



Pinus sylvestris Scotch Pine¹

Edward F. Gilman and Dennis G. Watson²

INTRODUCTION

In recent years the tree has been bothered with fatal attacks of Pine wilt nematode, therefore, its use in landscapes is not recommended in many areas (Fig. 1). A widely planted evergreen in the past that will grow 40 to 50 feet tall and 30 feet wide, Scotch Pine has bluish-green to green foliage which usually turns yellowish green in winter. Orange bark on the trunk and major limbs peels in papery flakes, and is visible through the canopy. The plant will tolerate dry soil and exposed sites forming an open, picturesque, asymmetrical canopy.

GENERAL INFORMATION

Scientific name: *Pinus sylvestris*

Pronunciation: PIE-nus sill-VESS-triss

Common name(s): Scotch Pine

Family: *Pinaceae*

USDA hardiness zones: 3 through 8A (Fig. 2)

Origin: not native to North America

Uses: Bonsai; reclamation plant; Christmas tree; no proven urban tolerance

Availability: generally available in many areas within its hardiness range

DESCRIPTION

Height: 40 to 50 feet

Spread: 25 to 30 feet

Crown uniformity: irregular outline or silhouette

Crown shape: oval

Crown density: open

Growth rate: medium

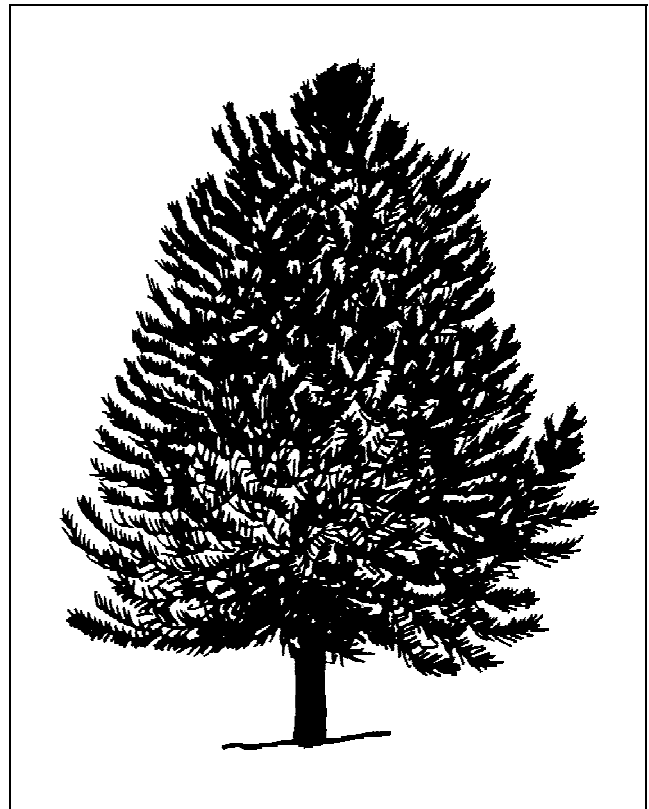


Figure 1. Middle-aged Scotch Pine.

Texture: fine

Foliage

Leaf arrangement: alternate; spiral (Fig. 3)

Leaf type: simple

Leaf margin: entire

Leaf shape: needle-like (filiform)

1. This document is adapted from Fact Sheet ST-477, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: October 1994.
2. Edward F. Gilman, associate professor, Environmental Horticulture Department; Dennis G. Watson, associate professor, Agricultural Engineering Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville FL 32611.



Figure 2. Shaded area represents potential planting range.

Leaf venation: parallel

Leaf type and persistence: evergreen; fragrant;
needle leaf evergreen

Leaf blade length: 2 to 4 inches; less than 2 inches

Leaf color: green

Fall color: no fall color change

Fall characteristic: not showy

Flower

Flower color: yellow

Flower characteristics: inconspicuous and not
showy; spring flowering

Fruit

Fruit shape: oval

Fruit length: 1 to 3 inches

Fruit covering: dry or hard

Fruit color: brown

Fruit characteristics: does not attract wildlife;
inconspicuous and not showy; fruit, twigs, or foliage
cause significant litter; persistent on the tree

Trunk and Branches

Trunk/bark/branches: grow mostly upright and will
not droop; showy trunk; 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

Culture

Light requirement: tree grows in full sun

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

Drought tolerance: high

Aerosol salt tolerance: moderate

Soil salt tolerance: moderate

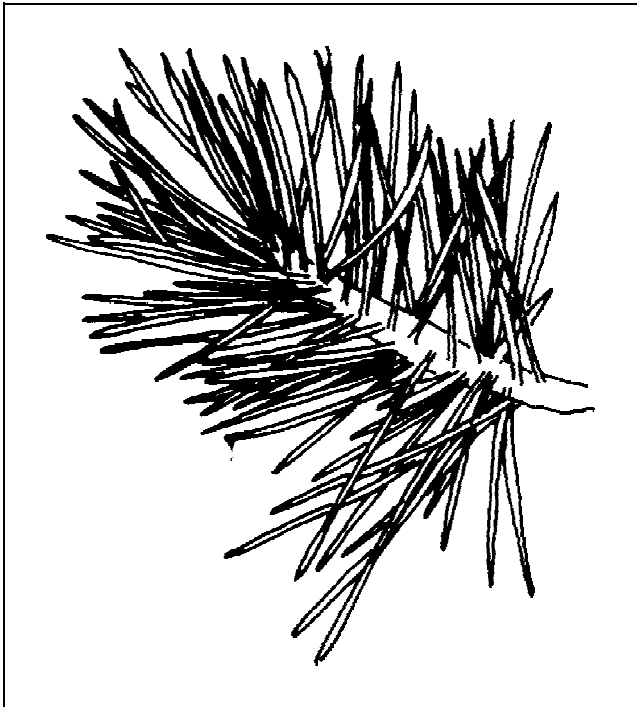


Figure 3. Foliage of Scotch Pine.

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: No entries found.

Ozone sensitivity: sensitive or moderately tolerant

Verticillium wilt susceptibility: not known to be susceptible

Pest resistance: very sensitive to one or more pests or diseases which can affect tree health or aesthetics

USE AND MANAGEMENT

It is a good tree for reclamation sites, is tough and durable, and is very popular as a Christmas tree. It is often sprayed with green dye to give it a desirable green color for the holiday season. It is somewhat tolerant of basic soil pH, below 7.5.

Propagation is from seed which germinate readily.

Pests

Pine wilt nematode may be the most significant pest at this time.

Bark beetles bore into trunks making small holes scattered up and down the trunk. The holes look like

shotholes. Stressed trees are more susceptible to attack. Keep trees healthy.

Sawfly larvae caterpillars are variously colored but generally feed in groups on the needles. Some sawfly larvae will flex or rear back in unison when disturbed. Sawflies can cause rapid defoliation of branches if left unchecked.

Pine needle scale is a white, elongated scale found on the needles. Pine tortoise scale is brown and found on twigs. Depending on the scale, horticultural oil may control overwintering stages.

Zimmerman Pine moth larvae bore into the trunk. The only outward symptoms may be death of parts of the tree or masses of hardened pitch on the branches.

The larvae of Pine weevils feed on the sapwood of the leaders. The leader is killed and the shoots replacing it are distorted. First symptoms are pearl white drops of resin on the leaders. The leaders die when the shoot is girdled as adults emerge in August. Prune out and burn infested terminals before July 15.

Pine shoot beetle is the latest recognized problem beginning to plague this tree.

Diseases

Canker diseases may rarely cause dieback of landscape Pines. Keep trees healthy and prune out the infected branches.

Needle cast is common on small trees and plantation or forest trees. Infected needles yellow and fall off.

Scots Pine is very susceptible to pine wilt nematode.