

Newsletter

NZ Section

For Friends of the Christchurch Botanic Gardens Inc.

No 38, Autumn 1999

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President's Comment

Dear Friends

It is a beautiful evening and I have returned from the first of the Friends' guided walks. This was part of the Festival of Flowers. Forty people went away very happy with the information and the expertise shown by our guides. This, I thought, is why the Friends of the Botanic Gardens was formed. Then I panicked. What happens when this group of guides chooses to stop? Where are the next guides going to come from? Like all voluntary organisations it is difficult to see ahead when you rely on people to join out of their own interest. We have a great deal of energy in our present members and also a wonderful resource bank of information. Now we need to channel that expertise to the benefit of others who want to use and enjoy our Gardens. (For those who want to add their skills to the guiding group please note that we do organise some professional training so all you need is energy, enthusiasm and some knowledge.)

Our role as volunteers in the Botanic Gardens is changing all the time just as the Gardens are changing. We must be

thinking ahead and progressive in our planning. Like most non-profit organisations we have to satisfy the varying needs of our members. They may have different reasons for joining the Friends. The association with gardens and gardening is quite an obvious one but that is only the beginning. I hope that our association is addressing those other less obvious needs – knowledge, friendship, companionship, a place to go, a warm place, a group of friends, a welcoming group, a place to do shared work and to share our experiences.

Lets hope that our present group is able to have a positive role in encouraging the next crop of friends to join us. There is certainly enough work to do.

One day when you are in the Gardens, take time to be among the trees and plants and to ask yourself "What are the new directions we should take?"

Happy thinking (and gardening).

Faye Fleming

Botanic Gardens Jottings

To say that this past summer has been a dry one would certainly be an understatement. The practice of using a mulch around areas of planting has several benefits, including suppression of weeds, conditioning of the soil and conservation of moisture. Areas within the Botanic Gardens, which have been mulched, have shown through this extended dry period, that plants have benefited from the improved retention of available moisture.

Through this indirect education, the garden visitor can clearly see the benefit of this method for use in residential gardens.

Townend House - Begonia Display

Prior to and during the Festival of Flowers, the tuberous begonias provided an excellent display in Townend House. Many of the specimens are the result of Greg Salton's work in hybridising and

FCBG

PO Box 237
Christchurch

Botanic Gardens Jottings continued ...

attract visitors from beyond Christchurch to enjoy the beauty of these plants.

Bequest

The Botanic Gardens has benefited from a generous bequest of \$115,500.00 to be used for "a permanent planting project".

Currently, consideration is being given to the most appropriate planting project from the Botanic Gardens Management Policy document and it is intended that the project will be completed within eighteen months.

North Hagley Bowls Centre

This complex of a pavilion and two bowling greens, formerly known as the RSA Bowling Club has now been surrendered to the Christchurch City Council as the bowls club has been formally wound up. While negotiations are still at an early stage, now that the pavilion has become council property, it is likely that one or more of the rooms could be suitable for some future meetings of the friends.

The complex is located between the Armagh car park and Lake Victoria in North Hagley Park, so that its location, interior space, amenities and aspect make it an appealing venue.

Warwick Scadden
Horticultural Operations Team Leader

Coming Events

In Brief...		
Guided Walks 1999		
17 March	Wednesday	7:30pm
20 March	Saturday	1:30pm
6 April	Tuesday	9:00am
17 April	Saturday	1:30pm
21 April	Wednesday	7:30pm
4 May	Tuesday	9:00am
15 May	Saturday	1:30pm
19 May	Wednesday	7:30pm
1 June	Tuesday	9:00am

Guided Walks

6 April, 4 May, 1 June

These Tuesday walks leave from the Information Centre at 9:00am and are conducted by one of the Botanic Gardens staff.

Saturday Walks

Taken by Max Visch. The topics are:

- 20 March Unusual shrubs and less known shrubs
- 17 April Autumn colours
- 15 May Ivies, Hollies and Boxes

These three Saturday walks begin from the Information Centre at 1:30pm.

Evening Talks and Lectures

in the Information Centre 7:30pm

- 17 March Wednesday - Colin Neal who is the Friends of B.G. Treasurer - Subject: Grape Expectations
- 21 April Wednesday - Geoffrey Tunnicliffe, vertebrate Zoologist at Canterbury Museum - His topic is "Birds of the Christchurch Botanic Gardens"
- 19 May Wednesday - John Thacker of the Canterbury Regional Council - John is Biosecurity Officer. His subject is "Surveillance plants, what they are, and how do they affect us"

Afternoon Group Programmes

- 10 March Wednesday - 2:00pm
Plant Discussion Group
Bring a plant to discuss with members and Gardens staff. Afternoon tea.
- 15 April Thursday - 2:00pm
Fabulous Fruits
Seed dispersal mechanisms with Max Visch. Afternoon tea.
- 10 May Monday - 2:00pm
The Magnetic Observatory
Visit and discussion with Sue Molloy. Afternoon tea.

Coming Events continued ...

4 June Friday - 2:00pm
Plant Discussion - Winter Plants
 Bring a plant to discuss with members and Gardens staff.
 Afternoon tea.

For all meetings above, meet at Botanic Gardens Information Centre. Enquiries to Adrienne Moore, ph 351-5915 or 366-1701.

Reminders about these events appear during the preceding week in the Christchurch Press Weekend Edition gardening pages under the heading of "Cuttings" and in the Christchurch Star "Around Town" columns.

Recent Events

THE NEW ZEALAND NATIVE SECTION

Being an account of a walk with Max Visch on 16th January.

There was a good attendance of Garden "Friends" and members of the public. Before entering the Native Section there was an introduction to the N.Z. flora.

For the size of the North and South Islands, the flora is not very large. Madagascar for example has a very much larger number. In fact several times as many as New Zealand's 2200 including the ferns. The Cape Good Hope also has several times as many in a much smaller area.

Geologists believe that the size and shape of New Zealand has varied throughout the ages and that at one time it was very much larger than it is today. How did New Zealand's plants get here? Some plants would have been part of New Zealand when it broke away from Gondwana and these plants would have undergone changes. Podocarps and beeches have seeds which are not readily dispersed over any great distance by wind or water.

In past ages New Zealand was of almost continental size and stretched far to the north towards New Caledonia. Many plants, such as the kowhai, do have seeds which will float long distances and the genus is widespread over the Pacific. Others could have floated to New Zealand on logs or arrived attached to birds feathers. In our own time orchid seed has

blown here from Australia and become established. Mostly the New Zealand flora is white or pale coloured with a sprinkling of yellow. It is thought that this is due to the lack of native long tongued bees and the paucity of butterflies, although there are plenty of night flying moths to pollinate, however these are just suggestions.

Plants seen included *Myrsine divaricata*. This is a shrub or small leafed tree with thickly interlacing branchlets. New Zealand has an extraordinary number of shrubs with divaricating twigs and small leaves. Was this a response against browsing moas? Or did they evolve during the harsh, near treeless glacial periods to protect growing leaf tips from wind abrasion, desiccation and frosts. The South Island Kowhai with its juvenile stage and the North Island Kowhai (*Sophora microphylla* and *S. tetraptra*) have seeds which will float in sea water. The hard seed coat should be chipped and soaked in water; this enables them to germinate quickly.

The Ramarama (*Lophomyrtis bullata*) is readily recognised by its blistered reddish-coloured leaves. It is a handsome small tree; sprays of foliage are a favourite with flower decorators. Glands in the leaves secrete oils which give the plant an aromatic scent. Tarata or Lemonwood (*Pittosporum eugenioides*) which grows on Banks Peninsula has fragrant greenish yellow strongly scented flowers and ranks highly as a garden subject. Its leaves are distinctly lemon scented if crushed.

Everyone knows the Broadleaf (*Griselinia littoralis*), its leaves are broad and fleshy. Unless you look for the flowers you will never see them, they are so small. The greenish flowers arise in panicles from the leaf axils. A second species (*G. lucida*) begins life as an epiphyte perched high in a Rimu, Kahikatea or Cabbage tree. As the young seedling grows its roots extend down the host tree until they reach the ground and establish *G. lucida* as an independent tree.

The Pepper tree (*Pseudowintera colorata*) can be beautiful when seen on the bush margin in the sun. Its leaves taste hot and peppery. Mahoe or whitey wood (*Melicytus ramiflorus*) has soft white wood. The leaf when it falls decays to an exquisite lacy pattern.

The largest leafed shrub we saw was Rangiora (*Branchyglottis repanda*). In early days the leaves were sometimes used as a postcard with a note written on the white underside, until the practice was stopped by the postal authorities. Whau (*Entelea*

Recent Events continued ...

arborescens) also has large leaves which are on long petioles. It is remarkable for the lightness of its wood which when dry does not exceed half the weight of a piece of cork of the same size. The Maori used it for making fishing net floats and for the framework of small rafts.

The Karaka (*Corynocarpus laevigatus*) with its dark green, glossy leaves, often grown in a grove near Maori coastal Kainga or villages. It was of special importance to Maori, being second only to the Kumara. The flesh of the fruit was eaten raw, but the seeds were poisonous and required special

treatment. They were steamed in a hangi (oven) then placed in loosely woven baskets and put in a stream for several days. After being sun-dried they were stored for future use to be made into cakes. Maori legend says that Karaka was brought to New Zealand from the legendary Hawaiiki. But the known distribution of the genus contradicts this.

Other shrubs and trees, including tree ferns, were seen, and discussed, but space forbids their inclusion. One thing is certain, those on the walk returned a lot better informed about the New Zealand flora.

P Mahan

Bits & Pieces

What is on show in the Townend House?

At present the Begonias are on display and should flower through most of March. Browallias and Impatiens similarly should flower for a while yet. Streptocarpus should follow. Cyclamen possibly from March to June and also Calceolaria in winter.

Information Centre Displays

The Wardian Case will be on display along with information. Streets ahead pottery will be displayed 8 March to 29 March. At the end of March there will be a whole assortment of herbs for viewing.

Book Raffle

"The Propagation of Native Plants" by Lawrie Metcalf was won by number 12, Nan Hay.

Subscriptions

Student	\$6
Single	\$12
Double	\$18
Affiliate	\$12

If yours was not paid by the end of November, please send your sub to The Treasurer, PO Box 237, Christchurch.

F.B.G. Raffle

The prize winner of the F.B.G. raffle at the 'Big Day' in the Gardens on Sunday 28 February 1999 was ticket No. 45; Mrs R. McCreanor of Kaiapoi who won a box of assorted garden goodies.

Plants in the Service of People

The discovery of the "New World" near the end of the 15th Century gradually added new foods to the diet of European people. The Spanish supposedly found cacao growing wild in the island of Trinidad but other reports say that the cacao tree was introduced from Central America in 1625.

This variety which was grown on Trinidad when the seed or beans had been fermented and dried produced highly flavoured cocoa. Much later, in 1757, the Dutch introduced another variety from Venezuela which was crossed with the variety growing on Trinidad. Cacao was also taken to West Africa where plantations were established. The climate and forest soil proved ideal and the African Gold Coast soon became the world's biggest cocoa producer.

The cocoa pods ripen and as they do they change from green to yellow-orange or red, depending on their variety. Being large and heavy they rely on the trunk and branches to bear their weight. The beans are rich in a fat known as cocoa butter, which is used in the making of chocolate.

Feature Articles

THE ENGLISH OR COMMON YEW

The Yew family – Taxaceae – forms a distinct group of trees and shrubs that split off from the ancestral conifers in early geological times. The family reached its maximum development during Tertiary times and has been on the decline ever since. As understood at present, the Taxaceae comprises about a dozen species belonging to 3 genera of which *Taxus*, the Yew genus is by far the most important.

Yews differ from most other conifers in that they lack the typical female cone structure as seen in pines, larches, cedars, cypresses etc. Instead their solitary seeds are enclosed in a coloured fleshy cup or aril, which has the appearance of a berry, rather than a cone.

Taxus, represented by about 10 species, is widely distributed across the northern hemisphere with species in North America, Europe and Asia. The fact that the seeds are distributed by birds is held to explain, in part, this wide geographical range.

The species best known and most widely cultivated in New Zealand is the English, or Common Yew, *Taxus baccata*. *Apart from Great Britain and continental Europe, this species also grows naturally in North Africa and southwest Asia.*

In England the Common Yew has traditionally been associated with church yards, graveyards and holy places, and many of these trees are of a great age.

There are few evergreen trees native to Britain and the always green nature of the Yew symbolised eternal life. Some authorities believe that some of the oldest Yews in Britain may well have marked the sites of celtic worship and with the arrival of Christianity these pagan sites would have had churches built on them. So perhaps began the traditional association between Yews and church yards, a tradition which has been maintained through the ages.

The Common Yew is not a very tall tree, even old trees rarely exceed 15-20 metres in height and usually are much smaller than this. The rounded, spreading crown of a mature tree is supported by one or several short, sturdy trunks. As the tree ages these become deeply furrowed and the characteristic reddish brown bark peels off in large flakes. The

thick, leathery, dark green leaves or needles are spirally arranged but because of a twisting of the leaf stalks appear to be attached in two opposite rows along the side branches.

The age of the oldest yew tree in Britain is still a matter of debate. All the very old trees are hollow, so their age cannot simply be determined by counting the tree's annual rings. However by counting the annual rings of the still existing outer wood of the tree, some estimate can be made of its actual age. The oldest trees can have as many as 100 annual rings squeezed into 1 inch of wood, an indication of their extremely slow rate of growth in old age. Eventually, after 800-1000 years of growth the trunks achieve quite large dimensions, of the order of 2-3½ metres diameter. Some trees may even be older.

Alan Mitchell, the late, well-known English dendrologist, took a special interest in very old trees and he has been quoted to say that "Most trees look older than they are, except yews, which are even older than they look".

The male and female "flowers" are produced on separate trees, rarely the two sexes on the same tree. The male flowers are grouped in small rounded clusters on the underside of the previous season's branches. The pollen-sacs when ripe release vast quantities of dry, yellow wind-dispersed pollen in early spring. The solitary female flower consists of a single green ovule surrounded by small bracts. Following successful pollination and fertilisation the ovule develops into a seed and becomes enveloped by the scarlet, fleshy aril, the whole much resembling a berry. Blackbirds, thrushes and other birds are the chief means by which the seeds are dispersed.

In Britain and continental Europe, the Common Yew is considered the most dangerous of all native trees and shrubs. All parts of the plant except for the scarlet aril surrounding the seed are considered highly poisonous to all domestic animals and it appears that the cut and dried branches from prunings is particularly deadly. The effect is moreover worse when the foliage is taken into an empty stomach. Yet, strangely, many instances have been recorded where farm animals have consumed yew branches

Programme 1999 Christchurch Friends of the Botanic Gardens

February

Thursday 18th 7:00pm)
 Tuesday 23rd 7:00pm) Festival of Flowers – Guided Walks
 Thursday 25th 7:00pm)

deleted
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March

Wednesday 17th 7:30pm Colin Neal – Grape Expectations

April

Wednesday 21st 7:30pm Geoffrey Tunnicliffe – Birds of the Christchurch Botanic Gardens

May

Wednesday 19th 7:30pm John Thacker – Surveillance plants - what are they, and how do they affect us?

June

Wednesday 16th 7:30pm David Given – Colour, aroma & culinary delights - A tour of Mediterranean floras of the World.

July

Wednesday 21st 7:30pm Lyn Heaton – A history of parks.

August

Sunday 11th 2:00pm AGM – A tour of the Cuningham and other display houses

8th date
deleted

September

Wednesday 15th 7:30pm Roy Edwards / Adrienne Moore / Kevin Grant – Annual Quiz

October

Saturday 2nd 9:00am)
 Sunday 3rd 9:00am) Plant Sale
 Wednesday 13th 7:30pm Dr Noel Porter – Use of healing oils from plants

November

Wednesday 10th 7:30pm Roy Edwards – Observations on magnolias at Lincoln

December

Friday 3rd 5:00pm Xmas Function

Feature Articles continued ...

with no apparent ill effect. It is possible that the concentration of toxic alkaloids in Yews is a variable characteristic. Whatever the truth of the matter it seems wise to treat Yews with respect and keep its branches whether green or dead away from stock and the attractive looking berry like seeds away from young children. Birds only digest the sweet, juicy scarlet aril, allowing the poisonous seed to pass through undigested, thus coming to no harm.

Yew wood is very strong and extremely elastic and until the invention of firearms was valued above all other woods for the manufacture of the traditional archers' longbows. The timber is also extremely durable, some of the oldest weapons such as spear points that archaeologists have discovered in England, were made of yew wood. The timber works well, takes a good polish and often has a very attractive grain suitable for high grade furniture, panelling, cabinet work and veneering. The Common Yew has long been valued for hedging and topiary work, and although rather dark and sombre in appearance, is much planted as an ornamental tree or shrub in parks, gardens and cemeteries.

Max Visch

... to be continued next newsletter.

DESFONTAINIA SPINOSA

Desfontainia spinosa is one of those interesting plants that does not appear to be commonly grown in gardens locally. It is a bushy shrub which resembles a small holly plant with deep glossy leaves. These leaves are as sharp as those of a holly. The leaves are leathery, opposite, with a petiole of 10-12mm, the lamina is ovate in shape and approximately 40mm long, the margins are dentate with up to ten sharply pointed spines. The flowers are an attractive feature of this plant. They are large waxy, tubular shaped scarlet flowers up to 50mm long. The flared tips of the petals tend to be orange to yellowish in colour. The flowers appear in mid summer and carry on through until mid to late autumn. The fruit is a berry. The plant is slow growing, one at Lincoln University being no more than one and a half metres across and a metre or so in height after a period of more than twenty five years.

Desfontainia spinosa is a monotypic genus which is native of Peru and Chile. It is clearly hardy to cool

temperatures with Lincoln occasionally experiencing frosts of -10° and temperatures over the summer which may get into the mid 30's. From my observations this plant has had no special treatment in the past, appears free from pests and diseases and retains a clean fresh appearance. The plant in the grounds at Lincoln is growing in a cool semi shade position in a silt loam with an acid pH of 5.8. Another plant can be seen in the northern part of the rock garden near the eucalyptus in the Christchurch Botanic gardens.

Other plants found in New Zealand gardens that are related to *Desfontainia spinosa* at family level include *Gelsemium* and *Buddleja*. *Strychnos* while not grown in New Zealand is a source of strychnine.

Desfontainia pronounced des-fon-ta-ne-a was named in honour of R. Desfontaines a French botanist 1752-1833.

Roy Edwards



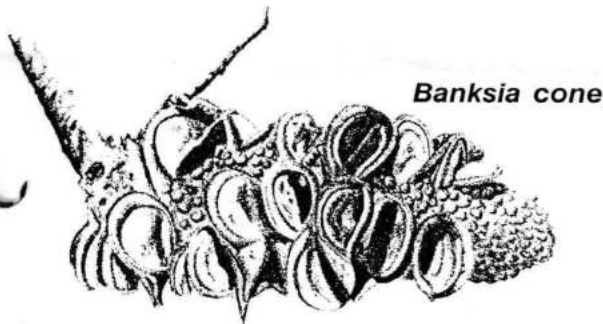
BANKSIA (PROTEACEA)

Joseph Banks was a mere boy when he resolved to make botany his life interest, gaining his earliest knowledge from countrywomen who gathered simples - (that quaint old-fashioned word for useful herbs) near his school. Later, at Oxford, he found botany almost non-existent. But this did not deter him. He contributed much in his lifetime. He was principal founder of the Botanic Gardens at Kew, and the President of the Royal Society for forty-two years, right up to his death. He was created a baronet. Always a keen collector, he voyaged with James Cook on the Endeavour. They arrived at a certain inlet which had such a variety of plant life on its shores that James Cook named it Botany Bay - to the great delight, I'm sure, of Joseph Banks, the expedition's botanist. Banksias abound in Australia. Some fifty species have been described, plus one from New Guinea. These trees and shrubs have dense cylindrical flowers, usually yellow. These become

Feature Articles continued ...

'cones' which are very decorative. While some varieties are much used in gardens and grow swiftly in beach areas, there was one species which Banks found was used by Aboriginies, who soaked the flowering cones in water to obtain a sweet drink they called 'beal'. Hence that other name Australian honeysuckle. It is good this genus honours Sir Joseph Banks (1743-1820).

An extract from "Gentlemen in my Garden" by permission of the author Fay Clayton.



Banksia cone

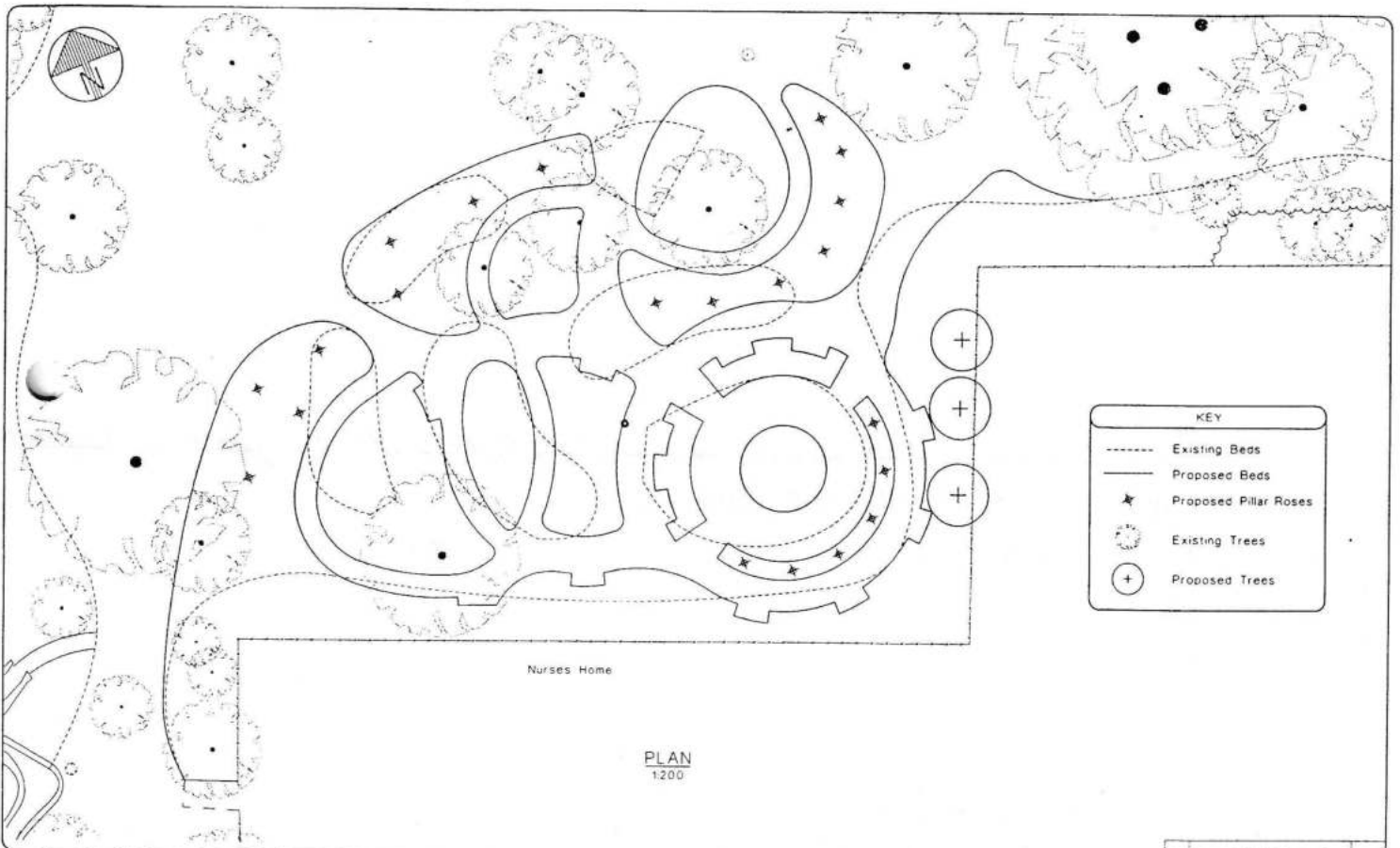
Heritage Rose Garden Redevelopment

The Heritage Rose Garden redevelopment is an implementation from the Botanic Gardens Management Plan. The plan below shows how the existing beds will be changed to form much larger borders. These borders will have lawn pathways through them to allow for closer inspection of the roses to enable their form, colour and fragrance to be enjoyed with greater ease.

A formal area in the southeast corner will allow for more seating, while being surrounded by informal borders.

More structures will be included for the growing of pillar, climbing and rambling roses. Work on this redevelopment should start this autumn and will be completed in stages.

Richard Poole
Botanic Gardens Staff Member



<p>CITY DESIGN CHRISTCHURCH <i>The city that shines</i></p>	DESIGNED	INITIALS	DATE	APPROVED	DRAWING TITLE BOTANIC GARDENS ROSE SPECIES GARDEN SECTION 'C' WOODLANDS	SCALE	C.N.	
	DRAWN			DATE		1:200	L.4176	
	TRACED							
	DRW. CHK.							
	WORKED							

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Garden Tours	Deryck Morse	332-6184
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