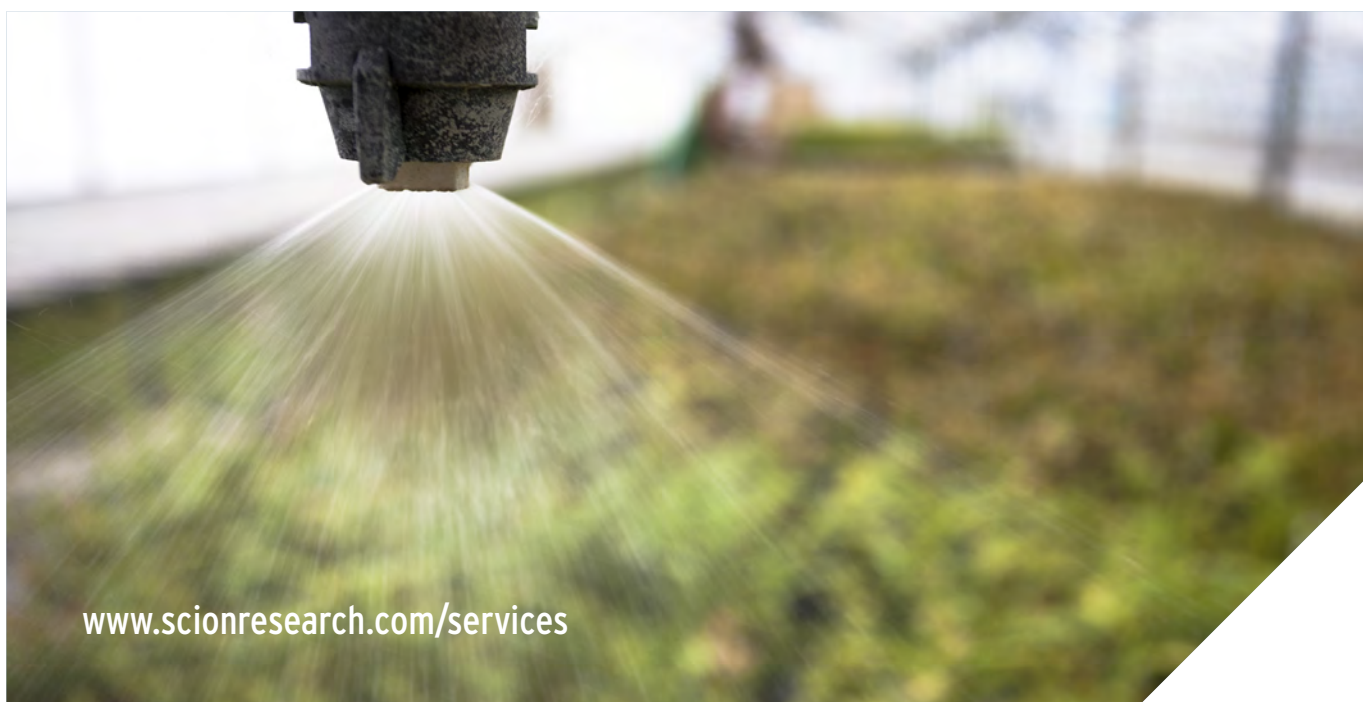




RESEARCH NURSERY

Scion's research nursery supports the science and technology at the forefront of New Zealand's commercial forestry industry.



www.scionresearch.com/services

Supporting forest science

Scion's research nursery in Rotorua combines core forestry research with specialist operations to provide services to forest growers nationwide.

The nursery works alongside geneticists from Scion and other research organisations, and New Zealand tree breeders, to support their genetic improvement programmes and transfer genetically improved treestocks at a commercial scale.



Specialised Nursery Crops

The research nursery takes advantage of our extensive research knowledge of tree crops and specialised infrastructure to provide a range of services to forest growers and commercial nurseries:

- ▶ **Propagation** - advanced propagation technologies for radiata pine and other forestry species, including tissue culture, embryogenesis and fascicle cuttings.
- ▶ **Grafting** - expertise in grafting in a range of forest species.
- ▶ **Ex-flasking** - transfer of tissue culture plants from a range of both commercial and endangered species to the nursery environment.
- ▶ **Containerised and bare-root technologies** - the supply of commercial volumes of tree species using these new nursery technologies.



Scion's research nursery provides a range of specialist services and expertise to commercial forest growers.

Support advanced tree breeding programmes for radiata pine and other commercial forest species.

World leading propagation technologies.

Mass production of genetically improved tree stocks for forest growers.

Seamless expertise from tissue culture to nursery and into the forest.



Research

Scion provides an integrated approach to research from tree breeding science through to the nursery and into the forest.

- ▶ **Tree breeding** - supporting advanced breeding programmes and deployment strategies for radiata pine and other commercial tree species. Scion's research focuses on the growth, form and health of trees and wood quality in order to maximise the productivity of commercial forests.
- ▶ **Propagation** - tree propagation for improved germplasm of commercial forest and other tree species. We have developed specialist mass propagation technologies that can be used for the rapid transfer of selected materials from the tree breeding programme into the provision of improved treestocks to industry.
- ▶ **Biodiversity** - applying our expertise and knowledge to the preservation of endangered and indigenous species.
- ▶ **Forest health** - growth and monitoring of a range of tree species for research into forest health solutions, in conjunction with Scion's forest health scientists. Scion is New Zealand's leading authority on forest biosecurity.
- ▶ **Contract research** - Scion's research nursery supports a range of industry-led and commercial research programmes, as well as contractual product testing.



Consultancy

Nursery staff are specialists in their fields. They are backed by a diverse team of scientists in forest genetics, tissue culture, forest management and protection, forest environment and economics, and supply chain optimisation. We offer advice and consultancy services to forest growers in New Zealand and internationally on:

- ▶ **Nursery management**
- ▶ **Propagation and grafting**
- ▶ **Problem solving**
- ▶ **Feasibility studies** - for nursery projects from greenfields start-up to realignment.
- ▶ **Tree breeding programmes** - supporting tree breeding programmes, including access to genetic analysis, plant breeding trial design and establishment, and advice on species.

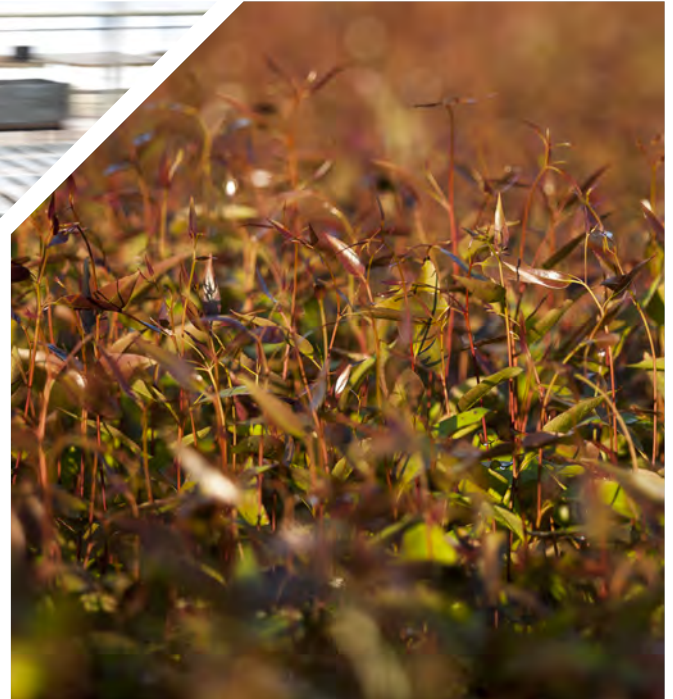
Our nursery

Located at the edge of Rotorua's redwood forests, Scion's ten hectare nursery is a practicing research facility that supports the development and transfer of forest technologies at a commercial scale.

Established in 1947, the then Forest Research Institute nursery was responsible for setting the industry standards for precision sowing and root conditioning, now widely accepted nationally and internationally.

Along with shadehouse facilities, controlled climate propagation facilities and commercial bare-root operations, the nursery also has a large purpose-built container growing operation.

This specialist facility is capable of supplying a wide range of species in a variety of container types for research trials and commercial forest establishment, and has the capacity to on-grow 700,000 seedlings a year, increasing the nursery's total capacity to over two million seedlings.



About Scion

Scion is a Crown Research Institute that specialises in research, science and technology development for the forestry, wood product and wood-derived materials and other biomaterial sectors. Scion's purpose is to create economic value and contribute to beneficial environmental and social outcomes for New Zealand.

Our forest science area is aimed at ensuring that the return on investment from the New Zealand forest industries continues to increase; and opportunities to expand into new, high-value markets are realised.

Scion offers research and development services across the entire forestry value chain, including forest and climate change, biosecurity, rural fire research, forest management, and tree improvement.

Working together

Scion can tailor contractual relationships to meet the specific needs of each customer. These could include:

- ▶ Service provision, where we undertake specific projects for clients.
- ▶ One-on-one research projects targeted to maintain client competitiveness.
- ▶ Joint technology development partnerships with joint risk and reward.
- ▶ Strategic multi-party alliances to address sector-based challenges and innovation opportunities.

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