**Pinus palustris: Longleaf Pine**¹

Edward F. Gilman and Dennis G. Watson²

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**Introduction**

This beautiful, native North American pine tree is capable of reaching 80 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 (Fig. 2)

**Origin:** native to North America

**Invasive potential:** little invasive potential

**Uses:** reclamation; specimen; shade

**Availability:** somewhat available, may have to go out of the region to find the tree

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**Description**

Height: 60 to 80 feet  
Spread: 30 to 40 feet  
Crown uniformity: irregular  
Crown shape: oval  
Crown density: open  
Growth rate: fast  
Texture: fine

**Foliage**

Leaf arrangement: spiral (Fig. 3)  
Leaf type: simple  
Leaf margin: entire  
Leaf shape: needle-like (filiform)  
Leaf venation: parallel  
Leaf type and persistence: needled evergreen, evergreen, fragrant  
Leaf blade length: 8 to 12 inches, 12 to 18 inches  
Leaf color: green  
Fall color: no color change  
Fall characteristic: not showy

**Flower**

Flower color: yellow  
Flower characteristics: not showy

**Fruit**

Fruit shape: elongated, cone  
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

**Trunk and Branches**

Trunk/bark/branches: branches droop; showy; typically one trunk; thorns  
Pruning requirement: little required  
Breakage: susceptible to breakage  
Current year twig color: brown  
Current year twig thickness: very thick  
Wood specific gravity: 0.59

**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.