**Pinus strobus** ‘Pendula’
‘Pendula’ Eastern White Pine

Edward F. Gilman and Dennis G. Watson

**INTRODUCTION**

‘Pendula’ or Weeping Eastern White Pine has soft blue-green needles borne in groups of five although foliage color varies greatly from one tree to the next (Fig. 1). Some specimens keep the bluish color throughout the winter, others lose it. It is typically seen from 6 to 12 feet tall in landscapes growing slowly, with long weeping branches which touch the ground. Once on the ground, branches grow along the ground like a creeping ground cover. Trees must be trained to develop a central trunk, otherwise the plant simply forms a sprawling shrub about two to three feet tall. Several branches on young trees normally are trained to originate from the same point on top of the trunk forming a fountain of foliage. The gray bark on the trunk and large branches remains unusually smooth through middle age, breaking up into elongated blocks in old age but this is usually not seen, as foliage usually fills the tree to the ground.

**GENERAL INFORMATION**

Scientific name: *Pinus strobus* ‘Pendula’
Pronunciation: PIE-nus STROE-bus
Common name(s): ‘Pendula’ Eastern White Pine
Family: Pinaceae
USDA hardiness zones: 3B through 7 (Fig. 2)
Origin: native to North America
Uses: Bonsai; hedge; recommended for buffer strips around parking lots or for median strip plantings in the highway; screen; specimen; no proven urban tolerance
Availability: somewhat available, may have to go out of the region to find the tree

**DESCRIPTION**

Height: 6 to 12 feet
Spread: 25 to 35 feet
Crown uniformity: irregular outline or silhouette
Crown shape: weeping
Crown density: dense
Growth rate: slow
Texture: fine

Foliage

Leaf arrangement: alternate; spiral (Fig. 3)
Leaf type: simple
Leaf margin: entire

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Leaf shape: needle-like (filiform)
Leaf venation: parallel
Leaf type and persistence: evergreen; fragrant; needle leaf evergreen
Leaf blade length: 2 to 4 inches
Leaf color: blue or blue-green; green
Fall color: no fall color change
Fall characteristic: not showy

Trunk and Branches
Trunk/bark/branches: bark is thin and easily damaged from mechanical impact; 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: requires pruning to develop strong structure
Breakage: resistant
Current year twig color: brown; green
Current year twig thickness: thin
Wood specific gravity: 0.35

Flower
Flower color: pink; yellow
Flower characteristics: inconspicuous and not showy; spring flowering

Fruit
Fruit shape: elongated
Fruit length: 6 to 12 inches
Fruit covering: dry or hard
Fruit color: brown
Fruit characteristics: does not attract wildlife; fruit, twigs, or foliage cause significant litter; persistent on the tree; showy

Culture
Light requirement: tree grows in part shade/part sun; tree grows in full sun
Soil tolerances: loam; sand; acidic; well-drained
Drought tolerance: moderate
Aerosol salt tolerance: none
Other

Roots: surface roots are usually not a problem
Winter interest: no special winter interest
Outstanding tree: not particularly outstanding
Invasive potential: little, if any, potential at this time
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

‘Pendula’ White Pine has a very distinctive appearance and is best suited as an occasional specimen in a special small garden or landscape. An interesting plant looking its best growing in a lawn with mulch covering all the area beneath the canopy. This allows the unique form to contrast with other elements of the landscape.

Root systems are usually shallow and highly branched with many fine roots close to the surface of the soil. Trees transplant well balled and burlapped or from containers.

Young White Pines are quite tolerant of half-day shade while mature White Pines prefer a sunny location and tolerate most moist, well-drained soils. They do not grow well and often decline on clay or on soil with a pH above 7. Trees appear to have little tolerance for drought and heat and should be used in the cooler climates. Eastern White Pine is susceptible to salt injury from roads or drain fields and is sensitive to air pollution (particularly ozone and sulfur dioxide).

Propagation is from seed.

Pests

Some adelgids will appear as white cottony growths on the bark. All types produce honeydew which may support sooty mold. European Pine shoot moth causes young shoots to fall over. Infested shoots may exude resin. The insects can be found in the shoots in spring. Pesticides are only effective when caterpillars are moving from overwintering sites to new shoots. This occurs when needle growth is about half developed.

Bark beetles bore into trunks making small holes scattered up and down the trunk. The holes look like shot holes. 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 miner larvae feed inside needles causing them to turn yellow and dry up.

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.

Pine spittle bug lives and hides in a foamy mass.

Spruce mites cause damage to older needles, and are usually active in the spring and fall. Mites cause older needles to become yellowed or stippled.

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.
Diseases

White Pine blister rust attacks White Pine and uses the currant plant as an alternate host. European Black Currant, the favored alternate host, may be banned from certain areas. Other Currants, particularly Red Currant should not be grown within 300 feet of Pines. Infected branches may be pruned off the Pine.

Canker diseases occasionally 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.