



2010 Gottstein Fellow conserves radiata pine genes

2010 Gottstein Fellow Dr Washington Gapare has completed his project and put forward a recommended layout for conservation plantings of radiata pine.

“*Pinus radiata* is the most widely planted pine species in Australia and New Zealand and it is vital that we protect the genetic diversity of this important commercial species” Dr Gapare said. “With much of the natural radiata pine forest becoming fragmented and suffering disease it is important that we try to protect the remaining genetic diversity by establishing plantings here in Australia and New Zealand. This will help us to “future proof” and expand our softwood industry by allowing future breeding to be undertaken using novel traits that have not yet been exploited in the breeding program. This could improve disease resistance, drought tolerance, alleviate insect damage and possibly improve wood volume and wood stiffness”.

Dr. Gapare spent time in the US with scientists who assisted in designing a layout for gene protection plantings. The design layout involved reducing the potential for related trees to interbreed by considering coancestry and pollen dispersal patterns. The recommended design covers 12.5 ha and commercial organisations have been contacted in all states to establish these conservation plantings.

“Without the co-operation of our industrial partners the possibility of conserving radiata pine genetic diversity could not occur” Dr Gapare said. “With the combined oversight of the Southern Tree Breeding Association (STBA) and knowledge within CSIRO, it is possible to ensure the softwood industry in south eastern Australia will continue to flourish for many rotations to come”.