



Pseudotsuga menziesii var. *glauca* Rocky Mountain Douglas-Fir¹

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INTRODUCTION

Douglas-Fir grows 40 to 60 feet and spreads 15 to 25 feet in an erect pyramid in the landscape (Fig. 1). The species grows to more than 200 feet tall in its native habitat, but this variety grows slower and is smaller than the species and has very attractive blue-green foliage. Hardiness varies with seed source, so be sure it was collected from an area with suitable cold-hardiness to the area in which it will be used.

GENERAL INFORMATION

Scientific name: *Pseudotsuga menziesii* var. *glauca*
Pronunciation: soo-doe-SOO-gah men-ZEE-zee-eye
variety GLAW-kuh
Common name(s): Rocky Mountain Douglas-Fir,
Blue Douglas-Fir
Family: *Pinaceae*
USDA hardiness zones: 5 through 6 (Fig. 2)
Origin: native to North America
Uses: screen; specimen; Christmas tree; no proven
urban tolerance
Availability: grown in small quantities by a small
number of nurseries

DESCRIPTION

Height: 40 to 60 feet
Spread: 15 to 25 feet
Crown uniformity: symmetrical canopy with a
regular (or smooth) outline, and individuals have more
or less identical crown forms
Crown shape: pyramidal
Crown density: moderate

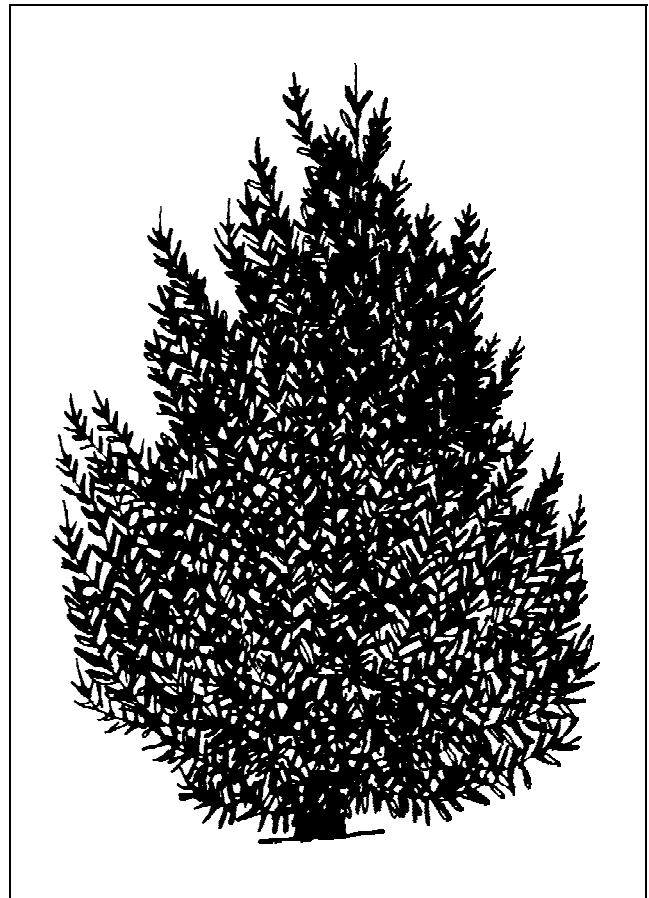


Figure 1. Young Rocky Mountain Douglas-Fir.

Growth rate: medium
Texture: fine

1. This document is adapted from Fact Sheet ST-528, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: October 1994.
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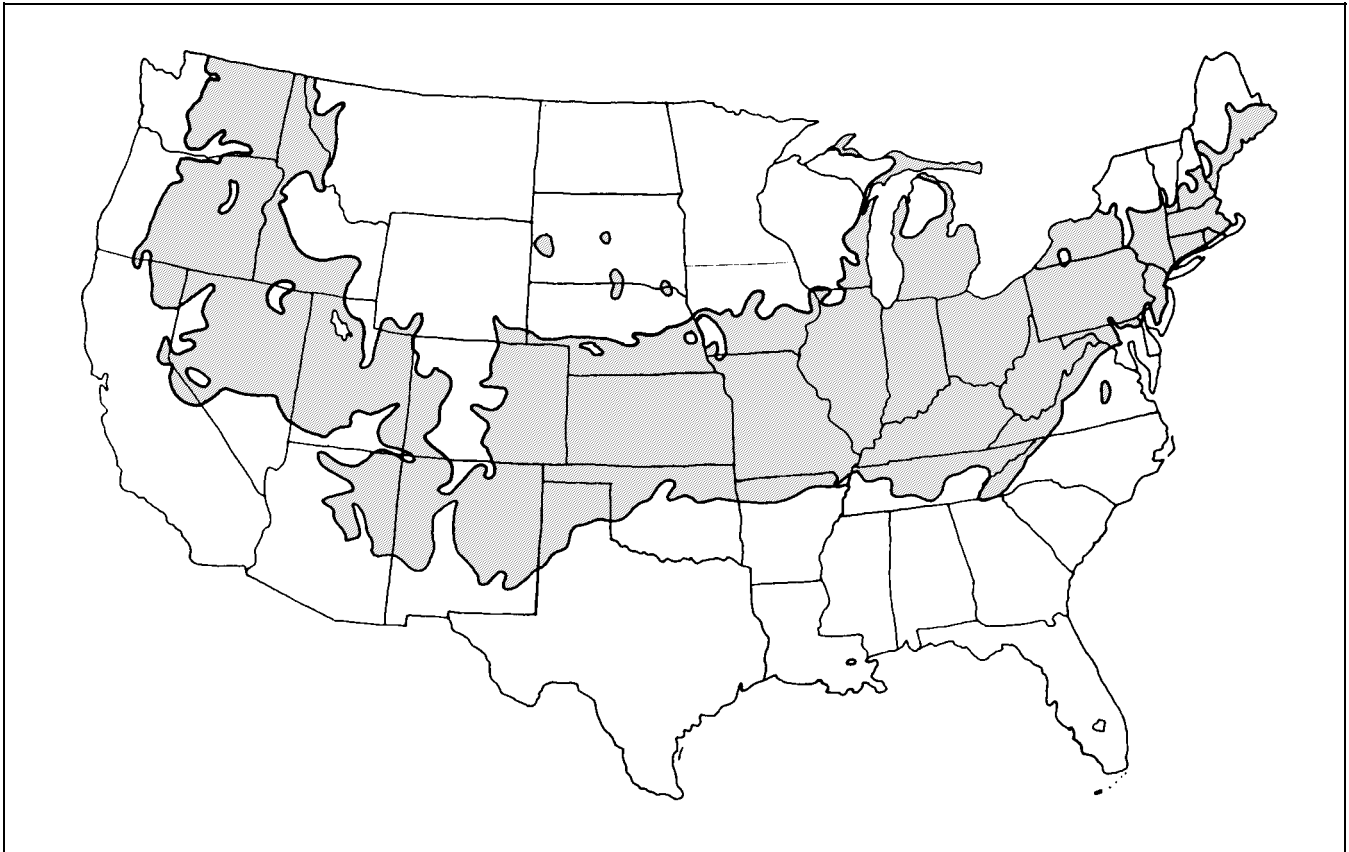


Figure 2. Shaded area represents potential planting range.

Foliage

Leaf arrangement: alternate; spiral (Fig. 3)

Leaf type: simple

Leaf margin: entire

Leaf shape: needle-like (filiform)

Leaf venation: none, or difficult to see; parallel

Leaf type and persistence: evergreen; needle leaf evergreen

Leaf blade length: less than 2 inches

Leaf color: blue or blue-green

Fall color: no fall color change

Fall characteristic: not showy

Flower

Flower color: red

Flower characteristics: inconspicuous and not showy

Fruit

Fruit shape: oval

Fruit length: 1 to 3 inches

Fruit covering: dry or hard

Fruit color: brown

Fruit characteristics: does not attract wildlife; no significant litter problem; showy

Trunk and Branches

Trunk/bark/branches: droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; not particularly showy; should be grown with a single leader; no thorns

Pruning requirement: needs little pruning to develop a strong structure

Breakage: susceptible to breakage either at the crotch due to poor collar formation, or the wood itself is weak and tends to break

Current year twig color: green

Current year twig thickness: medium; thin

Culture

Light requirement: tree grows in full sun

Soil tolerances: clay; loam; sand; acidic; well-drained

Drought tolerance: moderate



Figure 3. Foliage of Rocky Mountain Douglas-Fir.

Other

Roots: surface roots are usually not a problem

Winter interest: tree has winter interest due to unusual form, nice persistent fruits, showy winter trunk, or winter flowers

Outstanding tree: not particularly outstanding

Invasive potential: little, if any, potential at this time

Verticillium wilt susceptibility: not known to be susceptible

Pest resistance: long-term health usually not affected by pests

USE AND MANAGEMENT

Douglas-Fir is most commonly used as a screen or occasionally a specimen in the landscape. Not suited for a small residential landscape, it is often a fixture in a commercial setting. Allow room for the spread of the tree since the tree looks terrible with lower limbs

removed. Grown and shipped as a Christmas tree in many parts of the country.

The tree prefers a sunny location with a moist soil and is not considered a good tree for much of the South. It grows but struggles in USDA hardiness zone 7. Douglas-Fir transplants best when balled and burlapped and has a moderate growth rate. It tolerates pruning and shearing but will not tolerate dry soil for extended periods. Protect from direct wind exposure for best appearance. Some occasional watering in summer dry spells will help the tree stay vigorous, especially in the southern end of its range.

Cultivars of the species include: 'Anguina' - long, snake-like branches; 'Brevifolia' - short leaves; 'Compacta' - compact, conical growth; 'Fastigiata' - dense, pyramidal; 'Fretsii' - dense bush, short broad leaves; 'Glauca' - bluish foliage; 'Nana' - dwarf; 'Pendula' - long, drooping branchlets; 'Revoluta' - curled leaves; 'Stairii' - variegated leaves.

Pests

Aphids infestations on small trees may be dislodged with a strong stream of water from the garden hose.

Scale and bark beetles may infest Douglas-Fir, especially those under stress.

Diseases

Root rot can be a serious problem on clay and other wet soils.

Needles infected by leaf cast fungi in spring turn brown and fall off.

Several fungi cause canker diseases leading to branch dieback. Maintain tree health and prune out infected branches.