Poplars stabilising soil on slopes
NEW CLONES ADD RESILIENCE

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New Poplar clones 1

**Populus maximowiczii x P. nigra**

- Fastigiate (narrow) form, high wind resistance
- Rust resistance
- Quick growing
- Few double leaders
- Variation in growth rate
- Four clones
- Straight trunk
- Four clones: Geyles, Mapiu, Hororata, Pecam
  - NZ5034
  - NZ5035
  - NZ5033
  - NZ5036
Trialled under testing field conditions
Maxi-nigra
New Poplar clones 2

Populus deltoides x P. ciliata

• Variable rust resistance
• Variable growth
• Broader branching, wind tolerant
• Straight trunk
• Three clones: Kaimai, San Rosa, Rotorangi
  • NZ5025  NZ5026  NZ5027
Deltoides x ciliata

San Rosa

Rotorangi

Kaimai

Rotorangi
New clones below ground

We know that these clones add variation to the commercial gene pool in relation to above ground performance.

Rooting characteristics in a nursery setting are shown in the next graph.

Rooting performance on hill slopes are governed by different rules.

Environmental demands shape root development.
Comparison of the clones

Root production of nursery grown cuttings after one year

Root Length m

Veronese  Fraser  Kawa  San Rosa  Geyles  Trichocarpa
Factors affecting root development

- Plant genetics
- Competition
- Above ground stress

- Soil nutrients
- Water supply

- Soil bulk density
- Slope
- Soil depth
- Nature of the bedrock
8 m x 8 m
Management Strategies

Choosing
• species
• needs

Spacing
• risk
• cost

Pruning
• Growth
• enduse

Pollarding
• Size
• fodder