

# Te ururua mānuka-kānuka

## Mānuka-kānuka scrub

Mānuka-kānuka scrub is generally found on disturbed, previously forested land and lightly grazed hill country. It has become relatively rare in Wellington because it must compete with gorse for habitat. However, some large areas that have been retired from grazing on farms in the city are slowly regenerating.



“Much of the Wellington gorse-dominated hillside is regenerating in māhoe broadleaf forest, which has a very different composition from a mānuka-kānuka dominated scrub.”

Anita, Wellington City Council

Mānuka-kānuka scrub plays a unique part in the growth and succession of forests over time. They are relatively fast growing and will quickly take over an area that has been destroyed or disturbed (eg by clearance, fire, wind damage). They form a canopy that provides suitable conditions for more mature forest trees, like rimu and mataī, to establish under. Within these areas a diverse range of ground orchids and other small herbs and ferns will grow. When gorse arrived in Wellington, it soon out competed mānuka and kānuka in this role and now dominates much of this process. Whilst native trees will grow within gorse, the diversity of species found is much lower.

Restoring scrub is important because the biodiversity that establishes underneath a mānuka-kānuka canopy has proven to be much more diverse than if it establishes under gorse. Mānuka-kānuka scrub is establishing well in several sites in Wellington including retired pasturelands.

Soils under natural mānuka-kānuka scrub contain a high diversity of native fungi, which helps plants manage nutrient and moisture uptake.

These fungi can be introduced into plants in your nursery to assist growth. Collect some from under established scrub.



Mānuka scrubland, South Makara Road.

# Te whakatō tipu kia ora anō ai

## Planting, or encouraging regeneration

The aim of planting mānuka-kānuka scrub is to create a canopy to provide shelter for more mature forest species and to shade out the gorse. Gorse can be used as shelter for planting projects, however it is important to monitor which species are establishing underneath and add in additional plants to increase diversity over time.

### Mānuka or kānuka?

Mānuka has many growing forms from a small shrub to a tree around 6 metres high. Kānuka is taller and grows as a tree up to 15 metres.

Mānuka will grow in a wider range of conditions from wet through dry whereas kānuka likes dry hillsides.

Mānuka has sharp-tipped leaves that feel prickly when you crush them, kānuka leaves are softer with no sharp tips. Think ‘mean for mānuka, kind for kānuka’!

Both species have white flowers in Wellington, but mānuka flowers tend to be larger, 10-12mm and kānuka 4-5mm.

### Tips for planting mānuka-kānuka scrub

Both species will tolerate poor infertile soils and windy sites, but growth will be improved with shelter and good soil - generally the warmer northern slopes are preferred.

Mānuka and kānuka have a mycorrhizal fungal association with their root systems. Fungi help the plants draw more nutrients and water from the soil and can increase a plant's tolerance to environmental stressors. You may get some loss of young plants in the short term until they establish.

If gorse is present, cut pockets or strips in it and plant mānuka and kānuka in between. Gorse needs full sunshine to thrive, so it will eventually die off under the emerging canopy.

Control weeds around planted seedlings and naturally regenerating seedlings.

Control any animal pests that might be eating seed off the ground, and damaging seedlings. Once established, mānuka and kānuka are less palatable to rabbits and hares than other species.

Once a complete canopy of mānuka-kānuka has established, look to introduce later stage species that add diversity to the forest. Before you plant, check whether there are any natural seed sources close by, like old trees and neighbouring forest areas - it will take longer for seeds to disperse and germinate naturally but will ensure the plants are local to Wellington and save money.



Mānuka



Kānuka

## Plant list for mānuka-kānuka scrubland

Mānuka and kānuka scrubland		Planting site conditions			Life form	Plant preferences & tolerances				Abundance	
Māori/Comon name	Botanical name	Exposed sights	Sheltered sites	Under canopy		Soil moisture needs	Light levels	Frost tolerant	Wind tolerant	Early stage / initial planting	Later stage / shelter established
Coastal tree daisy	<i>Olearia solandri</i>	•			Bushy shrub 5m	Dry to semi-moist	Sun	✓	✓	++	
Tree Hebe	<i>Veronica parviflora</i>	•	•		Bushy shrub 2-4m	Semi-moist	Sun	✓	✓	+++	
Kānuka	<i>Kunzea robusta</i>	•	•		Tree up to 15m	Dry to Semi-moist	Sun to semi-shade	✓	✓	+++	+
Karamū	<i>Coprosma robusta</i>	•	•		Bushy shrub to 6m	Semi-moist	Sun	✓	✓	+++	
Mānuka/Tea tree	<i>Leptospermum scoparium</i>	•	•		Small tree 5m	Semi-moist to wet	Sun	✓	✓	+++	
Mīkoikoi / NZ iris	<i>Libertia grandiflora</i>			•	grass 0.5m	Semi-moist	Sun to semi-shade	✓	✓		++
Mīkoikoi / NZ iris	<i>Libertia ixioides</i>			•	grass 0.5m	Semi-moist	Sun to semi-shade	✓	✓		++
Mingimingi	<i>Coprosma propinqua</i>	•	•		Shrub	Semi-moist	Sun	✓	✓	+++	
Bush rice grass	<i>Microlaena avenacea</i>			•	grass	Semi-moist	Semi-shade	✓	Moderate		++
Taupata	<i>Coprosma repens</i>	•	•		Shrub / small tree up to 8m	Semi-moist	Sun	Frost tender	✓	+	
Tauhinu	<i>Ozothamnus leptophyllus</i>	•	•		Bushy shrub 2m	Dry to Semi-moist	Sun	✓	✓	++	
Tī kōuka/Cabbage tree	<i>Cordyline australis</i>	•	•		Tree up to 20m	Moist	Sun	✓	✓	+	
Toetoe	<i>Austroderia toetoe</i>	•	•		Tussock-like grass up to 4m	Semi-moist to wet	Sun	✓	Moderate	+++	
Tūrutu/ NZ blueberry	<i>Dianella nigra</i>			•	Grass like	Semi-moist	Semi-shade	✓	Moderate		++

+ use sparingly   ++ use commonly   +++ use plentifully   ✓ yes   • categorised