

# FOREST GROWERS CONFERENCE 2019

## AGENDA

Venue: Te Papa, Wellington

**DAY 1 – Tuesday, 15<sup>th</sup> October 2019**



9:00am	<i>Arrival Tea/Coffee (Collect name tags)</i> Posters & displays
9:15am	Welcome Introductions and H&S
9:30am	<b>Forest Growers Levy Trust: Update &amp; Developments</b>
10:15am	<i>Morning Tea</i> Posters & displays
10:45am	<b><i>Growing confidence in forestry's future: enhancing productivity and sustainability through research at multiple scales.</i></b>  <b>Intra-tree scale</b> Wood formation <ul style="list-style-type: none"> <li>• Impacts of fertiliser and hormones on wood formation processes at the cellular scale</li> <li>• SFSim – a numerical model of wood formation providing new insights into future wood quality</li> </ul>
12:00am	Panel Q&A
12:15pm	<i>Lunch</i> Posters & displays
1:00pm	<b>Whole-tree scale</b> <ul style="list-style-type: none"> <li>• Improving seedling quality and performance through nursery practices</li> <li>• Quantifying differences in physiological traits among genotypes</li> <li>• New approaches for detecting trees in remotely-sensed data using deep learning</li> <li>• Predicting tree heights in stands using data acquired from UAVs</li> <li>• Understanding and enhancing soil microbial activity in the forest</li> <li>• Improved stand management through a greater understanding of inter-tree competition</li> <li>• Maximising value recovery from trees – a techno-economic analysis of segregation options</li> </ul>
2:15pm	Panel Q&A
2:30pm	<i>Afternoon Tea</i> Posters & displays
3:00pm	<b>Stand and landscape scales</b> <ul style="list-style-type: none"> <li>• What strategies can be employed to enhance productivity across the landscape?</li> <li>• Novel phenotyping approaches give new insights into whole-forest performance</li> <li>• Sustainability of long-term site productivity: impacts of forest management practices on soil microbes and nutrient pools</li> <li>• Quantifying the full value of forests: what is the economic value of forest ecosystem services?</li> <li>• Maintaining our licence to fertilise: quantifying the environmental impacts of applied nutrients on water quality</li> <li>• Beyond GCFF: overview of new research programmes</li> </ul>
4:00pm	Panel Q&A
4:30pm	Close of Day 1
6:00pm	Pre-dinner drinks – Te Papa, Wellington
7:00pm	<b>2019 Science Awards Dinner</b> Te Marae Room, Te Papa, Wellington <ul style="list-style-type: none"> <li>• 2019 Science Award Presentations</li> <li>• Speaker</li> </ul>



# FOREST GROWERS CONFERENCE 2019

## AGENDA

Venue: Te Papa, Wellington

DAY 2 – Wednesday, 16<sup>th</sup> October 2019



8:00am	<i>Arrival Tea/Coffee</i> Posters & displays
8:15am	<ul style="list-style-type: none"> <li>• Welcome</li> <li>• Introductions and H&amp;S</li> </ul>
8:30am	<b>Forest Health Management</b> <ul style="list-style-type: none"> <li>• Phytophthora diseases – what have we learnt</li> <li>• Needle diseases – control options for RNC</li> <li>• Potential for biocontrol of pathogens</li> </ul>
9:45am	Panel Q&A
10:00am	<i>Morning Tea</i> Posters & displays (Forecaster Calculator & Woodlot Analysis Tool demo)
10:30am	<b>Genetic Improvement</b> <ul style="list-style-type: none"> <li>• Radiata Pine Breeding Company developments</li> <li>• Breeding to improve specialty species</li> <li>• Accelerating deployment of improved genetics via tissue culture and nursery automation</li> <li>• Breeding for browsing tolerance in curable eucalypt species</li> </ul>
11:45am	Panel Q&A
12:05pm	<i>Lunch</i> Posters & displays (Forecaster Calculator & Woodlot Analysis Tool demo)
1:00pm	<b>Overcoming Challenges</b> <ul style="list-style-type: none"> <li>• Gene editing to reduce D.fir wilding spread</li> <li>• Management of harvesting residues on steep land</li> <li>• Extreme fire research – applying outcomes to recent fire events</li> <li>• Log fumigation – MBr and EDN updates</li> <li>• New wood products to improve returns for growers</li> </ul>
2:30pm	Panel Q&A
2:45pm	<i>Afternoon Tea</i> Posters & displays (Forecaster Calculator & Woodlot Analysis Tool demo)
3:15pm	<b>Precision Forestry Innovations</b> <ul style="list-style-type: none"> <li>• Inventory predictions using radar, LiDAR &amp; satellite data</li> <li>• New hybrid growth models</li> <li>• Insect and pathogen detection and targeted control</li> </ul>
4.00pm	Panel Q&A
4:15pm	Conference Summary
4:30pm	Conference Close





# Forest Growers Pre-Conference Workshops 2019

Venue: Te Papa, Wellington

Monday, 14<sup>th</sup> October 2019

10:00am – 12:30pm

Carbon and the ETS

2:00pm – 5:00pm

## Phenotyping/LiDAR workshop

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

