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HARVESTING THEME UPDATE

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Summary

The business plan for the “Innovative Harvesting Solutions” programme, which was finalised and presented to the Primary Growth Partnership in February, has been approved by the Director General of MAF, Murray Sherwin. Annual members meetings were held in Rotorua and Dunedin during March and the third quarter of the 2009/10 FFR Harvesting research year was reviewed by the Technical Steering Team in April. All of the projects in the current Work Programme are making progress. The following update highlights the development of the PGP Business Plan, and a summary of the Q3 2009/10 review.

ANNUAL MEMBER MEETINGS

During the last Quarter, annual meetings were held in Rotorua on 18th March and in Dunedin on 23rd March to update members with progress with the 2009/10 Research Programme and to gain industry input to the 2010/11 Research Plan.

Feedback from the presentations has been good and this update provides a brief summary of each project.

PRIMARY GROWTH PARTNERSHIP (PGP) FUNDING FOR HARVESTING RESEARCH APPROVED

At the Annual Meeting, Russell Dale gave an overview of the PGP funding application. The FFR Harvesting theme developed and finalised the business plan for the “Innovative Harvesting Solutions” programme during the Quarter.

The Business Plan, which details seven projects aimed at achieving a step-change improvement in steep country harvesting costs, and improvements in safety and attractiveness of cable logging jobs, was submitted for approval prior to the deadline of 1 February 2010.

A presentation of the Business Plan was made to the PGP Investment Advisory Panel on 24 February. Initial feedback from the presentation was good and further information regarding critical checkpoints for the projects was

requested in March. This was provided to PGP on 16 April. One issue raised around FFR’s Scion shareholding was resolved by using NZFOA as the vehicle to forward the Programme to PGP, with a back-to-back contract to be established between NZFOA and FFR.

The Ministry of Agriculture and Forestry announced on 26th May that it has approved funding for the “Innovative Harvesting Solutions” Programme. We are currently waiting to finalise the contract with PGP.

The scope of the Programme, as confirmed at the Business Planning Workshop in December 2009, is to develop innovative solutions to the challenges of steep country felling, breaking out and extraction, and will support the local manufacturing of new forestry equipment suitable for New Zealand conditions. The vision is “no worker on the slope, no hand on the chainsaw”.

The afternoon session of the Annual Meeting was opened up to all industry members to encourage wider discussion of the PGP Business Plan and participation in the development of the Research Plan detail.

Targeted direct outcomes and benefits are :

- Reduction in steep country harvesting costs of 25%
- eliminating lost time accidents in the felling, breaking out and unhooking phases of cable operations



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- growth in the harvesting machinery manufacturing industry in New Zealand.

There will also be indirect benefits in developing technical capability in harvesting and machinery development; further reducing the environmental footprint of harvesting in New Zealand; and realising the substantial opportunity to increase establishment of forests on marginal lands, most of which are on slopes over 20 degrees.

This Business Plan will form the basis of ongoing work for the Harvesting Theme. The detailed PGP Work Programme has been put into the FFR Harvesting Theme draft Research Plan. The Research Plan has three main components:

- Mechanisation on Steep Terrain
- Increased Productivity of Cable Extraction
- Development of Operational Efficiencies

The Annual Meetings then divided into workshop groups to further develop this programme. In general, feedback from the workshop sessions has been good, with the groups endorsing the work programme, especially in the area of development of remote-controlled felling and bunching machinery for steep slopes.

The draft Research Plan was approved by the FFR Board at their meeting on 27 May 2010. The 2010/11 Harvesting and Logistics theme Research Plan will be distributed to all members shortly.

RESEARCH OUTPUTS FROM Q3 2009/10

The following reports were published during Quarter 3:

- Technology Watch Number 4 February 2010
- Technical Note Vol. 2 No. 10: On-board Monitoring Systems

The FFR website has undergone some development and has a “new look”. These reports will be posted on the website soon. To access the website, go to <http://www.ffr.co.nz/>

Click on Login in the top right corner and enter your username (or email address) and password. Click on Members Area and then Harvesting and Logistics Theme and you can access all these publications. If you need help with the FFR website or have forgotten your login, please call Veronica Bennett on 07 921 7246 or email: veronica.bennett@ffr.co.nz.

Reducing Unproductive Time through Better Monitoring Systems

A Technical Note investigating the potential of “on-board monitoring systems” was published during the quarter.

Work continues on the concept of an improved Production Data Unit (PDU) and in integrating various productivity monitoring tools (such as Komatsu’s Matris system) and GPS into a prototype system. If you are interested in this project, please contact Tony Evanson at Scion on 07 343 5458.

Best Practice and Training for Cable Operations

This project on breaking out on steep slopes is aimed at identifying elements of best practice, and contributing towards positive behaviour change. The project uses state-of-the-art body cameras on the breaker outs to record work methods, retreat distances and communications used during the work task. Field work has commenced and will be completed next quarter.

The focus of the project has been validated by the Forest Owners IRIS accident statistics showing there have been 697 breaking out incidents over the last three years, 64% of which occurred in hauler operations. Over the three years of data there were 279 injury incidents in breaking out, and the number of injury incidents has increased year on year. A brief file note (analysing the type of injury, cause of injury and part of body injured) has been written and is available to members.



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Benchmarking Cost and Productivity

There are now 110 harvest areas in the Benchmarking database. The database is available to all participating FFR members to identify and analyse their own data, and six FFR member companies have done so already.

Rien Visser at the School of Forestry, University of Canterbury has commenced collection of further harvest area production data for the 2010 benchmarking project.

If you have production data at the Harvest Area level and wish to participate in this benchmarking project, you can either enter your data directly into the website set up for FFR members using this link:

<http://www.foresteng.canterbury.ac.nz/survey/>,
or you can send your data on a confidential basis to Rien Visser at rien.visser@canterbury.ac.nz.

Crew Best Practice – Costs and Productivity

The aim of this study is to identify what factors contribute towards the high performance of specific harvesting operators in specific harvesting conditions. By analysing data from the Benchmarking database, the study examines the characteristics of individual high performing operations. Individual companies have been approached for their approval for FFR to study them in more detail.

Optimising Work Organisation for Maximum Performance

This project focuses on work organisation initiatives (including job design, alternative communication methods, and job rotation) were poorly understood and applied. Long, uninterrupted work periods for machine operators and the widespread adoption of one single “smoko” break per day, appear as workforce issues across the industry.

This project will identify the barriers, bottlenecks and factors influencing effective work organisation and scheduling within logging operations, including the effect of this on physical and psychological workload. FFR acknowledges the financial support of ACC in this work.

Mechanisation of Steep Slope Harvesting

A Technical Note on analysis of harvest planning data to determine potential for bunching based on terrain, piece size and hauler payload over a sample of New Zealand cable logging conditions has been completed and will be published soon. A study of a Valmet self-levelling feller-buncher on steep slopes in Forests NSW, Australia is also planned.

Application of Harvesting Technology

Arising from the Technology Watch undertaken over the last year or so, a study has commenced investigating current fuel consumption in steep country logging operations.

Other activities in the Technology Watch programme have included a regional Technical Meeting in Gisborne on Thursday 25th February, 2010, promoting the work in the Harvesting theme to contractors and forest company staff of Ernslaw One and Hikurangi Forest Farms Ltd.

The next round of FFR Meetings include:

- Harvesting Theme Technical Steering Team – Wed 21 July in Rotorua
- FFR Senior Executives Forum - Wed 28 July in Wellington
- FFR Value Recovery Workshop – Fri 27 August in Rotorua
- FFR Theme Member Meetings are scheduled for 31 August – 3 September in Nelson.