FUTURE FORESTS RESEARCH

Four Corners

Issue 8 June 2013

Satellites aid forest management

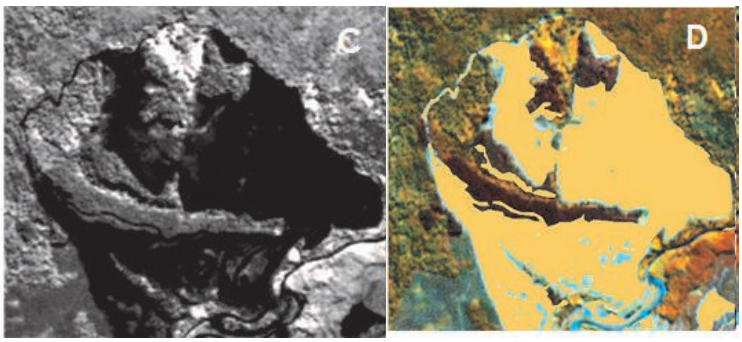
Developments in remote sensing technology to monitor forest operations have been highlighted to FFR members in recent workshops.

FFR has funded research into remote sensing for the past two years. Forest managers can now use low-cost RapidEye satellite images and recently developed data processing applications to automate detection and mapping for a range of information.

RapidEye uses five satellites in the same orbital plane at an altitude of 630km, where they circle the earth each day in time with the sun, producing images with resolution down to 5 metres, using an array of sensors that can detect even changes in the chlorophyll content of vegetation to help assess plant health.

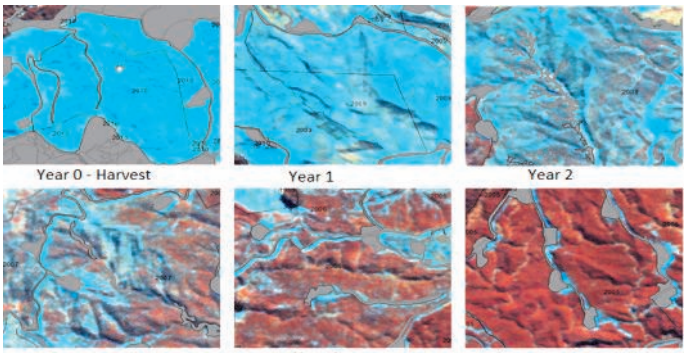
Examples of forestry applications using RapidEye include:

Detecting and mapping harvested areas

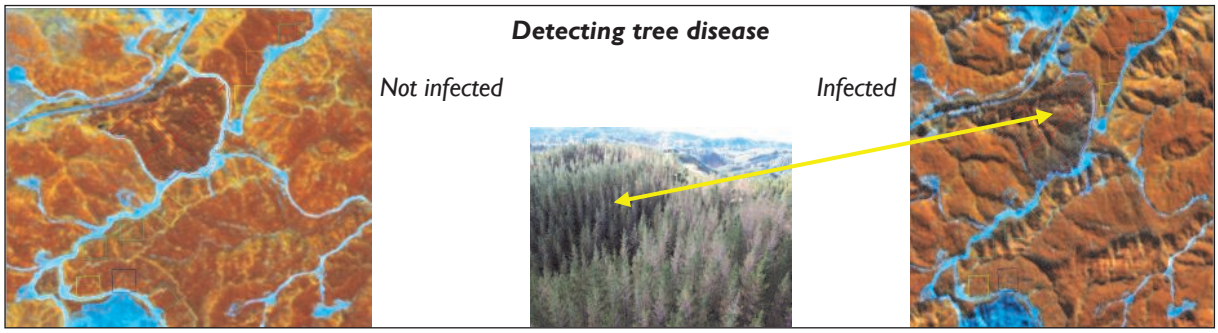


The RapidEye image (D) is much clearer than the aerial photo (C)

Detecting and mapping tree crop establishment



Detecting tree disease



New Director brings wide experience in primary industry

Future Forests Research has appointed a new Director, Graham Fraser, following the resignation of Eoin Garden last December.

Graham brings a wealth of experience in the primary sector and at governance and leadership level and we are fortunate to secure a director with such experience.

Graham started his career at Tokoroa with NZFP, spent 36 years as a dairy farmer near Rotorua and was involved in leadership roles in the dairy industry that included Deputy Chair of NZ Co-Op Dairy Company, Chairman of NZ Dairy Board and Deputy Chair of AgResearch, and Chair of the LIC board audit committee.

He also led the Dairy Industry Good review that led to the formation of Dairy NZ, a pan-industry research and development group.

Future Forests Research Ltd
Te Papa Tipu Innovation Park
99 Sala Street
PO Box 1127
Rotorua, New Zealand
Phone: 0064-7-921-1883
Email: info@ffr.co.nz
www.ffr.co.nz

Master classes pass on forestry research knowledge

Future Forests Research and Scion have introduced master classes in forest growing to transfer research findings more effectively to end users.

Until recently FFR relied on six-monthly member meetings and posting technical reports on its website to update industry members on research outcomes.

Feedback indicates this has not resulted in effective and widespread uptake of key results, so FFR and Scion reassessed how key results can be passed on more effectively.

They decided to run sets of three workshops covering areas of interest to industry. The workshops, held in Christchurch and Rotorua, covered the following topics:

Quantitative Silviculture to improve understanding of how stands develop and respond to silvicultural treatments, to help participants to interpret the outputs from growth and yield forecasting models.

Understanding the Drivers of Forest Productivity focused on factors that affect tree productivity so participants can analyse management practices and evaluate options for adapting tree growth and wood quality.

Resource Assessment of Forests covered remote sensing and alternative sampling methods to quantify tree growth and condition.

The two-day workshops combine presentations to highlight the science with exercises on using the knowledge in real life situations. A follow-up field session is scheduled to reinforce the classroom learning.

Feedback has been very positive and FFR sees immense value in continuing these workshops.

Classes seen as a step up

Blakely Pacific Ltd Technical and Resource Manager Aaron Gunn found the master classes a step up from member meetings.

Besides the research presentations, he said the classes were a good opportunity for industry representatives to present their work, which gave participants confidence in the information.

Lab sessions and group work allowed like-minded people to talk through the ideas and findings, as did discussions during breaks in the classes.

Aaron Gunn

Aaron said knowledge from the classes was going into Blakeley Pacific's planning cycle for future application.

The classes were an important step in bridging the gap between research and the industry, not only in imparting research results but also in helping scientists to understand industry's needs.

Safety a vital part of forest mechanisation programme

The FFR steep slope harvesting programme, now in its third year, aims to improve safety as well as productivity in tree felling and extraction on steep slopes.

The ClimbMAX harvester (at left), developed by Kelly Logging Ltd and Trinder Engineering Ltd in Nelson with assistance from FFR, is a key outcome of the steep slope programme.

Mechanisation of felling and bunching, plus improving grapple extraction by using cameras and remote control systems is moving the programme towards the objective of removing workers from hazardous areas where logs are being extracted.

The steep slope harvesting programme is funded through the Primary Growth Partnership between Government and FFR industry members.