

Newsletter

For Friends of the Christchurch Botanic Gardens Inc.

No 25, Summer 1995

INSIDE

- 1 Friends Editorial
- 1 Jottings from the Curator
- 2 Coming Events
- 3 Past Events
- 3 Fundraising
- 3 Bits and Pieces
- 4 Feature Articles

Friends Editorial

Several weeks ago I was privileged to attend the Fourth Botanic Gardens Conservation Congress in Perth, along with Warwick Scadden, our botanic garden curator. This was the second congress I had been at, having been invited to the inaugural one at Las Palmas, in the Canary Islands in 1987.

For both of us this was a time of encouragement and optimism. It seemed that was one of those meetings where there was a gem to be picked from every paper and workshop - an idea, a practice or an attitude that one could take and apply back home in Christchurch. It was encouraging to me to note that people were no longer talking about whether conservation was relevant to botanic gardens. They were talking about how it is being done now and how we could even do it better! It was a time of optimism because people were encouraged and were seeing things really happening.

Two of the words which seemed to come out were "people" and "partnerships". Gardens throughout the world are realising that they have a constituency - a community of people - to whom

they have to relate. If they are not relevant then they will die. They are discovering that botanic gardens really are "windows into nature" where people can appreciate plants, learn about them, and be challenged to help preserve the world of nature.

Some of this has been brought about by the need for botanic gardens to attract people through their gates, especially where the public are charged for entry. We must ensure that funding for our gardens is maintained at a level consistent with their value to the city and region as one of its top attractions to residents and visitors alike. Equally we must know what people want and to this end it is commendable that Friends have been involved in Maria Adamski's survey of visitors to the botanic gardens. On behalf of the executive I want to thank all of you who have been involved in this valuable survey and who will be involved in further surveys in the coming months.

There is much about which we can be encouraged. Let's keep it that way.

David R. Given

Jottings from the Curator

Saturday 7 October was the day of undoubtedly the best Botanic Garden plant sale held so far. The weather was ideal, the standard of plants very good and it was well supported by the public.

I wish to thank most sincerely all Friends and Staff who participated in this work as there were many hours put into the preparation of the plants, advertising, as well as the setting up and selling of plants on the day. I was aware of an excellent spirit among all those involved and I commend each one for that.

Apprentice Training

Training apprentices in all industries has undergone radical changes during the past year.

Apprentices at the Botanic Gardens undertake an apprenticeship contract in Horticulture and Amenity Turf Management and now under the New Zealand Horticultural Industry Training Organisation a new system of training is being implemented. Apprentices will be doing 'on job' and 'off job' training for units of learning in a much more structured way utilising prescribed manuals. Assessment on the job is done at the completion of the unit of learning and this is monitored for national consistency of standards. The preparatory work necessary has been extensive and during the next months we will be dealing with the 'on job' training packages.

FCBG

PO Box 237
Christchurch

Co-operative Marketing

With the appointment of new Managers at the McDougall Art Gallery and Christchurch Arts Centre, the opportunity has been taken to look afresh at the opportunities of working more closely with these neighbours of the Botanic Gardens and Canterbury Museum.

It is very common for visitors to the Botanic Gardens to also incorporate a visit to one or other of these adjacent institutions. We all have a number of common goals in customer service and joint promotions, lobbying for city funding etc. and our working together on these issues will increase in future.

Carl Linnaeus (1707-1778)

February 1996 will see the Botanic Gardens as the venue for a dramatic production on the life and work of this noted botanist.

Produced by the Christchurch Drama Centre, during twelve evenings from the 15th February 1996 this will be an exciting use of the gardens in honour of such a special figure within the plant world.

Warwick Scadden

Coming Events

In Brief...

1995/96

Guided Walks

18 November, Saturday	6 February, Tuesday
5 December, Tuesday	15 February, Thursday
16 December, Saturday	20 February, Tuesday
20 January, Saturday	22 February, Thursday
	24 February, Saturday

Other Events

- 22 November, Wednesday - Talk by Roy Edwards
- 8 December, Friday - Social Function
- 27 January, Wednesday - Talk by Ursula McHardy
- February - Linnaeus production
- 20 March, Wednesday - Talk by Bob Gidlow

Guided Walks

The following walks all start from the Information Centre at 1:30pm and are conducted by Max Visch.

- 18 November: A visit to the Murray Ainsley and Woodland area to view interesting shrubs and trees.
- 16 December: Getting to know NZ trees and shrubs.
- 20 January: Historical walk.
- 24 February: Herbaceous Border. Guide to be announced.

The walks on Tuesday 5th December, Tuesday 6th February 1996 and Tuesday 5th March 1996 leave from the Information Centre at 9:00am. Note: there will not be a walk in January 1996. These walks are conducted by a member of the Botanic Gardens staff.

Guided Evening Walks

The 'Garden City Festival of Flowers' 14-15 February 1996. Evening walks will be held in conjunction with this event. The walks will be on Thursday 15th, Tuesday 20th and Thursday 22nd February. These walks will be guided. Meet at 7:00pm outside the Information Centre in the Gardens. Bring your family and friends.

Reminders about these events appear during the preceding week in the Christchurch Press "What's On" and the Christchurch Star "Around Town" columns.

Other Events

Wednesday 22 November 1995

7:30pm Botanic Gardens Information Centre

Talk by Roy Edwards on the Daisy Family (Asteraceae)
Sales table and supper.

Friday 8 December 1995

6:00pm Botanic Gardens Information Centre

Social function to celebrate the Friends' first 5 years. Council and other guests will attend.

6:15pm Cutting of the cake and speeches followed by light refreshments. Cost of \$8 includes first drink and finger food. RSVP by 1 December 1995 to Adrienne, phone 351-5915. Tickets are available at our 22 November meeting and from Information Centre. This replaces our previously advertised Barbeque on 8 December.

Help Please - please phone Adrienne if you are able to make our birthday cake (351-5915).

Wednesday 27 January 1996

7:30pm Botanic Gardens Information Centre

Ursula McHardy - on recent developments at the Palmengarten in Frankfurt. Ursula is a member of the Friends and frequent visitor to New Zealand. The Southern Hemisphere collection at the Palmengarten is one of the special features of that garden. Do not miss this evening. Ursula is an excellent speaker.

Wednesday 20 March 1996

Botanic Gardens Information Centre

Talk by Bob Gidlow on Sociology of Gardens/People Interactions.

Wednesday 22 November 1995

6:15pm Botanic Gardens Information Centre

Important meeting for Information Centre helpers. Enquiries to Jane English, phone 355-5289.

Fund Raising

Plant Sale

This year's 'Plant Sale' was again a great success. Well before the official closing time we had virtually sold out. As the perennial border in the Gardens was only lifted in parts - the number of plants for sale was not as great as in other years. Even so, Maria was able to supply us with many choice items. We also received a large supply of Day Lilies and other plants from the Water gardens and more perennials from Mona Vale.

Many Friends responded to our request for plants and gave generously from their own gardens. One member donated many boxes of herbs and vegetable plants. All these gifts were much appreciated and enabled us to offer a much wider variety of plants for sale.

I would like to thank all those Friends - including the 'Friend' from California - who gave so generously of their time and energies in the propagation of plants from seed, cuttings, division or the bagging up and labelling of plants; they were a cheerful lot to work with. I wish to thank those kind ladies who made sure we didn't die of thirst by always having a 'cuppa' of tea/coffee and a biscuit ready at hand. My thanks to you all for your tremendous support.

Max Visch

Akaroa Civic Trust

Homes, Gardens and Church Visits
Saturday 18 November 1995
Tickets \$10 from PO Box 43, Akaroa

Bits & Pieces

Raffle Results

Basket with plants and other goodies was won by Dorne Broughton.

Book 'Ultimate NZ Garden Book' edited by Geoff Bryant went to Nan Hay.

Congratulations to both of these winners.

Sale of Plants

Plants bought by members totalled \$409.10

Sales to members of public came to \$2,207.50

For Sale

One very good Paximat slide projector. Has had very little use. Retail value \$750-800. Comes with circular carousel and carrying case. Price \$450.00. Reply to Colin Neal, Treasurer, Friends of Christchurch Botanic Gardens. Ph 351-8676.

Past Events

Garden Visits

The Geraldine trip was cancelled due to rain. A day arranged by Bob Peers and Shirley Sinclair to Lake Coleridge was held on Saturday 5th November 1995. An account of this trip is on page 7.

"Linneaus - Prince of Flowers"

Friday 16th February - Saturday 2nd March 1996

Christchurch Botanic Gardens

8:00pm

This unique event on the Garden City Festival of Flowers calendar is a first for Christchurch and New Zealand.

A spectacular amalgamation of theatre, dance and music set amidst the lush surroundings of the Botanic Gardens, "Linneaus - Prince of Flowers" recounts the bizarre and fascinating story of the eighteenth century Swedish botanist largely responsible for naming the plants we treasure to this day.

The boundless talent of the Christchurch Drama Centre Performance Trust presents a major outdoor production never before experienced in the Southern Hemisphere, and one definitely not to be missed.

Tickets from Court Theatre booking office, phone 366-6992

Booking open Monday 8th January 1996.

Tickets \$20.00 — Concession \$17.00

Please Note: No performance Saturday 24th and Sunday 25th February.

Feature Articles

Trees of the Botanic Gardens The Katsura - *Cercidiphyllum japonicum*

There are several Katsura trees in the Gardens and the one most easily observed stands on the southern edge of the Central Lawn. The attractive foliage slightly raised on slender twigs and the symmetrical crown supported by the short trunk make this a most handsome tree. The roundish, heart-shaped leaves are arranged in opposite pairs along the shoots or arise singly from short woody spurs. Venation is prominent and of the palmate type. The flowers appear in early spring well before the leaves do - they are very small and are rarely noted by the casual observers. Yet they are usually produced in large numbers. However, as they are of interest to those botanists concerned with the study of the evolutionary relationships of plants I will give a brief outline of their features.

The flowers occur singly on short woody spurs or in the axils of the flowers on the long shoots. There are no petals and the flowers are of one sex, with the male and female flowers occurring on separate trees. The male flowers consist of a minute calyx within which there is a bundle of 15-20 stamens for producing the necessary pollen. The female flowers are made up of 2-6 free carpels each resembling a minute podlike structure and terminating in a long purple style. The tree on the Central lawn is a female and to produce viable seed would need to receive pollen from a male plant growing in the vicinity.

The Katsura belongs to the family Cercidiphyllaceae which consisting of a single genus *Cercidiphyllum* containing only 2 species *C. japonicum* and *C. magnificum* must surely be one of the smallest families of flowering plants. Both species are native to Japan - but *C. japonicum* also occurs in China where it is represented by the variety *C. j. sinense*.

Cercidiphyllum japonicum was first introduced into England in 1864 and the Chinese form not until 1910 when it was discovered in Central China by members of A.E. Wilson's expedition.

In spite of its rather delicate and elegant appearance the Katsura is a vigorous and fast growing tree. In Japan where it is an important timber tree it grows to a huge size - achieving a height of over 30 metres (100 feet) and a diameter of 2-3 or more metres. It is the biggest and tallest deciduous tree in this country. The Chinese variety is even taller - in past due to the Chinese trees developing single trunks - whereas the Katsura commonly branches into a number of secondary trunks close to the ground. Because of this a tree growing in an open situation may be almost as wide as it is tall.

The only information I have been able to find about the habitat of this remarkable tree comes from a Tour Report based on a trip made by members of the I.D.S. (International Dendrology

Society) in the Daisetsuzan National Park in Central Hokkaido in October 1992, and I quote —

"*Cercidiphyllum japonicum* put up a great show along the valley bottoms; occasional, but clearly visible in bright autumn colour, they were typically nestled at the base of a cliff, plunging their roots into deep and rich soil, finding the moistness they so desperately need. Only rarely would we find them higher up on the slope or closer to the riverbed with its gravel beds. Huge stumps from which several stems would sprout, indicated easy, rejuvenation from the base. Most trees were multistemmed and nowhere could I find the straight single bole which I know must exist in densely populated forests. *Cercidiphyllum* was one of the last trees in the valley to drop its leaves. It was covered with masses of deep clear gold leaves. Higher up the valley, all trees had settled in their winter nudity. We saw great trees surrounded by their fallen leaves but there was no trace of the peculiar fragrance ascribed sometimes to the fermenting leaf of *Cercidiphyllum*".

Others have also commented on this comparing it with the scent of freshly baked cakes, gingerbread or even burnt sugar. I have on a number of occasions tried to get a whiff of it but so far without success.

Botanically the Katsura is a most unusual tree. Fossil evidence indicates that the two species of *Cercidiphyllum* may be primitive relics - the sole survivors of a group of many species - that were once widely distributed in former geologic times. The status of the genus is not clear and this uncertainty stems largely from the interpretation of the female flower. The question being - do the 2-6 free carpels in a leaf axil form part of a single flower? Or does each carpel represent a very much reduced flower? In which case what we have in a leaf axil is a much condensed inflorescence rather than a single flower.

The occurrence of long shoots and short shoots (spurs), the lack of petals, flowers of one sex and free carpels is a combination of features not found in any other family of flowering plants. Although the family has been linked to the Magnoliaceae, present evidence suggests that the Cercidiphyllaceae are not closely related to any other group of plants.

In Japan the Katsura is an important timber tree, the wood is light, soft and fine grained making it eminently suitable for intricate mouldings, carvings and wood engravings. It is also much used in the making of furniture and interior fittings for houses and other buildings.

The Katsura deserves to become better known. It is not difficult to grow, provided it is given adequate protection from hot sun and dry winds, a deep soil rich in organic matter, no lime and plenty of moisture during the growing season. It is very hardy but gets occasionally nipped by a late spring frost. The tree is ideal for a woodland situation.

Max Visch

Botanic Gardens River Bank Retention

During the 1850's, the European colonists experienced a different view of the Avon River as we know it today. The vegetation surrounding the Gardens was largely short tussock grassland. The river was densely clothed with native plants. An account of the Deans brothers first trip up the Avon River to Riccarton Bush provides us with a vegetative indication of the river's former existence.

"... a Maori canoe conveyed the party to the bend in the river close to the present Riccarton Road. During the whole river journey the canoe had to be forced through a thick growth of vegetation by pulling on the flax and niggerheads. When the little party left the river a path had to be made through the dense "entanglement of fern, tutu, tussock, bramble, spaniards, and other native growth, nearly breast high."

By the 1870's, the river was cleared of much of its native vegetation. Up until then, public bathing along the river (for men) had been very popular. However, due to major plant clearance and the formation of a river path, swimming soon became less fashionable. Perhaps this has something to do with the fact that bathing costumes weren't worn by men!

Within one loop of the Avon River lies the Botanic Gardens. The most important natural, physical feature of the Gardens is the river. In many areas the attractions of the riverbank have had limited accessibility due to their steep nature. This challenging nature has created problems of limited stability, maintenance (a lawn mower in the river isn't unheard of) wildlife habitat, aesthetic values and recreational use.

The Botanic Gardens along with Design Services have commenced a new style of waterways management to address these problems. Where necessary, the riverbanks will progressively be re-developed. The first stage is near completion. This is the bank from Rolleston Avenue to the bridge which leads across to the Bandsmen Memorial rotunda. Previously this bank was very steep. There was limited level ground for seating, picnicking or native plantings. Natural plant communities no longer exist within our loop of the river. Scattered groups of plants do.

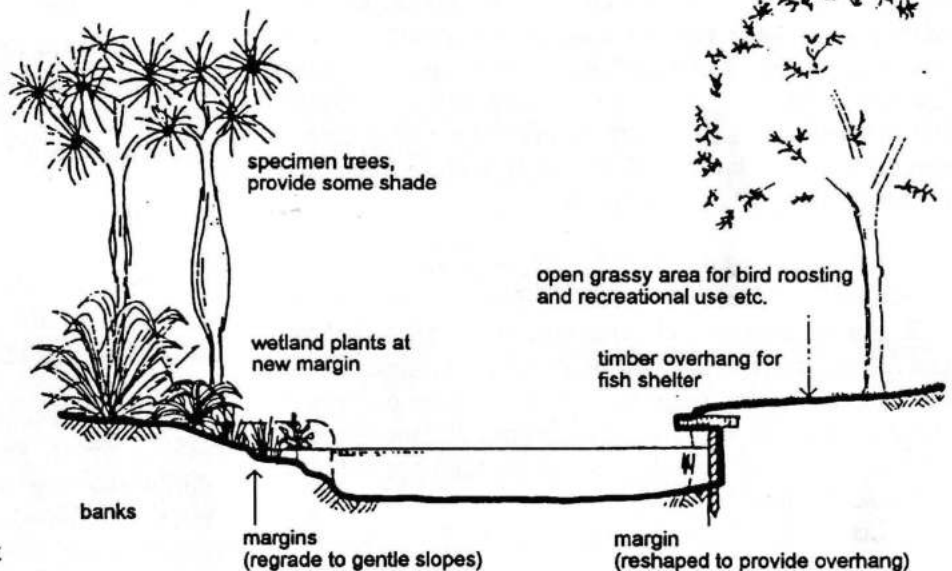
Riverside plantings are important for many reasons. Until recently, riverside vegetation was regularly cut back. This interfered with natural plant re-generation, habitats and ecological processes. Specialised habitats can now be created. Both dry and damp banks may be utilised for native plants

which include areas of educational, local heritage, rare and endangered, and aesthetically pleasing. Because of the natural dynamics of the river, the new plantings will assist in the stabilisation of the banks from erosion. They will help to absorb sediment which improves water clarity, provides shelter, shade and resting points for wildlife and spawning fish.

The river has historically played an important roll for fish breeding. Since 1867 the Acclimatisation Society has regularly released introduced fish into the river. Through the re-development, 4 fish hides will be installed along the bank for shade and shelter. The re-introduction of native plants will encourage our native birds to remain permanent residents, by providing them with natural areas for feeding, breeding and shelter.

The changing nature in waterways management will eventually create a more natural appearance along the river rather than the groomed look of the past. A new path has been created which sweeps down to the water's edge. By the summer, you will be able to enjoy sitting on a grass bank which was previously either a limiting or a challenging experience!

Susan Molloy
Botanic Gardens



The gardens staff wish to express their sincere appreciation by thanking the Friends for their most generous \$1000 library book grant. The books have been ordered and should arrive over the next 2-4 months. We have managed to cover a range of subjects from tropical to alpine plants, in addition natural pest and disease control, and how plants affect people. Thank you once again.

Susan Molloy

Visitor Survey

With the first survey finished, it's time to take a quick breath before the next one. A big thank you to all those who helped out with the counting and interviewing, especially those asked at short notice and those who stayed on longer when required. To keep you up to date, here are a few early results:

Total number of people counted	19278
Males	29.43%
Male joggers	0.91%
Females	41.08%
Female joggers	0.44%
Children	28.12%
Vehicles leaving by the west bridge for the week	310
Average per day Mon-Fri	61
Average per day Sat, Sun	2.5
Number of people surveyed	382
Number of people who made comments	212

From the comments the general areas which require consideration for improvement were:

- Labels
- Some plants - cultural
- Low standard of toilets
- More rubbish bins, seating and carparking
- Too much gravel on the paths

Most comments were that of appreciation for the Gardens and the role it plays in people's lives. The playground received numerous comments of excellence. One of the main areas identified in having a desirable increase was that of plant sales. In particular, sales where the plants have been derived from those in the Gardens which are difficult or impossible to obtain both locally and nationally.

It has been great to get feedback from everyone involved with the survey. This has resulted in a few changes for survey no. 2. For the counters, children will not be separated into male/female, more space will be given on the form for the busy time of the day when we will try to have two people counting e.g. Kiosk gate from 1pm to 3pm. For the west gate only, an additional column will be inserted for vehicles. Because of the large number, we will monitor service vehicles versus Council vehicles to see how this entrance is being used.

At the moment I am in the process of applying for funding to employ three interviewers for the next two surveys. Because of the long hours required for the summer and autumn survey it will be easier to have interviewers to reduce the load. Should I not be successful we will then need interviewers. A group of 6 to 8 interviewers will be selected to carry this out.

It has also been suggested that a roster be kept in the box so that people know who is coming to relieve them. I will try and do this but it will depend if I have a full roster the day before or not.

For those of you not sure of what the survey involves, the following is a brief outline:

Counting — count people as they leave the Gardens and record them on a form. The form has columns for male/male jogger/female/female jogger and children. You count the person into the appropriate column. The counting is done in 15 minute intervals. As mentioned only the west gate will count vehicles.

All materials needed will be at each gate. If the weather is wet the interviewing will be cancelled but the counts **must** go on. We found that on the only wet day we had last time it was easy for the person to drive their car at the gate and sit in their car. Come along and have a go. You will get to meet other friends, staff and have fun meeting people from all sorts of places. I could almost write a book on the stories people have told me from the last one. It was good to hear those who participated enjoyed it.

The next survey is on the 4th to 10th of December from 7am to 9pm. If anyone can help with the counting please contact me on 325-2330 in the evenings.

Thank you again to all those who have already volunteered to help again with the second survey. You can either contact me or I'll get in touch with you.

Maria Adamski
Botanic Gardens

The Pinetum

The pinetum consists of a collection of about 150 species of coniferous trees situated by the United car park. This area was originally a rubbish dump in the 1950's and in the 1960's was developed into the pinetum.

In recent years some of the original trees have been removed because of disease and many new species have been planted. There are several non coniferous trees growing in the pinetum which will gradually be replaced with conifers as they reach the end of their life.

There are two main pests and diseases which cause problems in the pinetum. Scale which is most prevalent on *Abies*, and needle cast fungi, which affects *Abies* and *Pinus spp.* Several trees were removed in 1992 because of these diseases and a specimen of *Cupressus duclouxiana* was removed because of water logging which is restricted to one main area due to run off from the car park.

Some of the original plantings include trees such as *Pinus muricata*, *P. wallichiana*, *P. coulteri*, *P. torreyana*, *Cunninghamia lanceolata*, *Taxodium distichum*, *Abies grandis* and *Abies pinsapo*.

Some of the new plantings include *Pinus serotina* or Pond Pine, a native of the SE United States. This tree thrives in soils with a high water table and grows in swamps and bogs in its native habitat.

Taxodium mucronatum also likes wet ground. This species and *Pinus serotina* have been planted in the wettest part of

the pinetum. *Fokienia hodginsii*, a tree to 12m high and native to China, has interesting triangular scale like leaves. In its native habitat it requires 3 months of temperatures between 28-35°, *Arthotaxis selaginoides* a native of Tasmania with interesting *Cryptomeria* like foliage.

Also over the past four years a collection of ornamental conifer cultivars and hybrids have been planted in six beds along the boundary of the pinetum. These conifers replace *Berberis* and *cotoneaster* which looked unsightly and will tie in more with the overall concept of the pinetum.

Dean Pendrigh
Botanic Gardens

A High Country Garden Tour to Coleridge

When the elements combined to prevent the Geraldine Gardens Tour, a member suggested to Bob Peers that a day to her old Garden Club area would be a suitable substitute. Twenty eight Friends decided to go on the trip.

The countryside was looking its best, Mt Hutt and the Rakaia River provided a magnificent backdrop. The hills and well grassed meadows with stock in splendid condition made a wonderful foreground.

Our first stop was at Middlerock, the farm of Lyn and Bruce Nell. The garden was started in 1987, about the time the alterations were taking place to the house. The garden of about 2 acres is remarkable for its dry stone walling made of lichen covered stones found on the hills and the raised beds and massed plantings. Lyn uses copious quantities of compost and the health of the plants showed it. Middlerock was under 2 feet of snow in the winter, but one would not have known. The massed planting of *Myosotidium* were a delight. Lovely rhododendrons, *Ceanothus* and other flowering shrubs gave colour to the garden. Dense mats of *Arabis*, *Phlox* and rock roses filled in the foregrounds. Under the trees were massed plantings of *hostas* and *bergenias*.

Just up the road 'Billy O', the home of Sue and John Smith, sits on the high banks of the Rakaia with magnificent views of the 'braided' river. A smaller garden than Middlerock, it was full of many unusual and rare plants. A lovely collection of *trilliums* caught the eye. Also unusual *auriculas* and heaps of alpine plants that had clumped up and were doing so well. Sue has green thumbs and everything grows well for her. A well stocked plant table tempted many. After lunch at 'Billy O' we went on to the last garden.

The trip to Peak Hill Station, home of Annette and Michael Miller, was over a dusty road that had only recently been graded. But the garden which Annette and Michael have made about the homestead is a delightful splash of colourful rhododendrons underplanted with *Arabis* and *cerastium* making a lovely contrast. A particular feature of this garden was the *Clematis montana*.

The umbrellas were up when we left Peak Hill for the arboretum in Coleridge village to have a look at the plantings

about the power station. As we drove back to the village the rain got heavier and nobody wished to look at the arboretum in the pouring rain. Instead we went on to the Coleridge Hideaway where we were to have afternoon tea. Dianne and Chris Roy were our hosts at the Hideaway and what a splendid afternoon tea they provided. Twenty eight Friends made the trip to these high country gardens and all commented on the individuality of the gardens and the pleasure the day had given them.

Thank you to Shirley Sinclair and her husband Lake who contributed this interesting account of the Friends garden visit on Saturday 5th November.

Moss as a Seed Growing Medium

Sphagnum moss has been used successfully for many years as a means for germinating seeds.

Its main advantages are:

- Absorption of many times its own weight of water.
- This water is slowly evaporated and provides an even moisture which is vital to seed production.
- It provides a more even temperature than soil as it is not subject to fluctuations in the surrounding atmosphere.
- Almost perfect aeration is ensured.
- Has properties which discourage bacterial and fungoid organisms.
- Releases substances which are important accelerators of root formation.

Techniques for use:

Sphagnum is the best type to use but almost any moss will give good results.

- Break the moss up; or rub it through a coarse sieve. It can also be cut finely with sharp shears.
- Make sure it is placed evenly in a well drained container.
- Press firmly until it is a centimetre or two below the top of the box.
- Saturate with liquid fertiliser and allow to drain for several hours.
- Sow small seeds on the surface of the moss. Larger seeds e.g. sweet peas, are lightly covered with damp moss.
- Cover box with glass and place in a shady situation.
- Reverse glass each day or two to dispose of uncondensed moisture on its under surface.

No further watering is necessary with quick germinating seeds. When seed has to be left for several months before activity is noticed, an occasional renewal of moisture is necessary. When seedling growth begins, provide ventilation. This can be done by placing a stick across the box under the glass. Increase the ventilation and light gradually. After two weeks remove the glass.

Careful investigation has shown that this method is successful with difficult seeds and the possibility of damping off is avoided. The seeds will be healthy and vigorous with a compact rooting system.

Editor

New Committee - Contact Numbers

President	David Given	351-6069 (pvt)	325-2811 (bus)
Immediate Past President	Roy Edwards	338-5969 (pvt)	325-2811 (bus)
Vice President	Faye Fleming	351-7798 (pvt)	
Minutes Secretary	Jim Crook	358-5845 (pvt)	
Treasurer	Colin Neal	351-8676 (pvt)	379-4100 (bus)
Catering	Daphne Banks	355-8399 (pvt)	
Walks	Max Visch	338-2273 (pvt)	
Info Centre Helper	Jane English	355-5289 (pvt)	
Sales Table	Adrienne Moore	351-5915 (pvt)	
Editor	Peter Mahan	359-8767 (pvt)	
Committee Members	Chris O'Sullivan	332-6564 (pvt)	
	Tony Burnett	384-1381 (pvt)	
	Susan Molloy	348-1077 (pvt)	366-1701 (bus)

Other Contact Numbers

Membership Secretary	Ruby Coleman	355-8811 (pvt)
Deputy Minutes Secretary	Dorothy Lake	342-5318 (pvt)
Tours Away	Bob Peers	351-6776 (pvt)

Friends of the Christchurch Botanic Gardens Inc**PO Box 237****Christchurch****New Zealand**

THE FRIENDS OF THE CHRISTCHURCH BOTANIC GARDENS INC.

P.O. Box 237, Christchurch

An introduction:

Our group was formed in November 1989 to help promote, support and develop the Botanic Gardens.

We now have over 350 members and enjoy a variety of activities:

- Regular guided walks in the Gardens
- Monthly meetings, with a programme of educational talks and social gatherings.

The Friends have the use of a glasshouse in the Botanic Gardens where members prepare plants for sale for Friends' funds and for their own gardens. Plant material from the Botanic Gardens is also potted up for the annual plant sale each October.

Another opportunity for help, is in the work for the International seed exchange.

Members receive discounts on plant sales and have access to lectures, demonstrations and the expertise of the Gardens' staff and fellow members.

Applications for membership are available at the Information Centre.

Enquiries telephone:

Ruby Coleman

3558-811

Adrienne Moore

3515915

PLEASE SUPPORT OUR WONDERFUL
CHRISTCHURCH BOTANIC GARDENS