FPInnovations®

EvaluTree®

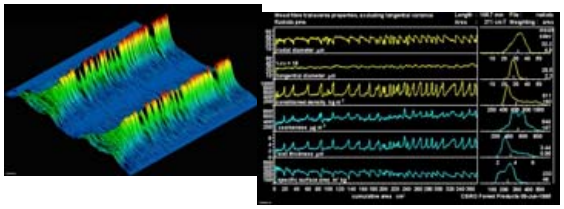
EvaluTree®, located at FPInnovations in Vancouver, uses state-of-the-art technologies to provide one-stop comprehensive wood and fibre analysis solutions. Our services benefit pulp and paper operations, lumber manufacturing, forestry companies, tree breeders, biotech companies, and groups interested in afforestation and agroforestry programs.

Technologies and services include:

SilviScan

Available measurements on wood radius samples:

Softwoods	Hardwoods
Ring width	Ring width
Fibre diameter (radial, tangential)	Fibre diameter (radial, tangential)
Microfibril angle (MFA)	Microfibril angle (MFA)
Wall thickness (indirect)	Wall thickness (indirect)
Coarseness (indirect)	Coarseness (indirect)
Latewood proportion	Latewood proportion
Stiffness (indirect)	Stiffness (indirect)



Fibre Quality Analyzer

Automated flow-through fibre analyzer uniquely configured for multiple sample assessments:

- Fibre length
- Fibre coarseness
- Fibre shape

Chemical Analysis

Gas chromatography/mass spectrometry
Detailed chemical analysis/identification of wood constituents including:

- Extractives
- Guaiacyl and syringyl lignin; G/S ratio

FT-NIR/ Raman Spectroscopy

Rapid analysis of wood core samples for:

Chemical Properties	Physical Properties
• Lignin content	• Modulus of elasticity
• Carbohydrates	• Density
• Moisture content	• Microfibril angle

Microscopy and Imaging

Confocal microscopy and image analysis
Provides high resolution quantitative assessments and distributions of wood fibre material properties:

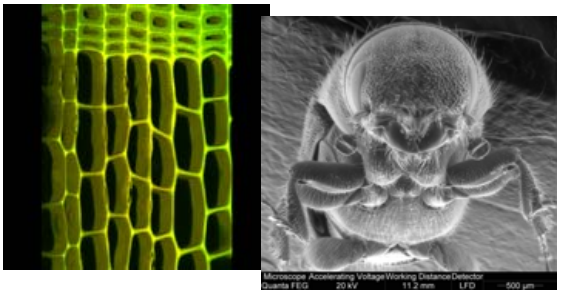
- Fibre wall thickness
- Fibre cross-sectional area
- Fibre perimeter
- Lumen area
- Fibril angle
- Collapse index of pulp fibres (calculated from the above parameters)

Light microscopy and digital imaging

- Imaging of wood, pulp or fibre products
- Contaminant identification; defect analysis

Scanning electron microscopy and x-ray spectroscopy

- Imaging of wood, pulp or fibre products
- Elemental analysis: identification of elements present in samples
- X-ray mapping of element distribution in samples



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