



# Collaboration and Achievement over 35 years



MARLBOROUGH  
RESEARCH  
CENTRE  
Te Rito Hiranga o Wairau



# 35 years & still growing

Connecting Research + Business  
Marlborough's only science and technology hub.



MARLBOROUGH  
RESEARCH  
CENTRE  
Te Rito Hiranga o Wairau

   Only Marlborough

Sep 07 Oct 14 Oct 21 Oct 28 Oct

# contents

2	Overview
3	MRC Social Media Snapshot
4	Personnel
5	Personnel
6	New Faces
7	New Faces
8	Organisational Structure
9-12	Our Year at a Glance
13-22	Research & Development Highlights
23-44	Financial Reports

# overview

## MRC Annual Report 2018-2019

The founding document for the Marlborough Research Centre Trust (MRC) was signed by John Marris, Phillip Collins and Edwin Pitts in July 1984. Since that date, the locally grown research organisation has funded relevant industry driven primary sector research.

From the beginning, MRC's objective was to support Marlborough's primary sector to reach full economic potential, to use the region's natural resources wisely and build a strong resilient regional economy.

Our involvement with that sector has always been at grass roots level, by funding local research provided by resident scientists and technicians. We have worked alongside farmers, horticulturists and increasingly, viticulturists and winemakers.

As Marlborough's land-based production sector has evolved and changed, so has MRC, and our focus since 2003 has been closely aligned with the development and growth of the grape and wine sector. Marlborough's reputation as a premium grape grower and winemaking region has been built on quality production. So too has research that underpins and creates new pathways to the future by using new technology, innovation and creative scientific thinking.

We have always accepted that the decision by farmers and landowners on how to use the land, and which crops to grow, is a commercial one based on how best to maximise potential value from that land. So MRC has adapted to changing land use in the Wairau and Awatere valleys. The wine industry is now well established and is a dominant landscape feature across a range of soil types and locations.

Over the past 35 years, MRC has adapted and evolved because of what farmers have chosen to grow. Our response has always been aligned with, and responsive to, industry. Currently, new infrastructure investment is essential to support the wine sector to develop world leading research capability around Bragato Research Institute (BRI) and support the Nelson Marlborough Institute of Technology (NMIT) to establish its capability around vocational training for the grape and wine sector.

MRC has now reached another stage of development and growth. Partnering with NMIT and BRI, MRC will grow scientific and research capability hand-in-hand with viticultural and oenological education and related skills training.

In conjunction with this major investment, MRC is planning to establish an integrated campus. This will become a research, science and education hub that will magnify Marlborough's reputation as an internationally significant wine region that is underpinned by science, technology development and education.

### Creating an integrated National Wine Centre for NZ

Marlborough Research Centre has been working with

NMIT, BRI, Plant & Food Research to realise the vision for a national wine centre of industry, research and education on the Budge Street campus in Blenheim, Marlborough.

This has been progressed through the Provincial Growth Fund (PGF) and is currently the subject of a funding application to assist MRC to take the lead in establishing the national centre.

### Bragato Research Institute

New Zealand Winegrowers' trading entity 'Bragato Research Institute' has advanced considerably during the past financial year, with the Research Winery currently under construction and expected to be completed and operational for the 2020 Vintage.

The Research Winery is another major investment upon which the National Research Centre and the Integrated Wine Hub will be created on the Budge Street campus.

### Flaxbourne post-earthquake water resource studies

The 2016 Kaikōura earthquake lifted the seabed floor, changed the topography and elevation of the east coast, changed flood hazards in the area and impacted on the water resource quantity and quality.

The Ministry of Primary Industries (MPI) has responded to the challenges facing provincial communities by providing funding to assess and mitigate the impacts of the earthquake on these areas. MRC has administered and supported this programme and investigation works have primarily been conducted under the guidance of Dr Jack McConchie of Opus International.

The key analysis has provided information on river flows, flooding, gravel build up and water resources which will assist in future strategies and planning for the community.

In particular, the investigation work has identified a more reliable community water source in the event that siltation and low flows impact on the existing supply. A by-product of the work carried out is LIDAR, which is available for landowners in the area and will significantly assist on-farm planning and management.

### In brief:

1. A cash surplus of \$1.1 million is earmarked for designing and building an integrated hub to establish the NZ Wine Centre.
2. MRC has invested \$70,000 in resources and capital into planning, design and architectural drawings to establish an integrated wine research hub.
3. Construction of the NZ Wine Centre is planned to commence in 2020 once funding is secured.
4. After a very successful five-year programme of support and development, the Marlborough Food and Beverage Cluster is dormant.
5. MRC sponsored '101 Ways with Wool' organised by Marlborough Provincial Rural Women New Zealand.

# MRC social media snapshot oct 2019

Over the past 12 months Marlborough Research Centre’s Facebook page likes have increased by 38%.

MRC uses social media to grow the visibility of its activities and to share relevant information from tenants and primary industry with its audience. Social media is also assisting MRC to promote events and seminars.

On average, 695 people per month received content from MRC’s page through organic (unpaid) distribution. However, the monthly reach peaked at 2,591 people.

Content about ‘our people’ remains the most popular.

### Most popular posts

“Plant & Food Research scientist Dion Mundy based at Marlborough Research Centre is leading the charge on how grape growers can control trunk disease. He has been studying grape vine trunk disease since 2007.”

This post reached 1,434 unique viewers.

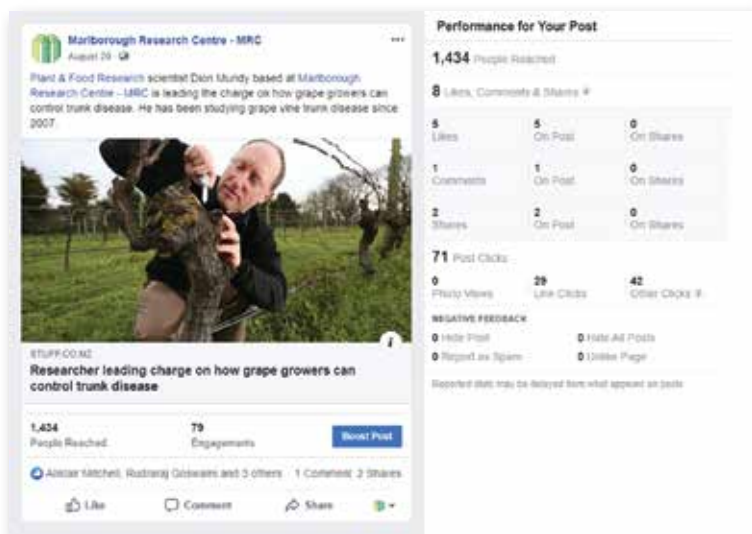
“NZ Dryland Forest Initiative’s project manager Paul Millen has been awarded the 2018 FOREST GROWERS RESEARCH AWARD for Communication and Sector Engagement at the Forest Growers Research Conference in Tauranga by his peers. We congratulate Paul on this achievement.

This is well deserved and acknowledges the tremendous commitment and leadership that Paul has consistently shown fronting the NZDFI programme.

Marlborough Research Centre has a long association with this incredibly successful programme. Over 10 years ago MRC committed start-up funding to undertake trial work for the selection of suitable durable eucalypt hardwoods to be used for vineyard posts, horticulture trellising, and a multitude of structural and decorative uses.

Thanks also goes to the many who have shown positive interest and support in the NZ Dryland Forest Initiative (NZDFI’s) programme. We are passing on thanks from Paul for your willingness to engage in learning from the NZDFI research and to collaborate with our development of durable eucalypt species that will diversify regional forestry land use, sequester carbon and supply future hardwood timber processing.”

This post reached 1,177 unique viewers.



# personnel

as at 30 june 2019

## MRC TRUSTEES

Bernie Rowe	LL.B	Chairman
Edwin Pitts		Trustee
Ivan Sutherland	VFM, ANZIV	Trustee

## MRC BOARD

Edwin Pitts		Chairman
Brian Jordan	BSc(Hons), PhD, MRSNZ	Lincoln University
Warwick Lissaman	BCom, PG Dip Com	Pastoral Representative
Andrew Naylor	MAppSc (Vit)	Pernod Ricard Winemakers
Mark Peters	FCA	Marlborough District Councillor
Roger Robson-Williams	BSc (Hons), PhD, PG Dip Leadership	Plant & Food Research
James Jones	BAGSci (Hons)	Wine Industry Representative

## MRC

Gerald Hope		Chief Executive
Mandy Mitchell		Executive Administrator
John Patterson	BCA	Associate MRC

## ROWLEY VINEYARD

Contracted to Giesen Group Ltd

## BUDGE STREET CAMPUS

### Plant & Food Research

Damian Martin	BSc, DEA, PhD	Science Group Leader
Mike Trought	BSc (Hons), PhD	Honorary Fellow
Rob Agnew	BAgrSc	Scientist
Jeff Bennett	BSc (Hons), PhD	Scientist - Adjunct Lecturer Lincoln University
Marc Greven	BAGSci (Hons), PhD	Scientist - Adjunct Lecturer Lincoln University
Dion Mundy	BSc, MSc (Hons)	Scientist
Claire Grose	BSc Viticulture & Oenology	Research Winemaker
Sue Neal	DipHort, DipFieldTech	Research Associate
Victoria Raw	BSc (Hons Agri), GDip(Vit)	Research Associate
Bex Woolley	BBMedSc (Hons)	Research Associate
Junqi Zhu	BSc, PhD, MSc	Scientist
Lily Stuart	Bag, PG Dip in Oenology	Research Associate
Cherryl Fitzgerald	BBus (Mgt)	Site Administrator
Jennifer Beullens		Site Services Administrator
Richard Hunter	Dip Ag, JP	Māori Relationship Advisor
Rafidah Horner	MSc (Immunology)	Permanent Seasonal Worker
Rachel Bishell	BA(Hons), MA	Permanent Seasonal Worker
Sandra Scott	Site Administrator	
Tanya Rutan	MSc (Hons), PhD Chemistry, BSc (Hons) Biology	
Lorna Deppe	PhD	Post-doctoral Scientist
Franzi Grab	MSc, GDip (Vit&Oen)	Permanent Seasonal Worker
LinLin Yang	BSc Viticulture & Oenology	Permanent Seasonal Worker
Muriel Yvon	MSc (Food Technology & Oenology)	Technician
Stoneigh Waihape		Research Associate/Laboratory Manager
Wietske van der Pol	MA, PG dip V & O	Permanent Seasonal Worker

**Bragato Research Institute**

MJ Loza	BCom, LLB	CEO
Tracy Bengé	BCA. CA	Development Manager
Will Kerner	MSc (First Hons)	Research Programme Manager
Jacqueline Wood	BSc (Hons)	Assistant Winemaker
Fang Gou	PhD	Data Co-ordinator
Len Ibbotson	BSc	Viticulture Extension & Research Manager
Darrell Lizamore	PhD	Principal Research Scientist – Grapevine Improvement
Michelle Barry	MSc	Technical Communications Specialist
Matias Kinzurik	PhD	Research Programme Manager (Auckland)
Janette McKibbin	BFA	Research Administrator (Auckland)

**Marlborough Winegrowers Assn Inc (Wine Marlborough Limited)**

Marcus Pickens	BCom, Dip.Com	General Manager
Harriet Wadworth	BDes	Marketing & Communications Manager
Georgie Leach	BA, WSET	Events Manager
Nicolette Prendergast		Seasonal Labour Coordinator
Joanna May	Financial Administration	
Vance Kerslake	BA, MA (applied)	Advocacy Manager
Loren Coffey		Events Manager

**New Zealand Winegrowers**

Justine Tate	BCom	Business Manager Sustainability
Edwin Massey	PhD	Biosecurity & Emergency Response Manager
Sophie Badland	BBmedSc, BA	Biosecurity Advisor
Teresa Smith		SWNZ Membership Administrator
Sandy McArthur		SWNZ Membership Administrator
Hazel Thomson	Dip Env't & Sustainability	SWNZ Membership Administrator
Louise Vickery	Dip Vit & Wine Production	SWNZ Membership Administrator
Meagan Littlejohn	M.A.	SWNZ Membership Administrator
Bridget Ennals	BSc (Hons) Horticulture	SWNZ CI Manager

**GROVETOWN PARK CAMPUS****AsureQuality Limited**

Peter Brunsdén

**GCH UAV Limited**

Darryl Hodgson

**Ngati Toa Wairau**

Johnny Joseph

**Hill Laboratories**

Hamish Keown M.Sc (Hons)

**Ministry for Primary Industries**

Compliance and Resources (Fisheries) –

Chris Beal/Liz Murray/Ramon Smith

Maori Primary Sector Partnerships -

Judith MacDonald

Verification Services -

Brian Roughan / Shirley Morrison

**Vector Free**

Barry Polson/

Shelley Hartland/

Sean Sawyers (West Coast)

**Marlborough Tour Company**

Chris and Sue Godsiff

# new faces

**JACQUELINE WOOD**  
**Assistant Winemaker - BRI**

Jacqui recently joined the Bragato Research Institute (BRI) team as Assistant Winemaker, working in the new research winery (in the NMIT teaching winery) alongside the BRI team and Claire Grose from Plant & Food Research (PFR).



Jacqui will be helping oversee the setup of the new facility and will be undertaking the winemaking trials during harvest in the new custom-made fermentation tanks.

After completing a post graduate degree in biochemistry, Jacqui spent time working as a research assistant for Lincoln University before relocating to Marlborough in 2010 with her family to take up a position in the wine industry.

Since then she has done a number of overseas vintages and worked with several Marlborough wineries in both winemaking and laboratory manager positions.

**FANG GOU**  
**Data Co-Ordinator - BRI**

Fang started her studies at China Agricultural University in Beijing, receiving her BSc majoring in agro-meteorology, and her MSc in simulation and modelling intercropping systems. Building on that, she received her PhD from Wageningen University in the Netherlands on yield gains in wheat-maize intercropping systems.



Fang lives in Blenheim with her husband Jun-Qi and daughter Julia. Jun-Qi works at Plant & Food Research, also based on the Budge Street campus.

Fang's key project will be to establish a catalogue of the industry's existing research data – so BRI (and other researchers) know what's already been done, what data exists, and how to access it. Depending on findings, BRI will also look at putting that data into a database, or collection of databases, where that information may be analysed across different projects.

For future projects, BRI will be establishing data standards and protocols and a new research database framework to be able to mine the full potential of the data generated and collected.

**LEN IBBOTSON**  
**Viticulture Extension and Research Manager - BRI**

Originally from Hawkes Bay, Len studied Viticulture and Oenology at Lincoln University before heading to Central Otago, working for several years in various operational and technical management roles in the local wine industry.



Since relocating to Marlborough in late 2016, Len managed the viticulture programme for Matua's company-owned vineyards until a recent move to join the BRI team as the Viticulture Extension and Research Manager.

**DARRELL LIZAMORE**  
**Principal Research Scientist, Grapevine Improvement - BRI**

Originally from Stellenbosch, South Africa, Darrell recently joined the Bragato Research Institute after working on the grapevine genetics programme at Lincoln University since 2009.



During that time he studied mobile DNA in the grapevine genome, developing DNA sequencing and tissue-culture protocols to produce new clones. He established a rapid commercial DNA test for grapevine varieties and held a part-time secondment to the Bio-Protection Research Centre in bioinformatics.

Darrell has been tasked with setting up BRI's Grapevine Improvement research programme and laboratory in Blenheim.

**MICHELLE BARRY**  
**Technical Communications Specialist - BRI**

Since moving to New Zealand from Ireland in 2015, Michelle has worked in vineyard and winery roles with Craggy Range, Big Sky and Giesen.



Michelle's background in environmental science and soil science provides her with a unique perspective on winegrowing, as well as research and technical writing skills. "I'm excited to join the BRI team and I'm really looking forward to helping put research into action in the wine industry," said Michelle.

Last year Michelle completed a harvest in Mosel and she loves wine so much she's producing small volumes of Pinot Noir, Pinot Gris, Sauvignon Blanc and Rosé with her partner Tom.

**JANETTE MCKIBBIN**  
**Research Administrator - BRI**

Janette McKibbin has worked for New Zealand Winegrowers for more than 10 years. She is the Research Administrator for BRI and is based in Auckland.



Janette holds a Bachelor of Fine Arts from the University of Auckland.

**DR MATIAS KINZURIK**  
**Research Programme Manager - BRI**

As a Research Programme Manager based in Auckland, Matias is responsible for oversight of a number of research projects. These include the Lighter Wines project and Pinot Noir project.



With a background in research science, Matias holds a Bachelor of Science in Molecular Biology and Biotechnology from the University of Buenos Aires, Argentina, as well as graduate degrees in Chemistry from both Rice University, USA, and the University of Auckland.



**STUART FIELD****Researcher, Viticulture Lecturer - NMIT**

Stewart is currently positioned at the Nelson Marlborough Institute of Technology (NMIT) in Marlborough. His role is split between research activities and teaching on the Viticulture and Wine degree programme.



Stewart received a PhD in viticulture at Charles Sturt University and subsequently worked as a vineyard manager in the New Zealand and Australia wine industries.

Prior to NMIT, he spent five years teaching viticulture and completing research at the Eastern Institute of Technology in Hawke's Bay. When not at work, Stewart has four young children to help look after with endless sporting activities taking place all week.

**PAM WOOD****Programme Lead Specialist - NMIT**

Pam recently joined NMIT's Marlborough campus as the Programme Lead Specialist, with responsibility for the Viticulture and Winemaking Programmes. Taking on this role has enabled her to return to the South Island, where she studied Horticultural Management at Lincoln University during the 1980s.



Pam's father is from Ashburton, so she was fortunate to spend time in the south during her childhood.

Pam also holds a National Diploma in Horticulture and has spent her entire working life in the horticulture industry. She has a huge passion for primary industries which she believes comes from being a fifth-generation farming family on both sides.

Pam's special interest is in "people in primary industries", and more recently she completed a Graduate Diploma in Human Resource Management where she based her research on developing people and teams.

Pam has had 13 years in tertiary education, as a senior lecturer (horticulture), programme leader and industry engagement coordinator. She has spent the past 11 years with Manukau Institute of Technology in South Auckland where her last role was Head of Practice, Primary and Creative Industries.

Pam's passion lies in networking and making connections with stakeholders and allowing this to inform the programmes so that the needs of industry can best be met. She is looking forward to getting to know the full range of regional stakeholders including schools, community, council, iwi and local vineyards and winemakers.

**JULIAN THEOBALD****Viticultural Scientist - PFR**

Julian has joined Plant & Food Research as a Viticultural Scientist working on various research programmes, including Pinot Noir for increased yield and quality, grape yield prediction and the application of digital



technologies and fundamental plant science to optimise management for long-term, low input, sustainable vineyard production systems.

Julian has a PhD (Plant Physiology) from Rothamsted Research (UK), where he investigated the impacts of climate change on photosynthesis, nitrogen use and yield in wheat. At the Centre for Sustainable Agriculture (Lancaster University, UK) he investigated mechanisms of root-to-shoot chemical signalling in response to soil drying (drought) and the use of rhizobacteria and biological chemistries for the alleviation of various crop stresses. This included collaborations in vineyards (CSIRO-Adelaide) developing remote-sensing tools for irrigation scheduling and at Massey and Lincoln Universities, exploring impacts of ultraviolet radiation on Sauvignon Blanc.

In 2012, Julian relocated to Marlborough for five vintages with Pernod Ricard Winemakers (Brancott Winery) in technical, scientific and laboratory management roles. There, he established trials for grape quality optimisation, with research-scale winemaking and analysis to understand 'vine to glass' management impacts on wine quality.

Most recently, he joined PGG Wrightson-Fruitfed Supplies for two seasons conducting vineyard trials across Marlborough-Tasman, assessing the efficacy of conventional and softer biological chemistries for crop protection and grapevine tolerance to environmental stress.

**JEN BEULLENS****Site Administrator - PFR**

Jen joined the Plant & Food Research Centre as Site Administrator in September 2019, where she is responsible for general administration, site health and safety and personal assistance to local senior staff.



Jen originally studied and worked in journalism but, since moving to Marlborough in 2000, has been employed within the wine industry in both hospitality management and, more recently, the export sector.

She is very slowly working her way through a communications degree.

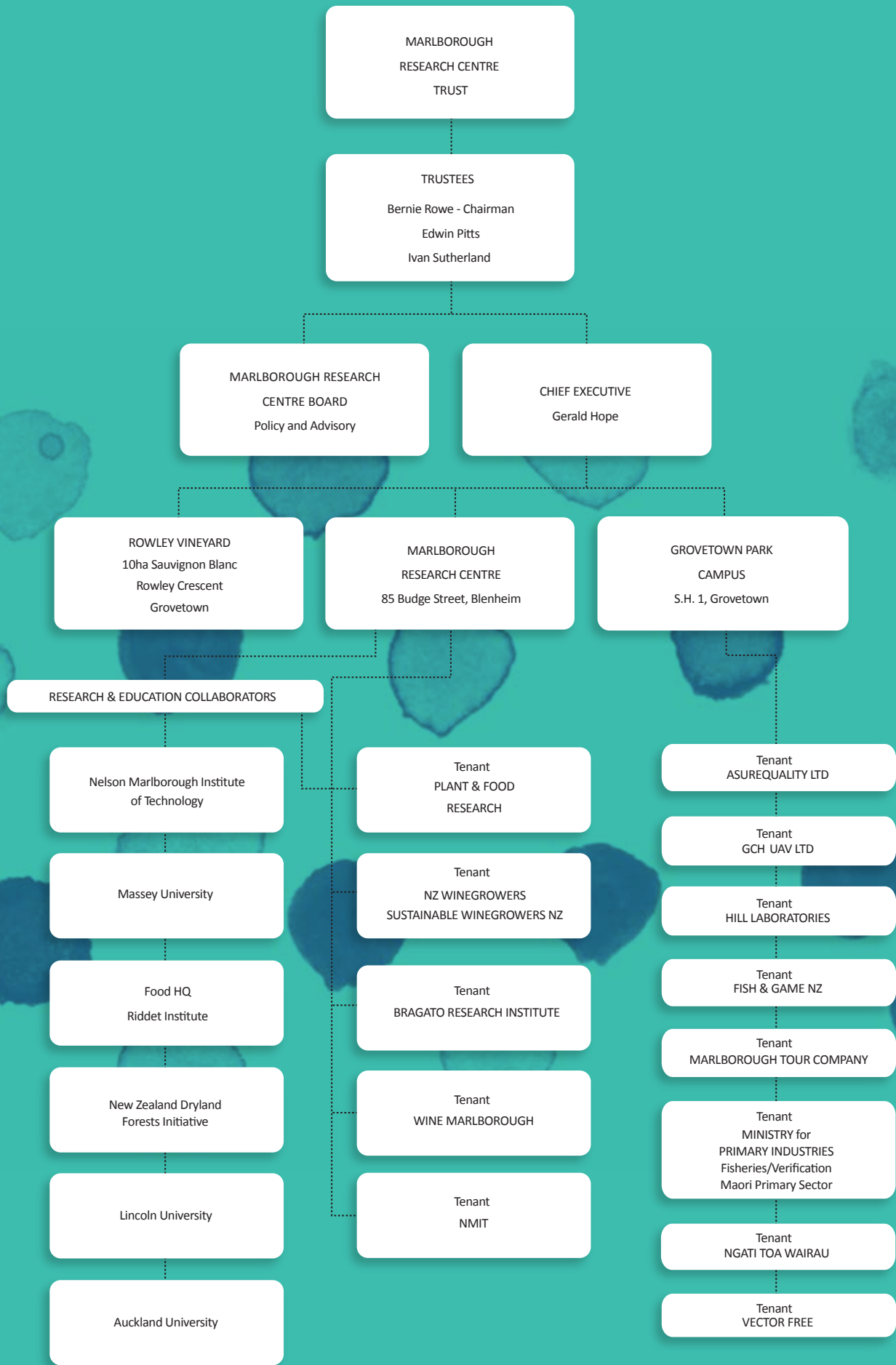
**LOREN COFFEY****Events Manager – Wine Marlborough**

Loren has worked for Wine Marlborough in a variety of roles over the past two years, mostly assisting or leading the delivery of large events. She has recently re-joined Wine Marlborough on a fixed term contract to cover parental leave for Georgie Leach.



Loren is doing a post-graduate diploma in Applied Marketing and Management and has a background in event coordination, marketing and communications. She has worked in the wine industry here and overseas for seven years in a variety of positions from assistant winemaking to events co-ordination, completing a total of seven Vintages.

While with Wine Marlborough, she will be working on the Marlborough Wine & Food Festival, Young Winemaker, Young Viticulturalist, Silver Secateurs and Marlborough Wine Show Celebrations.



# organisational structure

# our year at a glance



## < BA5 Event

Marlborough Research Centre welcomed a group of Marlborough businesses as part of the October 2018 Marlborough Chamber of Commerce Business After 5 events.



## ^ International collaboration in the name of wine

Research Winemaker for Plant & Food Research, Claire Grose, who is based at the Marlborough Research Centre campus, visited the University of California, Davis (UCD), where she caught a second 2018 Vintage.

She joined Anita Oberholster, the UCD Extension Specialist for Viticulture and Oenology, in California. Anita had visited Marlborough during the March/April Vintage and implemented the first stage of research to maximise colour development in Pinot Noir. Claire and Anita repeated the same experiment in August/September under Californian conditions.



## < Paul Millen receives an award from peers

NZ Dryland Forest Initiative's Project Manager, Paul Millen, was awarded the 2018 Forest Growers Research Award for Communication and Sector Engagement at the Forest Growers Research Conference in Tauranga.

*Pictured: Paul Millen receiving his award from Geoff Thompson, Chairman Forest Growers Levy Trust.*

## > NZ China Council

Marlborough Research Centre hosted the New Zealand China Council in October 2018.

NZ China Executive Director, Stephen Jacobi and NMIT's Sue Blackmore engaged a full lecture theatre with the specialist topic of how China's Belt and Road Initiative can be factored into a business plan.



*Pictured: Sue Blackmore - NMIT, Stephen Jacobi - NZ China Council and Gerald Hope - MRC.*

**> MRC board member Ivan Sutherland honoured at the New Zealand Wine Awards**

Ivan Sutherland was inducted as a Fellow of New Zealand Winegrowers at the New Zealand Wine Awards. The Fellows award recognises individuals who have made an outstanding contribution to the industry.



Ivan is a long serving board member of the Marlborough Research Centre Trust. As a strong advocate of grower issues, Ivan has always had a keen interest in research. He served as Chair of the original Marlborough Wine Research Centre Board from 2001.

We are fortunate that Ivan continues to enjoy his involvement as a Trustee of the Marlborough Research Centre today.

**> GCH UAV new partnership**

Innovative Blenheim based technology company GCH UAV (Garden City Helicopters Unmanned Aerial Vehicles) is a tenant of Marlborough Research Centre.

By partnering with California-based aerial analytics company VineView, GCH UAV has been able to increase their offerings to New Zealand grape growers, now providing advanced analytics of aerial data.

For GCH UAV, this partnership reflects the culmination of years of consultation, research, trialling, refining, perfecting and delivering high quality multispectral data to growers, consultants, viticulturists, vineyard contractors and research partners, and is the pinnacle of use for aerial remote sensing in a vineyard context.



**< For the love of it - stories of seabird conservation**

Plant & Food Research staff member and seabird ecologist, Dr Lorna Deppe, gave a presentation on the adventures, challenges and success stories of seabird conservation, in particular the Chatham Albatross – the species she studied for her PhD.

The photo (right) was taken on The Pyramid, a small rocky outcrop on the Chatham Islands archipelago. At just 1.7 hectares, it is only breeding site of the species in the world. There is now a translocation project underway, to try to establish a colony on the Main Chatham Island.

**> VineFacts Winegrower industry publication turns 600**

VineFacts is a very successful weekly viticulture publication that reached a significant milestone in December 2018, with its 600th publication.

VineFacts Newsletter started as an industry-led joint initiative between the wine industry, HortResearch (now Plant & Food Research) and the Marlborough Research Centre in January 1997.

Over time, the successful publication morphed from fax to email to web, and after being 'gifted' to New Zealand Winegrowers by the Marlborough Research Centre Trust, VineFacts transitioned from a regional resource into a national publication for New Zealand's wine industry.

One thing has remained constant, however. VineFacts is still produced by science staff at Plant & Food Research on the MRC campus, and led by Marlborough Scientist Rob Agnew, who has been involved since its inception.



VineFacts then...



... and now.

**> Rata Foundation Hall of Fame Business Award: Chris Godsiff**

Marlborough tourism personality Chris Godsiff was awarded the Rata Foundation Hall of Fame Business Award by the Marlborough Chamber of Commerce in 2018.

Chris is a director of Marlborough Tour Company, which is a long-term tenant at Marlborough Research Centre's Grovetown Park.

Chris says he enjoys being at the park, as it is in a country location yet only a bridge-length away from Blenheim.

He is humble about the award, saying that a lot of people do great things for Marlborough and deserve recognition as much as, or more than, him. "I was just the lucky one who got awarded," he jokes.

"What I have been doing is part of my business. I like helping Marlborough to move forward. It's just the right thing to do. If you can drag other people along too, that's great. It's humbling to think someone nominated me for the award."



*Chris Godsiff - Marlborough Tour Company and Leighton Evans - Rata Foundation.*



**^ Cawthron Marlborough Environment Awards - good things for our environment**

The Marlborough Research Centre (MRC) and Plant & Food Research are joint sponsors of the Cawthron Marlborough Environment Supreme Award, which in 2019 went to The Pyramid Farm in the Avon Valley.

This was both a surprise and delight for MRC, as we worked with the Dawkins family in the early MRC days as a Focus Farm for best farming practice. We are thrilled for them and the recognition they have received.

**> Dr Mike Trought's farewell**

February marked the retirement of Plant & Food's Principal Scientist, Mike Trought.

We sent him off with a celebration of his rich career, and the impact he has left on the Marlborough Research Centre, his students, his co-workers and the wine industry.

Mike has been associated with the Marlborough Research Centre (MRC) since 1984, when he moved to Marlborough after being asked to help establish and run the MRC as the Officer-In-Charge.



**< Open access journal OENO ONE has a new scientific partner**

Congratulations goes to Plant & Food Research's Dr Damian Martin, who is now a scientific partner of the vine and wine open access journal OENO One.

The Marlborough Research Centre-based Viticulture and Oenology Science Group Leader has been appointed as Associated Editor of the journal and Chief Editor of the soon-to-be-published IVES Technical Reviews.

*Damian Martin, PFR Science Group Leader.*

**> Presentation to Mark Patterson, NZ First MP**

In June 2019, Marlborough Research Centre (MRC) hosted Mark Patterson, NZ First List MP and Jamie Arbuckle, NZ First Kaikoura Electorate Chairman.

Gerald Hope, Chief Executive, gave an overview of MRC operations and Paul Millen spoke about the NZ Dryland Forest Initiative's Eucalypt programme. Mark was very impressed with a sample peeled eucalypt hardwood post that would replace CCA treated vineyard posts in the future.

The visitors also received a wine sector overview from Marcus Pickens and heard from Sophie Badland, New Zealand Winegrowers' Biosecurity Advisor. Brendon Burns of Creative Development Solutions also presented on value-add to regional economies.

*Right: Paul Millen, Brendon Burns, Damian Martin, Sophie Badland, Jamie Arbuckle, Mark Patterson, Gerald Hope.*



*Left: Mark Patterson - NZ First List MP and Paul Millen - NZDFI.*



**< Scholarship students from the USA visit MRC**

Marlborough Research Centre, in conjunction with Marlborough District Council, hosted 22 US scholarship students who were travelling around New Zealand to study soil and water.

As part of the National Expedition (Agriculture and Environment) organised by Massey University, the group visited a mix of agricultural and environmental organisations, to complete four assignments from those visits. The students explored issues around agricultural businesses and how they operate, management of the environment, environmental issues and the relationship between agriculture and the environment.

**> BRI's first vintage tasting**

The Bragato Research Institute (BRI) celebrated its first vintage in the NMIT Winery where BRI's first wine research trials were carried out this vintage.

"Eighteen months ago a project team was formed and discussions started around research tank design," says BRI Establishment Manager, Tracy Benge.



*Tracy Benge and Will Kerner of the Bragato Research Institute.*

Fast forward to Vintage 2019, and these bespoke tank designs have been put through their paces, with six trial tanks.



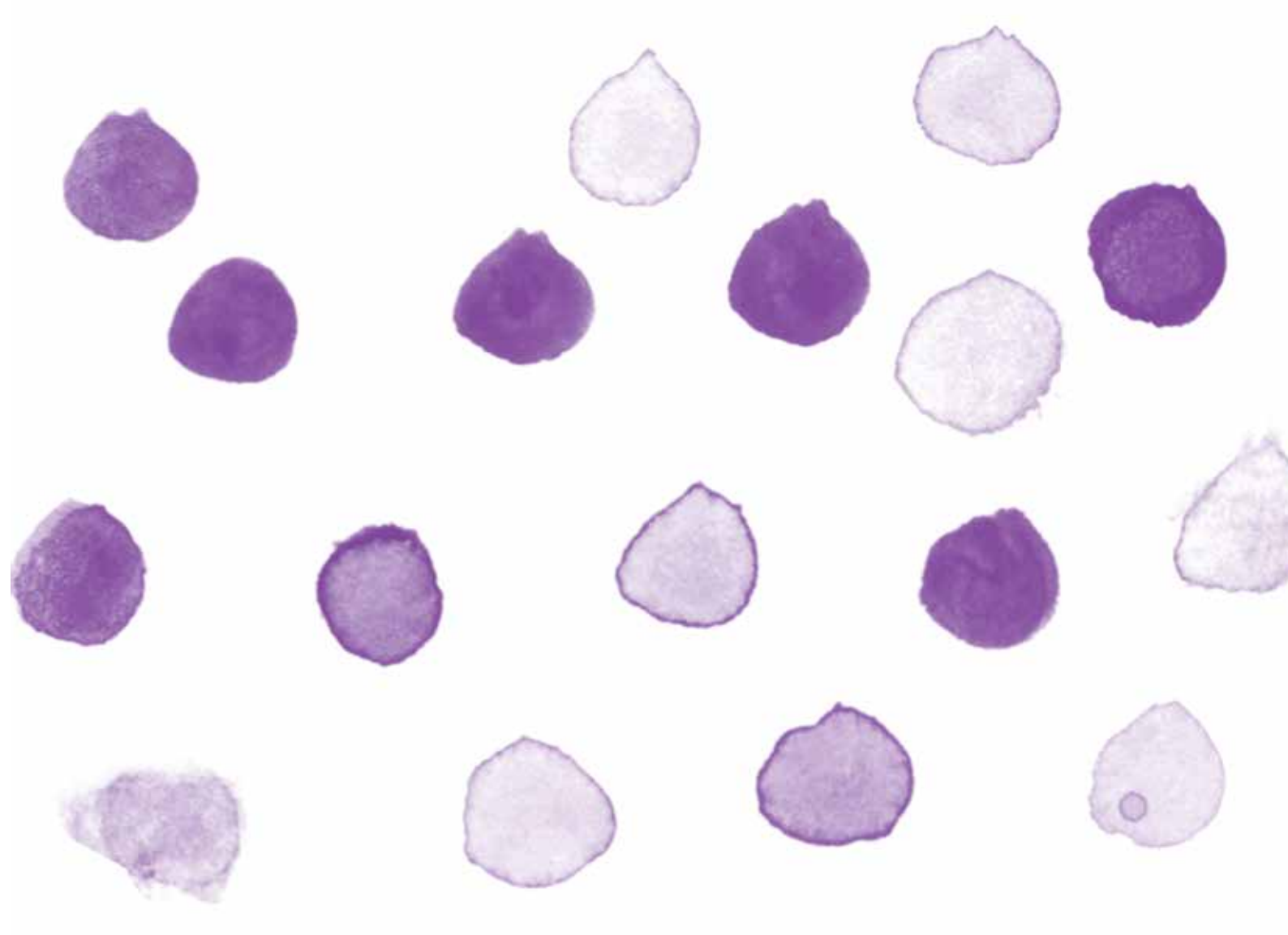
**^ Ningxia Delegation visits the Marlborough Research Centre**

The Marlborough Research Centre hosted a delegation of leaders from Marlborough's sister region of Ningxia, China.

The officials were keen to engage with the organisations operating from the centre to learn how they can work on new opportunities related to science and technology, business and education.

The background features a diagonal split from the bottom-left to the top-right. The upper-left portion is a vibrant blue, while the lower-right portion is a warm orange. Scattered across this background are numerous microscopic images of cells, appearing as irregular, textured shapes in various shades of blue, purple, and orange, matching the background colors. The text 'research & development highlights' is centered in the white space between the diagonal split.

**research &  
development  
highlights**





# Meteorological services highlights

- The 12-month period from July 2018 until June 2019 was the warmest on record in Blenheim for the 87-year period 1932-2018.
- Quite remarkably, the previous 12-month period from July 2017 until June 2018 was the second warmest on record.
- January 2018 and 2019 both recorded mean temperatures of 20.7°C, the warmest mean temperature on record.
- 28 January 2019 recorded a maximum temperature of 35.0°C, the third hottest day on record for Blenheim (1930-2019).
- January and February 2019 recorded 15 days when the maximum temperature exceeded 30°C, compared with the average of only two days over 30°C.
- Total rainfall in January and February 2019 was 11.8mm, the fourth lowest on record and in contrast to January and February 2018 with 261.8mm.
- The 12-month period from July 2018 until June 2019 was the second sunniest on record.
- The first six months of 2019 were the sunniest on record for the 90 years, 1930 to 2019.
- The 2017-18 and 2018-19 growing seasons were both markedly warmer than any season since 1997/98.

# Student stipend - creating value from grape marc

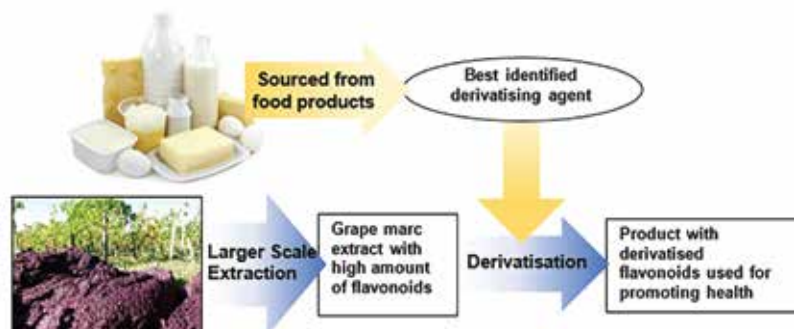
A problem identified within the New Zealand wine industry is the large and accumulating mass of wine waste, which is difficult to manage.

This is a big concern, as wine waste is an environmental burden and has financial impacts on wine businesses. Grape marc, which is the unused skin, seeds and stems left over after grape pressing, is a large component of this waste.

Currently, the only viable methods to reuse grape marc includes using it as compost or as feed for livestock. However, grape marc mass produced far exceeds that required for these uses. There is an urgent need to find other uses of grape marc, and particularly to come up with solutions that have commercial potential. Creating commercial value increases the incentive to use grape marc.

It is well-known that grapes have many bioactive phenolic compounds. One good example of this is a class of compounds flavonoids. Some examples of very bioactive flavonoids found in grapes include quercetin, catechin and epicatechin. The bioactivity of these compounds includes antioxidant, anticancer, anti-inflammatory, antibacterial and cardiovascular protective activities. This implies that these compounds may have great potential to treat or help prevent development of human diseases.

The purpose of this study is to find ways to use grape marc as a source of these bioactive compounds that can be modified into products for the purpose of improving human health.



# Developing rapid diagnostic capability for grape vine disease



Funding of \$35,000 for this project was approved in the 2018-2019 financial year. The allocation was not expended and will be carried forward.

In support of this project, the 15m x 9m steel framed plastic tunnel house located at Grovetown Park Campus was dismantled by Exal Industries Limited of Christchurch and moved to Marlborough Research Centre's Budge Street Campus in Blenheim.

Due to timing issues with the commencement of the new Bragato Research Institute (BRI) winery, the tunnel house was not erected until September 2019.

Plant & Food Research will undertake new trials using additional space within the tunnel house which will also be used by Nelson Marlborough Institute of Technology (NMIT) staff and students as required.

# Supporting rapid diagnostic capability UC Davis, University of Bordeaux

Dion Mundy from Plant & Food Research attended the 11th International Workshop for Grapevine Trunk Diseases (IWGTD) in Penticton, Canada, in July 2019.

Grapevine trunk diseases diminish vineyard longevity and productivity in nearly every wine grape production region, causing significant economic losses to the wine industry worldwide.

Attendees included researchers and members of industry, with speakers from more than 20 countries covering a range of trunk disease-related issues.

Researchers had opportunities to visit a range of vineyards, where growers were open about the realities of managing vines with trunk disease without using registered pruning paste protections, and when the number of diseased vines had become economically damaging.

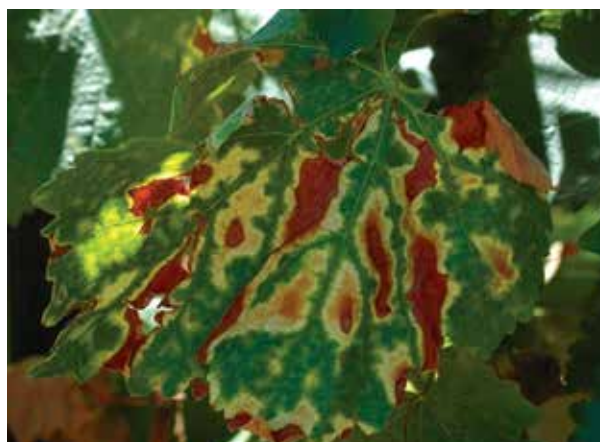
This year's conference covered more physiology and chemistry topics than previous meetings, and large programmes of work from multidisciplinary teams were presented.

Metabarcoding and other methods of molecular detection were also presented with a move towards ecological studies of vines and vineyards rather than simple detection of a target pathogen. Advances in methodology also led to informal discussions between researchers around agreed common methodology and validation of detection methods to aid the comparison of results from different studies.

Research from Europe, particularly France, focused more on the esca complex and included trunk disease and wine quality interactions. This disease results from a combination of fungi that varies from region to region. Esca-associated fungi have been identified in New Zealand but, as yet, the distinctive leaf symptoms have not been reported.

Dion visited Californian vineyards with esca to see and photograph symptoms of esca on Sauvignon Blanc vines. Meeting international researchers enabled him to discuss the ecological function of esca-associated fungi found in New Zealand vines and confirmed the importance of investigating their roles further.

Plant & Food Research would like to acknowledge the funding received from the Marlborough Research Centre Trust to assist with this exchange. For a copy of the book of abstracts or any other related information please contact Dion Mundy directly at [Dion.Mundy@plantandfood.co.nz](mailto:Dion.Mundy@plantandfood.co.nz)



# Seminars and workshops 2018-2019

Seventeen seminars were held by Plant & Food Research in the 2018-19 year. Some of the notable seminars and speakers were:

- Winery Wastewater for Irrigation of Grapes. Dr Carolyn Howell – Agricultural Research Council (ARC), South Africa.
- Grapevines, Phenology and Climate Change. Past and future impacts and adaption strategies for vineyards in France and the world. Dr Iñaki Garcia de Cortazar-Atauri – INRA Agroclim, France.
- Integrated Crop and Livestock Systems with particular emphasis on integrated sheep vineyard systems. Dr Amélie Gaudin – University of California, Davis. Dr Meredith Niles – University of Vermont. Dr Rachael Garrett – Boston University.
- For the Love of it. Stories of Seabird Conservation. Dr Lorna Deppe – Plant & Food Research, Marlborough.
- High-throughput Phenotyping for Grapevine Breeding Purposes using Sensors and Automation. Dr Katja Herzog – Julius Kühn-Institut, Federal Research Centre of Cultivated Plants, Institute for Grapevine Breeding Geilweilerhof, Germany.

## Soil remediation through use of grape marc

The production of grape marc has increased steadily in Marlborough, to approximately 62,608 tonnes in 2018.

As yet there is no industry-wide approach to manage disposal of the current grape marc load, nor is there a plan in place to manage grape marc sustainably.

One solution is to use grape marc to maintain and enhance the productive capacity of soils identified as having declining quality in the region.

Soil compaction and the loss of soil organic matter are two major issues affecting the region's vineyards and cropping soils. The disposal of grape marc may form part of the solution to remediating compacted soils.

When disposing grape marc to land, it is important to match the nutrient release from the marc to plant demand in order to minimise adverse environmental effects.

Due to limited literature available on the mineralisation rates of raw grape marc, and in order for grape marc disposal to be a sustainable practice, site-specific studies are required.

Potential disposal of grape marc to land could involve:

- Disposal to land close to the Riverlands Industrial Estate to assist with remediation of poorly aerated and drained soils. However, these soils are limited as they are often waterlogged and there is a high risk of nutrient losses as runoff or leaching.
- Disposal to cropping soils which have been identified as having low carbon content and relatively high compaction.
- Disposal to cropping soils in the Awatere Valley that are slowly drained and where there is a lower risk of nitrate leaching.

The most logical option to disposal of grape marc is to return it to the vineyards that provided it.

In order to use grape marc as part of a long-term strategy for the improvement of soil quality in the region, we need to have a greater understanding of the rate at which nutrients, and in particular nitrogen, are released when grape marc is incorporated into soil.

Researchers are keen to work with industry to determine how to manage nutrient release from grape marc.

Information derived from the research would then allow grape marc incorporation rates and application frequencies to be determined so that this would have a negligible effect on the environment, by matching nutrient supply to nutrient demand.

# New Zealand Winegrowers research winery establishment



Marlborough Research Centre (MRC) has been an active promoter and supporter of the Regional Research Institute initiative to establish a national wine research centre on the Budge Street campus.

Bragato Research Institute (BRI) is the lead organisation. MRC, by undertaking a facilitation role, expended reserve funds to achieve the following:

- establish legal and consenting agreements between parties (NMIT, MRC, BRI);
- undertake consultancy;
- utilise valuations for future leasing;
- building concept design work by Jerram Tocker Barron;
- prepare an application for Provincial Growth Fund.

Bragato is planning to run the 2020 Vintage trials from the new winery.

# NZ Dryland Forests Initiative



## Strategy for durable eucalypts 2020-2030

The New Zealand Dryland Forests Initiative (NZDFI) team has recently produced a strategy looking out to 2030 titled 'Durable eucalypts: A multi-regional opportunity for New Zealand's drylands'.

The strategy outlines how, through producing improved planting stock, developing markets and working with landowners, the NZDFI will move towards its vision of sustainable durable hardwood industries in the regions.

Focus areas identified in the NZDFI Regional Strategy 2020-2030 are:

- Identifying markets for durable eucalypts;
- Modelling forest productivity and economic feasibility;
- Working regionally to encourage new forests;
- Breeding, propagation and trial management;
- Educating growers on durable eucalypt forest management;
- Industry partnerships to build support and capability.

A further eight demonstration trials were established in 2018 in new regions, to extend the range of site types and climatic zones covered.

Four new PhD students began research at the University of Canterbury in 2018 and 2019, with topics ranging from wood quality through to growth modelling and physiology, to essential oils. Over 30 post-graduate and under-graduate students have been involved in NZDFI work to date.



PhD student Daniel Boczniewicz analyses heartwood content of 29-year-old *Eucalyptus globoidea*.



Planting a new trial at the Dillon property, Marlborough.

## Peeling trials show durable eucalypts' potential for engineered wood

One of the NZDFI's key research partners is the University of Canterbury School of Forestry (UC).

Wood scientists at UC have been researching the potential for durable eucalypts as a component of engineered wood products such as Laminated Veneer Lumber (LVL). Durable eucalypts produce timber of relatively high stiffness, even at a young age, and producers of engineered wood products are looking for an alternative to (low stiffness) radiata pine to meet the high stiffness standards required by the modern construction industry.

A recent trial run by UC involved rotary peeling of 15-year-old *E. bosistoana* and *E. quadrangulata* logs at Nelson Pine Industries in Richmond. Logs were peeled and the veneers returned to UC for analysis.

Results were encouraging – indicating, for example, that the average stiffness of the peeled *E. bosistoana* veneer is twice that of radiata pine. Also, the peel trial produced 80mm cores that could have a market as ground-durable vineyard posts.

In future, use of spindleless lathes for the peeling process could greatly enhance veneer recovery from small logs. The next phase of research at UC will look at suitable gluing techniques for the eucalypt veneers.



Eucalypt logs at Nelson Pine Industries, Richmond, ready to be peeled for veneer.



A representative sample of *E. bosistoana* veneer.

# Annual update – Chilean Needle Grass and biosecurity risks

The following events involving the Biodiversity Earthquake Recovery Project and Chilean Needle Grass Action Group have taken place:

- In November 2018, Landcare South Island leader Janet Gregory attended the Earthquake Recovery Managers meeting.
- Annette Litherland, of Landcare and coordinator for the local Biodiversity Earthquake Recovery Project, reported on the biodiversity project with other earthquake-related projects at a meeting in Kaikoura.
- In April 2019, a display on the Earthquake Biosecurity Project was presented at the Grow2019 conference.
- Seddon School participated in a Chilean Needle Grass (CNG) project for their students.
- During January 2019, a Facebook post of key findings from the CNG review was posted each day for 10 days. It reached 34,382 people and had 5,192 engagements.

The biosecurity survey was analysed and was used to design the delivery of biosecurity plans.

A biosecurity plan template was constructed and then reviewed by farmers and is now complete. Biosecurity plans for five farmers have been completed and are in use.

On 12 June 2019, a field day was held at Tim Struthers' property near Ward where an update was given on trial results, biocontrol work, a NAIT update to help with biosecurity, contractors' learnings and an update on the Pest Management Plan. This was attended by 45 people, including a high number of vineyard managers and staff. For access to presentations go to:

[www.landcare.org.nz/completed-project-item/struthers-june-field-day](http://www.landcare.org.nz/completed-project-item/struthers-june-field-day)



*Paddock of flowering Chilean Needle Grass.*

Further farm trial programmes have been confirmed, with eight new trials to complement 13 that are already underway. Trials include:

- Spot spraying strategies for Nassella
- The use of Taskforce vs Roundup in a regrassing programme
- Oversowing CNG or Nassella infested with competitive resistant swards
- Double cropping versus grass-to-grass regrassing programmes
- Drones for spraying and seeding on steep hills
- Chemical topping CNG
- Cattle CNG risk
- Spraying alternative rows in vineyards to eradicate CNG
- Designing a washdown design
- And a soon-to-be-implemented CNG identification awareness project.

Farm systems modelling is being carried out using the farm trials results to show a new farm system for Atacama using hill and vineyard grazing. To manage this large trial workload, Heather Collins has been contracted to assist with some of the farm trials.

This is the final year of the project, with the finish date to be mid-2020.



*Ex-Chilean Needle Grass paddock in barley crop on the way to be sown in new pastures.*

For more information, go to:

[www.landcare.org.nz/Regional-Focus/Nelson-Office/Managing-Biosecurity-Risks-Project-Links/Managing-Biosecurity-Risks-Project](http://www.landcare.org.nz/Regional-Focus/Nelson-Office/Managing-Biosecurity-Risks-Project-Links/Managing-Biosecurity-Risks-Project)

# Vespula natural enemies collecting trip 2018

A research visit to the United Kingdom was undertaken as part of the year's *Vespula* wasp control research programme. The goals for the visit were:

- to continue the survey of natural enemies in wasp nests;
- to collect *Volucella inanis* hoverflies for host trials and rearing;
- to collect *Volucella zonaria* hoverflies and *Metoecus paradoxus* beetles for rearing trials;
- and to collect new *Sphecophaga vesparum* parasitic wasp strain(s) for release in New Zealand.

A total of 22 *Vespula* nests were surveyed with high parasitism rates detected.

Every *Vespula* nest but two had at least one species of parasite present and nests had multiple species. Importantly, the hoverfly, *Volucella inanis*, was present in 17 of 20 of the parasitised nests in varying intensities. The survey produced lots of the hornet-mimic hoverfly, *Volucella zonaria*, the parasitoid wasp-nest beetle *Metoecus paradoxus*, and a few nests with *Pneumolaelaps niutirani* mites.

Also collected were viable *Leopoldius* pupae which are currently being held in the containment facility at Manaaki Whenua – Landcare Research in Lincoln.

The infested nests were maintained at the laboratory for several weeks so that different rearing methods were trialled. The wasp parasites are now overwintering in the insect containment facility at Manaaki Whenua – Landcare Research in Lincoln. Approximately 90 *Volucella inanis* larvae and 200 *Volucella zonaria* are being held.

A total of more than 1,000 *Sphecophaga* pupae from the UK and another 175 from Belgium will boost the genetic variance of the *Sphecophaga* once enough can be reared for release. After disease testing and confirmation of their identification, we will have permission from the Ministry of Primary Industries (MPI) to release the adults that emerge from the cohort.

## *Volucella inanis* host testing results

New Zealand does not have any native social wasp or bumblebee species. However, there are four species of *Bombus* (bumblebees) that were purposefully introduced and are considered as beneficial insects because of their pollination services.

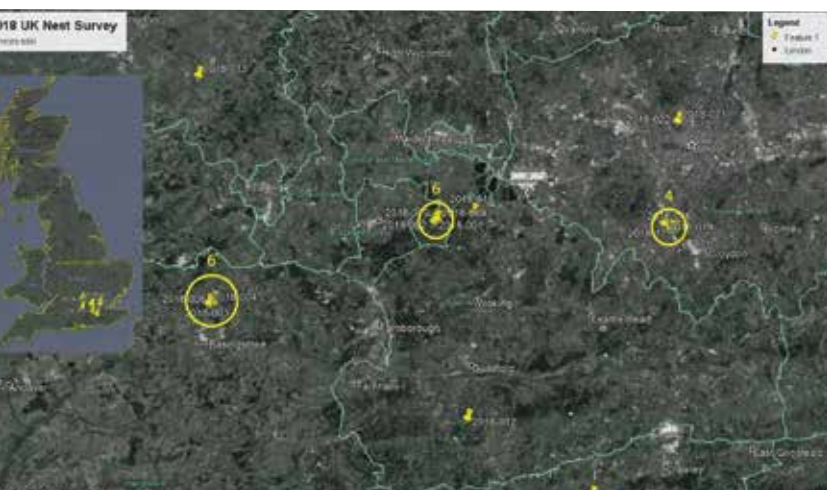
To test whether *Volucella inanis* could be safely used as a biological control agent against invasive social wasps, we had to make sure the flies would not attack bumblebees. Nests of buff-tailed bumblebees, *Bombus terrestris audax*, were purchased from Agrilan United Kingdom. This species of bumblebee was chosen because it is present in New Zealand and is commercially available, unlike the other three species present in New Zealand (one is now extinct in the UK, and another is very rare there).

Wasp nest material was obtained from excavated parasite-free wild *Vespula vulgaris* nests. For each, a replicate brood of either bumblebee or *Vespula* were placed in the centre of a terrarium (Exo Terra, medium Breeder Box) and one *Volucella inanis* larva was added at least 4cm away from the brood. The *V. inanis* larva was allowed one hour to make a choice of whether to begin feeding on the brood.

In preliminary trials, young *V. inanis* larvae began to perish one hour after being away from the wasp brood. The bumblebee brood was placed in their normal orientation, i.e. with the brood facing upward. Wasp brood are normally orientated head down but, for this experiment, the brood was faced upward to match that of the bumblebees. The *Volucella* larvae still attacked the wasp brood in this orientation. Six replicates of each treatment were performed.

All six replicates showed the *V. inanis* larvae go for the wasp brood and none go for the bumblebee brood by the end of one hour. Towards the end of the test, three of the *V. inanis* larvae sought shelter under the bumblebee nest material, possibly to avoid the light. Since the wasp nest was orientated in an unnatural position, this would have added a level of difficulty for host location.

All the *V. inanis* larvae that went for the wasps had to locate the brood and climb onto the nest material and then squeeze into the wasp larva's cell. Despite the added complication, they all did it and successfully found their true host, *Vespula*.



Map of *Vespula* nest survey 2018. Numbers indicate the number of nests surveyed within the circles.



A *Volucella inanis* larva looking for an appropriate wasp grub to visit.

## Environment Awards Sponsorship

Marlborough Research Centre is one of the founding partners of the annual Marlborough Environment Awards. Sponsorship provides some operational support for organising the event and provides prize money for the Supreme Award winner.



*Pictured from left are Gerald Hope – MRC, Beverley Doole – Event Organiser, Dion Mundy – Plant & Food Research, and the 2019 winners of the Cawthron Marlborough Environment Supreme Award, the Dawkins family, who own The Pyramid Farm in the Avon Valley.*

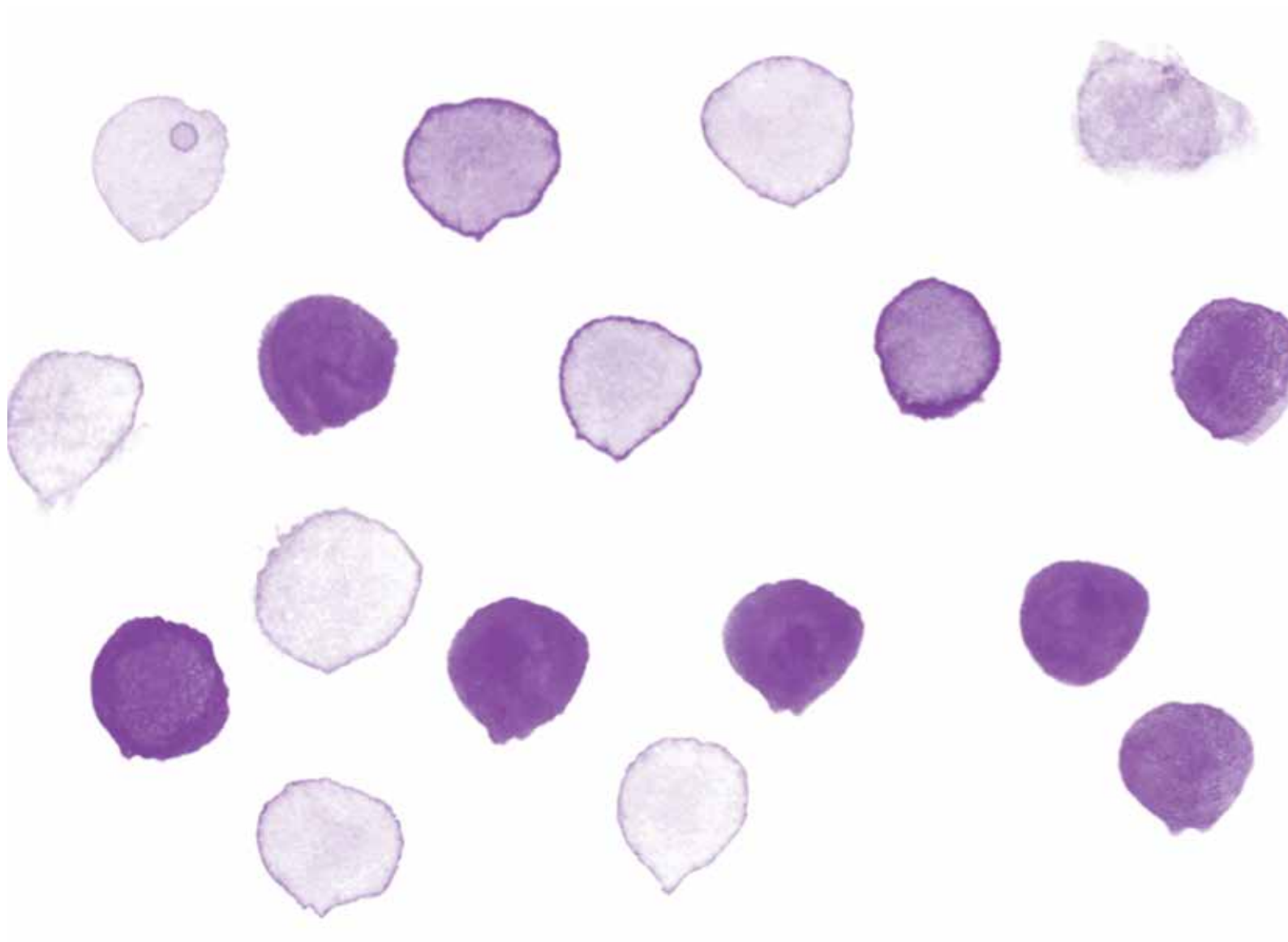
## Marlborough Food & Beverage Innovation Cluster

The Marlborough Food & Beverage Innovation Cluster was inactive during the past year and saw membership decline. No draw-down of funds was required. This project will be reviewed if and when the food and beverage industry requires support.





**audited  
financial reports  
& highlights**



# contents

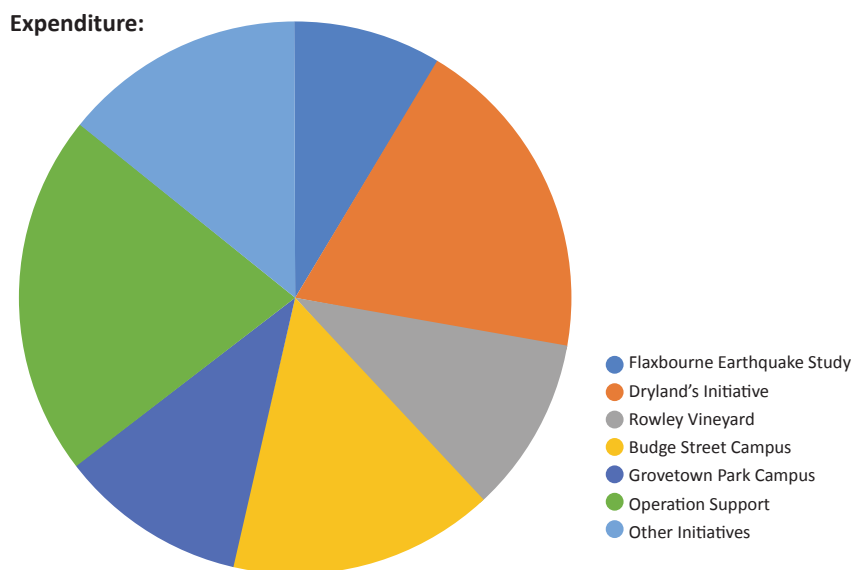
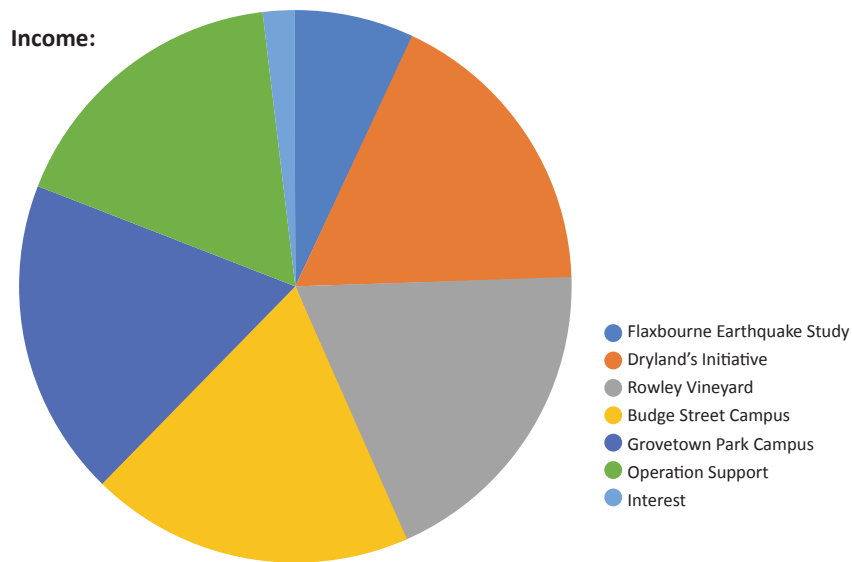
<b>26</b>	Financial Overview and Highlights
<b>29</b>	Entity Information
<b>30</b>	Entity Information
<b>31</b>	Statement of Service Performance
<b>32</b>	Trading Account - Rowley Vineyard Operations
<b>33</b>	Trading Account - Budge Street Property
<b>34</b>	Trading Account - Grovetown Park Property
<b>35</b>	Statement of Financial Performance
<b>37</b>	Statement of Financial Position
<b>38</b>	Statement of Cashflows
<b>39</b>	Statement of Accounting Policies
<b>41</b>	Notes to the Performance Report
<b>43</b>	Independent Auditor's Report

# Marlborough Research Centre Trust Annual Report for the year Ended 30 June 2019

1. The Marlborough Research Centre Trust Annual Report received an unqualified audit opinion for the financial year ended 30 June 2019. The Annual Report has been circulated separately and is available online at [www.mrc.org.nz](http://www.mrc.org.nz)

## Financial Overview and Highlights

2. MRC achieved a surplus on operations of \$193,165 for the year ended 30 June 2019. This is achieved on assets employed of \$3.59 million and total Trust Equity of \$4.99 million.



3. MRC's financial position includes a building reserve fund of \$1 million which is ear marked for campus expansion and development in the coming financial year in conjunction with the proposed national wine research centre and growth requirements for existing tenancies. The planning for the development of an integrated campus with NMIT has been delayed as a result of the proposed changes to vocational education currently underway. MRC is engaged with both NMIT and the Tertiary Education Commission in relation to the development of the Marlborough campus.

#### Financial Support provided

4. The following table provides an outline of the initiatives supported by MRC during the 2018/2019 financial year against the revised budget:

Description	Actual 2018/19	Budget 2018/19	Notes
Meteorological Services	25,000	25,000	
Student Stipend	6,000	6,000	
Develop Rapid Diagnostic Capability for Grape Vine Disease – Tunnel House	9,235	35,000	Expenditure committed and carried forward to 2019/2020
Supporting Rapid Diagnostic Capability UC Davis, University of Bordeaux	32,500	45,000	Actual costs within budget allocation.
Seminars & Workshops		2,000	PFR funded this year
Soil Remediation - Use of Grape marc	25,000	25,000	
NZ Wine Centre proposed development, establishment	70,979	80,000	Design and funding agreements
<b>Subtotal (attributable to activity at Budge Street)</b>	<b>168,714</b>	<b>218,000</b>	
NZ Dryland's Forest	10,000	10,000	
Chilean Needle Grass: (MPI Measuring Biosecurity risk post-earthquake effected properties)	25,000	36,000	Contract under budget
SSF Landcare Vespula Wasp control	5,000	5,000	
Sponsorship Environment Awards	2,500	2,700	
Marlborough Food and Beverage Innovation	48,533	40,000	Refocused on NZ Wine Centre
<b>Sub Total</b>	<b>91,033</b>	<b>93,700</b>	
<b>Total</b>	<b>\$259,767</b>	<b>311,700</b>	<b>Council grant \$257,000</b>

1. In relation to the funding allocation agreed at the beginning of the year the following adjustments were approved by the Board during the year:
  - a. Reduction in funding allocation to Food and Beverage Cluster
    - i. \$60,000 – funding to Massey University
    - ii. \$40,000 – to establish a shared food technologist within the region'
  - b. The following additional funding was included in the budgets:
    - i. Soil Remediation - Use of Grape marc \$25,000
    - ii. Develop Rapid Diagnostic Capability for Grape Vine Disease \$35,000
    - iii. Supporting Rapid Diagnostic Capability UC Davis, University of Bordeaux \$45,000
5. The initiatives outlined above in paragraph 5(b) were able to be funded from the allocation set aside for the Food and beverage Cluster. The support provided to NZ Wine in relation to these initiatives are a key part in the relationship and development of the Budge Street campus into a National Centre for Wine Research and Education.
6. Massey University connections to the food and beverage network. While the relationship with Massey University and Food HQ remains on the ground resourcing was unable to be found that was valued by the food and beverage companies in the cluster. The Trust services the food and beverage industry through responding to enquiries and connections as the demand for services dictates.
7. The pursuit of a food technologist in the region is reliant on suitable infrastructure to be provided on the Budget Street campus. The development of a national wine research centre has given rise to a Provincial Growth Fund application which could assist in the development of formal connections to the food and beverage innovation network. The food and innovation network is subject to review by the Ministry of Business Innovation and Employment. MRCT has input into this review and following its completion will again consider the best means of connecting and being a part of the national network.

# Entity Information

## Marlborough Research Centre Trust (MRC) For the year ended 30 June 2019

### Entity Purpose or Mission

MRC Trust works to fund research, encourage and promote the production of all forms from pastoral, horticultural, agricultural and arable production in the province of Marlborough.

The establishment of a research facility in 1984 provided the base to undertake the investigation of a whole range of primary production from land and water within the Marlborough region.

### Vision

Our vision is to be an integrated centre for research and education based around the primary production sectors in Marlborough. As such we will:

- Find research, development and education opportunities that will result in opportunities for economic development
- Facilitate and connect research, education and business to each other
- Connect research, education and business to the resources they require to succeed

Our focus is on maximising the regions potential through science, research and technology to benefit the health and wellbeing of all people in the Marlborough regional economy.

### Values

To support our vision we will be:

**Connected** - We will be proactive and persistent in connecting people and opportunities in Marlborough to each other, to New Zealand, and to the world.

**Achievers** - We will focus on the achievement of real, measurable success in all areas of our participation.

**Knowledgeable** - We will be open to new ideas, proactive about exploring opportunity and diligent about communicating new ideas.

**Energetic** - We will apply ourselves energetically to our vision we will not wait for opportunities to come to us, we will seek them out.

**Unique** - We will offer a unique value proposition to Marlborough and to New Zealand as the only independent Multidisciplinary Research Centre in the Marlborough Region.

### Main Sources of Cash and Resources

MRC Trust receives its primary income from rental received from two campuses which it owns and administers. An annual grant from Marlborough District Council of

\$257,000; plus sale of grapes from the Rowley Vineyard to a Marlborough based wine company. Other income and expenditure is based on fixed term research contracts that do not eventuate every year but are administered by MRC as an "in kind" contribution toward those programmes.

### Main Methods Used by Entity to Raise Funds

Grants, rental income and sale of grapes.

### Reliance on Volunteers and Donated Services

MRC Trust would not exist without the help and support of many dedicated companies and individual supporters in the primary production sector. Since establishment in 1984 board members and Trustees volunteer time as governors and donate resources in support of research programmes. MRC has a vineyard that sets aside areas for research to be undertaken by Plant and Food Research or other organisations as required. The value of this in-kind support is assessed at \$35,000. Private landowners also allow use of areas of vineyard for grape and wine research or hill country for durable hardwood trials. The goodwill supports the delivery of district wide research and technology transfer and development.

### Purpose of the Trust

The intent of the Trust is to provide a research centre based in Marlborough and to promote and fund research in all forms. The Deed specifies that MRC undertakes research, encourages and promotes production in all forms from pastoral, horticultural, agricultural and arable. With the establishment of Bragato Research Institute a close working relationship has formed that includes NMIT, bringing research and education closer together. A close alignment with Marlborough District Council on regional economic development exists to ensure maximum district wide benefit is achieved.

### Operational Structure

The Marlborough Research Centre Trust organisation is managed by a contracted Chief Executive supported by an Executive Administrator. Both positions are responsible for the general management and smooth running of the Budge Street Campus and Grovetown Park Campus with 15 tenant groups housing around eighty people. Rowley Vineyard is contract managed. All positions report through the Chief Executive to the MRCT Board.

### Trustees

The number of Trustees is three that forms the Board. The power of appointment of new Trustees is vested in the Trustees. The key to success over more than three decades of the MRC has primarily been due to the long service and commitment of individual Board members to the purpose of the MRC. A committee of MRCT is the MRC Board that provides science and policy advice to the Trust on matters relating to areas of research that should be funded annually.

# Entity Information

## Marlborough Research Centre Trust (MRC) For the year ended 30 June 2018

**Trustees include:**

Bernie Rowe (Chair MRC Trust)  
Edwin Pitts (Chair MRC Board)  
Ivan Sutherland

**Location:**

85 Budge Street  
Blenheim

**Charities Register Number:**

CC10533

**Date of Registration:**

2/07/2007

**Chief Executive:**

Gerald Hope

**IRD Number:**

031-535-289

**GST Status:**

Payments Basis, Two Monthly,  
Coinciding with Balance Date

**Chartered Accountants:**

Sidekick Tasman Limited  
PO Box 11-11  
Blenheim 7240  
Contact - Megan Cameron

**Auditors:**

NMA Nelson Marlborough Audit Ltd  
PO Box 732  
Nelson 7040

**Barrister and Solicitors:**

Gascoigne Wicks  
PO Box 2  
Blenheim 7240

**Bankers:**

Bank of New Zealand  
92-94 Market Street  
Blenheim 7201

**NMA Nelson  
Marlborough Audit  
Limited**

NOTE: These statements are to be read in conjunction with the Notes to the Financial Statements and are subject to the Auditors Report



# Statement of Service Performance

## Marlborough Research Centre Trust (MRC) For the year ended 30 June 2019

### Description of the Entity's Outputs

MRC Trust provides an annual allocation of funds to support local research, facilitate business to business connection, support technology transfer and education to the primary production sector.

Since 2013 MRC has been supporting Marlborough Food & Beverage companies by fostering a cluster and growing regional, national and international connections. This activity is now effectively dormant. There are a number of ongoing collaborations in the wine and aquaculture sectors, as well as connections being maintained with national and international organisations and networks.

The Durable Eucalyptus hardwood programme has been progressively building a farmer base throughout Marlborough and New Zealand. This twelve year old programme has grown to a scale that attracts strong interest from farmers as well as forestry companies and is near to full realisation of durable hardwood being a viable alternative wood species.

MRC have supported small townships and rural communities tackle adversity through the water resilience initiative and studies in Flaxbourne following earthquakes which affected the region. Chilean Needle Grass control links into this area.

The establishment of the Bragato Research Institute Ltd has been supported by MRC with the construction of the national research winery to be completed on the Budge Street campus by the 2020 vintage. Following the establishment of the research winery further campus development is planned in the form of offices and laboratories along with construction integration of NMIT's vocational education and training into a wider grouping.

### Quantification of Outputs

MRC Trust provides an annual allocation as scheduled below to support local research, business to business engagement, technology transfer and education for the primary sector.

### Grants Approved Research Applications 2018-2019

Description		2018/19
Meteorological Services	Ongoing	25,000
Student Stipend - Creating Value from Grape Marc	University of Auckland	13,000
Develop Rapid Diagnostic Capability for Grape Vine Disease	New Research	35,000
Supporting Rapid Diagnostic Capability UC Davis, University of Bordeaux	New research	45,000
Seminars and Workshops		2,000
Soil Remediation - Use of Grape Marc	New research	25,000
NZ Winegrowers Research Centre Establishment		80,000
<b>Subtotal (attributable to activity at Budge Street)</b>		<b>225,000</b>
NZ Dryland Forests Initiative		10,000
Chilean Needle Grass: (MPI Measuring biosecurity risk post-earthquake effected properties)	Commenced 2017	36,000
SSF Landcare Vespula Wasp Control		5,000
Marlborough Environment Awards Sponsorship		2,700
Marlborough Food and Beverage Innovation Cluster		40,000
Sub Total		93,700
Total	(Balance of \$68,700 from MRC reserves)	318,700

Note 1: Installation and completion of the tunnel house for experimental use was delayed due to planning, design and commencement of construction of the BRI research winery.

**NMA Nelson  
Marlborough Audit  
Limited**

NOTE: These statements are to be read in conjunction with the Notes to the Financial Statements and are subject to the Auditors Report

## TRADING ACCOUNT

Marlborough Research Centre Trust (MRC) For the year ended 30 June 2019  
Rowley Vineyard Operations

	2019	2018
<b>Trading Income</b>		
RV - Grape Sales	(277,096)	(208,071)
Total Trading Income	(277,096)	(208,071)
<b>Cost of Sales</b>		
Purchases		
RV - Cost of Goods Sold - Grapes V18 Marisco	130,099	135,654
Total Purchases	130,099	135,654
Total Cost of Sales	130,099	135,654
<b>Direct Costs</b>		
Vineyard Operating Costs	115,273	86,615
Vineyard Personnel Costs	-	16,233
Vineyard Rent, Rates & Insurance	6,638	6,675
RV - Transfer of Vineyard WIP	(121,912)	(109,524)
Total Direct Costs	-	-
<b>Net Profit from Trading</b>	<b>(146,997)</b>	<b>(72,417)</b>

**NMA Nelson  
Marlborough Audit  
Limited**

NOTE: These statements are to be read in conjunction with the Notes to the Financial Statements and are subject to the Auditors Report

## TRADING ACCOUNT

Marlborough Research Centre Trust (MRC) For the year ended 30 June 2019  
Budge Street Property

	2019	2018
<b>Trading Income</b>		
Group Charges	(119,907)	(125,570)
BS - Tenant Rentals	(149,911)	(148,911)
BS - Theatre Charges	(4,090)	(3,735)
Total Trading Income	(273,908)	(278,216)
<b>Direct Costs</b>		
Depreciation and Amortisation	65,046	65,487
Group Costs	108,774	108,611
BS - Repairs & Maintenance	22,606	12,332
Total Direct Costs	196,425	186,429
<b>Net Profit from Trading</b>	<b>(77,483)</b>	<b>(91,787)</b>

**NMA Nelson  
Marlborough Audit  
Limited**

NOTE: These statements are to be read in conjunction with the Notes to the Financial Statements and are subject to the Auditors Report

## TRADING ACCOUNT

Marlborough Research Centre Trust (MRC) For the year ended 30 June 2019  
Grovetown Park Property

	2019	2018
<b>Trading Income</b>		
Group Charges	(104,543)	(112,769)
GP - Tenant Rentals	(162,587)	(155,754)
Total Trading Income	(267,130)	(268,523)
<b>Direct Costs</b>		
Depreciation & Amortisation	24,785	25,393
Group Costs	90,619	96,005
GP - Repairs & Maintenance	20,296	21,777
Total Direct Costs	135,700	143,176
<b>Net Profit from Trading</b>	<b>(131,430)</b>	<b>(125,348)</b>

## STATEMENT OF FINANCIAL PERFORMANCE

Marlborough Research Centre Trust (MRC) as at 30 June 2019

	2019	2018
<b>Operating Surpluses Transferred</b>		
Rowley Vineyard Operations	146,997	72,417
Budge Street Property Account	77,483	91,787
Grovetown Park Property Account	131,430	125,348
Total Operating Surpluses Transferred	355,910	289,551
<b>Other Revenue</b>		
Drylands - Sundry Income	-	(87)
NZ Dryland Forests Initiative Projects Grants	258,011	179,214
MRC - Marlborough District Council	257,000	250,000
Grant - Flaxbourne Earthquake Study	97,512	-
Marlborough Food & Beverage Innovation	-	42,978
Total Other Revenue	612,523	472,106
<b>Expenses</b>		
Operating Expenses		
MRC - Audit Fees	5,120	5,400
MRC - Insurances	8,091	7,010
Office Expenses	15,172	27,823
Operating Expenses	29,414	49,168
Personnel	182,406	174,362
Trust Share of Operating Costs	16,704	12,344
Total Operating Expenses	256,908	276,107
<b>Grants</b>		
Food & Beverage Innovation	-	111,375
Grant NZ Dryland Forests Initiative - Expense	242,937	182,728
Grant - PhD Student Scholarship	6,000	26,000
Grant - Meteorological Service	25,000	25,000
Grant - Cawthron Environment Awards	2,500	-
Grant - Phenology Monitoring	-	20,920
Grant - MRC Associate	48,533	-
Grant - Chilean Needlegrass	25,000	25,000
Grant - Flaxbourne Earthquake Study	108,271	-
Grant - PFR Conferences	-	1,303
Grant - Rapid Diagnostic Capability for Grape Vines	9,235	-
Grant - SFF Wasp Control	5,000	5,000
Grant - Soil Remediation - Grape Marc	25,000	-
Grant - UC Davis - Bordeaux Uni	32,500	-
Total Grants	529,975	397,325
Total Expenses	786,883	673,432
<b>EBITDA</b>	<b>181,550</b>	<b>88,225</b>

**NMA Nelson  
Marlborough Audit  
Limited**

NOTE: These statements are to be read in conjunction with the Notes to the Financial Statements and are subject to the Auditors Report

## STATEMENT OF FINANCIAL PERFORMANCE cont.

Marlborough Research Centre Trust (MRC) as at 30 June 2019

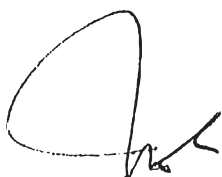
	2019	2018
<b>Depreciation and Amortisation</b>		
MRC - Depreciation Expense	11,751	12,563
MRC - Depreciation - Gain On Sale	(1,295)	(4,295)
Total Depreciation and Amortisation	10,456	8,268
<b>Investment Income</b>		
MRC - Interest Received	(22,071)	(22,795)
Total Investment Income	(22,071)	(22,795)
<b>Net Surplus (Deficit) for the Year</b>	<b>193,165</b>	<b>102,752</b>

## STATEMENT OF FINANCIAL POSITION

Marlborough Research Centre Trust (MRC) as at 30 June 2019

	Notes2019	2018	
<b>Assets</b>			
<b>Current Assets</b>			
Bank accounts and cash		1,107,450	200,008
Debtors and prepayments		199,989	148,588
<b>Total Current Assets</b>		<b>1,307,439</b>	<b>348,595</b>
<b>Non-Current Assets</b>			
Property, Plant and Equipment		3 3,590,406	3,673,325
<b>Investments</b>			
Term deposits		-	750,000
Research Centre Development Costs (Note 3)		87,803	16,823
<b>Total Investments</b>		<b>87,803</b>	<b>766,823</b>
<b>Total Non-Current Assets</b>		<b>3,678,209</b>	<b>4,440,148</b>
<b>Total Assets</b>		<b>4,985,648</b>	<b>4,788,743</b>
<b>Liabilities</b>			
<b>Current Liabilities</b>			
Creditors and accrued expenses			
Trade and other payables		119,321	130,411
Goods and services tax		34,557	18,086
<b>Total Creditors and accrued expenses</b>		<b>153,878</b>	<b>148,497</b>
Accrued Expenses		8,885	10,525
Donation - PFR from MGGT		9,252	9,252
<b>Total Current Liabilities</b>		<b>172,015</b>	<b>168,275</b>
<b>Total Liabilities</b>		<b>172,015</b>	<b>168,275</b>
<b>Total Assets less Total Liabilities (Net Assets)</b>		<b>4,813,633</b>	<b>4,620,469</b>
<b>Accumulated Funds</b>			
Capital Reserves		159	159
Accumulated surpluses or (deficits)		4,644,663	4,451,498
Reserves		168,812	168,812
<b>Total Accumulated Funds</b>		<b>4,813,633</b>	<b>4,620,469</b>

Signed by:



Date: 15 October 2019

NOTE 3: NZ Wine Centre concept development, architectural design

NOTE: These statements are to be read in conjunction with the Notes to the Financial Statements and are subject to the Auditors Report

**NMA Nelson  
Marlborough Audit  
Limited**

## STATEMENT OF CASH FLOWS

Marlborough Research Centre Trust (MRC) as at 30 June 2019

	2019	2018
<b>Cash Flows from Operating Activities</b>		
Receipts from providing goods and services	802,175	875,104
Interest, dividends and other investments	25,390	22,794
Grants, sponsorship and other revenue	612,523	472,106
Payments to suppliers and employees	(714,358)	(591,578)
Grants paid	(529,976)	(397,325)
GST refunded	(21,781)	(36,045)
<b>Net cash generated by Operating Activities</b>	<b>173,973</b>	<b>345,056</b>
<b>Cash Flows from Investing Activities</b>		
Proceeds from sale of fixed assets	1,500	17,300
Proceeds from sale of investments	750,000	-
Payments to purchase investments	-	(350,000)
Payments to purchase fixed assets	(18,030)	(14,037)
<b>Net cash /(used in) provided by investing activities</b>	<b>(733,470)</b>	<b>(346,737)</b>
<b>Net increase / (decrease) in cash and cash equivalents</b>	<b>907,443</b>	<b>(1,681)</b>
Cash and cash equivalents at the beginning of the year	200,008	201,688
<b>Cash and cash equivalents at the end of the year</b>	<b>1,107,451</b>	<b>200,007</b>

**NMA Nelson  
Marlborough Audit  
Limited**

NOTE: These statements are to be read in conjunction with the Notes to the Financial Statements and are subject to the Auditors Report



**STATEMENT OF ACCOUNTING POLICIES**

Marlborough Research Centre Trust (MRC) as at 30 June 2019

**Basis of Preparation**

Marlborough Research Centre Trust (MRC) is eligible to apply Tier 3 PBE Accounting Standards: PBE SFR-A (NFP) Public Benefit Entity Simple Format Reporting - Annual (Not-For-Profit), on the basis that it does not have public accountability and has total annual expenses equal to or less than \$2,000,000. All transactions in the financial statements are reported using the accrual basis of accounting.

The accounting principles recognised as appropriate for the measurement and reporting of earnings and financial position on an historical cost basis have been used, with the exception of certain items for which specific accounting policies have been identified.

The financial statements are presented in New Zealand dollars (NZ\$) and all values are rounded to the nearest NZ\$, except when otherwise indicated.

The financial statements are prepared under the assumption that the entity will continue to operate in the foreseeable future.

**Changes in Accounting Policies**

There have been no changes in accounting policies. All policies have been applied on a consistent basis with those of the previous reporting period.

**Income Tax**

The Trust is not subject to income tax and it is a charity registered with the Charities Commission.

**Accounts Receivable**

Receivables are stated at their estimated realisable value. Bad debts are written off in the year in which they are identified.

**Revenue Recognition**

Revenue comprises the fair value of the sale of goods and services, excluding Goods and Services Tax, rebates and discounts.

Revenue is recognised as follows:

Sales of Goods

Sales of goods are recognised in the accounting period in which they are rendered.

Rental Income

Rental income is recognised on an accruals basis in accordance with the substance of the relevant agreements.

Interest Income

Interest income is recognised using the effective interest method.

Grant Income

Grant income is recognised when receivable.

**Fixed Assets**

Fixed Assets have been included at cost less accumulated depreciation, with the exception of land, which has been revalued at June 2014. Details of fixed assets are outlined in the Schedule of Fixed Assets and Depreciation.

**Depreciation**

**NMA Nelson  
Marlborough Audit  
Limited**

NOTE: These statements are to be read in conjunction with the Notes to the Financial Statements and are subject to the Auditors Report

**STATEMENT OF ACCOUNTING POLICIES cont.**

Marlborough Research Centre Trust (MRC) as at 30 June 2019

Depreciation has been charged on either a diminishing value (DV) or cost price (CP) basis, at rates approved by the Inland Revenue Department, with the exception of buildings, which have been depreciated at 2% CP. Details of rates and depreciation claims are set out in Note 3

**Work In Progress**

Work in progress is recorded at cost.

**Goods and Services Tax**

The Statement of Financial Performance and Statement of Cashflows (where included) have been prepared so that all components are stated exclusive of GST. All items in the Statement of Financial Position are stated net of GST, with the exception of accounts payable and accounts receivable which are stated inclusive of GST.

**Basis of Consolidation**

Marlborough Research Centre Trust holds 100% of the shares in New Zealand Dryland Forests Limited and the results of this entity have been fully consolidated into the performance report.

Controlled entities are all those entities over which the controlling entity has the power to govern the financial and operating policies so as to benefit from its activities. The controlled entities are consolidated from the date on which control is transferred and are de-consolidated from the date that control ceases. In preparing the consolidated financial statements, all inter entity balances and transactions, and unrealised gains and losses arising within the consolidated entity are eliminated in full. The accounting policies of the controlled entity are consistent with the policies adopted by the Group.

The reporting date of both entities is 30 June. There are no significant restrictions on the ability of the subsidiaries to transfer funds to the Parent in the form of cash distributions or to repay loans or advances.

## NOTES TO THE PERFORMANCE REPORT

Marlborough Research Centre Trust (MRC) as at 30 June 2019

**1. Audit**

These financial statements have been subject to audit, please refer to Auditor's Report.

**2. Investments**

	2019	
2018		
BNZ Term Deposit 03137		
Maturing 25 May 2019, interest rate 3.35%	-	450,000
BNZ Term Deposit 03138		
Maturing 1 November 2018, interest rate 3.25%	-	200,000
BNZ Term Deposit 03139		
Maturing 1 September 2018, interest rate 3.25%	-	100,000

**3. Property, Plant and Equipment**

<b>Buildings</b>		
Buildings at cost	4,479,611	4,477,544
Accumulated depreciation - buildings	(1,081,374)	(1,004,513)
<b>Total Buildings</b>	<b>3,398,237</b>	<b>3,473,031</b>
<b>Furniture and Fittings</b>		
Furniture and fittings owned	167,731	152,559
Accumulated depreciation - furniture and fittings owned	(111,135)	(99,204)
<b>Total Furniture and Fittings</b>	<b>56,597</b>	<b>53,355</b>
<b>Plant and Equipment</b>		
Plant and machinery owned	194,053	200,053
Accumulated depreciation - plant and machinery owned	(156,095)	(156,955)
<b>Total Plant and Equipment</b>	<b>37,958</b>	<b>43,098</b>
<b>Other Fixed Assets</b>		
Other Fixed Assets	302,964	301,334
Accumulated depreciation - Other Fixed Assets	(205,350)	(197,494)
<b>Total Other Fixed Assets</b>	<b>97,614</b>	<b>103,840</b>
<b>Total Property, Plant and Equipment</b>	<b>3,590,406</b>	<b>3,673,325</b>

**NMA Nelson  
Marlborough Audit  
Limited**

NOTE: These statements are to be read in conjunction with the Notes to the Financial Statements and are subject to the Auditors Report

**NOTES TO THE PERFORMANCE REPORT cont.**

Marlborough Research Centre Trust (MRC) as at 30 June 2019

The Land and Improvements were revalued by Alexander Hayward, independent registered valuer (F.N.Z.I.V, F.P.I.N.Z) in June 2014. The methodology employed reflects fair value incorporating the lease conditions and remaining term in respect of land at Budge Street.

Depreciation rates used are:

Buildings 2% CP

Grovetown Park building fitout and amenities 2-3% CP, or 4-25% DV

Budge Street building fitout and amenities 14.4-20% DV

Plant and Equipment 10-50% DV

Motor Vehicles 12-30% DV

Furniture and fittings 8-40% DV

Vineyard 6-40% DV

**4. Events After the Balance Date**

There have been no events subsequent to balance date which impact on the results disclosed in these financial statements sufficiently to warrant inclusion in these notes (2018: Nil).

**5. Contingent Liabilities**

At balance date there are no known contingent liabilities. Marlborough Research Centre Trust has not granted any securities in respect of liabilities payable by any other party whatsoever (2018: Nil).

**6. Capital Commitments**

As at balance date there are no known capital commitments (2018: Nil).

**7. Related Parties**

Gerald Hope is a director of New Zealand Dryland Forests Limited.

Transactions occurring in relation to NZ Dryland Forests Limited for the year are outlined below (grants received and spent).

Income - \$258,011 (2018: \$179,214)

Expenses - \$242,937 (2018: \$182,728)

Accounts Receivable and Payable at year end in relation to New Zealand Dryland Forests Limited were:

Accounts Receivable - \$Nil (2018: \$Nil)

Accounts Payable - \$Nil (2018: \$Nil)

**NMA Nelson  
Marlborough Audit  
Limited**

NOTE: These statements are to be read in conjunction with the Notes to the Financial Statements and are subject to the Auditors Report

**INDEPENDENT AUDITOR'S REPORT****To the Beneficiaries of Marlborough Research Centre Trust****Report on the Performance report**

NMA Nelson Marlborough Audit Ltd

**Opinion**

We have audited the performance report of Marlborough Research Centre Trust, which comprise the entity information, the statement of financial position as at 30 June 2019, the statement of service performance, the trading accounts, the statement of financial performance, and statement of cash flows for the year then ended, and notes to the performance report, including a summary of significant accounting policies.

In our opinion, the performance report on pages 3 to 20 presents fairly, in all material respects;

- the entity information for the year then ended;
- the service performance for the year then ended; and
- the financial position of Marlborough Research Centre Trust as at 30 June 2019 and its financial performance, and cash flows for the year then ended

in accordance with Public Benefit Entity Simple Format Reporting – Accrual (Not-For-Profit).

**Basis for Opinion**

We conducted our audit of the statement of financial performance, trading accounts, statement of financial position, statement of cash flows, statement of accounting policies and notes to the performance report in accordance with International Standards on Auditing (New Zealand) (ISAs (NZ)), and the audit of the entity information and statement of service performance in accordance with the International Standard on Assurance Engagements (New Zealand) ISAE (NZ) 3000 (Revised).

Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Performance Report section of our report.

We are independent of the Trust in accordance with Professional and Ethical Standard 1 (Revised) Code of Ethics for Assurance Practitioners issued by the New Zealand Auditing and Assurance Standards Board and the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other than in our capacity as auditor we have no relationship with, or interests in, the Trust.

**The Responsibility of the Trustees for the Performance Report**

The Trustees are responsible on behalf of the entity for:

- (a) Identifying outcomes and outputs, and quantifying the outputs to the extent practicable, that are relevant, reliable, comparable and understandable, to report in the statement of service performance;
- (b) the preparation and fair presentation of the performance report which comprises:
  - the entity information;
  - the statement of service performance; and
  - the statement of financial performance, statement of financial position, statement of cash flows, statement of accounting policies and notes to the performance report

in accordance with Public Benefit Entity Simple Format Reporting – Accrual (Not-For-Profit) issued in New Zealand by the New Zealand Accounting Standards Board, and

- (c) for such internal control as the Trustees determine is necessary to enable the preparation of the performance report that is free from material misstatement, whether due to fraud or error.

In preparing the performance report, the Trustees are responsible on behalf of the Trust for assessing the Trust's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Trustees either intend to liquidate the Trust or to cease operations, or have no realistic alternative but to do so.



NMA Nelson Marlborough Audit Ltd

### Auditor's Responsibility for the Audit of the Performance Report

Our objectives are to obtain reasonable assurance about whether the performance report as a whole is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with ISAs (NZ) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could be reasonably expected to influence the decisions of users taken on the basis of the performance report.

As part of an audit in accordance with ISAs (NZ), we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

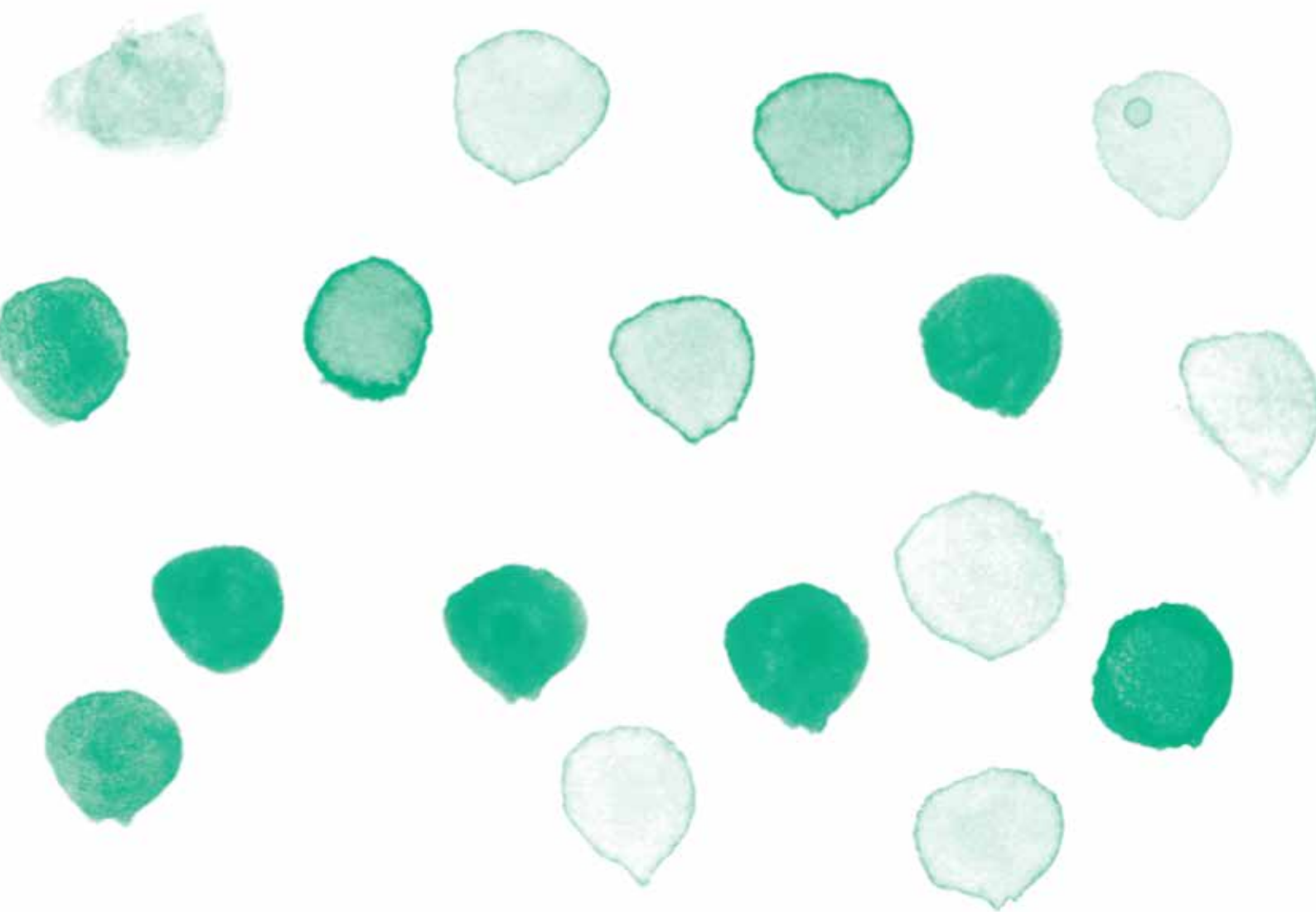
- Identify and assess the risks of material misstatement of the performance report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Trust's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of the use of the going concern basis of accounting by the Trustees and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Trust's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the performance report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Trust to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the performance report, including the disclosures, and whether the performance report represents the underlying transactions and events in a manner that achieves fair presentation.

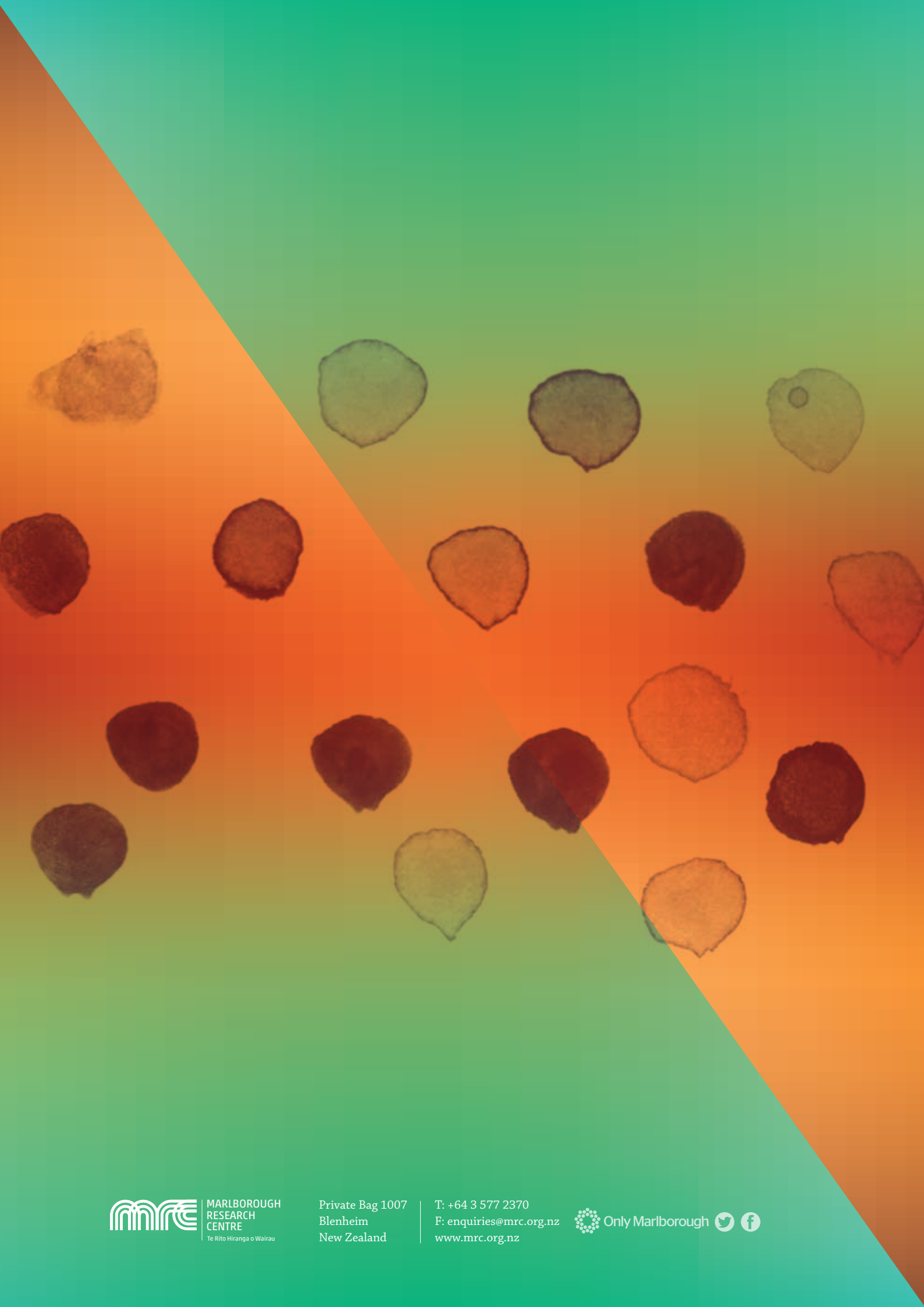
We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

*NMA Nelson Marlborough Audit Ltd*

NMA Nelson Marlborough Audit Limited  
PO Box 732  
Nelson 7040

15 october 2019





MARLBOROUGH  
RESEARCH  
CENTRE  
Te Rito Hiranga o Wairau

Private Bag 1007  
Blenheim  
New Zealand

T: +64 3 577 2370  
F: [enquiries@mrc.org.nz](mailto:enquiries@mrc.org.nz)  
[www.mrc.org.nz](http://www.mrc.org.nz)



Only Marlborough

