

Pinus palustris: Longleaf Pine¹

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Introduction

This beautiful, native North American pine tree is capable of reaching 60 to 125 feet in height with a 30 to 40-foot-spread but is more often seen smaller. It is usually saved on a construction site for use as a specimen in the landscape or for providing dappled shade. Be sure to protect the area beneath the dripline from heavy equipment during construction. Longleaf pine stays in its tufted, grass-like stage for five to seven years after germinating, growing very slowly while it develops a root system, then takes off at a moderate rate. The bright green, evergreen needles are up to 14 inches long and very flexible, giving an almost weeping effect to the tree. A distinctive characteristic of longleaf pine is the new growth clusters, or buds, which are silvery white during the winter. The inconspicuous spring flowers are followed by a large, spiny cone, 6 to 10 inches long, which persist on the tree for a couple of years.

General Information

Scientific name: *Pinus palustris*

Pronunciation: PIE-nus pal-US-triss

Common name(s): longleaf pine

Family: *Pinaceae*

USDA hardiness zones: 7A through 10A (Figure 2)

Origin: native to the southeastern United States

UF/IFAS Invasive Assessment Status: native

Uses: reclamation; specimen; shade



Figure 1. Full Form - *Pinus palustris*: longleaf pine
Credits: UF/IFAS

1. This document is ENH-628, one of a series of the Environmental Horticulture Department, UF/IFAS Extension. Original publication date November 1993. Revised December 2018. Visit the EDIS website at <https://edis.ifas.ufl.edu> for the currently supported version of this publication.
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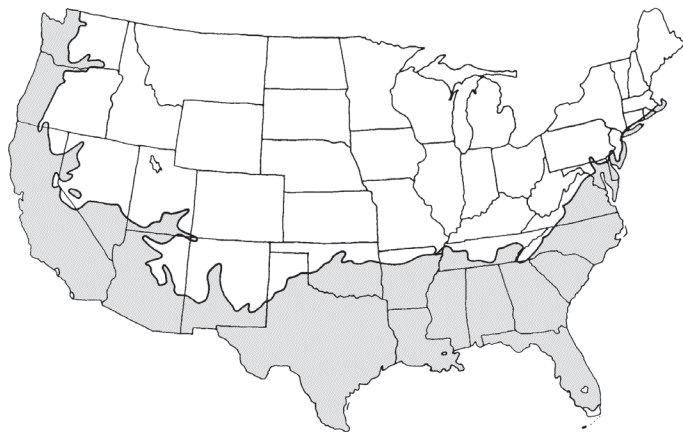


Figure 2. Range

Description

Height: 60 to 125 feet

Spread: 30 to 40 feet

Crown uniformity: irregular

Crown shape: oval

Crown density: open

Growth rate: fast

Texture: fine

Foliage

Leaf arrangement: spiral; typically in groups of 3 per fascicle but occasionally in groups of 2

Leaf type: simple

Leaf margin: entire



Figure 3. Leaf - *Pinus palustris*: Longleaf pine
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Leaf shape: needle-like (filiform)

Leaf venation: parallel

Leaf type and persistence: needled evergreen, evergreen, fragrant

Leaf blade length: 8 to 14 inches

Leaf color: bright green

Fall color: no color change

Fall characteristic: not showy

Flower

Flower color: yellow

Flower characteristics: not showy



Figure 4. Cone, Young - *Pinus palustris*: Longleaf pine
Credits: UF/IFAS

Fruit

Fruit shape: elongated, cone 9

Fruit length: 6 to 12 inches

Fruit covering: dry or hard

Fruit color: brown

Fruit characteristics: attracts squirrels/mammals; showy; fruit/leaves a litter problem; sits sessile

Trunk and Branches

Trunk/branches: branches droop; showy; typically one trunk; no thorns

Bark: orange, brown, gray, scaly, and develops flat plates

Pruning requirement: little required

Breakage: susceptible to breakage

Current year twig color: brown

Current year twig thickness: very thick

Wood specific gravity: 0.59



Figure 5. Cone, Mature - *Pinus palustris*: Longleaf pine
Credits: UF/IFAS



Figure 6. Bark - *Pinus palustris*: Longleaf pine
Credits: Gitta Hasing, UF/IFAS

Culture

Light requirement: full sun

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

Drought tolerance: high

Aerosol salt tolerance: high

Other

Roots: not a problem

Winter interest: no

Outstanding tree: yes

Ozone sensitivity: unknown

Verticillium wilt susceptibility: resistant

Pest resistance: resistant to pests/diseases

Use and Management

Longleaf pine is not usually planted in landscapes, but could be used due to its beautiful bark and nice, open habit. It would be suited for planting in large landscapes, such as golf courses and parks, and in other areas with plenty of overhead space. It would probably adapt to the hot conditions created near concrete and asphalt, but dropping needles often discourage people from planting pines near streets or other pavement. This may be a small price to pay for having this tree in the landscape. If people would start planting this tree, it might catch on as slash pine has in parts of the South.

Longleaf pine should be grown in full sun or partial shade on well-drained, acidic soil. Once established, trees are very drought-tolerant and require no irrigation for survival.

Propagation is by seed. Seedling trees in the wild usually transplant poorly due to a long tap root.

Pests

Some of its pests are borers, sawflies, pine-shoot moth, and pine weevils. Pine bark beetles will occasionally attack old trees which are stressed.

Diseases

No diseases are of major concern. This plant is resistant to fusiform rust.

Reference

Koeser, A. K., Hasing, G., Friedman, M. H., and Irving, R. B. 2015. Trees: North & Central Florida. University of Florida Institute of Food and Agricultural Sciences.