

PRESS RELEASE

Subject: Economic and genetic gain continue to improve over time for *P. radiata*

Date: 8 May 2014

The Southern Tree Breeding Association Inc. (STBA) has recently completed a new genetic analysis (run) for the national *Pinus radiata* tree improvement program using TREEPLAN. Each run builds on previous analyses by including new measurement data gathered from genetic trials across Australia. This allows us to identify new selections and improve the accuracy of prediction for use in breeding and deployment.

Genetic values for clearfall harvest age characteristics of growth (MAI), form (SWEEP and BRANCH size) and wood properties (STIFFNESS) are produced for each tree. Economic indices (based on various production systems and end use processing) are used to quantify the net present value of each tree against other trees. Growers can then compare the genetic and economic worth of trees depending upon their particular production and processing objectives.

For example:

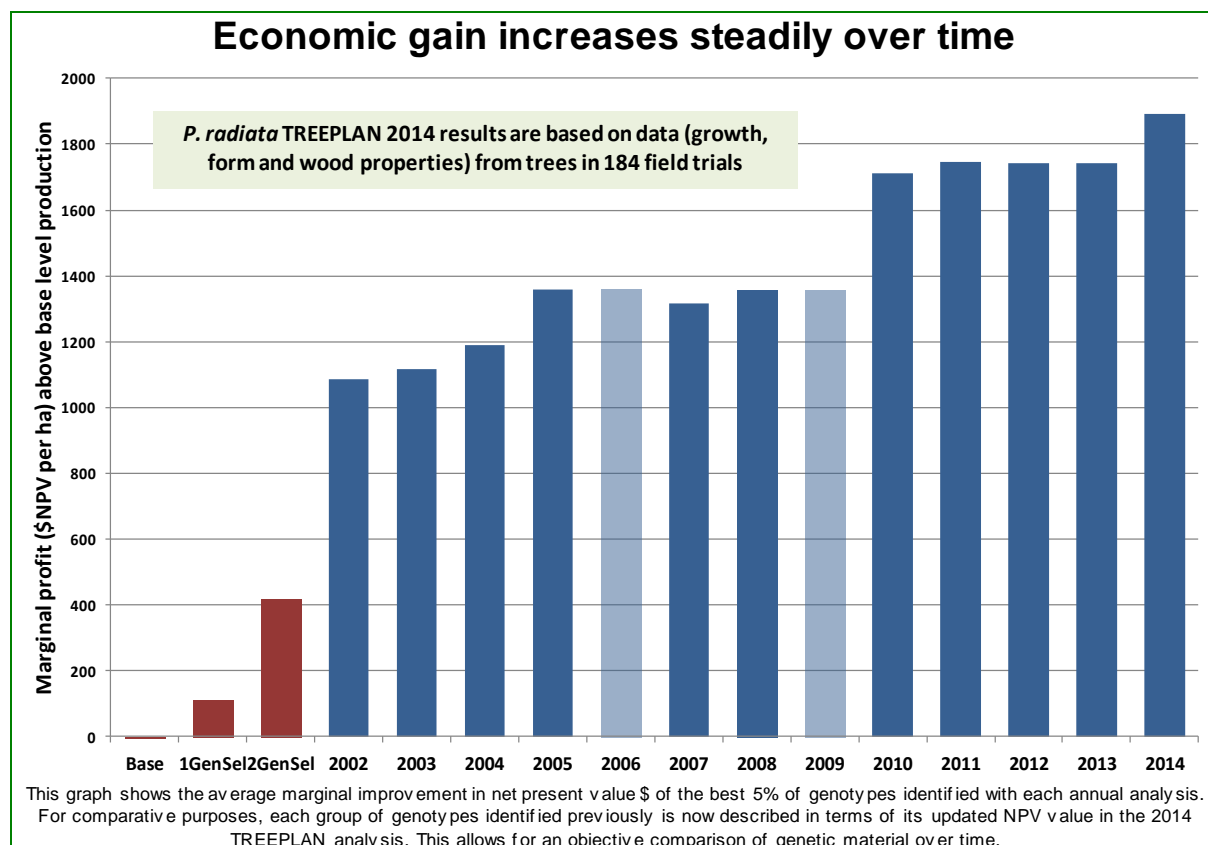
The value of gain in: **MAI** growth (MAIm³/ha/yr) plus **STIFFNESS** (GPa) plus
reduced **BRANCH** size (cm) plus reduced **SWEEP** (mm/m) **equals**
\$NPV marginal increase in net present value by using seed from this tree relative to base line trees

The integrated approach provides efficiencies as the national database allows TREEPLAN to use all historical and new information in a single industrywide multivariate genetic analysis. Growers can compare genetic potential on an “apples vs apples” basis to optimise selection of material for plantation establishment.

TREEPLAN statistics for this run	Trials	Trees	Measured traits
Total number included:	184	366,840	33
Number of objective traits: 4 (MAI on a regional basis, BRANCH size, STIFFNESS and SWEEP)			
	Trials	Trees	Measurements
Size of <i>P. radiata</i> database:	388	715,719	10.2 million
Total DATAPLAN database size	2040	4 million genotypes	91 million

The Southern Tree Breeding Association (established in 1983) is the national body which manages the Australian tree improvement programs for Radiata pine (*P. radiata*) and Blue gum (*E. globulus*). STBA is a not for profit cooperative and our members collectively contribute resources to maximise the genetic quality and value of the plantation resource.

TREEPLAN software has been jointly developed for use in the forest industry by STBA, AGBU (a joint institute of the University of New England and Industry and Investment NSW) and PlantPlan Genetics.



For more information see the STBA web site (www.stba.com.au) or contact the General Manager, Dr Tony McRae (tmcrae@stba.com.au) or Business Manager, Peter Cunningham (pcunningham@stba.com.au).