

Planting for Slope Stability in the Central North Island

This guide highlights several native species ideal for stabilising terrain in the Waikato / Bay of Plenty and Coromandel districts. Note: *It is not a substitute for expert advice from either an arborist or a geotechnical professional.*

Kānuka (*Kunzea robusta*)

Outstanding pioneer tree. Deep, extensive roots with excellent long-term reinforcement. One of NZ's best stabilisation species.



- **Size:** 5–8 m (can be maintained lower)
- **Roots:** Deep and extensive with excellent soil-binding ability
- **Conditions:** Tolerates poor soils, clay, dry banks and exposed sites
- **Sun:** Full sun
- **Benefits:** Excellent pioneer species, supports regeneration of native forest, outstanding for bees and native insects.



Mānuka (*Leptospermum scoparium*)

Exceptional fibrous root network for surface soil binding. Rapid establishment makes it ideal for erosion control.



- **Size:** 4–5m Height × 2–3m Width.
- **Roots:** Fine, extensive, and dense; excellent for surface soil binding.
- **Conditions:** Thrives in both wet and dry soil. Very hardy.
- **Sun:** Prefers full sun.
- **Benefits:** Crucial for bees and insects; provides a nursery for other natives.



Kōwhai (*Sophora microphylla*)

Deep anchoring roots and good drought tolerance. Excellent for reinforcing deeper soil layers.

- **Size:** 5–8m Height × 3–4m Width.
- **Roots:** Deep and robust; ideal for anchoring deeper soil layers.
- **Conditions:** Prefers well-drained, slightly moist soil but tolerates dry periods.
- **Sun:** Full sun to partial shade.
- **Benefits:** A magnet for Tui and Bellbirds due to its nectar-rich yellow flowers.



Five-Finger (*Pseudopanax arboreus*)

Fast-growing with widespread fibrous roots. Excellent for quick stabilisation but shorter-lived than some pioneers.



- **Size:** 5m Height × 3m Width.
- **Roots:** Fast-growing and spreading; provides quick stabilisation.
- **Conditions:** Adaptable but prefers moist, well-drained soil.
- **Sun:** Full sun to partial shade.
- **Benefits:** High bird appeal; its fruit is a major food source for Kererū.

Lemonwood (*Pittosporum eugenioides*)

Vigorous spreading roots and fast growth. Excellent nurse species that quickly occupies bare slopes.



- **Size:** 5–8m Height × 3–4m Width.
- **Roots:** Wide-spreading and vigorous; great for covering large areas quickly.
- **Conditions:** Prefers moist, well-drained soil but is quite adaptable.
- **Sun:** Full sun to partial shade.
- **Benefits:** Prolific flowers attract a wide range of native bees and butterflies.



Karamū (*Coprosma robusta*)

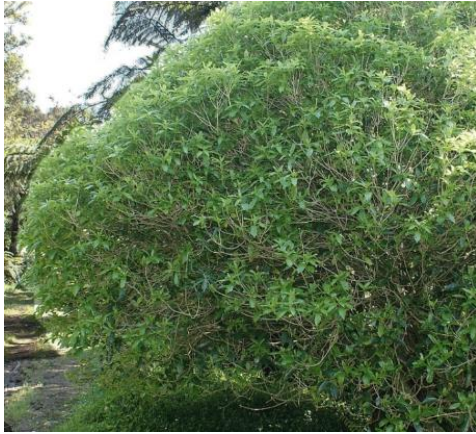
Dense fibrous roots and rapid growth make it ideal for infilling and controlling shallow erosion.



- **Size:** 3–5 m
- **Roots:** Dense fibrous root network
- **Conditions:** Moist to well-drained soils
- **Sun:** Full sun to part shade
- **Benefits:** Birds absolutely love the berries. Fast establishment.

Māhoe (*Melicytus ramiflorus*)

Good lateral root system with rapid establishment. Particularly effective when planted in groups.



- **Size:** 4–6 m
- **Roots:** Good spreading roots
- **Conditions:** Moist fertile soils
- **Sun:** Sun or shade
- **Benefits:** Excellent nurse tree that encourages natural regeneration beneath.

Tī Kōuka / Cabbage Tree (*Cordyline australis*)

Massive fibrous root mass performs exceptionally well in wet ground and around seepage areas. Particularly good at reinforcing saturated soils. Often overlooked.



- **Size:** 4–8 m
- **Roots:** Massive fibrous root ball extending deeply
- **Conditions:** Wet or dry soils
- **Sun:** Full sun
- **Benefits:** Great for erosion control on wetter slopes and around gullies.

Mingimingi (*Coprosma propinqua*)

Excellent filler between larger species.



- **Size:** 2–4 m
- **Roots:** Dense fibrous root system
- **Conditions:** Wide range of soils
- **Sun:** Sun to partial shade
- **Benefits:** Dense cover for birds and insects.

Hangehange (*Geniostoma ligustrifolium*)

Ideal understorey species.

- **Size:** 2–4 m
- **Roots:** Fine spreading roots
- **Conditions:** Moist, sheltered slopes
- **Sun:** Partial shade
- **Benefits:** Excellent biodiversity species.



And where there is room for a larger tree...

Tānekaha (*Phyllocladus trichomanoides*)

Slower growing, but develops one of the strongest structural root systems. Excellent for long-term slope stability.



- Deep structural root system
- Excellent on steep slopes
- Native to Coromandel and Bay of Plenty
- Slow growing but extremely effective long-term



Note: Although vegetation can be highly effective at reducing surface erosion and reinforcing the upper soil profile, it should be considered one component of an overall slope management strategy and is not a substitute for engineered retaining structures or drainage where these are required.