FOREST GROWERS CONFERENCE 2019

AGENDA

Venue: Te Papa, Wellington

DAY 1 – Tuesday, 15th October 2019

9:00am 9:15am 9:30am	*Arrival Tea/Coffee (Collect name tags)* Welcome Introductions and H&S **Forest Growers Levy – Investing in Our Industry's Future**	Russell Dale, FGR
10.15 am	*Morning tea*	
10:45am 11:00am	***Growing confidence in forestry's future (GCFF): enhancing productivity and sustainability*** **GCFF Session 1: Maximise the benefits from the existing forest resource** • Characterisation of the resource - what are the impacts of past decisions around genetics, silviculture and site on yields and wood properties? • Merchandising stems to extract maximum value • What are the opportunities to increase yields of forests through mid-rotation fertilisation? • What is the optimal density to thin existing forests to maximise future harvest returns? ➢ Panel Q&A	Peter Clinton **Facilitator/Session Chair:** Amanda Matson **Presenters:** John Moore Graham Coker Mike Watt
12:00pm	*Lunch*	
1:00pm	**GCFF Session 2: Phenotype characterisation of trees and forest: From UAV to models** • Remote Sensing: Forest Characterisation • Area-based phenotyping: Stand Characterisation • Individual Tree Phenotyping: Understanding the drivers of growth • Vitrual Tree: Phenotype Modelling ➢ Panel Q&A	**Facilitator/Session Chair:** John Moore **Presenters:** Robin Hartley Maxime Bombrun David Pont Damien Sellier

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2:00pm	**GCFF Session 3: Enhancing future forests: stacking productivity gains** • The concept of the Accelerator trials • Silvicultural treatments to optimise site occupancy and value • Understanding what your site can do and what the trees need • Integrating soil microbial properties into forest performance • New opportunities from novel forest treatments ➢ Panel Q&A	**Facilitator/Session Chair:** Amanda Matson **Presenters:** Simeon Smaill John Moore Loretta Garrett Sarah Addison
3:00pm	*Afternoon Tea*	
3:30pm 4:30pm	**GCFF Session 4: Ensure that future intensification is sustainable and understanding the full value of forests** • Reducing harvesting impacts on steeplands focused on the window of vulnerability • NuBalM and nutrient sustainability over multiple rotations • Sustainability of soil, water and biodiversity with intensification practices • The full value of forests ➢ Panel Q&A **GCFF program close** • Where we have come to and how we are placed for the future • Beyond GCFF: overview of new research programmes	**Facilitator/Session Chair:** Simeon Smaill **Presenters:** Tim Payn Amanda Matson Loretta Garrett Sarah Addison Richard Yao Brenda Baillie **Presenter**: Peter Clinton, Brian Strahm
4:45pm	**Session Closed**	Russell Dale, FGR
6:30pm	Pre-dinner drinks – Te Papa, Wellington	
7:15pm	**2019 Science Awards Dinner** Te Marae Room, Te Papa, Wellington • Dinner Topic: The future of forests in a changed climate • 2019 Science Award Presentations	**MC:** Russell Dale, FGR **Guest Speaker:** Dr James Renwick Victoria University of Wgtn

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Venue: Te Papa, Wellington

DAY 2 – Wednesday, 16th October 2019

8:00am	*Arrival Tea/Coffee*	
8:15am	• Welcome • Introductions and H&S	
8:25am	**Protecting Our Future**	**Session Chair:** Mike Baker, Hancock Forest Management **Presenters:**
	• Healthy Trees Healthy Future / Phytophthora / Pine Needle disease (RNC)	Lindsay Bulman, Grant Pearse, Alan Tan, Natalie Graham, Rebecca McDougal (Scion)
	• Potential for biocontrol of pathogens	Travis Glare: Lincoln University Helen Whelan: Lincoln University
	➢ Panel Q&A	
10:00am	*Morning Tea* Posters & displays (Forecaster Calculator & Woodlot Analysis Tool demo)	
10:30am	**Opportunities from Genetic Improvement**	**Session Chair:** Dean Witehira Timberlands **Presenters:**
	• Radiata Pine Breeding Company developments	Brent Guild: RPBC
	• Accelerating deployment of improved genetics via tissue culture and nursery automation	Jana Krajnakova, Scion Craig Ford, Scion (TBC)
	• Breeding to improve specialty species	Toby Stovold: Scion
	• Breeding for browsing tolerance in durable eucalypt species	Tara Murray: University of Canterbury
	➢ Panel Q&A	
12:05pm	*Lunch* Posters & displays (Forecaster Calculator & Woodlot Analysis Tool demo)	

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1:00pm	**Overcoming Challenges** • Gene editing to reduce Douglas fir wilding spread • Management of harvesting residues on steep land • Extreme fire research – applying outcomes to recent fire events • Log fumigation – MBr and EDN updates • New wood products to improve returns for growers ➢ Panel Q&A	**Session Chair:** Angus Gordon, FFA Representative **Presenters:** Glenn Thorlby: Scion Keith Raymond: FGR Tara Strand: Scion Don Hammond: STIMBR Marco Lausberg: FGR
2:45pm	*Afternoon Tea* Posters & displays (Forecaster Calculator & Woodlot Analysis Tool demo)	
3:15pm	**Precision Forestry Innovations** • Inventory Predictions using radar, LiDAR & satellite data • New Hybrid Growth models • Insect and Pathogen Detection and Targeted Control ➢ Panel Q&A	**Session Chair:** Jason Syme Rayonier | Matariki Forests **Presenters:** Ellen-Mae Leonardo: Scion Euan Mason: University of Canterbury Tara Strand: Scion
4:20pm	Conclusion and Wrap-up	Russell Dale: FGR
4:30pm	Conference Closed	

Forest Growers
Pre-Conference Sessions 2019

Monday, 14th October 2019
Venue: Te Papa, Wellington

10:00am – 12:30pm

Carbon and ETS

1. Update on major high-level design changes to the ETS as a whole (e.g. auctioning and international unit supply) that might affect foresters.
2. Update on forestry-specific rule changes in the ETS.

2:00pm – 5:00pm

Phenotyping/LiDAR workshop

This workshop will focus on the use of remote sensing data for forest inventory applications. Michael Watt will start the session by presenting results from a recent industry survey that highlighted inventory as the most important application of remote sensing to forest managers. Presentations will then be held that use a diverse range of data sources for inventory covering a range of cost and spatial resolution. These include a comparison of radar data with lidar for the prediction of area based metrics and the utility of LiDAR voxelised metrics to predict grade mix. Grant Pearse will discuss the potential use of deep learning for tree detection and novel opportunities for point cloud analysis. Aaron Gunn will end the meeting with a summary of the presentations and place these in the context of operational practice.

1. Summary of results from the survey of the Phenotyping/LiDAR Cluster group
2. Use of deep learning for tree detection – detailed methods and applications
3. Novel opportunities for point cloud analysis
4. Prediction of grade mix using LiDAR voxelised metrics
5. Use of radar to predict forest inventory attributes
6. Q&A Workshop Session