

SHELTER ALTERNATIVES FOR DRY CENTRAL OTAGO

Finding suitable tree species to provide shelter for homesteads and stock in dry treeless Central Otago has long been a challenge for farmers and landowners. Conifers in the form of pines, firs and cedars were found to be the easiest to establish and have been widely planted, however some of the species planted in the past have tended to spread and, in some instances, resulted in a major pest control cost.

Pinus contorta, which was planted extensively as shelterbelts in some areas such as the upper Maniatoto, is an example of the wrong tree in the wrong place. It spreads rapidly and prolifically with seeds travelling 10's of kms making it extremely hard to control.

Central Otago Wilding Conifer Control Group is encouraging landowners to transition Pine and Douglas Fir, particularly *Pinus contorta* shelterbelts, to non-spreading species. Help us by being proactive. You can prevent wilding spread by selecting non-spreading species for shelter and amenity planting.

We have provided a few species recommendations in the table over leaf.

Native or Exotic – How do I choose?

Exotic species may establish easier than natives and often do not require irrigation. They therefore can be considered to have a cheaper establishment cost. However, they often need trimming to avoid limbs falling on fences. They also have a limited life span if you are planting in a monoculture. The problems of some species being planted may not be experienced by the person who planted them but can be a burden for future generations.

Establishing natives requires more care and preparation initially until they reach a self-sufficient size. Natives may also need irrigation until established. However, once established, natives tend to maintain themselves, particularly if planted with a mix of other native species over a period of time in a wide shelterbelt which can last indefinitely without needing clear felling and replacement. They also tend not to shed limbs on fences so do not need trimming. Other benefits include a contribution to biodiversity & habitat, adding a native seed source and are generally considered an attractive addition to the landscape.

The key to successful native plantings is choosing species that have grown in the local environment naturally and are sourced from plant nurseries which gather seed locally. Inoculating natives with appropriate fungal partners will speed growth and improve drought resistance. Always control invasive weeds and animal pests to maximise plant survival. Plant once – plant smart!

Where to from here?

Need more help? Contact Pete. He can relay your enquiry to the relevant expert/s or source this info on your behalf.

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Common Name	Latin Name	Height at Maturity	Evergreen (E) / Deciduous (D)	Native (N) / Exotic (E)	Description
Black Matipo/Kohukohu	<i>Pittosporum tenuifolium</i>	5m	E	N	Erect growth shape makes it great for shelter, screening, hedging. Wind, drought, frost hardy. Grey green foliage with white edges.
Broadleaf/Kapuka	<i>Griselinia littoralis</i>	5-8m	E	N	Excellent hedge plant fast growing, dense habit, bushy thick green leaves to ground level. Berries ripen in autumn good for native birds.
Cabbage Tree	<i>Cordyline australis</i>	5-8m	E	N	Extremely hardy, copes with exposed, wet, or dry, poor soils but prone to rot when young in excessively wet areas. White flowers & seeds great for native birds.
Flax/Harakeke	<i>Phormium tenax</i>	2-3m	E	N	Does best in full sun, hardy, tolerates most soil conditions, flowers loved by tui.
Flax/Wharariki	<i>Phormium cookianum</i>	1.5m	E	N	Wind hardy, smaller than tenax, does best in full sun or semi shade. Well suited to mass planting and more drought resistant than tenax.
Halls Totara	<i>Podocarpus laetus</i>	10m	E	N	Tolerates poor soils and exposed conditions, grows faster with moisture. Fruits great for native birds. Good timber tree.
Kanuka	<i>Kunzea ericoides</i>	10-15m	E	N	Kanuka is taller with soft leaves, small individual flowers compared to manuka, trunks have long leathery strips of bark, Hardy in dry exposed conditions, very good drought resistance.
Knobcone Pine	<i>Pinus attenuata</i>	6-25m	E	E	Single trunk, long needle like leaves, small oval cones, very hardy.
Kowhai	<i>Sophora microphylla</i>	5-10m	E	N	Very hardy, weeping branches, masses of yellow flowers loved by tui, ropes of brown seed pods.
Leyland Cypress	<i>Cupressus x leylandii</i>	10-20m	E	E	Hardy and adaptable to most environments except wet soils.
Manuka	<i>Leptospermum scoparium</i>	4-8m	E	N	Manuka has sharp leaves (manuka mean, kanuka kind), masses of white flowers, very hardy & wind but not shade tolerant. Great for bees
Mingimingi	<i>Coprosma propinqua</i>	3-5m	E	N	Small leaved shrub or tree, divaricating branches, likes stony places, bluish seeds attractive to small native birds. Drought tolerant.
Mountain beech	<i>Fuscospora cliffortioides</i>	10-15m	E	N	Hardy favours higher elevations but occupies a wider range of habitat than any other NZ tree species, small leaves with pointed ends. Grows best together in shelter belt. Fast growth after establishment.
Lacebark	<i>Hoheria glabrata</i>	5-7m	D	N	Cold hardy (-15), likes moist sites (same as willow), shade tolerant, white scented flowers, winged seeds.
Ribbonwood	<i>Plagianthus regius</i>	8-10m	D	N	Hardy and very fast growing. Prefers fertile, moist free draining soils, copes with exposed dry conditions, tangled foliage matures to soft pointed leaves in mature tree. Can drop leaves in a cold winter. Can be hedged.
Small leaved tree daisy	<i>Olearia fimbriata</i>	6-8m	E	N	Shrub to small tree. Likes dryish hill country, part of dryland forest, small leaves, clusters of cream-coloured flowers. Rare tree – help change this status by planting more.
Small leaved tree daisy	<i>Olearia hectorii</i>	6-8m	D	N	One of the most threatened native small leaved daisies. Furrowed, cork like bark, clustered flowers, Likes damp cold areas, hill slopes and open sites. Can tolerate dry. Fast grower, will drop leaves in winter.
Small leaved tree daisy	<i>Olearia lineata</i>	6-8m	E	N	Shrub to small tree. Likes open sites, rocky areas, alluvial washes where willow grows. Has long thin leaves, small creamy coloured scented flowers.
Tasman Poplar	<i>Populus deltoides</i> x <i>P. nigra</i>	7m	D	E	Hardy, turns golden yellow in autumn, good timber tree.