

October 2015

FOREST GROWERS RESEARCH NEWS



Hi

It is now over 12 months since I provided a fuller update on research programmes being managed under the new joint FOA/FFA Forest Research Committee structure that assumed responsibility for the management of the programmes funded by the Forest Growers Levy Trust on 1 April 2014. In less than two weeks' time in Nelson we will be providing a very comprehensive update to forest growers on the research results from the full suite of research programmes being supported by forest growers. Registrations for this event are open until this Wednesday, 7th October.

Forest Growers Research Conference 2015 Preview

With an industry investment of some \$4 million and a total investment of closer to \$16m per annum supporting the research programmes we are seeing exciting progress across all programmes. Some of the highlights that will be show cased in Nelson on the 14th - 15th October include:

- Red Needle Cast – RNC – what we now know about this disease and control options
- Productivity benchmarking - what is the potential for your forest and how you can close the gap?
- New Remote Sensing Technologies and Drones/UAV's application in forest management
- How quickly does stream aquatic life recover after severe flood events?
- Teleoperated and autonomous tree felling on steep land
- Protecting access to international markets – latest developments to protect our markets
- Fire research outcomes that are being used to better manage wildfire responses
- Research results are contributing to better land use policy

Forest Research Committee Update

The joint FFA/FOA Forest Research Committee has met five times over the last 12 months to review programme progress, to evaluate and make recommendations on funding for new research programmes and to review the Forest Growers Science and Innovation Strategy. This is the guiding strategy for the forest growers' investment in research and development and all proposals for funding support are judged against this strategy before recommendations on funding support are made.

The Committee is currently developing a draft programme for 2016 that will be approved by the FGLT in December 2015.

There were two changes to the committee composition during the year with Angus Gordon from the Farm Forestry Association replacing Patrick Milne and Jason Syme from Rayonier replacing Philip Elworthy. The full committee is:

David Balfour (Chair) - Timberlands
Grant Dodson(Deputy Chair) - City Forests
Angus Gordon - Farm Forestry Association
Ian Hinton - Timberlands
Dave Lowry - Hancock Forest Management
Glen Murphy - Waiariki Institute of Technology
Jason Syme - Rayonier

Research Projects Supported by the Forest Growers Levy Trust

Earlier this year, with the support of the Forest Growers Levy Trust, we were able to commence seven new short duration research projects to complement work that is being done in other programmes. In total 25 project proposals were considered against the priorities in the Science and Innovation Strategy. These new projects, totaling \$447,000 have all commenced and are all being managed through our existing Technical Committee structure. The new projects will all be completed during 2015-16:

Project	Research Provider (Lead Person)	Total Funding
In Forest Debarking	Waiariki Institute (Glen Murphy)	\$135,000
Estimation of Productivity	School of Forestry (Euan Mason)	\$85,000
Herbicide Application & Fate	Scion (Carol Rolando)	\$50,000
Waterway Recover	Scion (Brenda Baillie)	\$22,000
Fertiliser Distribution & Fate	Scion (Peter Clinton)	\$45,000
Nutrient Balance Model	Scion (Simeon Smail)	\$35,000
Pest Eradication in	Scion (Tara Strand)	\$75,000



Sustainable Farming Fund Applications Targeting Small Growers

In addition the Committee also supported in principle two projects that have been submitted to the Sustainable Farming Fund for funding. The projects are both focusing on issues for small forest owners where forest scale results in high per unit costs for forest inventory and harvesting. Both projects have application also to small forest blocks in larger holdings:

Harvesting System for Small Forests will demonstrate a low cost harvesting system for small forest blocks using technology developed in the FFR Steep Land Harvesting programme and;

Inventory System for Small Forests will develop a forest inventory system that has acceptable levels of precision at lower cost than conventional inventory.

We will not know the outcome of these two applications until early December 2015.



Specialty Wood Products Partnership

This new partnership to focus on value added wood products from other species was approved by Government in May and a contract signed with MBIE in early September with funding commencing 1 July 2015. This new programme will focus on Douglas-fir, Cypresses and durable and non-durable eucalypts and is a research collaboration between Scion, University of Canterbury and the Drylands Forest Initiative operating from the Marlborough Research Centre in Blenheim.

The Forest Grower Levy Trust are contributing \$300,000 per year, other investors are contributing \$410,000 and the Ministry of Business Innovation and Employment (MBIE) are contributing matching funds of \$710,000 per year for seven years. We were extremely pleased to have this approved and to get a research programme focused on improving the confidence of both growers and processors in these other species. Durability, structural strength and appearance are key attributes of these species that underpin industry interest in this programme.

FFR Steep Land Harvesting Research

A significant milestone has been achieved in this programme with the successful testing of a teleoperated John Deere harvesting machine operated by Ross Woods contracting in Nelson. This is believed to be a world first and paves the way for full teleoperation of harvesting machines from safe and comfortable work stations. This was recently shown to the Minister for Primary Industries, Nathan Guy, who was very impressed with the work the forest industry is doing to make forestry a safer and more competitive industry. This machine will be demonstrated on the conference field trip on the 15th October.



Russell Dale
FOA R&D Manager
Rotorua

Access to Research Results

A number the outputs from the research programmes including newsletters and conference presentations are available to all forest growers on the FOA research website.

Recently published reports include:

Growing Confidence in Forestry's Future

GCFF TN-002: Effects of silviculture and seedlot on radiata pine growth, wood properties and end-product quality

GCFF TN-003: Economics of segregation based on wood properties

GCFF TN-005: Testing new soil enzyme assays for predicting forest fertiliser response - protease may have limited suitability

GCFF TN-006: Locating Individual Trees with a Forest Genetics Trial

GCFF TN-007: Predicting productivity using combinations of LiDAR, satellite imagery and environmental data

GCFF TN-008: Linking Remote Sensing Techniques and Leaf Area Index

Needle Diseases

ND-T006: Minimum Phytophthora pluvialis zoospore concentration for red needle cast infection in planta (Exec summary only to date)

ND-T007: Understanding red needle cast inoculum dynamics in the field

ND-T008: Development of quantitative molecular assays for Cyclaneusma minus "smile" and "verum" (Exec summary only to date)

ND-T009: Adjuvant stability tests with Phosphorus acid formulations - PPC report

ND-T010: Effect of A.I. rate and adjuvant addition on uptake of phosphorus acid formulation "Foschek" . PPC Report

Bioprotection

BIO-T004: Bioprotection for foliar diseases and disorders of radiata pine
Quantitative PCR methods developed for LU633/584
LU633/584 primers tested on forest and controlled environment samples

BIO-T005: Testing Biological control agent (BCA) inoculated material against Phytophthora pluvialis in planta

BIO-T006: Identify endophyte/elicitor combinations that enhance seedling resistance to diplodia dieback in at least two pine seedlots

BIO-T007: Assessment of established Trichoderma field trials and methodology for scoring disease

Diverse Species

DSTN-004: Douglas-fir Branch Model

DSTN-005: Interim Report: Results of Assessments in FR375, Beaumont Controlled-pollinated 1999 Progeny Trial