

Phormium tenax

COMMON NAME

flax, harakeke, kōrari (Māori name for inflorescence).

SYNONYMS

None

FAMILY

Asphodelaceae

AUTHORITY

Phormium tenax J.R.Forst. et G.Forst.

FLORA CATEGORY

Vascular – Native

ENDEMIC TAXON

Yes

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Herbs - Monocots

NVS CODE

PHOTEN

CHROMOSOME NUMBER

2n = 32

CURRENT CONSERVATION STATUS

2012 | Not Threatened

PREVIOUS CONSERVATION STATUSES

2009 | Not Threatened

2004 | Not Threatened

DISTRIBUTION

Indigenous to New Zealand and Norfolk Island. A broad circumscription has been adopted here - many botanists feel that plants from the Chatham Islands could be distinguished at species rank from the mainland New Zealand species, other distinctive variants occur on the Three Kings and outer Hauraki Gulf Islands, and along the Kaikoura coast. Norfolk Island plants though uniform differ in subtle ways from the New Zealand forms of *P. tenax*. Further study into this variation is underway.

HABITAT

Common from lowland and coastal areas to montane forest, usually but not exclusively, in wetlands and in open ground along riversides.



Otari Wilton's Bush, Wellington. Photographer: Jeremy Rolfe



Phormium tenax. Photographer: John Sawyer

FEATURES

Stout liliaceous herb, 1-5(-6) m tall. Leaves numerous, arising from fan-like bases. Individual leaves rather stiff at first, but becoming decurved, somewhat pendulous or “floppy” in upper half to a third, 1-3 x 50-120 mm, usually blue-grey (glaucous) or dark green, lamina margin, entire, somewhat thickened and pigmented black, dark red, pink, yellow or cream. Inflorescence 5(-6) m tall, somewhat woody and fleshy when fresh, long persistent, drying charcoal grey or black, with the fibrous interior becoming progressively more exposed. Peduncle 20-30 mm diam., erect, dark grey-green or red-green, glabrous. Flowers 25-50 mm long, tubular, predominantly dull red but may also be pink or yellow; tips of inner tepals slightly recurved. Ovary erect. Capsules 50-100 mm long, dark green, red-green or black, trigonous in cross-section, erect, abruptly contract at tip, not twisted, initially fleshy becoming woody with age, long persistent. Seeds 9-10 x 4-5 mm, black, elliptic, flat and plate-like, margins frilled or twisted.

SIMILAR TAXA

Could only be confused with the so called mountain flax (*Phormium cookianum*) from which it is easily distinguished by the erect rather than pendulous seed pods

FLOWERING

(September-) October-November (-January)

FLOWER COLOURS

Red/Pink, Yellow

FRUITING

(November-) December (-March)

PROPAGATION TECHNIQUE

Very easy from fresh seed. Most commonly grown by the division of rooted fans from established plants.

THREATS

Not threatened although see the discussion below about flax dieback. This die back phenomenon is characterised by abnormal yellowing of the leaves and may result in collapse of flax plants or whole populations.

ETYMOLOGY

phormium: Basket or basketwork

tenax: Tough

WHERE TO BUY

Very commonly cultivated throughout New Zealand and in many parts of the world. However, most cultivated material available is a mixture of hybrid, variegated and/or colour mutations. The actual wild forms of the species are now rarely available in mainline garden centres and nurseries.

CULTURAL USE/IMPORTANCE

Harakeke is an important plant used in weaving. For more information go to the [Weaving Plant Database](#) run by Landcare Research. A report funded by the Sustainable Farming Fund identified numerous uses for flax to increase its abundance in the landscape including buffering or establishing corridors. For more information read “[Integrating New Zealand Flax into Land Management Systems](#)” by Elizabeth McGruddy (2006).

FLAX DIEBACK

‘Yellow-leaf’ is one of the most serious diseases of harakeke (similar to the ‘sudden decline’ in cabbage trees). The disease is characterised by abnormal yellowing of the leaves. Scheele (1997) described how “growth of young leaves may be stunted and eventually the whole plant may collapse. Underground, the roots die off, the rhizome tissues collapse and rot spreads towards the crown of the plant”.

The cause has been identified as being a phytoplasma (a bacterium), transmitted by the native flax plant hopper. The hopper injects the bacterium into the leaf, while sucking the sap. Yellow-leaf is found in North and South Island, but is more prevalent in North Island (Boyce et al, 1951). For more information read “[Integrating New Zealand Flax into Land Management Systems](#)” by Elizabeth McGruddy (2006).

ATTRIBUTION

Fact sheet prepared by P.J. de Lange for NZPCN (1 June 2013)

REFERENCES AND FURTHER READING

Boyce, et al. 1951. Preliminary note on yellowleaf disease. NZJ of Science and Technology, 32(3): 76-77

Scheele, S. 1997. Insect pests and diseases of harakeke, Manaaki Whenua Press

NZPCN FACT SHEET CITATION

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New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/phormium-tenax/> (Date website was queried)

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/phormium-tenax/>