

Newsletter



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Royal New Zealand Institute of Horticulture (Inc.)

Chairman's Comments

We have made it! We are through to the year 2000. We had difficult times in the early 1990's but we are now as a member suggested into what is the 'Renaissance of the RNZIH'. Our loyalty to the betterment of horticulture in NZ gives us the interest and determination to further our aims publicly. There are many directions to take.

The 1999 Wellington Conference proved the point. The success of the conference was a milestone in recognising the public interest in NZ Native Plants. The conference provided a profit and the Wellington Branch Committee has allocated \$4000 to the RNZIH National Fund, which has been tagged to kick start the publication of a journal and also for the publication of Checklists. This direction from a Branch will be appreciated by members who attended the conference and those who were unable to do so. This is a clear and welcome initiative put forward by the Wellington Branch. We will all benefit. The proceedings of that conference are expected to be available later this year and we will keep you informed. Mike Oates has also kindly volunteered to oversee the final preparation of the Hebe Checklist for publication. This is now underway. We have many enquiries from overseas and look forward to fulfilling those orders. The negotiations for the shape and format of the RNZIH Journal are now underway. We must not be over ambitious. The journal can always be bettered when the costs are firmly established and budgets met.

A problem we face as an Institute is that we represent so many diverse interests. It is therefore more difficult to appeal to all our members. This reflects the need perhaps to have editorial targets. These could be on - native vegetation in urban situations, food plants for fauna, plant collections, registering gardens of note, Notable Trees and so on. Your views and suggestions would be most welcome if sent to our Lincoln Office. The Newsletter will continue but be directed to in house matters and members comments. The freshness of the Newsletters would

come from ideas and even irritations which can be aired in this RNZIH forum.

Membership renewals are coming in steadily and affirm members belief in the RNZIH. Many subscriptions come with donations which are greatly appreciated.

We have listed the RNZIH Awards for 2000. The handbook is now available on request from the Lincoln Office. Nominations for the Loder Cup are being called for by the Dept. of Conservation. It is also time to send in your nominations for RNZIH Associates of Honour and Fellowships. All nomination forms are available from Enid Reeves our Administration Officer at Lincoln. Let us have your nominations soon as it takes time to process them through our Awards Committee. These Awards and Honours are good publicity and the life blood of our Institute. The Lincoln Office contact is set out in the RNZIH Directory on the following page.

An article appeared in the AA Directions Magazine November 1999. It was headed 'Off road vehicles off the beaten track' and written by Simon Heppelthwaite of the Dept. of Conservation Project River Recovery. In it he states - "We have all seen the advertisements with off road vehicles conquering the mud holes, surfing up rivers, cresting mountain tops or airborne over dunes as they boldly go where no vehicle has gone before. But, increasingly, it's the wildlife left saying 'b.....' !

This is a very important statement. It is not to spoil people's enjoyment but rather to make some provisions to protect some of the special endangered habitats of fauna and flora. He goes on to say - "The Dept. of Conservation wishes to continue to foster appropriate recreation in these areas but it needs to be managed so that impacts are avoided or minimised. The NZ Four Wheel Drive Association has adapted and endorsed an international off-roaders code of ethics which is observed by all 4

WD Clubs. However, more needs to be done to present information on specific problem areas to off roaders so that they understand the need to preserve these sensitive areas and their wildlife.

If we are to avoid environmental damage to fragile habitats from vehicles (power boats and motorised bikes) then we need to develop an official road culture of recognition, respect and responsibility towards our wildlife and natural heritage".

With some encouragement from members I would gladly write to the Minister for Conservation in support of Simon Heppelthwaite's views. Your say is a valuable indicator for Executive to action. This year we can afford to build on our strengths. The key to 2000 is optimism with confidence.

Ron Flook Chairman.
539 Rocks Road Tahunanui Nelson
Tel/fax 03 548 6539, email flook@netaccess.co.nz



Notable Trees New Zealand

New registrations have been received from WJ Woodford of Hamilton. The trees are owned by Ag. Research Ruakura. The trees are *Cedrus deodara* and *Eucalyptus regnans*. The Cedar was planted about 1880 and is now 35m tall with a canopy spread of 21.6m. The Eucalyptus was planted in 1878 and is 60.35m tall and has a canopy spread of 28m. This was recorded by Burstall in 1964 at a height of 71.9m. The Wahine storm damaged the top of the tree which was remeasured in 1969 at 68.5m. Burstall recorded it as the tallest tree of any species in New Zealand.

Newstead was the old homestead of the Runciman family originally called Marshmeadows and was founded by Capt. James Runciman in 1860. The district was known as Kirikiriroa and the property occupied the southern half of the district. The property occupied 1,517 acres which stretched from the School Gully North to Marshmeadow Road and west to the railway line on Holland Road known as Poverty Flat. Captain Runciman was recorded as a fanatic about trees and his diaries prove this.

The documentation by WJ Woodford is considerable for both trees and our thanks go to him and to Ag. Research at Ruakura for permitting the registration. The history of the Runciman family and trees makes fascinating reading and is available for anyone interested.

RNZIH DIRECTORY

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We welcome tree registrations and forms are available from either our Lincoln Office or from Ron Flook, National Registrar, 539 Rocks Rd, Nelson.
Tel/fax 03 548 6539
email flook@netaccess.co.nz

International Plant Genetic Resources Institute (IPGRI)

(Adapted from a report from Geoff Hawtin, Director General, IPGRI GeneFlow, 1999)

The International Plant Genetic Resources (IPGRI), formerly known as The International Board for Plant Genetic Resources (IBPGR) was established in 1974, the result of a growing recognition by scientists and policy-makers of the threat posed to food security by genetic erosion. Its ambitious task was to "promote and assist in the worldwide effort to collect and conserve the plant germplasm needed for future research and production." This was to be accomplished by supporting collecting missions in many countries and promoting the development of an international network of *ex situ* genebanks.

Formerly a field project of the UN's Food and Agriculture Organisation, in 1994 IBPGR became an independent CGIAR institute under the terms of an establishment agreement that has now been signed by 47 countries. It was at that time that the institute adopted its current name.

Since 1974, IPGRI has helped over 100 countries to set up genebanks and has trained over 2000 national scientists in disciplines related to plant genetic resources. More than 150 countries participate in the 50 or so networks whose development has been supported by the IPGRI. The institute has sponsored more than 560 collecting

missions in developing countries, gathering around a quarter of a million plant species.

New Strategic plan, *Diversity for Development*

While IPGRI will continue to focus on harnessing plant genetic diversity to achieve food security, we will place greater emphasis on ensuring that once conserved, genetic resources do not languish in the genebank but are used by farmers and breeders for crop improvement.

To quote our new strategy, "IPGRI has a vision that, through the collective concerted action of farmers, forest dwellers, pastoralists, scientists, development workers and political leaders, the full potential of the Earth's plant genetic diversity will be harnessed to eradicate poverty, to achieve food security and to protect the environment for the benefit of present and future generations."

Further information can be obtained from :

IPGRI

Via delle Sette Chiese, 142

00145 Rome

Italy

Email: ipgri@cgiar.org

Web: www.cgiar.org/ipgri

RNZIH Awards and Honours

The RNZIH runs a comprehensive system of awards and honours for both members and non-members. There is one major scholarship awarded annually, worth several thousand dollars. For detailed information on these please write to the RNZIH, P.O. Box 12, Lincoln University, Canterbury.

The awards are briefly as follows :

Associate on Honour (AHRH)

Awarded to persons who have given distinguished service to horticulture in New Zealand. Only 60 people can hold the award at one time.

Fellow (FRH)

Awarded to members who have made a significant contribution to horticulture and the Institute.

Peter skellerup Plant conservation Scholarship

A scholarship granted for research, field work, publication, propagation and/or cultivation of plants and any other activity likely to promote and assist the conservation of New Zealand's indigenous and exotic plant genetic resources. Up to \$5,000 is available each year.

Sir Victor Davies Award

Awarded annually to a young person who has demonstrated an outstanding plant knowledge. The recipient receives a certificate plus monetary prize.

Plant Raisers' Award

Awarded to an individual or organisation who has raised in New Zealand a cultivar(s) of outstanding merit.

Ronald Flook Award

Awarded by the New Zealand Arboricultural Association to a person who has contributed to the advancement of arboriculture in New Zealand

Closing Dates

The closing date for these awards has been extended for this year. All nominations will close on 30 April.

Not all Nuts are the Same

Chestnuts are not all the same, and important points such as quality and performance can depend on whether they are derived from North or South Island cultivars, and where they are grown. A recent nationwide survey of chestnuts could provide important information for the commercial future of chestnuts in New Zealand.

HortResearch Ruakura scientist Dr. David Klinac says chestnut performance under New Zealand conditions varies greatly, depending upon location and cultivar. With the present enthusiasm for chestnut planting, and an increasing demand for chestnut trees, the following questions are often asked :

- Which cultivars should I plant?
- Where should I plant them?

“While there is local anecdotal information available, and given the diverse origins of our chestnut selections, and some of the peculiarities of chestnut reproduction, neither of these questions has yet been addressed in a systematic matter for New Zealand as a whole,” Klinac says.

The recent national survey, carried out by the Kernel Chestnut Co-op, the South Island Chestnut Action Group and the NZ Chestnut Council and involving Klinac, staff at Lincoln University and growers from throughout N.Z, aimed to address these questions.

The main focus was on issues of nut quality, especially susceptibility to storage rot fungi like *Phomopsis*.

The survey found significant North Island/South Island differences in chestnut performance, and significant regional variation within both North and South Islands. North Island derived selections grown in Canterbury, under the drier, less rot-prone climate, had nut quality significantly different to that of the same cultivars grown in the North Island. This appeared to be also true in reverse; with South Island derived chestnut cultivars all performing differently when grown in the North Island.

Perhaps the single biggest, most important regional difference noted was the confirmation of much lower incidence of internal *Phomopsis* rot in the drier producing regions (lower humidity/rainfall after flowering and harvest) though sometimes at the expense of nut size and yield. This could be of major importance to the commercial future of chestnuts in New Zealand requiring specific chestnut cultivars to be matched to specific growing regions and climates. It is hoped to expand this survey to include tree growth, tree health, tree age, yield and time of flowering.

From Horttalk Nov/Dec 1999. Newsletter of the NZ Society for Horticultural Science Inc.

Over 40 Years Membership



We pay tribute to the following long-standing members of the R.N.Z.I.H.

Joined		
1933	Mr. Jas Hunter	Morrinsville
1946	Mr. J.W. Goodwin	Hawkes Bay
1947	Canterbury Horticultural Society	
	Mr. J.P. Hudson	England
	Prof. G.T. Baylis	Dunedin
	Mr. K.H. Marcussen	Christchurch
	Mr. P. Jew	Auckland
	Mr. A.R. Wilson	Hamilton
1948	Mr. J.O. Taylor	Christchurch
	Mr. G. Nicholls	Auckland
	Mr. D.R. Nathan	Auckland
	Mr. A.G. Scott	Morrinsville
	Mr. W.E. Askwith	Lower Hutt
	Mrs. A. Harris	Thames
1949	Mr. M.F. Hynes	Auckland
	Mrs. M. Yarrow	Mania
	The Open Polytechnic	Lower Hutt
	Mr. J.H. Glazebrook	England
	Mrs. A.E. Fernie	Napier
	Mr. J.H. Ward	Hamilton
1950	Mr. G.J. Bradbourne	Auckland
	Mr. L.K. Clark	Tauranga
	A Cox & Son	Christchurch
	Alexandra Hort Society	
1951	Papakura District Council	
	Mr. C.J. Walsh	Hawera
1952	Mr. W.R. Stuart	Dunedin
	Mrs. K. Reynolds	Auckland
	Mr. F.A. Robinson	Christchurch
1954	Mr. R. Nanson	Wellington
	Mr. M.E. Gelling	Australia
	Mr. A.J. Healy	Christchurch
	Mr. N.S. Joyce	Auckland
	Mr. D. Riach	Christchurch
1955	Mr. J.S. Say	Auckland
	Mr. P.J. Skellerup	Christchurch
	Mr. G. Lord,	Takaka
1956	Auckland Public Library	
	Dr. G. Mason	New Plymouth
	Mr. I.F. Bonisch	Ashburton
	Mr. A.D. Jellyman	New Plymouth
1957	Mrs. M. Kennedy	Whangarei
	Mr. E.J. Martin	Hamilton
	Mr. L.J. Metcalf	Nelson
	Mrs. R.H. Shepherd	Wellington
1958	NZ Vegetable & Potato Growers Fed.	
	Mr. A.L. Poole	Wellington
	Mr. L.C. Hurdell	Lincoln
	Mr. D. Duthie	Wellington
1959	Dr. E.O. Campbell	Palmerston Nth
	NZ Camelia Society Inc.	
	Miss J. Dingley	Auckland

A Database of New Zealand Gardens

The Institute is keen to see the establishment of a database. We would greatly welcome any comment you might have on how this might be implemented. We are beginning to investigate several models, and the ideas and views of members will, we hope, add to this process.

We would also like to hear from any garden owners (whether members or not) if they would be interested in having their gardens registered. We would also be interested on their views and what they would like to get out of such a scheme.

One of the models being investigated relies on the regional structure of the Institute's Branches, whereby an Officer/s of the Branch would be responsible for collating and verifying any

registrations received. Credibility of the data held is of utmost importance, and this model would harness the knowledge and reputation of the participating members to achieve this. If you would be interested in participating in this or a similar role, we would like to hear from you.

Lastly, so that we can gauge the general support on this initiative, please feel welcome to make known your support by contacting the Institutes office c/o The Administration Officer, RNZIH, P.O. Box 12, Lincoln University, Canterbury, or alternatively email the Institute at rnzih@xtra.co.nz. If the members want this to happen, it will.

Jayson Kelly

Floriade - Chance In A Decade At The World's Top Show

(Reprinted from Commercial Horticulture, February 2000)

Floriade, the world's largest horticultural exhibition held once every decade in the Netherlands, is a marvellous opportunity for New Zealand to internationally promote its expertise, specialty crops and new varieties and to see the latest plants and crops, says Floriade 2002 chairman, Jan van Doseberg.

"Floriade 2002 is the first major horticultural exhibition of the new Century and the first to use the Euro dollar," he says.

It runs for 192 days from the second week in April to the third week in October and covers Spring-Summer-Autumn seasons.

Four million visitors are expected for the event which celebrates horticulture today and tomorrow and occurs at a time when world horticultural income is rising significantly, says Jan.

With 50 years experience and 20 years research behind the event, he says it is an important meeting/promotional stage for the trade.

Thirty countries will show their expertise in vegetables, cut flowers, tree and shrub, pot plants, fungi such as mushrooms and the latest in technology including "the greenhouse of the future".

For the last two decades the Dutch Government has been investing heavily in horticultural research and education, says Jan. The Netherlands now leads the world in cut flower production with at 60 percent share of world trade (second is Columbia with 10

percent), 50 percent of plants and 80 percent of bulbs.

"We expect 33 percent of the 400,000 professional visitors to Floriade to come from Europe and will be providing full conference facilities for seminars." Each month displays and events will focus on specific aspects of the trade.

Haarlemmermeer, a sub-city 20km south of Amsterdam, is hosting the 2002 event.

Site covers 50 hectares

The Floriade Park covers 50 hectares – the size of Auckland Botanic Gardens (Manurewa). More than 40,000m² will be under a transparent roof and huge outdoor display areas will include gardens and orchards showing the latest planting techniques and configurations and cultural practices. The best features of the park will be retained as a public facility.

This is a major international event (sponsorship starts at \$5m), outdoor/indoor space is available for country/company combinations and New Zealand would get significant exposure from taking part, says Jan. Europeans are currently fascinated with the Pacific, the fresh and natural design ideas, the plants and the foliage, and New Zealand is in a prime position to capitalise on this interest. The Floriade theme is "feeling the art of nature" and this fits the view Europeans have of the South Pacific.

Website: www.floriade.nl for more information, or watch progress on the Internet

Taxonomy

*Reprinted with permission from GeneFlow,
International Plant Genetic Resources Institute
(IPGRI), Italy 1999*

Would you say the mustard plant and the papaya were closely related? Not a chance, right? As it turns out, their DNA tells the surprising story that the mustard and papaya families are indeed close relatives.

Molecular biology is revealing all sorts of unexpected connections between plants. The advent of DNA-based techniques for the precise characterisation of organisms has given researchers remarkable new insights into the evolutionary relationships among species and other plant groups. They have also highlighted the complexity of taxonomy, not only unveiling surprising relationships, but also refuting previously long-held beliefs.

Taxonomy is the science (and art, some would add) of naming and classifying organisms into groups. Linnaeus classified plants according to their gross form and structure, known as their 'morphology', and the appearance of plants has been the main tool of taxonomists for most of the subsequent history of botany. More recent advances have seen the use of microscopic structures, features of the chromosomes and even biochemical traits.

Ironically, the same field that has given taxonomists these powerful new tools may also make their insights less relevant to the people who use plant genetic resources, for example, for breeding. Breeders used to look to the species most closely related to their crop for useful genes, because it tends to be easier to make crosses – and therefore to transfer genes by conventional methods – between closely related plants. Taxonomists were thus needed to tell breeders where to direct their gaze. Now molecular biology is coming up with methods for transferring genes between any two organisms. Nevertheless, taxonomy will remain an important tool for revealing relationships between organisms and helping us to better understand the structure of gene pools. This has been recognised by the Conference of the Parties to the Convention on Biological Diversity, which recently called for greater attention to be given to the discipline, particularly in developing countries, which suffer from a scarcity of trained taxonomists.

Notice Board

Biodynamic Organic Education in the Hawkes Bay Area

In response to a demand for information on Biodynamics and Organic agriculture, the Biodynamic Organic Education is developing a variety of courses in the Hawkes Bay area. Some of the courses offered focus on conversion to organics. For details and further information phone Cleone Armon 06 878 3128.

World Botanic Gardens Congress

'Partnerships Within and Beyond the Garden' organised by Botanic Gardens Conservation International (BGCI), the American Association of Botanical Gardens and Arboreta (AABGA) and the Centre for Plant Conservation (CPC).

This special Congress offers a unique chance to network, plan, share experiences and establish partnerships for global plant conservation and botanic garden development.

June 25-30 2000

Asheville, North Carolina, USA

For more information contact Nann Guthrie, Congress Coordinator, 100 Frederick Law Olmsted Way, Asheville, North Carolina 28806 9315, USA. Tel: +1 828 665 2492, Fax: +1 828 665 2371, Internet: <http://www.aabga.com> or <http://www.ncarboretum.org>

Fern Flora Worldwide Threats and Responses

British Pteridological Society with Species Survival Commission, Specialist Group for Pteridophytes.

An International Symposium

23-26 July 2001

The symposium will be held on the campus of the University of Surrey in Guildford. Situated in the beautiful Surrey countryside, Guildford is an old market town with riverside walks, gardens, and historic buildings. At the same time, it has the richness and amenities of a city, and is conveniently located close to, and equidistant from both London Heathrow and London Gatwick airports.

For circular contact :

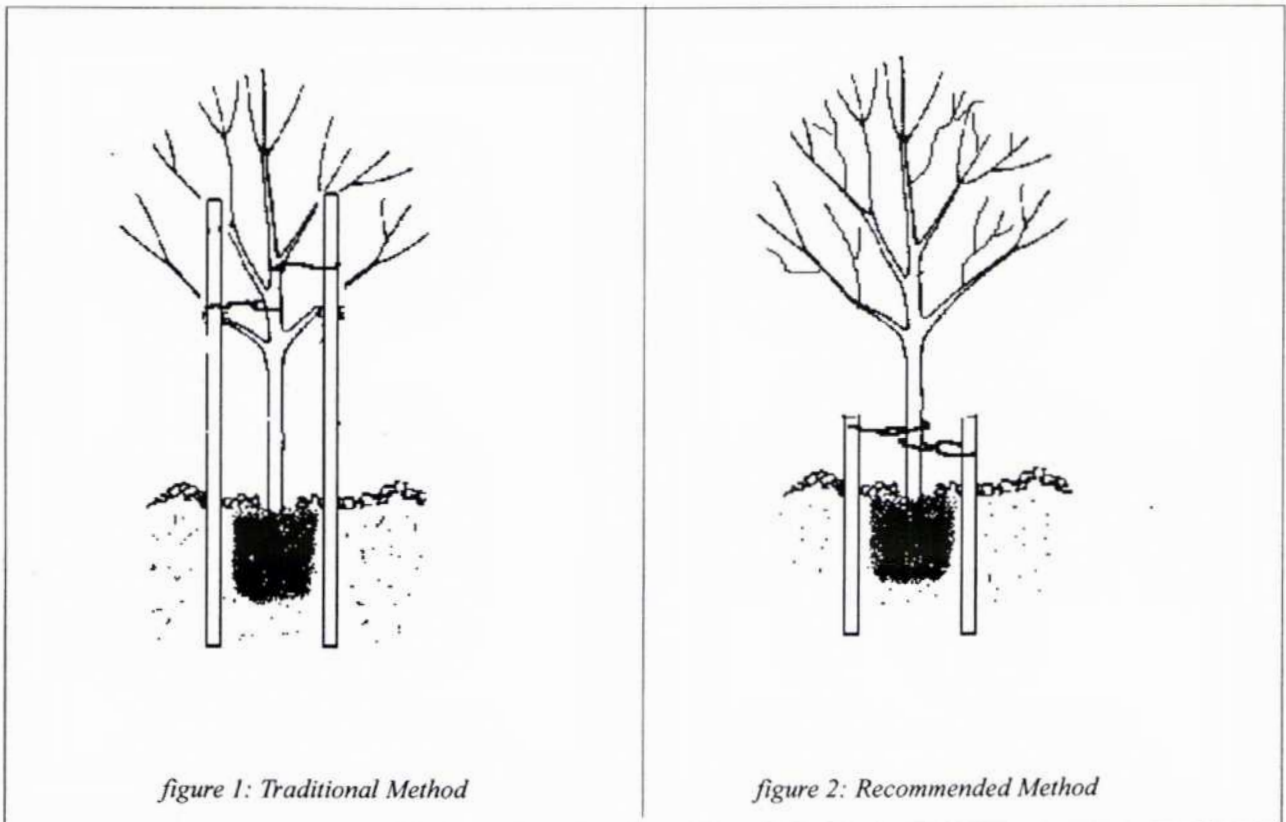
The British Pteridological Society, Department of Botany, Natural History Museum, Cromwell Road, London SW7 5BD.

The Staking of Newly Planted Trees

The traditional practice is to stake all trees after planting. Studies^{1 2} have however, shown that trees establish quicker and develop stronger trunks and root systems if they are not staked at planting time and unstaked trees have greater trunk diameter and trunk taper. From this it is evident that trees, like people can get lazy when given too much support. With this in mind, the general rule of thumb is that newly planted trees are best not staked unless they have a trunk diameter greater than 4 cm or are planted in an open or windy site. Personally I feel that stakes can cause more harm than good to trees on public land, as they tend to attract vandals.

It is often thought that the reason for staking a tree is to support the trunk. In most cases it is not the trunk that needs the support (except in the case of weak nursery specimens) but it's root system. The foliage and branches of a tree act as a sail in the wind, causing constant rocking of the roots. Excessive rocking can hinder the establishment of the root system, upon which a tree depends so much in later life.

The traditional staking technique taught to me as an apprentice was to select two long wooden or waratah stakes and to secure high in the tree (figure 1). Rather than helping the tree, this technique can hinder the formation of strengthening tissue in the upper trunk region, making it prone to snapping. The use of shorter stakes, and securing as low on the trunk as practical is now recommended (figure 2).



When staking remember to use flexible ties i.e. rubber strips that holds the tree upright but also allow the trunk to move. Ties too tight will make the tree lazy. Ties too loose may cause mechanical damage to the trunk from rubbing. Remember to remove the ties and stakes a year after planting. This is frequently overlooked causing damage to trees latter in life.

By Jonathan Casbolt
Tutor and Head of Christchurch Polytechnic School of Horticulture

¹ M.A. Powell, North Carolina State University

² T. Davis. Sydnor, Ohio Sate University

Loder Cup

The Loder Cup celebrates New Zealand's unique and distinctive flora and honours those who make outstanding contributions to its conservation..



The Loder Cup committee will meet in June to consider this year's nominations. Would you please note that nominations need to be endorsed by the 'parent' nominating organisation. This should also confirm the nominee's acceptance of the nomination.

The nomination should include a citation from the nominating organisation. This may be combined with the endorsement if it comes from the 'parent' nominating organisation.. The citation should provide some background about the nominee and a statement about the work which has led to the nomination.

For an individual, typical nomination would consist of the endorsement/citation, the Curriculum Vitae of the nominee, reference or references from recognised experts and other supporting information. Two original copies of the nomination should be provided.

Nominations remain live for two years and last year's nominations will be reconsidered this year.

If possible, the Loder Cup will be presented in Conservation Week, the first week of August, which means nominations should be received by Wednesday 31 May 2000 to enable decisions to be made in time

for the award to be presented in August.

Nominating Organisations

- Royal New Zealand Institute of Horticulture and any society affiliated thereto.
- Royal Society of New Zealand and any society affiliated thereto.
- Any University in New Zealand

Winners of the 1999 Loder Cup

Invercargill couple Brian and Chris Rance received the Loder cup in 1999 for their outstanding work in setting up a threatened plant garden and community nursery on their 10 acre property at Otatara.

The Rances are strong conservationists with a passion for New Zealand's native flora and fauna. They have helped save some of Southland's rarest plants by taking seeds and cuttings from isolated plants surviving on private land and growing them in their "Noah's Ark" garden at Otatara. Some of the plants "rescued" by the Rances have been planted back into the wild to boost wild populations, while others are being cultivated as back-up for species under threat in the wild.

The Rances aim to teach visitors to the garden how to identify some of New Zealand's rarest plants, and to understand the reasons for their decline.

The vision and hard work of Brian and Chris Rance is an inspiration for people throughout New Zealand and shows what can be achieved.

Newsletter



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