



Analytical chemistry service

Scion's analytical chemistry laboratory provides a variety of component level tests focused on soil, foliage, waste water, wood and wood preservation.





- **Foliage analysis.** Identifying nutrient levels and performing elemental analyses in plant material; providing fertiliser recommendations. Instruments used include the Microwave Digester, Carbon and Nitrogen Analyser and the ICP-MS.
- **Soil analysis.** Analysing soils/sludges/vermicompost for nutrient and elemental testing including heavy metals; PRS probe testing; physical parameters such as particle size, macroporosity and particle density; providing fertiliser recommendations for nursery samples. Instruments used include Microwave Digester, Carbon and Nitrogen Analyser, ICP-MS and FIA (flow injection analysis).
- **Water/wastewater nutrient analysis.** Determining aspects of site water quality as an indicator of environmental health; nutrient and elemental analyses; pH and conductivity.

Instruments used include Microwave Digester, Carbon and Nitrogen Analyser, ICP-MS and FIA.

- **Wood preservation.** Analysing wood and solution samples for wood preservatives including boron, copper, CCA, tin, permethrin and triazoles.
- **Carbohydrate and lignin analysis.** Determining extractive, carbohydrate and lignin levels in wood and pulp products. This allows manufacturers to tailor their processes and work more efficiently.
- **Solid biofuels (wood chip and pellet analysis).** Enabling classification of wood/biofuels based on particle size, moisture content, ash content, bulk density and energy density using a bomb calorimeter.

For more details about our testing services and submitting samples see www.scionresearch.com/analytical-services

Contact information

Laboratory services

Email testing@scionresearch.com

Website

www.scionresearch.com/analytical-services

About Scion

Scion is the Crown research institute that specialises in research, science and technology development for forestry, wood and wood-derived materials, and other bio-material sectors.

Scion's purpose is to create economic value across the entire forestry value chain, and contribute to beneficial environmental and social outcomes for New Zealand.



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Prosperity from trees *Mai i te ngahere oranga*