

Pinus contorta

COMMON NAME

Lodgepole pine

FAMILY

Pinaceae

AUTHORITY

Pinus contorta Loudon

FLORA CATEGORY

Vascular – Exotic

STRUCTURAL CLASS

Gymnosperm Trees & Shrubs

NVS CODE

PINCON

CONSERVATION STATUS

Not assessed

HABITAT

Terrestrial. A plant of montane and subalpine habitats. The plant grows in sites with low fertility. A plant of tussocklands. Areas at risk from invasion by the plant are indigenous and introduced scrub, tussock grassland at medium to high altitude, pasture and open forest.

FEATURES

Large shrub or small to medium-sized tree (sometimes large in cultivation); habit erect or spreading. Branches straight or somewhat twisted. Bark reddish-brown, grey on surface, fissured and forming small plates. Shoots brown, glabrous. Buds cylindric or cylindric-ovoid, purplish-brown, strongly resinous; scales tightly appressed. Leaves 2 per fascicle, 3.5~6.5cm x .8~1.5mm, sometimes twisted, usu. pointed forward, generally yellowish-green; resin canals median; sheath very short after first year. Male strobili 5~15mm long, cylindric or broadly cylindric. Conelets sessile; scales aristate. Mature cones long-persistent, often not opening until long after maturity, subsessile, usu. directed downwards or backwards, 3~6 x 2~3.5cm, generally broad-ovoid; base asymmetric; apophyses shining yellowish-brown or brown before maturity, convex; umbo with short, slender, occasionally deciduous prickle. Seed wing asymmetric but almost oblong, approx. 1cm long. (- Webb et. al., 1988)

SIMILAR TAXA

The combination of short needles in pairs, and small cones with a spikes on the cone scales distinguishes *Pinus contorta* from other naturalised *Pinus* species in NZ.

FLOWER COLOURS

No flowers

LIFE CYCLE

Perennial. 15 000 viable seeds/year are produced by a 12 year old, 5m tree. Germination of seeds after 4 years (in dry storage at 4 degrees celsius will last 10-20 years). Prolific quantities of viable seed is produced. Trees are precocious and recorded as coning at 3 years old. Seed is dispersed by wind that are dispersed over many kilometres.



Castle Hill village. May 2010. Photographer: Colin Ogle



Pinus contorta. Photographer: Nic Singers

YEAR NATURALISED

1957

ORIGIN

Rocky mountains, N.W. America

REASON FOR INTRODUCTION

Agricultural (to stabilise high country pasture which were eroding due to excessive burning and high stocking rates and impacts of rabbits).

TOLERANCES

The plant is tolerant to drought and frost (once established) and is slightly tolerant to poor drainage. The plant will not establish in dense forest but is tolerant to partial shade. Regrowth occurs after physical damage and grazing unless all foliage is removed. Trees larger than 2m can withstand fire, a hot fire will kill seed.

ENVIRONMENTAL PEST SPECIES

Pinus contorta is the most vigorous spreading conifer species in New Zealand and threatens landscape values, biodiversity and farming productivity by out-competing pasture areas and forming dense stands, even above the natural tree-line. For these reasons, it is the most targeted "pest" conifer species in New Zealand, as shown in Regional Pest Management Strategies. It is banned from sale, propagation and distribution. See also the National Wilding Conifer Control Strategy produced by the Ministry of Primary Industries.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/pinus-contorta/>