

NATIVE PLANTS

PLANTING NATIVE PLANTS IN HAWKE'S BAY



Includes seven planting zones, bird food and plant management.



Coastal Zone (p6)



Lowland Open Sites (p8)



Inland/Upland Open Sites (p10)



Forest (p12)

Cover Photo: Chris Siuloa and Chris Pritchard planting at Clark's Farm, Esk Valley, as part of the Hawke's Bay Regional Council's Environmental Education Programme. (Courtesy HB Today)

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Introduction

This guide to **Planting Native Plants in Hawke's Bay** will help you successfully grow native plants on your land and encourage greater diversity in planting, wildlife and landscapes. The planting guides are set out in tables to make it easy to match plants to your particular planting zone.

This guide is useful for -

- * Gardeners wanting to be more confident about growing native species in Hawke's Bay
- * Groups establishing conservation plantings
- * Farmers establishing plantings to control soil erosion
- * Anyone wanting to plant to attract birdlife
- * Anyone interested in growing native plants in Hawke's Bay.

Planting Zones

Plants grow best in certain conditions and what suits one may not suit another, even within the same species. The tables in this booklet list plants according to their natural occurrence and tolerance of the conditions in each of seven predominant zones within the region. Not every suitable plant is included – just a good range that should be available from local nurseries and which will add diversity to the landscape.

- **Coastal zone - p6**

Places that are influenced by proximity to the sea (frost free; subject to wind, drought and salt spray; perhaps on sand or gravel)

- **Lowland open sites – p8**

Hillsides and flats in the lowlands (usually prone to wind, drought and some frost; plants may need shelter and water during establishment)

- **Inland/upland open sites – p10**

Hillsides and flats further inland and at higher altitude (usually less prone to drought but subject to wind and low winter temperatures).

- **Forest situations - p12**

Forest clearings or margins (within forest or treeland that lacks undergrowth; plants need to be shade-tolerant and compatible with the forest).

- **Wetlands - p14**

Swamps, ponds, lakes and lagoons (plants need to be able to tolerate wet soil; at estuaries or coastal lagoons they need to be tolerant of saline soil).

- **Riparian situations - p16**

Alongside creeks, streams and rivers (not completely in water; subject to wind, cold air, drainage, occasional flooding and drying out).

- **Urban and Semi-urban sites - p18**

Sites within or adjacent to towns and cities. Shape, size and texture of plants are often the prime considerations.

Why native plants?

All of the plants listed in this booklet occur naturally in Hawke's Bay - so Northern Rata is selected instead of Pohutukawa, and Tawa is included, but not Puriri. Cabbage trees, flaxes and kakabeak are all natural to Hawke's Bay, but much of what is cultivated and grown is from stock from other regions.

With the loss of so much of the original native bush cover in Hawke's Bay, and the damage to existing remnants by pests, stock and climate change, much of

our botanical heritage has been diminished. We have every chance though of regenerating and replanting areas so that we can enjoy native bush in reserves, stream sides, on farms and in our own gardens.

So that Hawke's Bay will continue to retain its special character, it's preferable to obtain seeds, cuttings or nursery-raised plants from local stock from as near to the planting site as possible (a practice known as *ecosourcing*). In this way the local cabbage trees and flaxes, with their subtle differences from those in other parts of the country, will persist, and the vivid red of the wild Maungaharuru kaka-beak will become better known within its home region.

Good information is available on New Zealand's ecological districts (based on landforms, local climate, geology, soil types and vegetation) from the Department of Conservation.

Planning for diversity

Diverse ecosystems are generally more stable and viable than simplistic ones. They are also more interesting and more attractive to native birds, lizards and insects. Plan for a range of species rather than a few. Avoid using the same types of plants - for instance don't use just conifers like Rimu and Kahikatea, or just canopy trees. Bear in mind the plants on a site need to be comparable in growth rates and compatible in size, otherwise the smaller and slower-growing ones may be smothered by the others. Planting each species in small groups will ensure that at least one will survive and flourish.

Planting for the future

Not all revegetation needs to be planted. As long as there is a seed source handy, ecosystems will restore themselves. Pasture kept free of fires, persistent weeds and browsing animals may turn into bracken or manuka, which in turn will probably be overtaken by native trees. Wetlands will usually revert rapidly to native sedges, rushes, shrubs and trees. Even a hillside of gorse or broom may become native forest over time.

Some encouragement may be required, such as control of invasive weeds, possums, rabbits or hares, and keeping the stock out of farm areas. Planting appropriate natives may speed the process by providing instant vegetation and seed sources, and attracting birds which bring yet more native seeds.

A classic example is The Hanger at Tutira - a rectangle of pasture fenced off by Herbert Guthrie-Smith in 1897 which is now a native forest.

Work in Progress The Haliburtons

Ross and Margaret Haliburton took over the family property at Kotemaori in 1972. A 39 hectare area of bush on the property, situated in a steep gully with the farm water source at the bottom, was slowly being degraded. On return from overseas the Haliburtons appreciated even more the special character of their bush and set about protecting it.

The bush was covenanted by the QEII National Trust in 1997. The area is now fully fenced and approximately 1000 plants per year are planted between April/May to allow good root establishment. All the seedlings are grown in their nursery and the seeds are sourced from their own bush area. Excess seedlings are offered commercially to farmers and gardeners.

To help the seedlings establish, a 45cm square weed mat is placed around the base of each plant to stop weeds and help moisture retention. Because of the steepness of their property the Haliburtons don't want to be carrying spray. Wind breaks and shade cloth are used on plants that need it, but the aim is to plant the faster growing nurse crop species first and interplant later with other less tolerant species.

The aim of the planting project is to enhance the remnant bush, give the soil more cover and encourage wildlife to flourish.

A tip from Margaret is to look at what is growing around you, i.e. road verges and stream margins. Start with these plants and build from there.



Propagation of native seedlings.



Native plants on farm hill country.

Work in Progress

Karituwhenua Stream Landcare Group

This Havelock North group of residents was formed in 1992 and was the first *urban* Landcare Group in New Zealand. Their initial aim was to reduce the erosion and its effects caused by the spillway behind the Kingsgate Reserve, which affected neighbouring properties during flood peaks (the stream-bed is normally dry). After the Regional Council completed erosion control work, the group started in 1996 planting mainly native trees and shrubs and creating tracks from Te Mata Road for 1 km to the Hastings City boundary.



New plantings in the Karituwhenua Stream gully

The emphasis has been on native trees and flax planting (the latter for erosion control), although a more open area at the top end of the track is devoted to exotic, largely deciduous, specimen trees with lovely autumn colours.

About 55 families have donated money or time to buy trees, clear rubbish, and control blackberry, old man's beard, general rank growth and inappropriate robinias and macrocarpas. Possums have been a minor problem. Seventeen residences have adopted areas to maintain or develop, and given these catchy labels based on family names - such as 'Coombe's Cutting', 'Dougal's Dip', 'The Free Way'. The group has achieved the goal of erosion control and the result, within its urban setting, is a green, pleasant, tranquil place which is increasingly used as a walking trail.



Established planting

Their advice for planning something similar is: 1. Have a committed leader and a few planning meetings with interested people to sustain the activity; 2. Choose appropriate plants for the various micro-climates and locations; 3. Plant in autumn; 4. Use a slow release fertiliser or blood and bone; 5. Water in summer for the first two years; 6. Identify trees with a labelled stake to help people learn about natives and other plants.

Coastal Zone

What can the plant tolerate

Growth

Botanical Name	Common Name	Soil:				Frost	Wind	When to collect Seed	Nursery plant	Growth Rate	Max. Height Metres	Form
		Dry	Light	Med	Heavy							
TREES												
<i>Cordyline australis</i>	Cabbage tree, ti	DMW	L	•	•	•	Autumn	•	Fast	17	Erect	
<i>Corynocarpus laevigatus</i>	Karaka	M	M	•	•	•	All year	•	Med	20	Bushy	
<i>Dodonaea viscosa</i>	Akeake	DM	L	•	•	•	Autumn	•	Fast	10	Bushy	
<i>Melicope ternata</i>	Wharangi	DM	L	•	•	•	Autumn	•	Med	8	Bushy	
<i>Metrosideros robusta</i>	Northern Rata	M	L	•	•	•	Autumn	•	Med	25	Bushy	
<i>Myoporum laetum</i>	Ngatio	DM	L	•	•	•	Autumn	•	Fast	12	Bushy	
<i>Cassinia tetophylla</i>	Taurimu	DM	L	•	•	•	Autumn	•	Fast	2	Bushy	
<i>Clianthus puniceus</i>	Kakabeak	DM	L	•	•	•	Winter	•	Fast	2.5	Bushy	
<i>Coprosma acerosa</i>	Sand Coprosma	D	•	•	•	•	Autumn	•	Med	1	Low	
SHRUBS												
<i>Coprosma repens</i>	Taupata	DM	L	•	•	•	Autumn	•	Fast	6	Bushy	
<i>Griselinia lucida</i>	Puka	DM	L	•	•	•	Autumn	•	Med	5	Bushy	
<i>Hebe stricta</i>	Koromiko	DM	•	•	•	•	Autumn	•	Fast	2	Bushy	
<i>Olearia paniculata</i>	Akiraho	DM	•	•	•	•	Autumn	•	Fast	5	Bushy	
<i>Olearia solandri</i>	Coastal tree daisy	DM	•	•	•	•	Autumn	•	Fast	2	Bushy	
<i>Solanum aviculare</i>	Poroporo	DM	L	•	•	•	Autumn	•	Fast	4	Bushy	
OTHER												
<i>Cortaderia fulvida</i>	Toetoe	DMW	•	•	•	•	Autumn	•	Fast	4	Clump	
<i>Desmoschoenus spiralis</i>	Pingao	D	•	•	•	•	Autumn	•	Med	1	Low	
<i>Poa cita</i>	Silver tussock	DM	•	•	•	•	Autumn	•	Med	1	Clump	
<i>Arthropodium cirratum</i>	Rengarena	DM	M	•	•	•	Autumn	•	Med	1	Clump	
<i>Calystegia soldanella</i>	Shore bindweed	D	•	•	•	•	Autumn	•	Med	0.3	Ground	
<i>Muehlenbeckia complexa</i>	Pohuehue	DM	•	•	•	•	All year	•	Med	1	Low	
<i>Phormium cookianum</i>	Mountain flax	DMW	L	•	•	•	Autumn	•	Fast	4	Clump	



G.W

Pingao, *Desmoschoenus spiralis*.



M.T

Ngaito, *Myoporum laetum*.



G.W

Karaka, *Corynocarpus laevigatus*.

Lowland Open Sites

Botanical Name		Common Name		What can the plant tolerate					Growth			
				Soil:	Shade:	Wind	Frost	When to collect	Nursery plant	Growth Rate	Max. Height	Form
		Dry	Light					Seed			Metres	
		Mod	Med	Heavy								
		Wet										
TREES												
<i>Alectryon excelsus</i>	Titoki	M	M					Autumn		Med	15	Erect
<i>Carpodetus serratus</i>	Putiapataweta	DM	M					All year		Med	10	Bushy
<i>Cordyline australis</i>	Cabbage tree, ti	DMW	L					Autumn	•	Fast	17	Erect
<i>Hedycarya arborea</i>	Pigeonwood	M	M					Autumn		Med	12	Bushy
<i>Hoheria populinea</i>	Lacebark	DM	L					Autumn	•	Fast	12	Erect
<i>Knightia excelsa</i>	Rewarewa	DM	L					Autumn	•	Fast	20	Erect
<i>Kunzea ericoides</i>	Kanuka	DM	L					Autumn	•	Fast	18	Erect
<i>Myrsine australis</i>	Mapou, Red matipou	DM	M					Autumn		Med	8	Bushy
<i>Pennantia corymbosa</i>	Kaikomako	DM	M					Autumn		Med	12	Bushy
<i>Pittosporum eugenioioides</i>	Lemonwood, tarata	M	L					Autumn	•	Fast	13	Bushy
<i>Pittosporum tenuifolium</i>	Kohuhu	DM	L					Autumn	•	Fast	8	Bushy
<i>Plagianthus regius</i>	Ribbonwood	M	M					Autumn	•	Fast	17	Erect
<i>Podocarpus totara</i>	Totara	DM	L					Autumn	•	Fast	30	Erect
<i>Pseudopanax crassifolius</i>	Lancewood, Horoeka	DM	M					Autumn	•	Fast	13	Erect
<i>Rhopalostylis sapida</i>	Nikau	DM	H					All year		Slow	12	Palm
<i>Sophora</i> spp.	Kowhai	DM	L					All year	•	Fast	10	Bushy
SHRUBS												
<i>Coprosma robusta</i>	Karamu	DM	L					Autumn	•	Fast	6	Bushy
<i>Hebe stricta</i>	Koromiko	DM						Autumn		Fast	2	Bushy
<i>Leptospermum scoparium</i>	Manuka	DMW						All year	•	Fast	6	Bushy
<i>Olearia paniculata</i>	Akiraho	DM						Autumn	•	Fast	5	Bushy
<i>Pittosporum ralphii</i>	Ralph's kohuhu	M						Autumn	•	Fast	8	Bushy
OTHER												
<i>Cortaderia fulvida</i>	Toetoe	DM						Autumn	•	Fast	4	Clump
<i>Poa cita</i>	Silver tussock	DM						Autumn		Med	1	Clump
<i>Phormium tenax</i>	Lowland flax, harakeke	DMW						Autumn	•	Fast	4	Clump



Titoki, *Alectryon excelsus*.



Pigeonwood, *Hedycarya arborea*.



Rewarewa, *Knightia excelsa*.

Inland/Upland Open Sites

What can the plant tolerate

Growth

Botanical Name	Common Name	Soil:				Shade:				When to collect	Nursery plant	Growth Rate	Max. Height Metres	Form
		Dry	Mod	Wet	Heavy	Light	Med	Heavy	Frost					
TREES														
<i>Aristotelia serrata</i>	Wineberry, Makomako	M			M									Bushy
<i>Carpodetus serratus</i>	Putaputaweta	DM			M									Bushy
<i>Cordyline australis</i>	Cabbage tree, ti	DMW			L									Erect
<i>Elaeocarpus hookerianus</i>	Pokaka	M			M									Erect
<i>Fuchsia excorticata</i>	Tree fuchsia, Kotukutuku	MW			M									Bushy
<i>Griselinia littoralis</i>	Broadleaf	DM			M									Bushy
<i>Hoheria angustifolia</i>	Narrow-leaved lacebark	MW			L									Erect
<i>Kunzea ericoides</i>	Kanuka	DM			L									Erect
<i>Nothofagus fusca</i>	Red beech	M			L									Erect
<i>Olearia rani</i>	Hekelara	M			L									Erect
<i>Podocarpus hallii</i>	Hall's totara	M			M									Bushy
<i>Pseudopanax arboreus</i>	Five finger	DM			M									Erect
<i>Pseudopanax crassifolius</i>	Lancewood, Horoeka	DM			M									Erect
SHRUBS														
<i>Carmichaelia odorata</i>	Scented broom	DM												Bushy
<i>Coprosma areolata</i>	Coprosma	DMW			M									Bushy
<i>Coprosma rotundifolia</i>	Coprosma	MW			M									Bushy
<i>Coprosma virescens</i>	Coprosma	MW			M									Bushy
<i>Corokia cotoneaster</i>	Korokio	DMW			L									Bushy
<i>Leptospermum scoparium</i>	Manuka	DMW												Bushy
<i>Olearia arborescens</i>	Common tree daisy	M			L									Bushy
<i>Olearia virgata</i>	Twiggly tree daisy	DMW												Bushy
<i>Pseudowintera colorata</i>	Horopito	MW			M									Bushy
OTHER														
<i>Chionochloa conspicua</i>	Hunangamoho	MW												Clump
<i>Chionochloa rubra</i>	Red tussock	MW												Clump



Native Fuchsia, *Kotukutuku*,
Fuchsia excorticata.



Wineberry, *Makomako*,
Aristotelia serrata.



Lancewood, *Pseudopanax crassifolius*.

Forest Situations

What can the plant tolerate

Growth

Botanical Name	Common Name	Soil:				Shade:				Frost	Wind	When to collect Seed	Nursery plant	Growth Rate	Max. Height Metres	Form
		Mod	Wet	Dry	Wet	Light	Med	Heavy	Med							
TREES																
<i>Beilschmiedia tawa</i>	Tawa	M				M				•		Autumn		Med	25	Erect
<i>Dacrycarpus dacrydioides</i>	Kahikatea	MW				H				•		Autumn		Med	50	Erect
<i>Dacrydium cupressinum</i>	Rimu	M				M				•		Autumn		Slow	40	Erect
<i>Elaeocarpus dentatus</i>	Hinau	M				L				•		Autumn		Med	20	Erect
<i>Fuchsia excorticata</i>	Tree fuchsia, kotukutuku	MW				M				•		Autumn	•	Fast	12	Bushy
<i>Meiocyttus ramiflorus</i>	Mahoe, whiteywood	M				M				•		Autumn	•	Fast	10	Bushy
<i>Nestegis cunninghamii</i>	Black maire	M				M				•		Autumn		Med	20	Erect
<i>Nothofagus fusca</i>	Red beech	M				L				•		Autumn	•	Fast	30	Erect
<i>Nothofagus solandri</i>	Black beech	DM				L				•		Autumn	•	Fast	25	Erect
<i>Prumnopitys taxifolia</i>	Matai	M				M				•		Autumn		Med	30	Erect
<i>Rhopalostylis sapida</i>	Nikau palm	DM				H				•		All year		Slow	12	Palm
SHRUBS																
<i>Brachyglottis repanda</i>	Rangiora	M				M				•		Autumn		Fast	7	Bushy
<i>Coprosma grandifolia</i>	Kanono	M				M						Autumn		Fast	7	Bushy
<i>Cordyline banksii</i>	Cabbage tree, ti ngahere	M				L						Autumn		Fast	3	Bushy
<i>Macropiper excelsum</i>	Kawakawa	M				M				•		Autumn		Fast	7	Bushy
OTHER																
<i>Asplenium bulbiferum</i>	Hen-and-chickens	MW				H								Med	1	Fern
<i>Asplenium oblongifolium</i>	Shining spleenwort	MW				M								Med	1	Fern
<i>Cyathea dealbata</i>	Ponga, silver fern	DM				M				•				Med	10	T/fern
<i>Cyathea medullaris</i>	Mamaku	MW				M				•				Fast	16	T/fern
<i>Dicksonia squarrosa</i>	Wheki	MW				H				•				Med	7	T/fern
<i>Astelia nervosa</i>	Bush lily, kakaha	MW				M				•		Autumn		Med	1	Clump
<i>Clematis paniculata</i>	Puawhananga	MW				H				•		Autumn		Fast		Vine
<i>Dianella nigra</i>	Turutu, blueberry	DM				M				•		Autumn		Slow	<1	Clump



Kawakawa, *Macropiper excelsum*



Black Beech, *Nothofagus solandri*



Hen and Chicken Fern, *Asplenium bulbiferum*



Puawhananga, *Clematis paniculata*

Wetlands

What can the plant tolerate

Growth

Botanical Name	Common Name	Soil:				Shade:				When to collect	Nursery plant	Growth Rate	Max. Height Metres	Form
		Dry	Mod	Wet	Heavy	Light	Med	Heavy	Frost					
TREES														
<i>Cordyline australis</i>	Cabbage tree, ti	DMW			L					Autumn	•	Fast	17	Erect
<i>Dacrydium dacrydioides</i>	Kahikatea	MW			H					Autumn		Med	50	Erect
<i>Laurelia novae-zelandiae</i>	Pukatea	MW			M					Autumn		Med	30	Erect
SHRUBS														
<i>Leptospermum scoparium</i>	Manuka	DMW								All year	•	Fast	6	Bushy
<i>Coprosma propinqua</i>	Mingimingi	DMW								Autumn	•	Med	5	Bushy
<i>Myrsine divaricata</i>	Weeping matipo	MW			M					Autumn		Med	6	Bushy
<i>Plagianthus divaricatus</i>	Saltmarsh ribbonwood	WSalt								Autumn		Med	3	Bushy
OTHER														
<i>Carex comans</i>	Tussock sedge	MW								All year		Slow	<1	Clump
<i>Carex secta</i>	Purei	W			L					All year		Slow	2	Clump
<i>Carex virgata</i>	Tussock sedge	W			L					All year		Slow	1	Clump
<i>Chionochloa rubra</i>	Red tussock	MW								Autumn		Med	1	Clump
<i>Cortaderia fulvida</i>	Toetoe	DMW								Autumn	•	Fast	4	Clump
<i>Cortaderia toetoe</i>	Toetoe	DMW								Autumn	•	Fast	4	Clump
<i>Cyperus ustulatus</i>	Umbrella sedge	MW								All year		Fast	1	Clump
<i>Deschampsia caespitosa</i>	Wavy hair grass	MW								Autumn		Med	1	Clump
<i>Hierochloa redolens</i>	Karetu, holy grass	MW								Autumn		Fast	1	Clump
<i>Juncus gregiflorus</i>	Common rush	W								All year		Med	1.5	Clump
<i>Juncus kraussii</i>	Sea rush	WSalt								All year		Med	1.5	Clump
<i>Leptocarpus similis</i>	Jointed rush, oioi	WSalt								All year		Med	1.5	Clump
<i>Phormium tenax</i>	Lowland flax, harakeke	DMW								All year		Med	1.5	Clump
<i>Typha orientalis</i>	Raupo	W								Autumn	•	Fast	4	Clump
												Fast	3	Clump



Kahikatea, *Dacrydium dacrydioides*



Red Tussock, *Chionochloa rubra*



Purei, *Carex secta*

Riparian Situations

What can the plant tolerate

Botanical Name	Common Name	Soil:					Shade:					When to collect Seed	Nursery plant	Growth Rate	Max. Height Metres	Form	
		Dry	Mod	Wet	Light	Med	Heavy	Light	Med	Heavy	Wind						Frost
TREES																	
<i>Cordyline australis</i>	Cabbage tree, ti	DMW					L										
<i>Honeria angustifolia</i>	Narrow-leaved lacebark	MW					L										
<i>Honeria populnea</i>	Lacebark	DM					L										
<i>Kunzea ericoides</i>	Kanuka	DM					L										
<i>Pseudopanax crassifolius</i>	Lancewood	DM					M										
<i>Sophora</i> spp.	Kowhai	DM					L										
<i>Carmichaelia odorata</i>	Scented broom	DM															
<i>Coprosma crassifolia</i>		DM					L										
<i>Coprosma propinqua</i>	Mingimingi	DMW															
<i>Coprosma virescens</i>		MW					M										
<i>Corokia cotoneaster</i>		DMW					L										
<i>Cordyline banksii</i>	Cabbage tree, ti ngahare,	M					L										
<i>Leucopogon fasciculatus</i>	Mingimingi	DM					L										
<i>Hebe stricta</i>	Koromiko	DM															
<i>Leptospermum scoparium</i>	Manuka	DMW															
<i>Olearia arborescens</i>	Common tree daisy	M					L										
<i>Olearia furfuracea</i>	Akepiro	M					L										
<i>Olearia virgata</i>	Twiggy tree daisy	DMW															
<i>Pittosporum ralphii</i>	Ralph's kohuhu	M															
OTHER																	
<i>Cortaderia fulvida</i>	Toetoe	DMW															
<i>Machaerina sinclairii</i>	Broadleaved sedge	MW					L										
<i>Phormium cookianum</i>	Coastal flax	DMW					L										
<i>Phormium tenax</i>	Lowland flax/harakeke	DMW															
<i>Libertia grandiflora</i>	NZ iris, tukauki	DM					L										



Toetoe, *Cortaderia fulvica*



Koromiko, *Hebe stricta*



Kowhai, *Sophora* spp

Urban/Semi-Urban Sites

What can the plant tolerate

Botanical Name	Common Name	Soil:				Frost	Wind	When to collect Seed	Nursery plant	Growth	
		Dry	Light	Med	Heavy					Growth Rate	Max. Height Metres
TREES											
<i>Cordyline australis</i>	Cabbage tree, ti	DMW	L	•	•	•	Autumn	•	Fast	17	Erect
<i>Hoheria populnea</i>	Lacebark	DM	L	•	•	•	Autumn	•	Fast	12	Erect
<i>Kunzea ericoides</i>	Kanuka	DM	L	•	•	•	Autumn	•	Fast	18	Erect
<i>Metrosideros robusta</i>	Northern rata	M	L	•	•	•	Autumn	•	Med	25	Bushy
<i>Pittosporum eugenioioides</i>	Lemonwood, tarata	M	L	•	•	•	Autumn	•	Fast	13	Bushy
<i>Pseudopanax crassifolius</i>	Lancewood	DM	M	•	•	•	Autumn	•	Fast	13	Erect
<i>Sophora</i> spp.	Kowhai	DM	L	•	•	•	All year	•	Fast	10	Bushy
SHRUBS											
<i>Clianthus puniceus</i>	Kakabeak	DM	L	•	•	•	All year	•	Fast	2	Bushy
<i>Cordyline banksii</i>	Cabbage tree, ti ngahere	M	L	•	•	•	Autumn	•	Fast	3	Bushy
<i>Corokia cotoneaster</i>	Korokio	DMW	L	•	•	•	Autumn	•	Med	3	Bushy
<i>Gaultheria antipoda</i>	Snowberry	M	L	•	•	•	Autumn	•	Slow	1.5	Bushy
<i>Griselinia lucida</i>	Puka	DM	L	•	•	•	Autumn	•	Med	5	Bushy
<i>Hebe</i> spp.		DM	L	•	•	•	Autumn	•	Fast	2	Bushy
<i>Leptospermum scoparium</i>	Manuka	DMW	M	•	•	•	All year	•	Fast	6	Bushy
<i>Macropiper excelsum</i>	Kawakawa	M	M	•	•	•	Autumn	•	Fast	7	Bushy
<i>Olearia nummulariifolia</i>	Shrub daisy	DM	M	•	•	•	Autumn	•	Slow	2	Bushy
OTHER											
<i>Asplenium</i> spp.	Spleenworts	MW	M	•	•	•			Med	1	Ferns
<i>Cyathea</i> spp.	Tree ferns	DMW	M	•	•	•			Fast	16	T/fern
<i>Dicksonia</i> spp.	Wheki, wheki-ponga	MW	MH	•	•	•			Med	7	T/fern
<i>Astelia nervosa</i>	Bush lily, kakaha	MW	M	•	•	•	Autumn	•	Med	1	Clump
<i>Phormium</i> spp.	Flax	DMW	M	•	•	•	Autumn	•	Fast	4	Clump
<i>Arthropodium cirratum</i>	Rengarenga, lily	DM	M	•	•	•	Autumn	•	Med	1	Clump



Cabbage Tree, *Cordyline australis*



Kakabeak, *Clitanthus puniceus*



Northern Rata, *Metrosideros robusta*

Native Plants for Bellbird - Tui - Silvereye Food

Botanical name	Common name	Food provided ¹	Quality	Availability
TREES				
<i>Alectryon excelsus</i>	Tioki	Fruit	Okay	Nov-Feb
<i>Aristotelia serrata</i>	Wineberry, makomako	Flowers, Fruit	Best	Sep-Jan
<i>Carpodetus serratus</i>	Putaputaweta	Flowers, Fruit	Okay	Much of year
<i>Cordyline australis</i>	Cabbage tree, ti	Flowers, Fruit	Best	Oct-Apr
<i>Dacrycarpus dacrydioides</i>	Kahikatea	Fruit	Best	Feb-Jun
<i>Fuchsia excorticata</i>	Tree fuchsia	Nectar, Fruit	Best	Aug-Feb
<i>Griselinia littoralis</i>	Broadleaf	Fruit	Good	Jan-Aug
<i>Hoheria populnea</i>	Lacebark	Flowers	Okay	Feb-Apr
<i>Knightia excelsa</i>	Rewarewa	Nectar	Best	Oct-Dec
<i>Kunzea ericoides</i>	Kanuka	Flowers	Good	Sep-Feb
<i>Meliclytus ramiflorus</i>	Mahoe, whiteywood	Fruit	Good	Nov-Mar
<i>Metrosideros robusta</i>	Northern rata	Nectar	Best	Nov-Jan
<i>Nothofagus solandri</i>	Black beech	Honeydew	Good	All year
<i>Pennantia corymbosa</i>	Kaikomako	Fruit	Good	Jan-May
<i>Podocarpus hallii</i>	Hall's totara	Fruit	Good	Feb-Apr
<i>Podocarpus totara</i>	Totara	Fruit	Good	Feb-Apr
<i>Pseudopanax crassifolius</i>	Lancewood	Fruit	Good	Mar-Jul
<i>Sophora</i> spp.	Kowhai	Nectar	Best	Aug-Nov
SHRUBS				
<i>Coprosma repens</i>	Taupata	Fruit	Good	Jan-Apr
<i>Coprosma robusta</i>	Karamu	Fruit	Good	Jan-Apr
<i>Coprosma rotundifolia</i>	Coprosma	Fruit	Good	Jan-Mar
<i>Leptospermum scoparium</i>	manuka	Flowers, Insects, Honeydew	Good	Much of year
<i>Pseudowintera colorata</i>	Horopito	Fruit	Good	Dec-Mar
<i>Phormium</i> spp.	Flax, harakeke, wharariki	Nectar, Insects	Best	Nov-Feb

¹ Flowers attract insect food for these birds.



Native Plants for Kereru (NZ pigeon) Food

Botanical name	Common name	Food provided	Quality	Availability
<i>Alectryon excelsus</i>	Titoki	Fruit	Good	Nov-Feb
<i>Aristotelia serrata</i>	Wineberry	Leaves, Fruit	Okay	Sep-Jan
<i>Betischmiedia tawa</i>	Tawa	Fruit	Best	Dec-Jun
<i>Cordyline australis</i>	Cabbage tree/ti	Fruit	Best	Jan-Apr
<i>Corynocarpus laevigatus</i>	Karaka	Fruit	Best	Jan-Apr
<i>Dacrycarpus dacrydioides</i>	Kahikatea	Fruit	Good	Feb-Jun
<i>Fuchsia excorticata</i>	Tree fuchsia	Fruit	Good	Oct-Feb
<i>Griselinia littoralis</i>	Broadleaf	Fruit	Good	Jan-Aug
<i>Hedyocarya arborea</i>	Pigeonwood	Fruit	Good	Oct-Feb
<i>Hoheria populnea</i>	Lacebark	Leaves, Flowers	Okay	Much of year
<i>Melictytus ramiflorus</i>	Mahoe/whiteywood	Leaves, Fruit	Okay	Aug-Mar
<i>Nestegis cunninghamii</i>	Black maire	Fruit	Good	Dec-Apr
<i>Rhopalostylis sapida</i>	Nikau palm	Fruit	Best	All year
<i>Podocarpus hallii</i>	Hall's totara	Fruit	Good	Feb-Apr
<i>Podocarpus totara</i>	Totara	Fruit	Good	Feb-Apr
<i>Pseudopanax arboreus</i>	Five finger	Fruit	Okay	Much of year
<i>Pseudopanax crassifolius</i>	Lancewood	Fruit	Best	Mar-Jul
<i>Sophora</i> spp.	Kowhai	Leaves, Flowers	Best	Aug-Nov
<i>Coprosma rotundifolia</i>	Coprosma	Leaves, Fruit	Good	Much of year
<i>Pseudowintera colorata</i>	Horopito	Fruit	Good	Dec-Mar

TREES

SHRUBS



PLANTING AND PLANT CARE

Key factors for successful planting

- ▶ Timing – the best time to plant is from late May until September.
- ▶ Fertiliser/manure – the use of a slow release fertiliser when planting will provide the necessary nutrients.
- ▶ Staking and windbreaks – in an exposed site it may be necessary to protect the seedlings.
- ▶ Weed and pest control – this is needed to ensure long term survival of the plants.
- ▶ Irrigation - water your plants into the roots (not the leaves) either early or late in the day if required.

When to Plant

Plant from May until September for a more successful result. In drier sites, plant as early as possible to allow the plant to develop adequate roots to sustain it through the summer months. Irrigation is critical to ensure your plants survive in drier soils or through the summer. In dry winters, planting should not take place until enough rain has fallen to make the ground easy to dig.

Once you have planned what you are to plant and when, order your plant supplies well in advance. Many nurseries have a peak demand period and you might miss out on the plants you want or the right delivery time.

Choosing a site

Careful site selection and good site preparation are the main ingredients for successful plant growth. Select plants to suit the conditions. Look at what is growing nearby, as this may give you some indication of what to grow. Look at your site and list the limitations it may have -

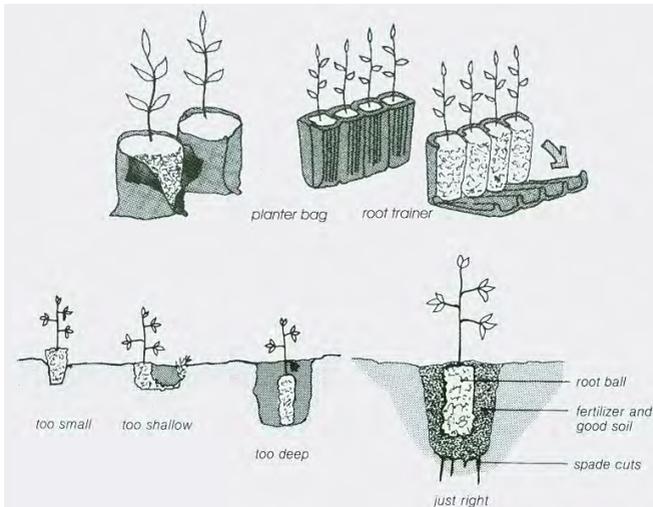
- ▶ frost-prone?
- ▶ poor soil, swampy ground, sandy soil, dry, steep sloping?
- ▶ exposed to wind, especially salt wind if it is near the coast?
- ▶ north or south facing?
- ▶ sunny or shady?

Site preparation

- ▶ Fencing out stock is absolutely essential when planting on farm land.
- ▶ Control pests. If you don't reduce or eliminate rabbits, hares and possums then many plants may be damaged or destroyed. Possums can be found in city gardens and you need to get rid of them.
- ▶ Eliminate weeds and grass for about a metre around the planting area either physically or by spraying a spot where you wish to put each plant approximately six weeks beforehand.
- ▶ Mulch each plant, especially if you have not sprayed, about a metre around the planting position.
- ▶ Dig a hole that is larger than needed and loosen the edges to give your plant a good start.
- ▶ You may like to add soil conditioner (e.g. compost) if ground is poor.

Getting plants in the ground

- ▶ Dense planting is advised (i.e. 1m apart) when planting a large area. The dense planting helps provide cool cover for tender roots and also keeps weeds down. When plants become established you can thin them out so that larger plants have enough space to grow and flourish.
- ▶ When planting from root trainers and planter bags, dig the holes deep enough so that the base of the plant will be buried. Loosen the roots, add some manure or slow release fertiliser. Crystal rain may also be used in drier areas.



After planting

- Keep up the pest control. Don't waste all that early work only to have young trees eaten away.
- Clear any competing weeds and grass from around your trees. This may be either by chemical or mechanical means and generally needs to be done regularly in the first and second year.
- Keep soil well irrigated/damp during the first few months, and again during dry seasons.
- Maintain mulching to retain soil moisture and reduced weed growth.

Animal Pests

- Foraging animals - rabbits, possums, deer and stock – will eat new growth or break off branches which stunts or kills your plants.
- Carry out pest control for possums, hares and rabbits well before you start planting and continue to maintain animal pests at low levels.
- Fence out stock from any restoration or planting – either permanently, or temporarily if you are able to use individual stock guards once the plants are better established.

Plant Pests

Help your existing or newly planted natives flourish by not letting plant pests (weeds or noxious plants) take over. When introduced species take over or displace native plants, native wildlife can be deprived of its food source and habitat. Clear plant pests before you plant and grub out or spot spray regrowth as it occurs.

In New Zealand over 2000 introduced species have gone wild, with another 17,000 growing nicely in our gardens. Compare this with approximately 2100 formally named and described native plant species.

If you live near bush margins, you can prevent exotic plants from “escaping” by not dumping garden refuse illegally near the bush. Seaside daisy, Morning glory, Japanese honeysuckle, Banana passionfruit, Wild ginger, and Tuber ladder fern have been attractive garden plants that have aggressively adapted to life in the bush, and smother or otherwise compete with native species.

Useful information on plant pests and their control is available from Hawke's Bay Regional Council - contact Biosecurity (Plant Pest) Officers.



Sir Rodney Gallen and Peter Lottey's QEII National Trust block at Te Pohue

Where to find out more

The following reference books should be available through libraries and bookshops. To contact the organisations refer to The Telephone Book or a Council register of community organisations.

Plant identification

Flowering plants of New Zealand. Webb, C., Johnson, P. and Sykes, B. 1990. DSIR Botany.
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Wetland plants in New Zealand. Johnson, P. and Brooke, P. 1998. Manaaki Whenua Press.
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Propagation and planting

Ferns for New Zealand gardens. Van der Mast, S. and Hobbs, J. 1998. Godwit.
Native forest restoration: a practical guide for landowners. Porteous, T. 1993. QEII National Trust.
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The native garden: design themes from wild New Zealand. Gabites, I. and Lucas, R. 1998. Godwit.
The propagation of New Zealand native plants. Metcalf, L. 1995. Godwit.
The QuickFind guide to growing native plants. Crowe, A. 1979. Viking.
The gardner's encyclopedia of New Zealand native plants. Cave, Y. and Paddison, V. 1999. Godwit.

Organisations

Department of Conservation - Napier, Wairoa & Ongaonga, Hawke's Bay Regional Council – Napier, Taradale, Wairoa & Waipukurau, Genesis Reforestation Trust
Forest and Bird branches – CHB, Hastings-Havelock North, Napier, Wairoa, NZ Landcare Trust, Hawke's Bay Landcare Foundation, Territorial Authorities - Parks and reserves departments, Garden centres and specialist nurseries, Local Garden Clubs.

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Wetlands (p14)



Riparian (p16)



Urban/Semi Urban (p18)