

Intensive Forest Systems Proposed 2010-11 Work Programme

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**FUTURE
FORESTS
RESEARCH**

Leadership in forest and environmental management, innovation and research

SCION 
Next generation biomaterials

2010-2011 Work Programme

Task	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
3.1 – Specify System	\$279,000	\$2,820				
3.2 – Build and Test System		\$115,000	\$102,600	\$170,000		
3.3 – Growth and WP		\$177,870	\$167,000	\$61,000		
3.4 – Sawing Simulation		\$99,000	\$143,000			
3.5 – Practical Advice			\$85,000	\$16,000		
3.6 – Market Futures				\$107,000		
3.7 – Modify System				\$83,000	\$354,000	\$295,000
3.8 – Virtual Forest System						\$295,000
3.9 – Radiata Calculator		\$5,000	\$5,000			
Total	\$279,000	\$399,690	\$502,600	\$437,000	\$354,000	\$590,000

Build and Test FFR Modelling System

- Implementation of the Spatial Interface has proven that this type of interface is very useful, however this was always considered a first step:
- Scoping study to determine:
 - Need for integration with GIS
 - Potential to implement using Google Maps
 - Demand for further spatial surfaces
 - Providing average values from surfaces rather than variable single-point values
- Implement changes agreed by the TST

Build and Test FFR Modelling System

- Scoping study to consider web deployment of Forecaster and Radiata Calculator:
 - Simplifies deployment
 - Ensures common version across user base
- Implement changes agreed by TST
- Implement support for multi-rotation carbon regimes into Forecaster

Build and Test FFR Modelling System

- Yield Generator was implemented as first role-based interface.
- Further interfaces could target scheduling of silviculture and comparison of PSP data to validate growth models.
- Because implementing Yield Generator was not as straightforward as first thought, more planning needs to be completed for other interfaces.

Build and Test FFR Modelling System

- Scoping study to determine industry requirements of further role based interfaces:
- Silvi Scheduler:
 - Multi-stand scheduling?
 - Reporting impact on DOS of delaying pruning
 - Implementation of DOS adjustments
 - Scheduling to individual crew level?
- Then implement changes agreed by TST

Growth and Wood Properties Module

- Implement Genetic Gain changes to BLOSSIM and 300 Index growth model (1.5, 1.7)
- Implement silvicultural history predictor algorithm
- Implement wood quality surfaces and link to existing models (1.4, 1.9)
- Implement Kimberley model to predict starting height and DBH distributions

Practical Advice DSS

- Not yet in production use (due for completion June 2010).
- Once industry are using this tool, changes may be suggested by users.
- Scoping study to determine changes and enhancements to Practical Advice DSS.
- Then implement changes agreed by TST.

Market Futures Module

- Develop an economic analysis module
- Plan and design a market futures module
 - For modelling the long term trends and volatility of forest product prices
 - Sawlogs, pulplogs, carbon, biofuel, etc.
 - Focus on causal factors
 - Exchange rate, ocean freight, supply/demand, etc.
- Then build a prototype and develop a beta system

Modify FFR Modelling System

- Produce brief Tech Transfer papers to demonstrate the effects of using various features or models, e.g.:
 - Implications and learnings from using:
 - 300 Index growth model
 - BLOSSIM
 - Impact of variance on stem list distribution
 - Determining optimal stem list sample size
- Investigate links to Product Quality Simulator

Questions?