



ROYAL NEW ZEALAND INSTITUTE OF HORTICULTURE

Newsletter

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Presidential Ponderings

Our new Facebook page is now live at www.facebook.com/RNZIH/. It was created in August 2017 to provide more immediate information to our members and to reach out to the wider horticultural community. Our Facebook page includes news and views, plants of the week, upcoming events, snippets from our journal and other horticultural tidbits. It has been an immediate success, reaching more than 1,000 people in the first week.

I am excited that the RNZIH are embracing social media for outreach to a wider audience, especially younger people. I have been passionate about horticulture since I was a teenager and know full well that there are kindred spirits amongst people of all ages.

We must remain relevant in today's world, with the rise of social media and the decline of traditional gardening clubs and horticultural societies, typically with aged members and committees. It is important that if we are to use social media platforms they must be interactive and used frequently. There is a wealth of knowledge and experience to be shared amongst members of the Institute and the wider community.

In the RNZIH June 2017 Newsletter, I reported that the Auckland Horticultural Council (AHC) was teetering on the brink of extinction because too few people were prepared to take on the positions needed to run the organisation. On 19th August 2017, a Special General Meeting of the AHC was held. Thanks largely to the efforts of Diane Griffin, all positions were filled except the role of honorary solicitor. The new AHC committee is co-ordinating well and I sincerely wish them every success. Auckland Council will

take over the current AHC building for a recycling centre and will revamp one of the hexagonal buildings for the AHC.

Don't forget our forthcoming conferences next year. The RNZIH are again joining the IPPS–NZ conference. The conference will be held in Palmerston North, in late April 2018. As usual, the RNZIH Annual General Meeting and Awards Ceremony will be held prior to the Banks Memorial Lecture. Our lecturer will be Graham Smith, former Curator and Director of the acclaimed Pukeiti Rhododendron Trust garden. Also, the RNZIH NZ Gardens Trust Conference is being held in New Plymouth, in mid-April 2018. I do hope that you can join us for these events.

I had the pleasure of attending the Young Horticulturist of the Year (YHOTY) evening held mid-November 2017. Here candidates make a speech and final awards are decided and announced. As always, our RNZIH Education Trust ran the contest and evening to a high standard.

The four candidates that made it to the grand final were of high calibre and the overall winner, Shanna Hickling, is already making a perceivable contribution to her facet of the industry – as is the case for winners over previous years.

It was disappointing that there were no YHOTY contestants this year from the Landscaping NZ sector. I often wonder to what extent do 'landscapers' consider themselves to be part of the wider horticultural industry? For me this question was brought into sharp focus, when, some years ago UNITEC in Auckland chose to take the 'garden designers' out of their excellent Horticulture Department and put them into

their School of Architecture. Soon after, UNITEC ceased teaching horticulture altogether. A tragedy, as I know from first-hand experience, that horticulture had been taught to a very high standard there.

It is good that a 'NZ Flower & Garden Show' has returned to Auckland. On 28th November 2017, I attended the gala evening prior to opening, where a fortunate few people are able to admire the exhibits without getting swept along by the crowds. Kate Hillier and her business partners are to be congratulated in this undertaking. They made good use of what seemed an unlikely site of two rugby pitches. Some of the display gardens were of high quality, but to me they appeared a little like unrelated islands dotted on a green sea.

It was good to see the Prison Service represented with a quality exhibit design-wise, plus participation by some schools. It was also good to see the floristry industry well represented and using the venue for their apprentice competition. Like the landscapers, the Floristry NZ & NZ Flower Growers Inc. candidate for the YHOTY competition had also dropped out. Hopefully, next year's candidates will stay the course?

Apart from my perception of too many retail stands selling product with little or no relevance to horticulture, my biggest grizzle is the reluctance in shows of this type in New Zealand to label plants. Horticulture is all about plants. If we were to live several lifetimes, none of us could expect to encounter every species, let alone remember all the names of the plants and their cultivars that we do encounter.

Labels need not be intrusive, but without them the opportunity to learn or remember plant names is completely lost and in consequence shows like this have diminished educational value. Do car and boat shows remove logos and other identification from their products? Of course not.

Once again we must question how the public, politicians and the media perceive horticulture.

PTO

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New members

We warmly welcome the following new members:

David Bruce	NEW PLYMOUTH
Terry Dowdeswell	WHANGANUI
Sharlene King	WELLINGTON
Dharini Marinkovich	AUCKLAND
Genevieve Sayer	BAY OF PLENTY

YHOTY is akin to the Young Farmers Contest, with the latter traditionally receiving appreciable media coverage. As far as I am aware, the winner of YHOTY only received fleeting TV coverage a week after the event and the storyline was something like 'how remarkable it was that a woman was able to win such an award'.

In contrast the Music Awards and a Rugby League game, in which the New Zealand team had lost abjectly, and held the same evening, received immediate coverage *ad nauseam*. No wonder then, that the local MP and party leader, now part of the opposition, when visiting the annual Garden Show held at Highwic House in Auckland, admitted that he had no knowledge of the YHOTY competition – and one suspects none of the Royal New Zealand Institute of Horticulture either.

I rest my case.

Keith Hammett
President, RNZIH

New Executive Member

Following our drive to fill positions on the RNZIH National Executive, we now have a better gender and age balance. We warmly welcome Dharini Marinkovich who is co-opted onto our executive.

Dharini Marinkovich



Dharini works with notable plant breeder and RNZIH President Dr Keith Hammett as an assistant plant breeder working with *Clivia*, *Dahlia*, *Dianthus*, *Helianthus*, *Polyanthus* and sweet pea. In this role, Dharini assists in several areas of these breeding programs from hand pollination, evaluating and record keeping, through to maintaining parent germplasm blocks.

It was while Dharini was completing a Bachelor of Science at the University of Auckland that she discovered an interest in plants. Later while working at Seedling Systems nursery, she discovered plant breeding which appealed to her because of its scientific and practical components. Dharini enjoys all aspects of running and maintaining plant breeding programmes.

In 2017, the International Plant Propagators' Society – New Zealand Region (IPPS–NZ) chose Dharini as the recipient of the Western Region Exchange Scholarship. Dharini travelled to Canada and the United States in October 2017, first visiting nurseries around Vancouver before continuing on to the United States with further nursery visits in Washington and Oregon before attending the IPPS Western Region's conference in Wilsonville, Oregon.

Qualifications

- BSc, University of Auckland
- Postgraduate Certificate in Science, Massey University.

Industry and Professional Associations

- International Plant Propagators' Society – New Zealand Region
- Royal New Zealand Institute of Horticulture.

RNZIH Annual General Meeting

The RNZIH 2018 AGM will be held at the beginning of the IPPS–NZ conference in Palmerston North, along with the 2018 RNZIH Awards and the Banks Memorial Lecture.

Venue: Green Room at the Hotel Coachman, 140 Fitzherbert Ave, Palmerston North 4410.

Date: Thursday, 26th April 2018.

Time: Arrival from 5 pm.

Order of events:

5.30–6.30 pm – AGM followed by the award presentations (Green Room).

6.30–7.50 pm – light dinner for all attending conference.

8.00–9.00 pm – Banks Memorial Lecture (Huntermville Room).

AGM Agenda:

1. Apologies / In Memoriam
2. Minutes of the 2017 Annual General Meeting
3. Matters arising from the Minutes of the 2017 AGM
4. Presidents Report
5. Statement of Accounts for 2017 and Budget for 2018
6. Branch Reports
7. Election of Officers
8. General Business
 - 8.1 Subscriptions
 - 8.2 RNZIH NZ Gardens Trust
 - 8.3 NZ Notable Trees Trust
 - 8.4 RNZIH Education Trust
 - 8.5 Publications and website
 - 8.6 Other business.

2018 Banks Memorial Lecture (a free public lecture)

'Please Sir, I want to work with plants – and just look where that ended up!'

By Graham Smith

Venue: Huntermville Room at the Hotel Coachman, 140 Fitzherbert Ave, Palmerston North 4410.

Date: Thursday, 26th April 2018.

Time: 8.00 pm.

Cost: Free.

The Banks Memorial Lecture is a free lecture open to the public. It commemorates Sir Joseph Banks, botanist on Captain Cook's first voyage to New Zealand. During a later distinguished scientific career, Banks was Director of the Royal Botanic Gardens at Kew, London.

Banks Lecture Abstract

As a child I was always interested in the natural world around me and plants were part of that, being encouraged to garden by my parents. As one of the first apprentices in the Royal Parks of

London and then a Diploma student at Kew my dream was just beginning – but I could not have envisaged where it would take me. Coming to New Zealand in 1968 the Kew connection brought me to the Pukeiti Rhododendron Trust in New Plymouth as Curator, the beginning of a my learning curve of rhododendrons and the New Zealand rainforest.

During the next 39 years I developed contacts with rhododendron growers, collectors, botanists and national associations all around the world. I established a Registration Naming Authority for NZ hybrids through the NZ Rhododendron Association and made myself available to other international societies, speaking at their conferences about our work in New Zealand. I soon realised that taking enthusiasts with me creating enjoyable tours was a way of sharing the experiences and this became a regular occurrence. Countries visited included USA, Canada, UK, Holland, France, Italy, China, Australia, Malaysia and Papua New Guinea. During this time I was able to import or collect new plant material and introduce them to Pukeiti under the import regulations at that time. My aim through all of this was to make Pukeiti the best rhododendron garden in the world. I established the first public Vireya rhododendron collection in New Zealand and this has been enlarged four times to become the second largest in the world.

In retirement I spent two years entering the Pukeiti rhododendron collection onto the BGBase botanical database system and then continued assisting new staff under the Taranaki Regional Councils ownership of Pukeiti. I also found time to co-write a book with Glyn Church and Pat Greenfield on the 'Big Leaf Rhododendrons', the first time this subject had been dealt with. An ongoing project cataloguing the 'Gwavas Woodland Garden' in Hawke's Bay with Alan Jellyman continues to challenge my broader plant knowledge and at the same time provides a working document for the future management of this unique collection.

The Banks Lecture is an opportunity to show you something of my life's horticultural journey, which still continues.



Graham Smith at the opening of a walk bearing his name, 21st March 2009.

Graham Smith's Biography

Graham Smith is former Curator and Director of the acclaimed Pukeiti Rhododendron Trust garden, an internationally recognised garden established in 1951 with one of the most diverse collections of rhododendrons on display anywhere in the world.

Graham's horticultural career began in the UK, with an apprenticeship in the Royal Parks, London, based at Regent's Park for five years, and then gaining a Kew Diploma at Kew Gardens over the next three years. As a 24 year-old, Graham arrived in New Zealand in 1968 and originally planned to spend a two-year working holiday here.

Within three months of arrival he was appointed as Curator of the Pukeiti Rhododendron Trust. He ended up serving at Pukeiti for 39 years before retiring as their Director in 2008.

Graham remains an avid plantsman; he is still involved in Pukeiti and is also an assessor for the Taranaki Rhododendron Festival, having been involved in that since the concept stage more than 25 years ago.

2018 IPPS New Zealand Region Conference

26–29th April 2018

‘Mind Blowing’

The RNZIH are again joining the International Plant Propagators’ Society – New Zealand Region (IPPS –NZ) conference for 2018.



The conference will open on Thursday night at the Hotel Coachman in Palmerston North where Graham Smith, former Curator and Director of Pukeiti Rhododendron Trust garden will deliver the 2018 Banks Memorial Lecture.

The conference will have papers on growing superfoods, propagation technology, hybridisation, myrtle rust, kakabeak conservation, producing standard rhododendrons and more.

There will be visits to well-known local nurseries including Plantlife Propagators, Kilmarnock Nurseries, Perssons Nurseries, Leafland Tree Nursery, Starter Plants, Sunshine Environmentals and Plant & Food Research.

Friday night will be dress-up night at Central Energy Trust Arena with the theme of ‘Student Times – yesterday, today and tomorrow’ while Saturday night will be the formal dinner with auction and awards.

Pre-conference Tour

Philip Smith is leading a pre-tour around some local nurseries and horticultural operations, departing the Hotel Coachman on 26th April 2018 at 8 am, and arriving back at around 4 pm. Numbers are limited to 30 so get in quick.

Registration

Registration is now open to both RNZIH and IPPS–NZ members. The cut-off dates are: 15th Jan – 15th Feb = \$350 early-bird; 16th Feb – 1st April = \$395 regular; 2nd April – conference start = \$450 late fees.

See the IPPS New Zealand Region 2018 Conference page at <http://nz.ipp.org/event/Regional-Events/IPPS-New-Zealand-Region-Conference-2018/QJKUK5nJTNEJTNE> to download a registration form, accommodation options and program. Contact Hayden Foulds (haydenfoulds@gmail.com) for further information.

Congratulations

Congratulations to the RNZIH Education Trust for another year successfully running the Young Horticulturist of the Year competition, and to all four contestants for their successes – **Shanna Hickling** from Riversun Nursery, Gisborne, **Tim Adams** from Obsidian Vineyards, Waiheke Island, **Pippa Lucas** from Auckland Botanic Gardens, and **Erin Atkinson** from Apata Group, Te Puke.



Shanna Hickling became the overall winner of the competition for 2017. The full results of the YHOTY competition, as well as **Tim Adams’** winning speech, are published in the December 2017 issue of *The New Zealand Garden Journal (Journal of the RNZIH)*.



Finalists in the 2017 Young Horticulturist of the Year competition; (left to right) Pippa Lucas, Shanna Hickling, Tim Adams, and Erin Atkinson.

Congratulations to **Helen Elizabeth Lowe** of Christchurch for being the 2017 recipient of the NZ Arb Ronald Flook Award – an award which recognises outstanding service to the care and protection of trees in New Zealand.



Helen Lowe holding the NZ Arb Ronald Flook Award.

The award was granted to Helen in recognition of her huge personal efforts leading a small team of experts to ensure that about 1,500 heritage and notable trees remain protected on Christchurch’s Replacement District Plan.

Helen’s achievement is regarded as significant, not only because of the importance of Christchurch’s most notable trees to both the city – and New Zealand’s – natural and cultural heritage, but because of the importance of retaining their physical presence and cultural legacy in Christchurch’s post-earthquake ‘geography of loss.’

Helen’s award citation was read out to an audience during the NZ Arb Conference, on 28th October, in Tauranga.

The citation prepared by Seth Thompson (President NZ Arb), and Helen Lowe’s written acceptance reply is published in the December 2017 issue of *The New Zealand Garden Journal (Journal of the RNZIH)*.

Congratulations to **Brad Cadwallader** of the NZ Notable Trees Trust for his interview on Radio NZ on 25th Sept 2017.

During the interview, Brad explained that the New Zealand Tree Register is an online record of our finest trees and encouraged people to add records to this important database.

Listen to his interview at: www.radionz.co.nz/national/programmes/afternoons/audio/201859868/notable-trees-of-new-zealand



Brad Cadwallader.



Bill and wife Peggy with his *Flora of the Cook Islands*. Source: www.landcareresearch.co.nz/about/news/snippets/first-complete-flora-milestone-for-cook-islands

The Friends of the Christchurch Botanic Gardens awarded **W. R. (Bill) Sykes** a Life Membership Award for his very long service as Honorary Botanist to the Friends.

'Botany Bill' also recently received the title of Foreign Member of the Linnean Society of London (the world's oldest active biological society). It was awarded for Bill's recent *Flora of the Cook Islands*, launched at Landcare Research in June 2016, and more recently in Rarotonga in August 2017. The material for this 1,000 page tome was collected and collated by Bill over the last thirty years.

Bill Sykes first joined the RNZIH in Nov 1961, and was made an Associate of Honour (AHRH) in 1992.

Congratulations to **Paul Champion** for receiving the Allan Mere Award for 2017.



Dr Paul Champion.

The Allan Mere is awarded by the New Zealand Botanical Society to outstanding botanists to acknowledge their contribution and work.



The Allan Mere.

Paul Champion is Principal Scientist and Programme Leader (Aquatic Plants and Freshwater Biosecurity) at the National Institute of Water and Atmospheric Research (NIWA).

Paul is an outstanding botanist with more than 30 years' experience in the field of plant ecology and has authored more than 200 significant publications during this time. He has specialist expertise in biosecurity, plant ecology and conservation of endangered plant species, especially in freshwater and wetland habitats.

Paul has made an outstanding contribution to botany in New Zealand with an unusual breadth of knowledge in being both an expert in weeds and threatened plants, along with the full freshwater ecosystem spectrum.



Prof Peter de Lange holding the Loder Cup, alongside Ewen Cameron (ex Loder Cup winner) and Lucy Cranwell's grand-niece.

Congratulations to **Peter de Lange** for receiving the Loder Cup for 2017, New Zealand's premier conservation award.

Prof Peter de Lange has spent the last 25 years spearheading a threat-listing system developed for New Zealand vascular plants, and extending his vision to lesser-known non-flowering plants including ferns, mosses, liverworts and lichens. He has an encyclopaedic knowledge of the New Zealand flora.

Over the course of his career in botany he has co-ordinated and overseen the publication of six threat listings of the indigenous vascular flora. These listings have clearly prioritised the focus for conservation research and made a tangible difference to the protection of New Zealand's indigenous flora.

Peter was the lead author behind the *Threatened Plants of New Zealand* book in 2010. This book is a major landmark in New Zealand plant conservation and provides detailed descriptions of 180 plant species considered threatened because of human activity.

2018 RNZIH Awards: Nominations close 31 December 2017

1. **Associate of Honour (AHRH):** "Persons who have rendered distinguished service to horticulture."
2. **Fellow (FRH):** "Members who have made a significant contribution to horticulture by their activities or interest in or service to horticulture."
3. **Plant Raisers' Award:** This Award is granted to "any nominated individual or organisation who has raised in New Zealand a cultivar considered to be sufficiently meritorious."
4. **Garden History Award (Award in Horticultural History and Conservation):** The award is granted to "any nominated individual or organisation within New Zealand making distinguished contributions to horticultural history and conservation."

Contact office@rnzih.org.nz if you know of anyone who may be a worthy recipient (but please do not tell that person). More details at www.rnzih.org.nz/pages/awards.html.

RNZIH New Zealand Gardens Trust

NZGT Conference 2018
'Taranaki – the Garden of New Zealand'
13–15th April 2018

The 2018 NZGT conference will be based at the Devon Hotel, New Plymouth, Taranaki. Accommodation is also offered at the venue.



It's been about 10 years since the inaugural NZGT Conference which was held in Taranaki so it is indeed timely to welcome you back there.

Taranaki has been known as the 'Garden of New Zealand' since the 1840s and it is appropriate that this legacy continues through the theme of our autumn gathering. Gardening is part of our culture.

This is an exciting opportunity for us to share our public and private gardens that are part of the NZGT family. The region is famous for its rhododendrons and spring gardens but this event will illustrate that we have much more to offer than the traditional spring experience.

We'll broadly cover the spectrum of genres and styles, formal and informal, native and exotic and everything in between. Within the programme we also have a range of Taranaki speakers that will cover subjects from garden history, garden tourism, plants and design.

This is also the time when we get together and share these experiences, enjoy the fellowship and learn from each other. We look forward to hosting you and sharing our gardens.

Details of the conference programme, garden tours, speaker profiles and registration form will appear on the NZGT website at www.gardens.org.nz/nzgt-conference/ and in the NZGT Newsletters at www.gardens.org.nz/nzgt-newsletters/

All RNZIH members are welcome to attend the NZGT conference. Contact Jenny Oakley or Irene Collins for further information.

NZGT Taranaki Organising Committee:
Jenny Oakley
(email: jennyoakley100@gmail.com),
Greg Rine, Jennifer Horner and
Clare Mewse

Irene Collins, Administration Manager
New Zealand Gardens Trust
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Myrtle rust in New Zealand: the fast moving villain

Background



Metrosideros kermadecensis infected with myrtle rust.
Photo: Bob Makinson.

Myrtle rust (*Austropuccinia psidii*), also known as guava/eucalyptus rust, is a fungal pathogen which is native to South America. The rust has been spreading globally since 1900 and now consists of several 'strains' and although these strains vary in host preference and severity, it is only found on Myrtaceae species (plants in the Myrtle family). Myrtaceae is the family which includes species of *Agonis*, *Angophora*, *Callistemon*, *Corymbia*, *Eucalyptus*, *Leptospermum*, *Metrosideros*, *Syzygium* etc.

In New Zealand, myrtle rust has the potential to severely affect native iconic species such as pōhutukawa and rātā, economically important natives such as mānuka and exotics such as feijoa and gum trees.



Pōhutukawa, an iconic native species at risk from myrtle rust. Photo: Murray Dawson.

or equipment), and movement of infected plants. Spores can remain viable for up to 90 days at 15°C and 35–55% relative humidity, with shorter lifespans expected at higher temperatures.

The spores can also survive cold storage conditions, and even remain viable after 150 days at up to -190°C (Salustiano et al., 2008).

It is suspected that the arrival of myrtle rust in New Zealand happened during a major wind event (Rebecca Martin, MPI, pers. comm.). It is now widespread on Raoul Island where it first arrived and is rapidly spreading around the North Island.

Current status

In the North Island, myrtle rust was first confirmed in Kerikeri, Northland on 3rd May 2017 (from two sites) and then in New Plymouth on 17th May 2017 (10 sites). As of December 2017, myrtle rust has spread to six North Island regions – Northland, Auckland, Waikato, Bay of Plenty, Taranaki and Wellington.

Although the Ministry of Primary Industries (MPI) is attempting eradication, infected plants within these areas were already releasing spores at the time of detection, making it highly unlikely that myrtle rust can be contained.

Response actions

The response to myrtle rust presents a complex biosecurity challenge since it potentially impacts on primary industry (i.e., honey, forestry, plant nurseries, feijoa) and the natural environment (native New Zealand Myrtaceae species), it involves multiple regions across New Zealand and there are no known large-scale controls for myrtle rust. Fungicides are highly ecotoxic and can only be used in highly controlled environments such as isolated plants in a nursery.

Information on susceptibility/resistance of New Zealand species is extremely limited. This makes it difficult to predict what the possible impact of the rust will be as some species or even genes within a species may or may not be resistant to myrtle rust – at this early stage, we just don't know.

Collaborations between MPI, the Department of Conservation, Botanic Gardens, Massey University, New Zealand Indigenous Flora Seed Bank, Scion, Plant and Food Research and many more people and organisations, are focusing on the following aspects:

- National seed and germplasm collection to establish *ex situ* collections of New Zealand Myrtaceae species

In April 2010, myrtle rust was confirmed on a plant production property in Wyong, Australia and it has now established widely in coastal eastern Australia, including Tasmania where it was confirmed on *Lophomyrtus* early in 2015.

In the history of this pathogen, there has never been a successful eradication of myrtle rust from a country that it has arrived in.

Spread and dispersal

Myrtle rust spreads rapidly through highly mobile spores which can be dispersed by wind, animals (including insects), humans (on clothing

- Research into storage behaviour to inform seed banking
- Alternative germplasm conservation (tissue culture and cryopreservation) options for species which are likely to be recalcitrant (seed that can't be dried out and frozen), or species not producing viable seed such as the nationally critical *Metrosideros bartlettii*
- Determining susceptibility and/or resistance of New Zealand Myrtaceae species to inform better surveillance and germplasm collection. Trials are being conducted in Australia and South Africa.

References

Clark, S. et al. (2011). Risk analysis of the *Puccinia psidii* / Guava Rust fungal complex (including *Uredo rangellii* / Myrtle Rust) on nursery stock. Ministry of Agriculture and Forestry, Wellington.

Salustiano, M.E.; Pozza, E.A.; Ferraz Filho, A.C.; Castro, H.A. (2008). Viability of *Puccinia psidii* urediniospores stored in different environments. *Tropical Plant Pathology* 33(4): 313–316.

If you suspect the presence of myrtle rust, take clear photographs and contact MPI immediately on 0800 80 99 66. Due to the risk of spread, it is important not to collect any plant material. More information can be found on MPI's website (www.mpi.govt.nz/protection-and-response/responding/alerts/myrtle-rust).

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