

Pseudotsuga menziesii

COMMON NAMES

Douglas fir, Oregon pine

BIOSTATUS

Exotic

CONSERVATION STATUS

Not applicable

CATEGORY

Vascular

STRUCTURAL CLASS

Trees & Shrubs - Gymnosperms

FLOWER COLOURS

No flowers

DETAILED DESCRIPTION

Very large resinous evergreen tree. **Bark** thick, reddish-brown beneath, rough and furrowed when mature. **Branches** in irregular whorls, horizontal; branchlets usually drooping. **Shoots** light to dark brown, ridged, with short hairs. **Winter buds** to 1 cm long, shining purplish-brown, narrow and sharp. **Leaves** 15–38 × 1–2 mm, in 2 ranks, needle-like, whitish beneath, edges often rolled, orange-scented when crushed. **Male cones** 12–20 mm long, catkin-like. **Female cones** 5–10 cm long, cylindric, papery, downward-pointing; seed scales large and broad; bract scales longer and thinner than seed scales, 3-pointed, centre point longest.

SIMILAR TAXA

Pseudotsuga can be separated from *Tsuga* as it lacks the persistent leaf base. *Pseudotsuga macrocarpa* is known to be cultivated in New Zealand and has cones 10–18 cm long. *Pseudotsuga sinensis* and *P. japonica* are also cultivated in specialist collections; both are from Asia.

HABITAT

Terrestrial. A plant of lowland, montane and subalpine habitats growing in sites with low-moderate fertility (Timmins & MacKenzie 1995). A plant of scrub and forest margin communities, shrublands, tussockland and light wells in forest (Timmins & MacKenzie 1995).

GENUS

Pseudotsuga

FAMILY

Pinaceae

AUTHORITY

Pseudotsuga menziesii (Mirb.) Franco

YEAR NATURALISED

1925

ORIGIN

N. America

REASON FOR INTRODUCTION

Forestry.



Castle Hill village. May 2010. Photographer: Colin C. Ogle, Licence: CC BY-NC.



Douglas fir seedlings and saplings spread into manuka shrubland on public conservation land from adjacent production forestry plantation, Southland. Photographer: Jesse Bythell, Date taken: 16/01/2024, Licence: CC BY-NC.

TOLERANCES

The plant is tolerant to shade, more so than other conifers and intolerant of drought. The plant is frost tolerant when it is higher than 2 m. Physical damage results in regrowth if green foliage remains intact, recovers from browsing (Timmins & MacKenzie 1995). The plant recovers after fire if there is an adjacent seed source.

LIFE CYCLE AND DISPERSAL

Perennial. Seedlings require the presence of a mycorrhizal fungi with seedlings establishing most readily on well lit sheltered sites where there is no competition from other vegetation. The plant seldom spreads onto land where vegetation cover is dense. Seed is produced at a rate of 20,000 seeds per mature tree annually (Timmins & MacKenzie 1995).

Seed is dispersed in autumn and winter by wind and gravity and remains viable for a few weeks to many years.

PROPAGATION TECHNIQUE

Seed

WETLAND PLANT INDICATOR STATUS RATING

FACU: Facultative Upland

Occasionally is a hydrophyte but usually occurs in uplands (non-wetlands).

EXTRA INFORMATION

The National Wilding Conifer Control Programme team at Biosecurity New Zealand, a branch of Ministry for Primary Industries, has produced this wilding conifer [quick ID guide](#).

ENVIRONMENTAL WEED (2024)

This plant is named in a list of 386 environmental weeds in New Zealand 2024 prepared by DOC. 759 candidate species were considered for inclusion on this new comprehensive list of environmental weeds in New Zealand. The species considered were drawn from published lists of weed species, lists of plants that must be reported or managed by law if observed, existing national and regional programmes and agreements for pest management, and species already managed by the Department of Conservation (DOC). Candidate species were then assessed to see if they were fully naturalised and whether they have more than minor impacts in natural ecosystems. Read the full report [here](#).

NVS CODE

PSEMEN

REFERENCES AND FURTHER READING

Timmins SM, Mackenzie IW. 1995. Weeds in New Zealand Protected Natural Areas database. *Department of Conservation Technical Series 8*. Department of Conservation, Wellington, NZ. 282 p.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/pseudotsuga-menziesii/>

PDF DATE

25 May 2026