COMMERCIAL COAST REDWOOD

Durable or semi-durable timber for external use can be produced from coast redwood (*Sequoia sempervirens*). Good growth in New Zealand, coupled with restrictions on supply from native Californian stands, has increased focus on locally grown coast redwood.

GROWING CONFIDENCE IN REDWOOD

There are currently over 6,300 hectares of coast redwood in New Zealand, the majority of which originates from select clones from various introductions.

First planted in the 1860s, large plantings in both the North and South Islands followed between 1920 and 1945, which mostly failed due to siting and weed control. This caused redwood to fall from favour, with planting continued only by a few enthusiasts. Interest in planting redwood was rekindled in the 1990s.

Once established, coast redwood stands are capable of yielding in excess of 45 m³ per hectare per year on warmer sites. Our research, in conjunction with Future Forests Research Ltd (FFR), has focused on comparing genotypes, creating productivity growth models and silviculture practices.

Genetics. Current redwood material came from a number of introductions, notably the Rotuehu provenance trial, the Kuser collection and some commercially imported collections. Benchmarking trials have been planted to compare the various clones.

A study on the Kuser clones across two sites has shown the growth and wood density of both the best and worst clones remain consistently so, giving us confidence that clonal selection and breeding programmes will be effective.

These trials are currently about 11 years of age and will be monitored for heartwood quality and quantity in due course. We also aim to develop a breeding population with redwood growing industry partners.

Site productivity and growth models. Understanding how site influences coast redwood productivity is important, as it is sensitive to frost, soil water, soil fertility and mycorrhizal associations.

A redwood growth model has been developed by industry and improved through FFR, along with an initial taper equation. A predicted productivity surface has been produced (*Figure 1*) but more data is needed before predictions and models can be used with confidence.
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ABOUT SCION
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