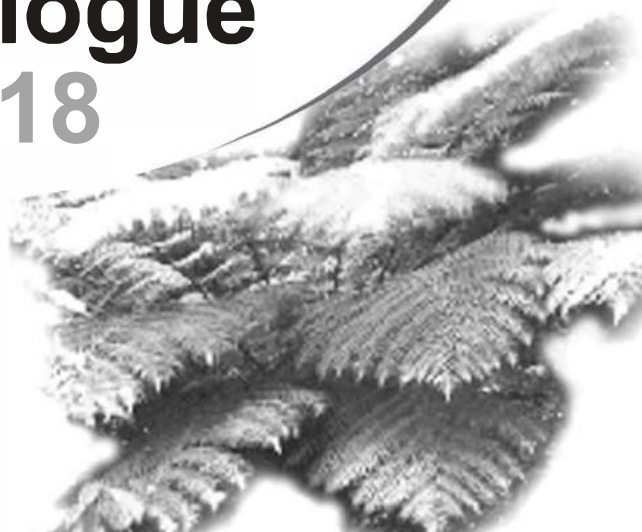


**fern
factor**
catalogue
2018





fern factor ltd

394 Newtons Road

R.D.5

Christchurch 7675

NEW ZEALAND

tel. (03) 344 0297

fax. (03) 344 0298

email. ferns@fernfactor.co.nz www.fernfactor.co.nz

introduction

1

Kia ora

Here @ **fern factor** we have been steadily expanding our nursery & upgrading our facilities. For fern propagation, controlling the humidity is important @ the early stages of growth. Our high pressure fogging, which keeps the humidity within tight parameters, has just been upgraded to give us a larger space we can now control.

Looking at some of the orders & tenders that come over our desk we get a real sense that projects are being well-planned & planted. With the larger plant numbers we need to stress the need to plan ahead & get plant orders well locked in, in advance. We see a lot of great plans but many times they cannot be implemented as designed due to the short notice allowed to supply the plant numbers needed. Larger projects are reliant on many different skills & facets coming together @ the right time, with often the plant side of the project left right to the end. Our spore propagated ferns take several years to be ready for planting out. Thus, they often need to be ordered, or at least communicated to us, well in advance.

With our increased propagation and growing-on facilities, coupled with a hardening-off area, we have good potential to supply larger numbers, such as of the Pioneer Fern range (e.g. *Paesia* and *Pteridium*). We see pioneer fern species as a useful instigator of biodiversity and forest restoration.

The requirement to better address our country's carbon footprint, as required under the Paris Agreement, involves expanded afforestation. Pioneer ferns can be a valuable contributor through providing groundcover that out-competes grasses, builds organic matter, creates insect habitat attracting birds that deposit seeds that result in broadleaved forest establishment. The colonising ferns can thus greatly assist in efficient native restoration.

The challenges are considerable as we enter this new era. We @ **fern factor** are keen to support & trial new systems & ways to help get restoration humming along here in Aotearoa.

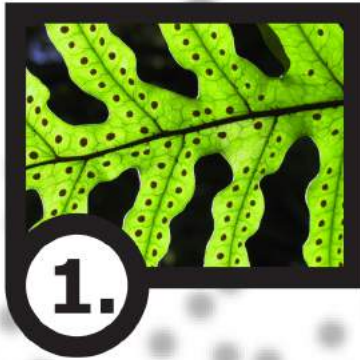
Regards

Paul & the team @ fern factor



introduction	1
contents	2
production process	3-4
native	
tree ferns	5-6
ground ferns	7-18
revegetation & pioneer ferns	19-20
getting it right!	21-22
exotic	
be aware....destroy	24
ground ferns	25-28
the right site	29-30
ordering details	31
location map, contacts	32

what's inside...



1.

Fertile fronds are picked and left in a bag to dry. The little spots (sporangia) pop open and the tiny spore can be collected

1-3 months



2.

The spore is sown over a tray of clean potting mix, placed in a plastic bag under lights in a temperature controlled room

3 - 7 months



3.

In the bag the prothallus forms. These small rounded growths bear the male and female parts

7 - 10 months



4.

Out from under the lights and into the greenhouse. Computer controlled for temperature and humidity, the true fern form starts to develop

10 - 12 months

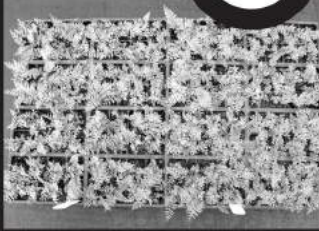
5.



The new ferns are 'plugged' out into trays and put back in the greenhouse

1 - 2 years

6.



From here to another greenhouse to harden off, and develop further

2 - 3 years

7.



When big enough, each plant is put into a 10cm pot. Then into the shade house. This grade is most popular for re-veg' and mass plantings

8.



From here to a 17.5cm pot, into the shadehouse, and grown on to specimen grade

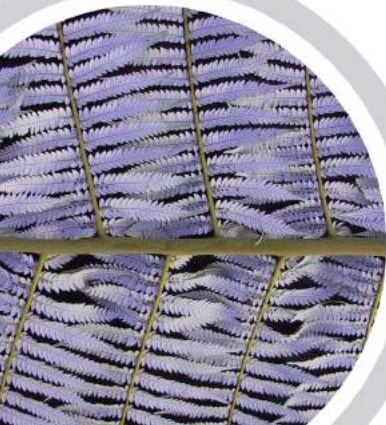
the **process**



Cyathea dealbata

Silver Fern / Ponga

Our national symbol. Fronds have distinctive silver undersides. Develops crown easily and quickly and then grows slowly up to 5 metres. Will tolerate dry conditions once established. Easy to establish in good well-drained soil.



Cyathea medullaris

Mamaku / Black tree fern

This most majestic of all tree ferns needs the room to show its full beauty. It is the largest of all our tree ferns with a trunk up to 15 m and fronds, which can be from 2-6 m long. Given protection when young, this fern can do well on the plains of Canterbury though it may lose some fronds in winter. Needs a well-sheltered site and lots of water over the dry summer months. Hardy



frond detail - silver fern

Cyathea smithii

Katote

Has a beautiful soft spread of fronds. Young plants need protection from sun and frost. Likes an abundance of moisture, loamy soil and organic mulch. Trunk grows to 6m. Hardy

newly planted katote

Dicksonia lanata

Tuokura

There are two forms to this unique tree fern. One is prostrate forming clumps of fronds, the other has a slender trunk up to 2m tall. Great tree fern that suits a situation where space is limited. Likes a lighter soil with plenty of humus. Suits light to heavy shade. Frond length = 1m



Dicksonia squarrosa

Wheki

Very popular hardy tree fern that can tolerate sun and wind but will benefit with protection given to the root area, either by mulching or by shading with other plants. This fern does not grow too large so is easy to place, even on a small section. Trunks from 2-4m high.



Our trunk-propagated Wheki ferns are all potted into an organic mix and mulched with sphagnum moss. Although grown on for a year or more, the root growth varies with wilding stock so we can offer a free replacement for failures. We also supply a free handout of hints for happy ferns (if requested).

Dicksonia fibrosa

Wheki-ponga

An attractive tree fern with large spreading crown of dark green fronds. Very tolerant of sun and wind. Important to keep roots protected from drying out. Trunks can grow up to height of 6m. Fronds can reach 2m long.



tree ferns

Adiantum formosum

Giant Maidenhair

This is the largest of our maidenhairs forming an imposing sight in many a landscape. With its short-creeping rhizome a nice clump will form quickly. A valuable fern for a semi-shaded area. Likes a nice friable soil so incorporate plenty of sand if planting on a heavy clay soil. Half Hardy. Frond length = 60-120cm.



Adiantum aethiopicum

Makaka

A very adaptable & cold hardy little fern. Given a position to its liking, with dappled light & well-drained soil, it will soon form a large clump with its creeping rhizome. Particularly suitable for pots & hanging baskets. It tolerates a range of soils, but does best in a lighter soil. Indoor or out. Hardy. Frond length = 20-30cm.



ground ferns

Adiantum hispidulum

Rosy maidenhair

New fronds are a spectacular copper to scarlet colour. This native maidenhair differs from other maidenhairs in many aspects, from the stiff texture of the fronds to its colourings. Grows in all soils but needs good drainage. Shade to full sun. Good in container. Indoor or out. Half-Hardy.
Frond length = 30-50cm.



Adiantum cunninghamii

Common Madienhair

New Zealand's most wide spread species. A very handsome maidenhair with a creeping rhizome habit. Makes an excellent groundcover. Suits an organically rich soil under light shade. Hardy once established.
Frond length 10-35cm



Asplenium lyalli

Lyall's Spleenwort

A good hardy fern that is predominantly of the coastal regions of both islands.

The glossy deep leathery nature of the fronds gives this fern an appealing appearance. Unique variable frond dissection & strong form will make this a worthwhile addition in any landscape.

Erect rhizome. Likes good drainage & can handle quite dry conditions once established. Filtered light. Hardy. Frond length = 50-70cm

Asplenium bulbiferum

Hen & Chicken

An easy to grow graceful and handsome fern. With its large arching fronds & almost leathery appearance, this fern creates a bold statement in many a landscape. Very forgiving and adaptable in most garden situations. Erect rhizome. Likes a shady, sheltered position. Good in container. Indoor or out. Hardy. Frond length =50-120cm.



Watch out for slugs with all Aspleniums.



Asplenium obtusatum

Shore Spleenwort

Naturally occurs on the coast. Fronds are very glossy and leathery giving it the ability to handle harsh conditions. Likes filtered light in open situation. Good in dry shade once established. Likes well drained soil. Hardy. Frond length 20-40cm.



Asplenium oblongifolium* x *A. bulbiferum

Maori Princess

Combines the best of both parent ferns to get this stunning hybrid. Has the form of a Hen & Chicken fern with the glossiness of a Shining Spleenwort. Erect rhizome. Likes a moist well-drained soil but adaptable to many situations. Filtered light. Indoor or out. Excellent container plant. Hardy. Frond length = 80-100cm.



Asplenium oblongifolium
x *A. bulbiferum* in a
17.5cm pot



Asplenium oblongifolium

Shining Spleenwort

A regular and dramatic feature in our lowland native forest. A very adaptable fern that will grow under trees in a drier spot. Its beautiful fresh glossy fronds combined with its arching habit help make this fern a strong contender for your landscape. Erect rhizome. Filtered light. Add humus to soil. Good in container. Hardy. Frond length = 30-120cm.



Adiantum hispidulum

Blechnum discolor

Crown Fern

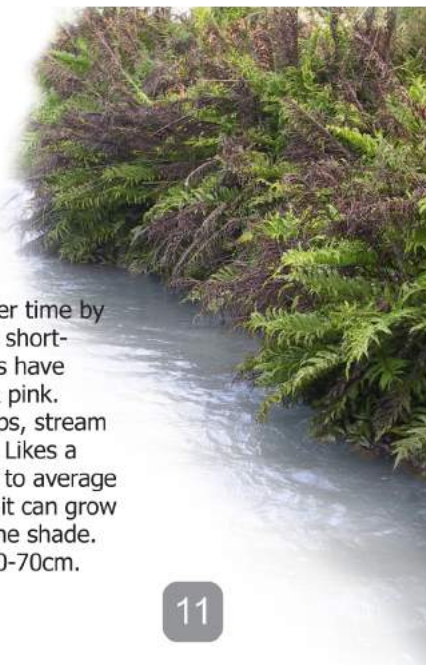
Easily grown species. This fern's common name gives you some clue to its habit. It develops a "crown-like" formation of fronds on top of a small trunk (caudex). Contrasting new and old fronds give it an interesting appearance. Crown Fern is often seen in our bush in large colonies. Excellent for mass-plantings. Once established it will tolerate quite dry situations. Suits filtered light with good drainage. Hardy.
Frond length = 50-100cm.



Blechnum minus

Swamp Kiokio

Forms a bushy clump over time by slowly spreading with its short-creeping rhizome. Fronds have beautiful tones of reds & pink. Naturally found in swamps, stream edges and lake margins. Likes a moister soil or will adapt to average garden conditions where it can grow in the open through to the shade. Hardy. Frond length = 30-70cm.



Blechnum fluviatile

Kiwakiwa. Star Fern

Decorative and beautiful species with a low spreading habit. Erect rhizome. Easily cultivated as long as a protected moist spot is found. Great ground-cover suited to group plantings. Filtered light. Hardy.
Frond length = 20-50cm.





Blechnum penna-marina

Little Hard-Fern

This accommodating fern will thrive in most places. It is found from coast to mountains, sun to shade. Its creeping rhizomes soon create a useful ground cover. With these hardy attributes & its bright rosy pink new growth it can always find a place in the landscape. Hardy.

Frond length = 5-30cm.

Blechnum montanum

Mountain Kiokio

Very hardy & easy to grow fern, with short-creeping rhizome, that originates from montane & sub-alpine regions. Over time it will form a nice neat clump of bronze-green fronds with contrasting black stripes. Will grow either in an open or shaded situation. Hardy.

Frond length = 50-80cm.



Blechnum novae-zelandiae

Kiokio

One of the most commonly seen ferns all over N.Z. Its large arching green fronds coupled with delicate pink & red hues of new growth, make this a stunning fern for many situations. Looks great on banks & with its short-creeping rhizome will fill a big space over time. Suits shaded or exposed situations. Hardy.

Frond length = 30-120cm.





Blechnum procerum

Small Kiokio

A good ground-cover fern, slowly spreading by rhizome to form a good patch over time. Often distinguished by its bronze-orange coloured fronds. Very adaptable to a wide range of situations from out in the open to a shady southern bank. Add plenty of organic matter to the soil. Does best under medium shade. Hardy. Frond length = 40-60cm.



Blechnum parrisiae

Rasp Fern

Aptly named due to its coarse-textured fronds. Easily grown fern which has an erect or short-creeping rhizome forming a good patch over time. An excellent ground-cover. Often seen on dry clay banks where its rosy pink immature fronds can make a colourful statement especially in spring. Several forming a larger clump can be very spectacular with all its new growth shooting away. Once established will handle dry shade. Will grow happily in most average garden conditions as long as good drainage is available. Filtered light to full sun. Indoors or out. Half-Hardy. Frond length = 20-30cm.



Blechnum chambersii

Nini

A fern belonging in many forests around New Zealand. This smaller native fern is not fussy about soils & is often found around creeks and rivers. It thrives in places that generally are cooler. Often has nice red coloured new growth. Suits filtered light situation. Hardy. Frond length= 20-40 cm



Blechnum vulcanicum

Korokio

Very distinctive Blechnum fern, distinguished by its wedge-shaped fronds & unique habit. This is often seen on banks where the stalks of the frond grow almost horizontally displaying this wedge-shaped frond clearly. Has a short-creeping rhizome or tufted habit. Looks excellent on banks in a group planting. Can have stunning red-coloured new growth. Likes a cooler situation with humus rich soil. Hardy. Frond length = 30-50cm.



Blechnum colensoi

Petako

Distinctive foliage that's makes this very unique fern worth growing. Short-creeping rhizome that is often found by streams. Suits banks & forms a clump overtime. Filtered light & add humus to soil. Hardy.

Frond Length 100-200cm

Blechnum norfolkianum

Norfolk Fern

This fern is naturally found in coastal areas on off-shore islands. Has an erect rhizome habit. A handsome fern that has proved adaptable to many locations.

Easily fills a generous space & looks great in mass plantings. Generally, likes filtered light situations.

Hardy once established.

Frond length = 40-90cm





Lastreopsis glabella

Smooth Shield Fern

Easy & adaptable fern that deserves more common use. Has an erect rhizome which forms a beautiful clump of upright lacy fronds. Given a situation rich in humus & free from wind you will be well-rewarded with a fine specimen. Hardy.
Frond length = 10-35cm.



Lastreopsis velutina

Velvet Fern

One only has to touch this fern to relate to the name. Considered as one of our most beautiful ferns, it is well worth the trouble to grow. With an erect rhizome it forms a graceful fern having fronds almost as wide as long, dark green and sometimes tinged a reddish-brown colour. Suits a filtered light situation with a well drained soil containing plenty of humus to retain moisture. Hardy. Frond length = 20-50cm.

Lastreopsis hispida

Hairy Fern, Tuakura

This very beautiful fern is distinguished by its frond stem (stipe) covered in long brown-black scales & minute hairs. Creeping rhizome enables a plant to form a good patch over time. Likes a well-drained filtered light situation. Particularly suitable for basket cultivation. Hardy.
Frond length = 25-45cm.



Lastreopsis microsora

Creeping Shield Fern

With it's creeping rhizome this fine fern will make a good groundcover in time. Its lacy fronds are a visual attribute. Easily contained & never a nuisance. Soft brown hairs are an attractive feature. Suits a shady spot with a moist rich soil. Will tolerate dryness once established. Hardy.
Frond length = 40-90cm





Leptolepia novae-zelandiae
Lace Fern

The fine lacy fronds gives this endemic fern a most appealing look. Has a creeping rhizome so a plant can spread & cover a large area quickly. Excellent groundcover for an area with medium to heavy shade. Add plenty of humus to soil. Hardy. Frond length = 20-60cm

Microsorium pustulatum
Hounds Tongue

Superb ground-cover fern. Has striking smooth green fronds giving gardens a tropical appearance. Its creeping rhizome will grow over anything. Very adaptable and can handle dry shade once established. Hardy. Frond length = 10-60cm.



Pellaea falcata
Sickle Fern

An easy to grow and popular fern. Nice dark green fronds can act as a foil to other lighter coloured foliage. Has a short-creeping rhizome & one plant can spread over a metre in a couple of years. A fern that likes good drainage & either light shade or sunny position. Hardy. Frond length = 25-40cm.

With the original '*Polystichum richardii*' now divided into four, we have a whole lot of new names to remember!! See two of them below.

Polystichum oculatum

Black Shield Fern

This is a very hardy fern. Found both inland and in coastal situations. This dark form is a great foil in many garden situations. Suitable for dry shade once established.

Suits shade to sun.

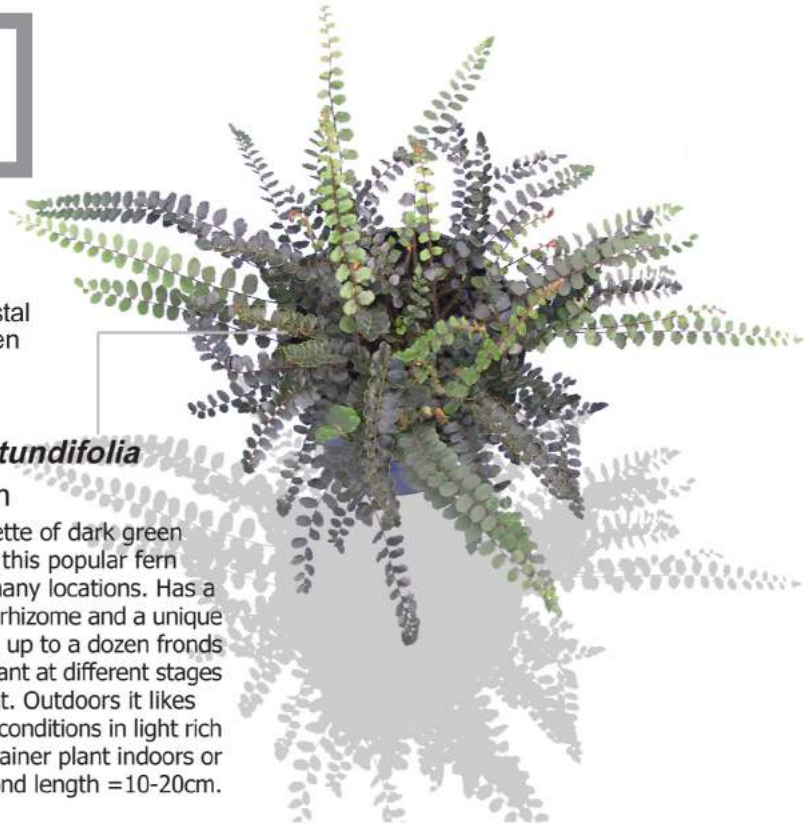
Erect rhizome frond length =20-50cm



Pellaea rotundifolia

Button Fern

Has lovely rosette of dark green fronds making this popular fern desirable for many locations. Has a short-creeping rhizome and a unique habit of having up to a dozen fronds on the same plant at different stages of development. Outdoors it likes open or shady conditions in light rich soil. Good container plant indoors or out. Hardy. Frond length =10-20cm.





Pneumatopteris pennigera

Gully Fern

Forms a distinctive small trunk with a crown of arching graceful fronds. A beautiful symmetrical frond with dark brown midrib makes this native an imposing sight in many situations. Suits coastal locations. Does best in shaded, sheltered, damp positions. Needs protection from frosts. Hardy. Frond length = 100-150cm.



Polystichum vestitum

Prickly Shield Fern

This very hardy and adaptable ground fern is a feature in many parts of N.Z. Forms a small trunk & is noted for its strong flush of new fronds in the spring. Will grow from shade to full sun. Likes plenty of humus added to soil. Hardy. Frond length = 50-120cm.

Polystichum wawranum



Ferns for Revegetation

1. Pioneer Ferns to Instigate Restoration

At **fern factor** we are developing new methods & systems for re-establishing native biodiversity. Most restoration planting methods around NZ involve significant challenges – of costs &/or labour - from grass & weed competition. However there are opportunities for smarter more effective methods using our **pioneer range** of ferns.

When one looks at land disturbance in nature, such as with slips, often the fern flora plays a major role in vegetation recovery. The ferns that are the initial colonizers of freshly cleared land we call the **pioneer range**. They provide a range of functions to help heal the land: stopping soil erosion; preventing weed and grass invasion; providing habitat for invertebrates; building carbon, &, they form the seedbed, the nursery, in which the native forest can start again through planting or from seed.

Describing our bracken fern, the well known author J T Salmon stated:

"It takes charge of second rate land, particularly in hilly country, and forms one of the finest possible seed beds for the regeneration of forest."

TRIAL SPECIES IN OUR PIONEER RANGE INCLUDE:

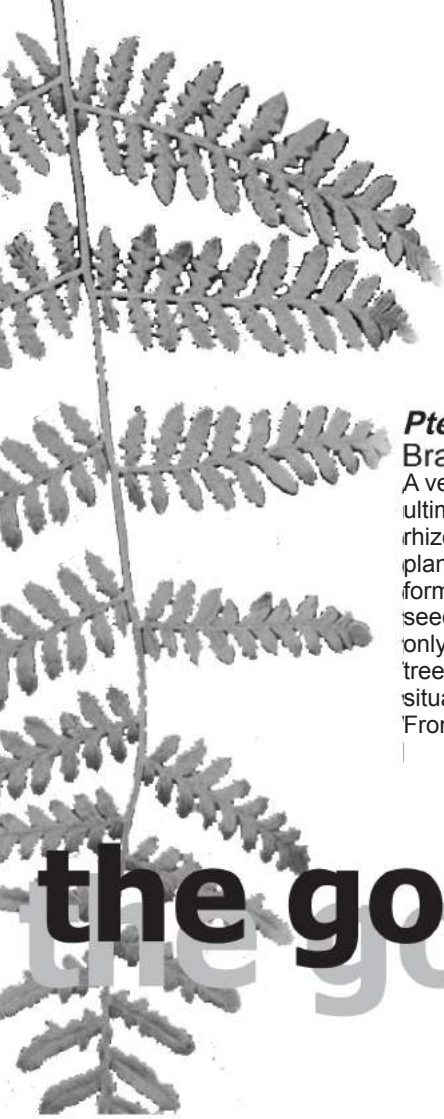
<i>Histiopteris incisa</i>	mātā, mātātā, water fern
<i>Hypolepis ambigua</i>	common pig fern
<i>H. distans</i>	a pig fern
<i>H. lactea</i>	a pig fern
<i>H. rufobarbata</i>	sticky pig fern
<i>Paesia scaberula</i>	Scented Fern, Lace Fern, Ring Fern, Fine-leaf Brake-fern, mātātā
<i>Pteridium esculentum</i>	Bracken, aruhe

With initial work focused on developing production systems, we are starting to have a limited number available of each of these species.

Pre-planning is essential & we require orders at least one season in advance for supplying stock of our **pioneer range**.



pioneer ferns



Paesia scaberula

Scented Fern

A vigorous spreading fern. A great pioneer plant that will quickly establish to soon cover the ground. Once established, will hold the ground together and create an excellent seedbed for forest to come away in. The fronds turn reddish brown in autumn and gradually die off. Semi deciduous.

Frond length = 25-60cm.

Pteridium esculentum

Bracken

A very widespread species. This fern is the ultimate pioneer plant, with its vigorous creeping rhizome, usually deeply buried. It is one of the few plants that will outcompete exotic grasses. Use to form a groundcover that will create an excellent seedbed for forest to regenerate within. Thrives only in full sun and soon vanishes when shaded by trees and shrubs. Very hardy and tolerant of most situations. Deciduous.

Frond length = 20-200cm.



the good guys



Ferns for Revegetation

continued...

2. Revegetation Plantings

For sites where some shade and moisture are available, plantings of hardy ground and tree ferns provide useful cover, biodiversity and aesthetic appeal. For example, the ground ferns:

Blechnum novae-zelandiae
B. montanum
B. minus

Kiokio
Mountain Kiokio
Swamp Kiokio,
along waterways
a shield fern
Puniu, Prickly shield fern
Black shield fern, Common
shield fern, Shore shield fern,
Pikopiko, Pipiko, Tutoke

Polystichum oculatum
P. vestitum
P. wawranum

and tree ferns:

Dicksonia fibrosa
D. squarrosa
Cyathea medullaris

Wheki-ponga
Wheki
Mamaku, Black tree fern

3. Under- & Inter-Plantings

Once a canopy is available, establish more of the fern biodiversity beneath. Plant to establish a fern under-storey and a tree fern sub-canopy. See the catalogue descriptions and chart (pages 29-30) for guidance.

Getting it right!

A few words to assist in making your fern plantings a raging success:

Frost:

Over the 15+ years that we have run a fern nursery we have the strong impression a lot of people feel that many ferns are very susceptible to being killed by frosts. That's not quite true, especially when you look at the number of ferns growing happily up in the mountains of the south! It's definitely about getting the right plant in the right microclimate.

Within every landscape there are many microclimates & this is where we need to focus when sorting out spots for ferns. For example, whilst not occurring naturally, there are many Mamaku (*Cyathea medullaris*) planted and growing very successfully here on the plains in Canterbury. Generally these specimens are under the canopy or shade of other trees or buildings.

Generally, with a lot of our more half+hardy ferns, put them in a more protected space when young, or use frost cloth to get them established. Some will get their fronds burnt back over winter when getting established, but after a full growing season they will get their roots down & do well.

Shade:

This is the environment in which we most often see ferns. The number reduces dramatically if the shade is too dense. Most ferns are seen in the bush in a filtered, dappled light situation. Often this under-storey can be created by limbing up & thinning some overhead branches to make the area more suitable for ferns.

Generally a lot of ferns can handle the full blast of the sun, & many even thrive on it, as long as it is in the morning pre-10am or later in the afternoon in the summer months. They just generally don't want the full blast of the summer sun between 11am & 3pm - except for the hot rock fern species.

Watering

Do ferns need heaps of water? Well, generally no. Once again, that care is needed only during establishment. While you are getting them established they need a good watering over dry summers approx. 2-3 times per week. A deep watering not too often is the rule. They need to get their roots going down deep into the ground. With a lot of light watering you get the opposite happening - the roots develop just on the surface & the plant will then wilt quickly if that regular watering is not applied.

Once established, much less watering, if any, is needed in most seasons, unless the ferns are under lots of competition for moisture from surrounding tree and shrub roots.

Soil

As stated above, many ferns luxuriate in that understorey where there is an abundance of organic matter. It's this spongy humus-filled stuff we want. Ferns need a soil with texture & structure & not so much emphasis on fertility. A good handful of blood & bone when planting, plus an annual dressing complemented with a good mulch, is about it.

A lot of new sections really need the soil attended to by fortifying with compost, peat & other organic matter. Also, it always amazes me that often the ferns are growing naturally in pockets of organic matter on top of rocks. The key here is good drainage.

It's with this drainage that we get that stuff called oxygen down into the roots where they need it. So if the soil is heavy, add the organic matter, build up the level of the ground & also add things like hort. sand, stone chip and fine bark to lighten up the soil & aid drainage.

Wind

Most ferns are best planted away from regular winds. These not only tatter the fronds but can lower the air-humidity greatly. Some of the hardier species will tolerate wind but, in general, ferns need shelter. This can be obtained sometimes by planting ferns on the lee side of hardy shrubs & trees, and walls.



(Note. Rhizome = underground/groundlevel rootlike stem bearing both roots and fronds.)

Notes:



Be aware!!

Dryopteris felix-mass

Male Fern

This very invasive exotic fern is often mistaken for a New Zealand native. These ferns are generally deciduous and will reach a height of up to 1 metre. A big mature fern can release up to 700,000 spore and it is this that we see germinating all over the place. They come up in native forest and due to their ability to survive in low light, are a real threat to our native biodiversity.



....do not plant, but **DESTROY**



Adiantum raddianum

Maidenhair Fern

This is the classic quick growing soft maidenhair fern. Short creeping rhizome forms a nice clump over time. Prefers a position with lots of indirect light. They need a sheltered position & this fern is generally grown as an indoor plant.

Frost tender. Frond length = 30-60cm



Adiantum raddianum* cv. *Ocean Spray

Ocean Spray Fern

Attractive large wide pinnules & weeping habit make this fern a nice soft interior feature. Add plenty of humus to potting mix.

Likes good indirect light away from draughts.

Frost Tender. Frond length = 40 – 60cm

Care is needed in deciding to use any exotic ferns as their spore can be dispersed over wide areas and they may naturalise.

Some exotic fern species have become invasive problems in parts of N.Z. and should be avoided, for example *Dryopteris filix-mas* the male fern.

exotic ground ferns

Dryopteris varia

Apricot Fern

This distinctive fern has stunning orange coloured new growth. This combined with the leathery nature of the fronds creates an adaptable & useful addition to any garden setting. Likes an acid soil with plenty of humus.

Filtered light is ideal.

Frond length = 30cm-50cm



Dryopteris erythrosora

Japanese Autumn Fern

This very popular garden fern is an adaptable rewarding fern to try. Has a short-creeping rhizome & displays beautiful colourings on its new fronds. These young fronds are a glossy coppery pink & retain this until the fronds are mature, changing to a deep glossy green in early summer. Will grow from deep shade to partial sun. Likes some drainage. Indoors or out. Hardy. Frond length = 30-80cm.



Dryopteris wallichiana

Mountain Fern

Noted for its strong flush of spectacular new growth in spring.

Colours of these new fronds range from light greens to golden hues.

This erect rhizome type fern makes an impressive statement in the right situation. Very adaptable. Suits filtered light. Add humus to soil. Hardy. Frond length = 60-120cm





Gymnocarpium oyamense

Oak Fern

Interesting frond shape gives this fern an attractive appeal. Has creeping rhizome with beautiful lime green wedge shaped fronds. This fern will create a delicate carpet of these fronds. Likes a filtered light situation. Suited to a humus-rich soil. Can be deciduous in very cold areas. Hardy. Frond length = 30-50cm.

Polystichum braunii

Holly Fern

With its silvery flush of new fronds this fern might occupy a prime spot in your garden. Coupled with its reliable habit & hardy adaptable nature, this is a useful fern. Has an erect rhizome forming a pleasant crown of fronds. Likes a filtered light situation with plenty of humus added.

Hardy. Frond length = 30-100cm.



Polystichum setiferum

Soft Shield Fern

Widely grown all over the temperate world. Beautiful, soft ground-hugging fronds form on this erect rhizome fern. Has very attractive finely divided fronds. Easy to grow in well-drained soil, either in the open or under light shade. Does well in containers. Hardy. Frond length = 40-100cm.



Polystichum rigens

Riggers Shield Fern

A very handsome Japanese species.
Erect rhizome forming a crown of leathery, dark and shiny green fronds. Planted in groups this fern makes an attractive addition to a garden. Likes filtered light & add humus to soil.
Hardy. Frond length = 40-70cm.

* = exotic fern

Botanical name	Common name	sun	shade	soil conditions			frost	wind	image (pg)
				dry	average	moist			
<i>Adiantum aethiopicum`</i>	makaka, a maidenhair	X	✓	✓	✓	✓	H	X	7
<i>Adiantum cunninghamii</i>	common maidenhair	✓	✓	✓	✓	✓	H	✓	8
<i>Adiantum formosum</i>	giant maidenhair	✓	✓	✓	✓	✓	E	X	7
<i>Adiantum hispidulum</i>	rosy maidenhair	✓	✓	✓	✓	X	T	X	7
<i>Adiantum raddianum*</i>	maidenhair Fern	✓	✓	X	✓	✓	T	X	25
<i>Adiantum raddianum cv. Ocean Spray*</i>	Ocean Spray fern	✓	✓	X	✓	✓	T	X	25
<i>Asplenium bulbiferum</i>	hen & chicken fern	X	✓	X	✓	X	H	X	9
<i>Asplenium lyalli</i>	lyall's spleenwort	✓	✓	✓	✓	✓	E	✓	8
<i>Asplenium oblongifolium</i>	shining spleenwort	✓	✓	✓	✓	✓	E	✓	10
<i>Aspl. oblong x A. bulbiferum</i>	Maori princess	X	✓	✓	✓	✓	H	X	10
<i>Asplenium obtusatum</i>	shore spleenwort	✓	✓	✓	✓	✓	H	✓	9
<i>Blechnum chambersii</i>	nini	X	✓	X	✓	✓	H	✓	13
<i>Blechnum colensoi</i>	petako	X	✓	X	✓	✓	H	X	14
<i>Blechnum discolor</i>	piupiu, crown fern	X	✓	✓	✓	X	H	X	11
<i>Blechnum fluviatile</i>	kiwakiwa	X	✓	X	✓	✓	H	X	11
<i>Blechnum minus</i>	swamp kiokio	✓	✓	X	✓	✓	H	✓	11
<i>Blechnum montanum</i>	mountain kiokio	✓	✓	✓	✓	✓	H	✓	12
<i>Blechnum norfolkianum</i>	norfolk fern	✓	✓	✓	✓	✓	E	✓	14
<i>Blechnum novae zelandiae</i>	kiokio	✓	✓	X	✓	✓	H	✓	12
<i>Blechnum parrisiae</i>	pukupuku	✓	✓	✓	✓	✓	H	✓	13
<i>Blechnum penna marina</i>	little hardfern	✓	✓	✓	✓	✓	H	✓	12
<i>Blechnum procerum</i>	small kiokio	✓	✓	✓	✓	X	H	X	13
<i>Blechnum vulcanicum</i>	korokio	X	✓	X	✓	✓	H	X	14
<i>Cyathea dealbata</i>	ponga, silver fern	✓	✓	✓	✓	X	E	✓	5
<i>Cyathea medullaris</i>	mamaku, black tree fern	✓	✓	X	✓	✓	T	X	5
<i>Cyathea smithii</i>	katote, soft tree fern	X	✓	X	✓	✓	E	X	5
<i>Dicksonia fibrosa</i>	kuripaka, wheki ponga	✓	✓	✓	✓	✓	H	✓	6
<i>Dicksonia lanata</i>	tuokura	✓	✓	X	✓	✓	H	✓	16
<i>Dicksonia squarrosa</i>	wheki, rough tree fern	✓	✓	X	✓	✓	H	✓	6
<i>Dryopteris erythrosora*</i>	Japanese Autumn fern	✓	✓	X	✓	X	H	X	26
<i>Dryopteris felix-mass*</i>	male fern	X	X	X	X	X	X	X	24

* = exotic fern

Botanical name	Common name	soil conditions					frost	wind	image (pg)
		sun	shade	dry	average	moist			
<i>Dryopteris varia</i> *	apricot fern	✓	✓	✓	✓	✓	H	✓	26
<i>Dryopteris wallichiana</i> *	mountain fern	X	✓	X	✓	✓	H	X	26
<i>Gymnocarpium oyamense</i> *	oak fern	X	✓	X	✓	✓	H	X	27
<i>Histiopteris incis</i>	mata	✓	X	X	✓	✓	H	✓	
<i>Hypolepis ambigua</i>	common pig fern	✓	✓	X	✓	✓	H	✓	
<i>Hypolepis distans</i>	a pig fern	✓	✓	X	✓	✓	H	✓	
<i>Hypolepis lactea</i>	a pig fern	✓	✓	X	✓	✓	H	✓	
<i>Hypolepis rufobarbata</i>	sticky pig fern	✓	✓	X	✓	✓	H	✓	
<i>Lastreopsis glabella</i>	smooth shield fern	X	✓	X	✓	✓	H	X	15
<i>Lastreopsis hispida</i>	hairy fern	X	✓	X	✓	✓	H	X	15
<i>Lastreopsis microsora</i>	creeping shield fern	X	✓	✓	✓	✓	E	X	15
<i>Lastreopsis velutina</i>	velvet fern	X	✓	X	✓	✓	H	X	15
<i>Leptolepia novae zelandiae</i>	lace fern	X	✓	X	✓	✓	H	X	16
<i>Microsorium pustulatum</i>	hounds tongue, maratata	✓	✓	✓	✓	X	H	✓	16
<i>Paesia scaberula</i>	scented fern	✓	X	✓	✓	✓	H	✓	20
<i>Pellaea falcata</i>	sickle fern	✓	✓	X	✓	X	E	✓	16
<i>Pellaea rotundifolia</i>	button fern, tarawera	✓	✓	✓	✓	X	H	✓	17
<i>Pneumanopteris pennigera</i>	gully fern	X	✓	X	✓	✓	E	X	18
<i>Polystichum braunii</i> *	holly fern	X	✓	X	✓	✓	H	✓	27
<i>Polystichum oculatum</i>	black shield fern	✓	✓	✓	✓	✓	H	✓	17
<i>Polystichum rigens</i> *	rigger's shield fern	X	✓	X	✓	✓	H	✓	28
<i>Polystichum setiferum</i> *	soft shield fern	X	✓	X	✓	✓	H	X	28
<i>Polystichum vestitum</i>	puniu, shield fern	✓	✓	✓	X	X	H	✓	18
<i>Pteridium esculentum</i>	bracken	✓	X	✓	✓	X	H	✓	20

key tolerates or needs ..... ✓
 tolerant of some ..... ✓
 intolerant X
 frost tender ..... T
 frost hardy ..... H
 frost hardy ..... H
 once established ..... E

the right site

Spore Propagated Ground & Tree Ferns

container size	no. of plants per courier box
8 cm jiffy	48
10 cm pot	24
17.5 cm pot	9
20 cm pot	6

Trunk Propagated Tree Ferns

Wheki (*Dicksonia squarrosa*)

bag size	trunk height
PB 12	0-400mm
PB 18	400-800mm
PB 28	800-1200mm
PB 40	1200-1600mm
45litre	1200-1700mm
75litre	1600-2200mm
75/100/150 litre	2200mm +

Wheki - Ponga (*Dicksonia fibrosa*)

trunk height
100 - 500mm
500 - 1000mm
1000 - 1500mm

Wheki delivery details

- delivered on pallets
- minimum order is one pallet load
- approx. 18 assorted bag sizes of wheki per pallet

Katote (*Cyathea smithii*)

trunk height
0 - 400mm
400 - 800mm
800 - 1200mm
1200 - 1600mm
1600mm+

Ponga (*Cyathea dealbata*)

trunk height
100 - 500mm
500 - 1000mm
1000 - 1500mm

Mamaku (*Cyathea medullaris*)

trunk height
100 - 400mm
400 - 900mm
900 - 1400mm
1400+

ordering details

Photography by Richard Wisker, Sally Tripp & Paul Michael



**fern
factor**

**catalogue
2018**



394 Newtons Road
R.D.5

Christchurch 7675

NEW ZEALAND

tel.(03) 3440297

fax.(03) 3440298

email. ferns@fernfactor.co.nz

www.fernfactor.co.nz

