and must surely have had some most valuable contacts, for some of those he raised were of surprisingly recent discovery. For instance *Pinus torreyana*, the Soledad Pine, listed in Johnson's Gardeners' Dictionary as introduced into England in 1860, had been defying the elements in Isel Park for a full decade ere that. This species, indigenous to two small areas only, one being San Diego, California, and the other in the Canary Islands, in its native habitat grows from forty to sixty feet in height, yet the remarkable Nelson specimen was measured in 1959 as being ninety-five feet. At a point sixty-five feet aloft it branches into two leaders.

In Marsden's own descriptions he mentions his earliest plantings as English Oak, *Quercus pedunculata*, in 1845, of which there are still twelve specimens, the largest when measured in 1959 being 41.2 inches in Diameter at Breast Height (D.B.H.); English Beech, *Fagus sylvatica*, planted in 1845, the largest of three which, when measured in 1959 was 30.0 inches D.B.H.; and Hornbeam, *Carpinus betulus*. The largest of three when measured in 1959 was 32.2 inches D.B.H. These fine specimens were all planted about the same time and other plantings followed quickly.

The present day list of Thos. Marsden's patriarchs reads like an arborous "Who's Who". These great trees, standing a little aloof perhaps, are nodding acquaintances, far above the roof tops with their

equally illustrious neighbours, *Eucalyptus globulus*, the Tasmanian Blue-gum, *Quercus cerris*, the Turkey Oak, the largest of its species in New Zealand and *Sequoiadendron gigantea*, Wellingtonia or Big Tree, planted by Edmund Buxton in 1860 on nearby "Broadgreen", site of the historic two-storey cob-house and soon to become the venue for Nelson's new two-acre rose garden.

Dating as so many of them do from 1850 and earlier, they have special historical significance as without a doubt some were the earliest planted in the Colony and some are the largest standing. The creed of their proud owners during the century and a quarter, from those distant days when farms were first carved from our bush to the irresponsible present, might well have been, "Axemen, Spare that Tree".

How well that ideal has been fulfilled! The avenue of *Pinus radiata*, planted between 1850 and 1875, could have well been the earliest in New Zealand, as could be the smaller groups of *Pinus nigra* (*laricio*), *P. pinaster* & *P. torreyana*.

Others of historical value because they, too, may have been the first of their kind in New Zealand and planted in 1850 or earlier, are:—

*Abies alba* (European Silver Fir), 1959 height 102ft.

*Picea abies* (Norway Spruce), 1959 height 145ft.

*Pinus canariensis* (Canary Is. Pine), 1959 height 135ft (tallest of several).

*P. nigra* (Corsican Pine), 1959 height 121 feet.

*P. palustris* (Long Leaf Pine), 1959 height 117ft.

*P. pinaster* (maritime Pine), 1959 height 104ft 9in.

*P. torreyana* (Soledad Pine), 1962 D.B.H. 44.4in, 1959 height 95ft.

*P. wallichiana* (Bhutan Pine), 1959 height 102ft 5in.

Still other trees notable for their size, and planted between 1850 and 1875 are:—

*Acacia melanoxylon* (Australian Blackwood), 1960 D.B.H. 47in, height 50ft.

*Araucaria bidwillii* (Bunya Bunya Pine), 1962 D.B.H. 37.6in.

*Cedrus atlantica* (Atlantic Cedar), 1959 D.B.H. 34.8in.

*Ilex aquifolium* (English Holly), 1960 D.B.H. 30in, height 45ft, age 112 years.

*Liriodendron tulipifera*, 1959 height above 100ft.

*Morus nigra* (Black Mulberry), 1960 D.B.H. 22in, height 30ft, age 110 years.

*Pinus jeffreyi* (Jeffrey's Pine), 1959 D.B.H. 30.5in.

*P. radiata*, 1959 D.B.H. 69.4in, avenue of these.

*Populus nigra* (Lombardy Poplar), 1959 D.B.H. 62.9in.

*Pseudotsuga menziesii* (Douglas Fir), 1962 D.B.H. 46.5in.



*The giant Pinus radiata, Isel Park, Nelson.*

(Photograph—J. Samuels)

*Quercus coccinea* (scarlet Oak), 1959 D.B.H., 27.8in.

*Q. rubra* (Red Oak), 1959 D.B.H. 23.5in.

*Sequoiadendron gigantea* (Syn. *Sequoia gigantea*) (Wellingtonia, Big Tree), 1962 D.B.H. 71.9in.

*Sequoia sempervirens*, planted 1856, 1962 D.B.H. 74.7in.

These are the great trees of Isel Park, but helping to spread the leafy canopy high above the woodland garden area are many more, only slightly less venerable. Their numbers are legion.

James Wilfred Marsden (1844-1926), son of Thos. Marsden, being tree-minded also, in his turn also planted still more trees while he carried on the, by that time famous, estate. Father and son were laid to rest in the small graveyard that surrounds the picturesque stone church given to the Diocese by Thos. Marsden that stands wakeful watch over the entrance to the woodland they created.

In 1938 the house and woodland area were purchased by Mr A. L. Nicholls who, with his tree loving family, preserved the trees and prevented any being felled during their tenure. Later the Waimea County



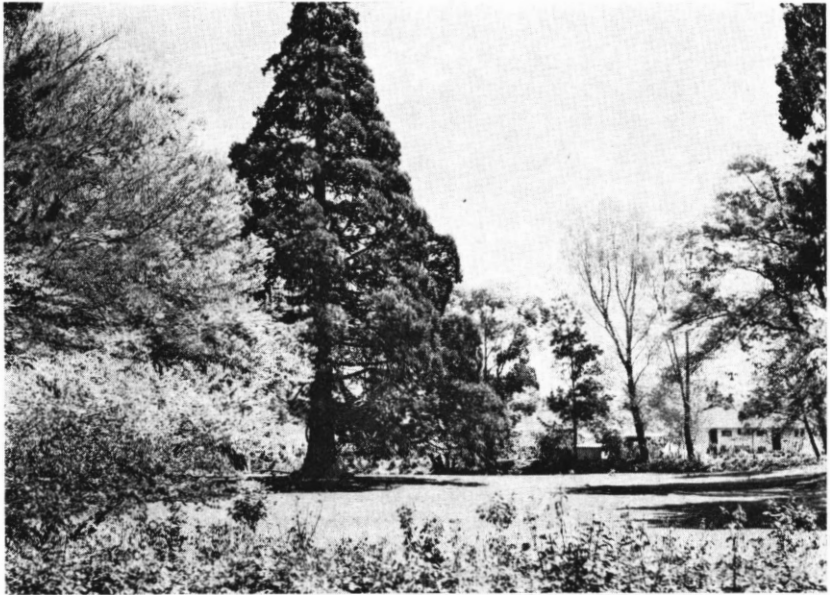
*The Marsden Homestead, Isel Park, Nelson.*

Council with commendable foresight purchased the woodland area as a public reserve for the citizens of Stoke. The next change of ownership was in 1958 when, through boundary changes, the area was absorbed into the City of Nelson. Two years later this new City park with its fifteen acres of gardens and woodlands was enriched by the acquisition of the fine old house built by Thos. Marsden, aided by a stone mason who squared the stones from the nearby creek before their use.

Since the City became Custodian Isel Park has under the skilled supervision of Mr D. H. Leigh, Superintendent of Parks and Reserves, developed into one of the finest woodland gardens in the land. With a skilful blending of the new into the old the giant trees, with a century and more of years behind them, slumber above a delightful forest floor whose colour patterns are as ever-changing as the fleeting seasons.

Inspired perhaps by Mr Leigh's visit to the famous Keukenhof Gardens in Holland, a sea of blue forget-me-nots ripples across a tree-studded floor. About twenty thousand polyantha primroses raised from seed imported from California and Japan run riot over a further half acre or so, while nodding daffodils, crocuses, wood-hyacinths, and other harbingers of spring abound in the vast leafy amphitheatre.

Naturalised plantings on the woodland floor include a large plot of



*Sequoia gigantea* dominates the view from the Marsden Homestead, Isel Park.

the big lily, *Cardiocrinum giganteum* vying with a tremendous assortment of trees and shrubs, both dwarf and tall, included for flower and coloured foliage. Hundreds of Kurume and evergreen azaleas have been used with telling effect in creating this woodland masterpiece, as have camellias, magnolias and rhododendrons which overflow into the grassy glades, edged with herbaceous borders. In the border gardens dwarf conifers give contrast to the height of the trees looking down upon them. Gay annuals abound in their thousands and the plantings of roses and irises in massed beds are substantial. The collection of *Lilium auratum* is grown superbly, as are so many hundreds of other shrubs and bushes. The massed plantings of an assortment of forsythias in Isel give substance to a subtle local cliché, "Everything under the Sun in Nelson".

Although the size of some of the Rhododendrons proclaim their more ancient tendency these colourful shrubs have been increasingly planted since 1960 and the collection now totals about five hundred bushes covering an assortment of two hundred varieties in a wide range of colours.

Some of the more notable of the Rhododendrons, with four star



rating in both England and America, with the awards won by them are:—*Rhododendron augustinii*, Lavender, FCC & AM 1926; *R. barclayi* 'Robert Fox', Blood red, AM 1921; *R. campylocarpum*, Yellow and white, FCC 1892; *R. elliottii*, Red, AM 1934, FCC 1937; *R. 'Elizabeth'*, Deep Red, FCC 1943; *R. 'Lady Chamberlain'*, Orange, FCC 1931; *R. leucaspis*, White, AM 1922, FCC 1944; *R. lindleyi*, White, AM 1935, FCC 1937; *R. loderi*, 'King George', Blush white; *R. macabeanum*, Ivory White; *R. 'Matador'*, Scarlet AM 1945, FCC 1946; *R. 'May Day'*, Scarlet, AM 1932; *R. moupinense*, Pink, AM 1937; *R. 'Mrs Furnival'*, Pink, AM 1933, FCC 1948; *R. nuttallii*, Pale Yellow, FCC 1864, AM 1936; *R. 'Purple Splendour'*, Purple, AM 1931.

This then is Isel Park, Nelson, a woodland garden in the making. Is it to be wondered at that it is already becoming known as the "Wisley" of New Zealand.

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### HORTICULTURIST FOR FIJI

We understand that a very interesting assignment in Fiji will become available next year under Volunteer Service Abroad. Mr E. L. Hardy, Principal of Ratu Kadavulevu School Lodonu, Fiji, has written as follows.

"Five of us, including myself, are New Zealanders. The school has 650 acres, five tractors, 20 farm staff, a large gardening area, 300 Friesians and so on but, as with all the Islands, is seriously short of good practical men. We would like a recently retired farmer or horticulturist and his wife who would be prepared to live with us for a few months, or up to two years, and rub off his practical experience on to our teachers, instructors, labourers and pupils. The school is geared to do good work with Fijian youth, but men with practical experience and adaptability are lacking in Fiji. If you were prepared to publicise this need among your members a suitable volunteer may be found.

"Mr Skipper is the New Zealand supervisor of Volunteer Service Abroad and has visited the school. We have a suitable clean and central cottage."

Anyone interested in making further enquiries about this position should write to the Dominion Secretary, R.N.Z.I.H., Box 450, Wellington.

## DISTRICT COUNCIL REPORTS

## NORTH TARANAKI

*AUGUST*—The talk by one of the junior members was ably delivered by Mr John Walker who spoke on the Cyclamen. He said "The cultivation of this very beautiful plant with its attractive flowers and interesting dark green foliage is very simple and interesting too. Sow the seed in January or February in seed trays, planting the seeds about  $1\frac{1}{2}$  inches apart. They could be sown more thickly and pricked out but it is preferable to sow the seeds individually. Seeds are usually sown in John Innes' potting mixture and seed compost although Black Magic with some sand added to prevent drying out seems to give better results. As the germination period can be up to a month or more a lot of patience and regular watering are necessary. Snails and thrip like the very young leaves and steps must be taken to protect the plants. In early March corms about the size of a sixpence are forming and at this stage they should be potted up in John Innes' potting mixture in peat pots and grown on in a shed to keep rain and weather off them but with plenty of light. By about September they are large enough to put in five or six inch pots. Clay or plastic pots are equally suitable. To be grown successfully outside they need to have shade. A good place is under hessian and against a brick wall which retains the heat of the sun. They must be watered daily during the summer. Pick off the three or four early buds and wait for the flush of buds to come up all in one go so that you have a nice coverage. Some inorganic fertiliser applied fortnightly gives good results. If cyclamen are grown for sale it is important to tell customers how to look after them. Indoors they should be placed near a window but out of direct sunlight. To water them fill the pot up but remove surplus water from the tray or the plant will become saturated causing a definite yellowing of the leaves. Larger corms should be planted level with the soil.;" a very good talk ably delivered.

Specimens brought by members were commented on by Mr Tom French and Mr Philip Allen. One small plant, a golden *Pinus radiata* was said to be extremely rare. The original tree had been found on the outskirts of Timaru by Mr Ken Burns who grew some seed most of which grew as ordinary pines but a few came true. Seeds which were later sent to California, in U.S.A., produced some golden pines, one of which is now about five feet tall. This plant seems to prefer a rather shady situation. Two differing plants of *Thryptomene calycina* were probably seedlings. One showed a bushy habit of growth while the other was tall and slender. *Aucuba japonica* 'Crotonoides' was recommended as a good shrub for a shady spot in the garden but being a dioecious plant both male and female should be planted to ensure a good crop of berries. *Rhododendron chrysomanicum* was one of the outstanding yellows and very early flowering. *Boronia megastigma* var. 'Burgundy', one of the red-flowered forms of the brown boronia, was very lovely and a big improvement on the ordinary boronia. There were many other specimens too numerous to mention but these were the most interesting.

The guest speaker for the evening, Mr A. D. Jellyman, N.D.H., Assistant Director Parks and Reserves, New Plymouth, took for his subject, "Wild Flowers Abroad and at Home and their Appreciation." He began by saying that the clearing and bringing into production of many acres of land was, of course, a good thing and added to the wealth of the country. However, one sad feature,

of which we were not always aware, was that some plants were rapidly disappearing. For instance in the bog-land areas around the Waikato were myriads of tiny, beautiful plants which, with the draining of these areas, were rapidly disappearing. Mr Jellyman then went on to discuss and show slides of the wild flowers of Britain and Switzerland together with some native plants of New Zealand, especially those found growing overseas.

In his appeal to those present to help the young people to appreciate their environment and, in particular, the native plants of New Zealand, Mr Jellyman referred to the tendency today in the primary schools to teach elementary physics rather than nature study. He regarded this as regrettable and in order to overcome the lack suggested the establishment in the Parks and in other suitable places of 'Nature Trails' where classes could be taken to study plants, plant associations, animals and insects. Such Trails had been organised in U.S.A. for many years but because of large distances to travel only limited numbers of people could avail themselves of the opportunity. In Britain the City of Glasgow had established the first of these so-called 'Nature Trails'. Here at set points and by using question sheets previously prepared, a controlled exercise in investigating plant and animal associations was developed. Each stopping place on the trail treated some particular aspect of the work. This was a very interesting and thought-provoking address ably illustrated with coloured slides.

It seems to me that Mr Jellyman's idea has a lot to commend it and endless possibilities for development. This 'Nature Trail' system seems eminently suited to New Zealand conditions; and as the museums, through their Education Officers, provide facilities for the study of the past, so too, could the 'Nature Trail' idea with the cooperation of the educational authorities and the specialised staffs of the Parks and Reserves departments in the various areas provide for the study and appreciation of living things.

*SEPTEMBER*—Because the subject for the evening was orchids it was only natural that there should be a large display of orchids among the specimens. There were far too many for me to describe in detail in these notes but Mr Tom French and Mr George Fuller gave an interesting running commentary on these plants. The orchids were from many sources including private collections with some magnificent specimens from Pukekura Park including some from the Agnes Parker Memorial collection.

The guest speaker for the evening, Miss K. Alison of Auckland and President of the New Zealand Orchid Society, held the large audience enthralled with her descriptions of the proceedings and displays at the fifth World Orchid Conference at Longbeach, California, U.S.A., in April, 1966. Her description of her experiences as an associate judge in one of the classes, miniature cymbidiums at this show was fascinating.

The first show was held in St Louis, Missouri, in 1954, the second in Honolulu in 1957, while the third—the first truly world conference—was held in London in conjunction with the Chelsea Flower Show in 1960. Largely because of the display put on by the people of Malaysia at the London show, Singapore was chosen as the venue of the fourth conference in 1963.

At the Longbeach Conference in 1966 an architect was employed to design the lay-out for the 50,000 foot square display space. In the display no pots or containers were allowed to be seen—they had to be buried in moss, peat or soil. Overall a very good decorative effect was achieved. Entering high up over a ramp the visitor was greeted by a panoramic blaze of colour heightened by the skilful use of water in pond, stream, and waterfall effects. Great scoria

rocks were used to create banks and cliffs with even a leopard in a cave. It mattered not that the water was contained in black polythene or the rocks made of fibreglass. The illusion of space was there. One criticism offered by Miss Alison was that perhaps the decorative exhibits were given space at the expense of the show exhibits.

With regard to the quality of New Zealand orchids Miss Alison stated that although New Zealand did not have the quantity of first class orchids she had seen in the States the quality of orchids here was very high largely because of the importation of quality stock during recent years.

**OCTOBER**—As the guest speaker for this meeting was Mr A. Farnell, F.R.I.H. (N.Z.), the specimens presented for comment were natives. The most interesting were: *Senecio kirkii* although normally epiphytic and easily recognised by the rounded clumps of dazzling white flowers perched high up in a tall tree does, however, often grow on the ground in the Kauri forests. *Olearia cheesemani* covered in masses of white flowers, and featured in the floral arrangement the late flowering variety of the kowhai, *Sophora microphylla*.

The short talk given by a student was delivered by Miss Judith Cowan, who chose for her subject 'Acers'. She said, "For my subject tonight I have chosen Acers or maples which, as you all know, are ornamental trees grown for their foliage which attains attractive colouring in the Spring and Autumn. Most of the maples are natives of either Japan, China or North America. Most are deciduous in habit although there are a few evergreens. The range in size of maples is very great, going from small shrublike varieties to large specimen trees. Most varieties are reasonably hardy, preferring a cool, moist root run, and protection from strong winds is essential to prevent burning of the delicate foliage. Heavy frost can cause damage particularly to young plants of some species. The species can be grown from seed but propagation of the selected variety is by either budding in the summer or grafting in the early spring.

"Perhaps the most popular group of maples for the average home garden is the *Acer palmatum* group, most of the varieties being reasonably low growing. *Acer palmatum* 'Aureum', a beautiful lime in its spring foliage, turns a deep golden yellow before leaf fall in Autumn. It is one of the popular ones. *Acer palmatum* 'Atropurpureum', is possibly one of the most popular purple ones and grows about ten feet in height.

"Also in the *palmatum* range but much smaller and more delicate in habit of growth are the dissectum varieties so named because of the very finely divided foliage. *Acer palmatum* 'Dissectum Atropurpureum' forms a very handsome specimen, growing about five feet high and weeping right to the ground. There is also a green form of this too, and when planted together they form a very effective colour contrast. *Acer palmatum* 'Dissectum Ornatum Variegatum', rather more delicate than the other dissectums, has the foliage delicately marked with green and pink.

"Apart from the ornamental value of the leaves many of the Acers have coloured bark. *Acer palmatum* 'Seigan', for example, has red stems which show up most effectively in the winter when there are no leaves. Having these red stems it is very valuable for floral work and also makes a good 'Bonzai' specimen. There are many other species and varieties of maple that can be grown in the home garden and, in conclusion, I would like to say that for grace and beauty of form and shape the acers deserve a place in every garden."

The guest speaker for the evening, Mr A. Farnell, F.R.I.H. (N.Z.), in his own inimitable way immediately captured the attention of his audience and held

it right to the very last slide. He talked in some detail on some of the peculiar characteristics of our flora—the reason why plants grew where they did, why they behaved as they did, and the explanation of why eighty per cent of New Zealand flora is endemic. A truly wonderful evening.

### SOUTH TARANAKI

**MAY**—This year, the South Taranaki Branch of the R.N.Z.I.H. held the first of its circuit meetings in Hawera, when over 50 members gathered to hear a programme provided by the North Taranaki District Council.

First speaker was the garden writer and broadcaster, Mr Douglas Elliott of New Plymouth, who showed colour slides of his own garden—taken at various seasons of the year—with comments on the variety of plants and trees shown, and who later answered questions on their cultivation. Next, one of New Plymouth's horticultural students, Mr Philip Allen, discussed *Cotoneasters*, illustrating his points with specimens of different kinds and recommending gardeners to grow *cotoneasters* as standards. He was followed by Mr Geo. Huthnance, Nurseryman of New Plymouth, who talked on *Rhododendrons*, illustrating his points with colour transparencies.

Miss Iolanthe Small, of the staff of Pukekura Park, followed with a delightful and informative talk on her speciality, "Ferns", giving a deft-fingered demonstration of breaking up and replenishing fern pots and baskets. Finally a panel consisting of Mr Douglas Elliott and Mr Ian McDowell, this year's winner of the David Tannock Prize, answered written questions on a variety of subjects and later discussed specimens on the show bench with particular mention of the variety of shrubs displayed and special comment on a beautiful spray of *Lapageria rosea* and two boxes of fuchsia blooms.

A highlight of the evening was the presentation of the Certificate of Fellowship to Mr H. J. Berry, of Hawera. At 93, the oldest member of the Institute, he claims an active interest in horticulture extending over more than 70 years. This he underlined in his speech, mentioning that he is a foundation member of the Institute, of the Hawera Horticultural Society and of the Pukeiti *Rhododendron* Trust.

The award of Fellowship was also conferred upon Mr L. F. Belcher, of Rawhitiroa.

**JUNE**—The second South Taranaki circuit meeting was held at Manaia. A varied programme was presented, and a large number of specimens gave point to speakers' hints on plant cultivation.

Her contention that South African plants can be grown most successfully in a sandy soil in positions subject to windy conditions was proved by Mrs F. H. Symes, of Manutahi, with a large display of proteas and banksias in variety from her own garden. She was followed by Mr M. Borrie, of Manaia, with hints on the growing of mings or bonzais. Sounds of surprise or dismay greeted him as his audience watched tiny trees removed from their containers, shaken free of earth, and then having their roots ruthlessly trimmed by large scissors—only to be replanted and left to grow for another year, when the whole process would be repeated.

A specimen table presented an astonishing variety of material, and this was discussed by Mr T. H. Reader, of Hawera. *Viburnum*, *auralia*, *yucca* and *hibiscus* in flower, *leucospermum*, *nerines*, *papyrus*, roses, *aucuba*, *cotinus*,

capsicum and many others gave a hint of the variety to be found in members' gardens. A box of camellia blooms displayed by Mrs Gamlin, Snr., showed that Spring was not far away but just round the corner.

The chief speaker for the evening was the Assistant Superintendent of Parks & Reserves at New Plymouth, Mr A. D. Jellyman, N.D.H. Illustrating his points with delightful colour transparencies, the speaker made special mention of the Royal Parks of London, Regent's Park, St. James's Park with its pelicans and soap-box orators; Kensington Park with its Art Gallery; Battersea Park with its sculpture and its wonderful playground for children; Hampton Court Park with its Black Hamburg grape planted in 1768 and still growing; Bushy Park with its avenue of chestnuts; Windsor Great Park and numerous others. Descriptions of plants and lovely old buildings and snippets of history spiced a very delightful talk.

*JULY*—At Mangatoki, about 30 members were welcomed by Mrs N. V. Anderson, A.H.R.I.H.

A demonstration of floral art was given by Mrs R. Clark, of Mahoe, who also gave hints on the use of containers, accessories and drapes in floral work. Demonstrating her points by making five lovely arrangements, Mrs Clark also gave many interesting details of a judges' forum she had recently attended.

A bench of specimens was named and described by Mr T. H. Reader, of Hawera, who commented on the varieties of grevillias, ericas, veronicas, variegated holly, witch hazel, banksias, thryptomenes and other varieties shown.

Coloured slides and a chatty talk of an interesting holiday in Australia were given by Mrs J. Maru, of Eltham.

*Rose Pruning Demonstration.* On 19th July about 200 interested spectators gathered in King Edward Park, Hawera, to attend either the morning or the afternoon session of a rose pruning demonstration arranged by the Institute in collaboration with the Central Taranaki Rose Society and the Hawera Horticultural Society. This was a very interesting and instructive field day, demonstrations being in the capable hands of Messrs D. Butcher, H. Taylor, D. Burton, N. McLeod and T. A. Snowdon.

*AUGUST*—At Opunake's circuit meeting, in spite of very inclement weather, about 30 members were welcomed by Mrs J. S. Hickey. Here also was found a well-stocked bench of specimens from members' gardens—thryptomene, Iceland poppies, kniphofia, narcissi, lachenalia, hebes, alder and many other specimens being discussed by Mr T. H. Reader, of Hawera.

The first speaker was Mr H. T. Beveridge, of Hawera, who spoke on rock gardens, illustrating his talk with colour transparencies of rock gardens in Canada and in New Zealand. Interesting and helpful hints were given on varieties of rocks, uses for walls and bridges, the construction of small waterfalls, the use of stone to give a feeling of tranquility and stability. Also described were rock and water plants and fish.

The last part of the evening was devoted to a travel talk of a six weeks' trip abroad by Mrs W. Allen, of Pihama, who illustrated some interesting observations by showing colour slides of Tahiti, Hollywood, Honolulu, Santiago, Mexico, the Grand Canyon of Arizona, the Yosemite Valley, Las Vegas, Seattle, Vancouver and—not least—her visit to Expo '67.

*SEPTEMBER* — Horticultural interests were well represented at Patea when about 40 members gathered for a circuit meeting.

The first speaker was Mr Parnell, of Wanganui, who gave advice on the

growing of Polyanthus, contrasting the American and Japanese types. Demonstrating his points by showing flowering plants of both varieties, the speaker gave hints on sowing, transplanting, spraying and manuring—and later presented his plants for disposal on the sales table.

A second Wanganui speaker was Mr I. Guild, formerly of Otakeho, whose subject was the growing of Liliiums either from seed (perhaps specially hybridized by a knowledgeable grower) or by means of scales from which the tiny bulbils soon appeared. So many people thought the growing of lilies was a difficult process to be undertaken only by experts, but the lily, particularly the auratum, was surprisingly easily grown. "If you can grow onions, you can grow lilies," said Mr Guild, who demonstrated his points by showing coloured slides.

Both speakers readily answered questions from the audience and also identified plants.

A well stocked bench of specimens from members' gardens drew much congratulatory comment for its wealth of flowering shrubs. Camellias, waratahs, magnolias, azaleas, rhododendrons, forsythias and other flowering shrubs contrasted with the dainty small flowers of erythronium and auricula.

The second part of the evening was devoted to talk by Mr R. D. Chamberlain on a visit he had made to Australia earlier this year with a party of rosarians whose visit to the Rose Convention at Melbourne was the focal point of the trip. Wider interests claimed Mr Chamberlain's attention, however, as was evidenced by colour transparencies of Sydney Harbour; King's Cross and the Royal Show with its outstanding live stock; the trees of Canberra; the lakes of the Snowy River Scheme on the way to the summit of Mt. Kosciusko; Mildura and its paddle steamers; Adelaide with its winter gardens and zoo.

*OCTOBER — Labour Day Week-end.* Twenty South Taranaki members of the Institute left Hawera to travel to Te Puke in the Bay of Plenty. Our way led us through Rotorua to Te Puke where we were met by Mr Ivory, late of Manaia, who was our guide and mentor throughout our stay. In the evening we were entertained at the Methodist Church Hall where several orchardists told of their work in the sub-tropical conditions of the Bay of Plenty. As a return courtesy, slides of beauty spots and features in and around Hawera were shown.

Sunday morning saw us visiting Mr and Mrs Nettleton in their orchard home, and here we were shown extensive plantings of Chinese gooseberries, citrus, cucumbers, tree tomatoes and water melons. A highlight was our visit to the packing sheds with a fruit sorting machine in operation grading tree tomatoes for size into eight grades. The fruits were conveyed forward to spring arms which tossed the individual fruits upwards and forward to be caught on canvas ledges and rolled downwards to their respective bins—the underlying principal being that the lighter the fruit, the higher it was shot into the air to reach its appropriate canvas ledge. Many fruits, and even eggs, can be efficiently and successfully graded. Later, we visited the site of the rice growing experiments of Mr Vercoe. This holds promise of playing an important part in the crop diversification policy of the country.

In the afternoon, we first visited the garden of Mr and Mrs Aldrich. Our hostess is the President of the local Rose Society, and her roses made an excellent display. Next came a visit to the town house of Mr and Mrs Hintz, where, on a corner section, a wonderful garden showed the result of much careful planning.

### WAIKATO

During the latter part of last year a party of nurserymen went to Australia on a tour arranged by the N.Z. Horticultural Trades' Association. One of the tourists was Mr F. S. Mason, of Te Awamutu, and in August the District Council was entertained to a well illustrated talk dealing mainly with horticulture in the Commonwealth. From Mr Mason's observations it is obvious that many more representatives of the vast flora of Australia could be grown here, particularly those coming from areas more similar climatically to ours. When one considers how well many Australian plants grow here the scope for new introductions becomes very obvious and desirable.

At the September meeting the recently formed Bonsai Society of New Zealand staged a display of plants as a background to a most interesting talk and demonstration by Mr Robert Langholm, of Auckland. From the interest shown by the audience the art of Bonsai must have gained many more enthusiastic followers. Mr Langholm outlined the history of the art in Japan and then showed how it can be adapted to New Zealand, using a very wide range of plants to illustrate his remarks. The need for careful potting and the choice of a container in keeping with the plant was emphasized.

Progress continues to be made with the Gudex Memorial Park in the Mangakawa Scenic Reserve near Cambridge. In late September a party of volunteers planted about three hundred trees and shrubs which had been grown on by a Hamilton nurseryman during the past year. The choice has been made of plants that are likely to grow well there and blend in with the surrounding area. When the trees and shrubs are more mature and all the envisaged improvements carried out this Park should prove a valuable horticultural asset to the district as well as a permanent memorial to the late Mr M. C. Gudex.

The two plants dealt with at the last two meetings which have received the Award of Garden Excellence were *Prunus campanulata* and *Sophora microphylla*. So far as is possible plants are being dealt with during their flowering period or in the case of foliage plants when they are most attractive. When size permits a whole plant is used to illustrate a five minute talk, and where several forms exist, examples are shown.

In the Waikato during the past winter many new gardens have been planted as new houses are completed. It is encouraging to observe that not only is attention being paid to design but a good range of plant material is being used. Unfortunately many gardeners fail to realise just how large some trees and shrubs will grow and many owners of sections of a fifth of an acre or so are going one day to find that an Atlantic cedar is a little large to have! Generally, however, good taste is shown by the selection of plants, and local nurserymen say that there is interest shown in the less common plants. There is no doubt that a far greater range of plants can be grown in this area, but that more are actually being grown is shown by the presence of unusual plants on the Identification Table at the meetings.

### WHANGAREI

*JUNE* — At a well attended meeting members were rewarded with a delightful talk on her recent travels by Mrs Katie Reynolds, F.R.I.H. (N.Z.). On arrival in England Mrs Reynolds was immediately impressed by the change in atmosphere, by the magnificent trees in parks and streets. Even in London there



seemed to be no difficulties about growing trees in streets. During her visit some time was spent in Norfolk, where relatives took her to see many famous places. Here she enjoyed almost completely fine weather. At Sandringham she saw the biggest copper beeches in England, as well as the great Atlantic cedar.

At Blickling Hall, famous as a residence of Anne Boleyn, she saw the remarkable yew hedges, 25ft high and 30ft wide, also a maze and topiary gardens.

The White Horse of Uffington, carved out of a chalk hillside, was a dominant feature, and in the same area grew masses of *Euphrasias* (eyebrights) of which we have several species in New Zealand. Here, too, were pink broom and miniature gorse, with forests of silver birches and Scots pine.

A visit to the Royal Horticultural Society's Autumn Show was another highlight of her English tour. Roses were displayed in spectacular manner and of almost unbelievable perfection. King's Ransom, Blue Moon, Orange Sensation and Fragrant Cloud were especially prominent. Visits were paid to the Royal Horticultural Society's gardens at Wisley and to Kew, where rock plants were especially enjoyed. At Kew Mrs Reynolds was invited to join a party of botanists on a visit to the New Forest to study the bog plants. There she saw masses of heather in shades of pink and red, as well as gentians and the small fragrant shrub *Myrica gale*, from which oil is extracted and used to flavour Drambuie.

Chester, with its old Roman Wall still standing, was full of attractions in its history, in the architectural beauty of its old buildings, as well as for the beauty of parks and gardens. A visit was also paid to the village of Pickmere, whence Mrs Reynolds' family came. On the way back to New Zealand she spent a few days in Paris, and here again was impressed with the trees in streets as well as in parks. She also commented on the great cleanliness of the streets, as compared with those of London which were dirty and littered. In Greece Mrs Reynolds was disappointed not to see many wild flowers, but thought this due to the season (autumn).

Throughout the lecture we saw, besides the special items mentioned, a great variety of plants and gardens in colour, which will provide ideas and incentives to members to improve their gardens and add to their gardening skills.

### QUESTION SESSION

*Citrus*: What is causing distortion and discolouration of leaves and twigs of grapefruit?

Answer: The tree is generally in poor condition, with lichen on branches and sooty mould on leaves, also verrucosis. Use Copper spray and white oil at fairly frequent intervals, better feeding with citrus manure, and attention to removing old fruiting wood in spring.

*Azalea*: Leaves are affected by leaf miner.

Answer: Spray with Lindane frequently during summer.

*Camellia*: Has sooty mould and is near a citrus similarly affected.

Answer: Use Copper spray.

*Apple Shoots*: Defoliated.

Answer: A small insect attacks terminal leaves. It overwinters in grass and weeds beneath the trees. Keep the ground clean and spray with Sevin.

*Kumaras*: Why do they wither after being dug and stored carefully?

Answer: It is likely that too early digging is the cause. They should not be dug before April.

## DISPLAY TABLE

Camellias were numerous, ranging between the old and the new, from the miniature 2 in. blooms to those of 6 ins. or more. Tinsie, a miniature, is fairly new in New Zealand and is decidedly different, with red petals and white centre of petaloids. Judge W. C. Ragland is a marvellous cerise red semi-double of great size. The colour is most impressive. Kramer's Supreme is another good flower, and a bloom of Francis Wiot which has naturally variegated foliage, was of red anemone form. Many of the older ones were also shown, and of these C. M. Wilson, a large, light pink anemone form was the most attractive. *Chimonanthus fragrans* was shown by Mrs McInnes, with both flowers and fruit. The newer *Thryptomene backeacea*, a useful and pleasing Australian, of deeper pink than *T. saxicola rosea*, is a welcome winter-flowering shrub, as also is *Pieris japonica* from Japan. Splendid specimens of *Heterocentron roseum*, a tender perennial from Mexico, were shown. This is a popular plant in Northland, easily grown in slightly sheltered positions. Not often seen are the brightly variegated leaves of *Deeringia* from the East Indies and Australia. This is a slender shrub, useful for a bank, of both upright and lax growth, with leaves of greatly varying size and degree of colouration, some being entirely cream coloured, and others green with cream edges. A very fine bloom of *Fuchsia* 'Judy Lynne' came from Mr Miller's garden, and from two of our orchid growers, two splendid examples of *Cypripedium*. From Mrs May a plant of *C. insigne* in full bloom and from Mr Waterhouse the hybrid *C.* 'Milo Superba'. Mr Waterhouse showed how, by hybridising, the size and shape of the blooms had been increased so that they became almost circular.



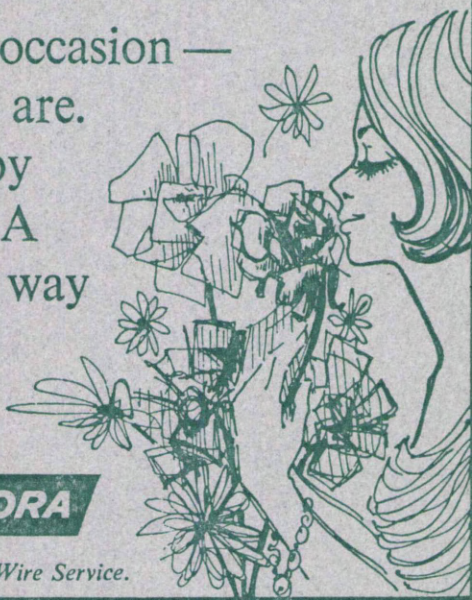
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