

Pinus strobus - White Pine or Eastern White Pine (*Pinaceae*)

Pinus strobus is a green to bluish-green foliaged pyramidal tree with distinctly whorled branching. White Pine is valued as both a climax forest timber tree (for its use as lumber, telephone poles, or pulp) in the Northeastern U.S., as well as a landscape tree for use as a focal point, screen, or windbreak, but is not well-adapted to urban stresses.

FEATURES

Form

- large evergreen specimen tree or shade tree
- maturing at about 80' tall x 40' wide under urban conditions, but much larger in its native habitats
- upright pyramidal growth habit in youth with a strong central leader (having distinctly whorled branching all the way up the trunk), but with a flat-topped or scalloped crown at maturity
- rapid growth rate



Culture

- full sun to partial shade
- performs best in full sun in moist, rich, acidic, well-drained soils, and suffers under conditions of urban stress, resulting in decreased vigor, less branching, shorter needles, and noticeable foliage chlorosis
- propagated primarily from seeds, but also from rooted cuttings
- White Pine blister rust (affecting the bark) is the primary disease, and White Pine weevil (affecting the terminal shoots) is the primary pest
- abundantly available in B&B form
- not at all urban tolerant, especially to winter salt spray, pollution, compacted soils, poorly drained soils, clay soils, and alkaline pH soils (perhaps the worst evergreen for showing chlorotic foliage as a direct result of iron and nitrogen deficiency, as a result of poor uptake of these nutrients in alkaline pH soils)

Foliage

- bluish-green to medium-green needles occur as 5 per bundle, to 4" long, very thin, and not stiff

Flowers

- monoecious, with staminate flowers in clustered yellow catkins, and pistillate flowers as pink immature cones, in Apr. and early May and ornamentally insignificant

Fruits

- 6" narrow green cones mature to brown with silvery tips in the second year, opening up while becoming slightly curving, then abscising
- one of the best cones for decorative arrangements, due to its length and silvery tips



Twigs

- thin and grayish-green, growing into smooth branches of the same color
- branches occur in a distinctly whorled arrangement from the straight trunk, and conveniently demarcate the amount of each year's vertical growth

Trunk

- the gray-green smooth bark of youth becomes gray-brown furrows and plates with age, mostly concealed

- if the tree has never been limbed up
- white sap streaks may be noticeable at times on the bark

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Function

- large evergreen tree that may serve as a specimen, group planting, windbreak, or visual screen
- improperly utilized as a screen planting near major roadways, where winter salt spray can annually damage or kill the outer needles and outer stems on the side next to the road

Texture

- fine texture (bold texture in youth due to sparse lateral branching, if unshored)
- average to thick density with age (open density in youth if unshored)

Assets

- rapid growth and reestablishment, becoming a large evergreen tree
- bluish-green fine-textured foliage
- symmetrical upright pyramidal growth habit in youth
- relatively inexpensive (due to rapid growth at nurseries)

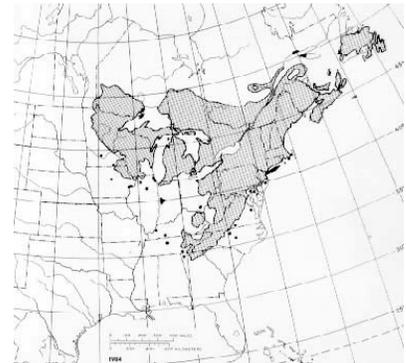
- becoming scalloped (or flat-topped) and picturesque with advanced age

Liabilities

- not urban tolerant
- foliage becomes very chlorotic (yellowing) in alkaline pH soils (intolerant of a non-acidic soil environment)
- loses its formal, narrow, pyramidal shape with advanced age (but hey, we all lose our figure with age, don't we?)
- quickly grows out of its densely-shored outline when transplanted (unless this increasingly difficult cultural practice is maintained)

Habitat

- Zones 3 to 8
- Native to Eastern North America



SELECTIONS

Alternates

- large evergreen trees for specimen, texture, color, or windbreak function (*Abies concolor*, *Picea abies*, *Picea pungens*, *Pinus nigra*, *Pseudotsuga menziesii*, *Tsuga canadensis*, etc.)

Cultivars – Variants – Related species

- P. strobus* 'Blue Shag' - a true dwarf shrub with intensely blue-green to blue-silver foliage, maturing at 2.5' x 3.5'
- P. strobus* 'Fastigiata' - a narrow, upright-ved to ascending columnar form, with branches that hug close to the central leader in youth, becoming more spreading with age, maturing at 60' x 20'
- P. strobus* 'Nana' - a compact shrub form, to 4' x 7', and often grafted onto a standard, with blue-green foliage
- P. strobus* 'Pendula' - a weeping form, to 15' x 20', with more or less horizontal branches that are pendulous to the ground

