



# *Cunninghamia lanceolata* China-Fir<sup>1</sup>

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## INTRODUCTION

China-Fir is an evergreen which is usually seen from 30 to 75 feet in height with a spread of 10 to 30 feet (Fig. 1). The strong, heavy trunk stands straight up at the base of the coarse, irregular, pyramidal form which is composed of somewhat pendulous branches densely clothed in 1.5 to 2.5-inch-long, bright green, pointed needles. It is somewhat reminiscent of some of the spruces like Blue and White Spruce.

Occasionally the tree will be grown with several trunks arising from the soil, but above that point the trunk almost never branches into a double or multiple leader, growing up the center of the tree like an arrow and lending a strong vertical accent to any area. The crown is fairly open allowing the trunk and large branches to show prominently. Like other tall-growing trees, it is best to maintain only one central trunk. The leaves take on a bronze hue in autumn and, when they die, persist on the tree on interior branches for many years giving it a somewhat unkempt appearance according to some horticulturists. The attractive, brown, peeling bark strips away to reveal the inner reddish bark, adding to the tree's overall textural interest.

## GENERAL INFORMATION

**Scientific name:** *Cunninghamia lanceolata*

**Pronunciation:** kunn-ning-HAM-ee-uh

lan-see-oh-LAY-tuh

**Common name(s):** China-Fir

**Family:** *Pinaceae*

**USDA hardiness zones:** 6B through 9A (Fig. 2)

**Origin:** not native to North America

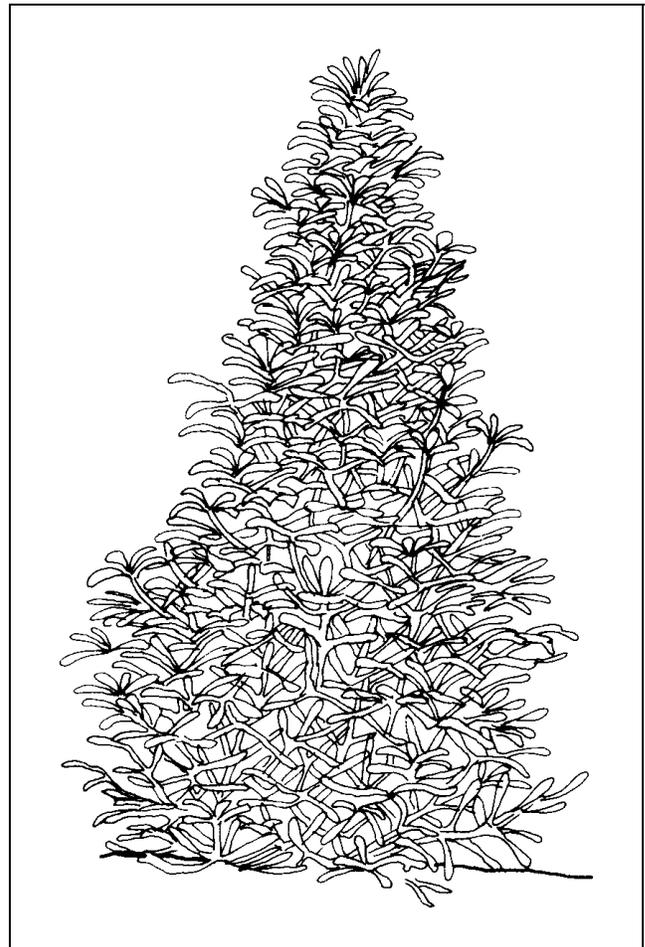


Figure 1. Young China-Fir.

**Uses:** recommended for buffer strips around parking lots or for median strip plantings in the highway; screen; specimen; tree has been successfully grown in urban areas where air pollution, poor drainage,

1. This document is adapted from Fact Sheet ST-220, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: November 1993.
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**Figure 2.** Shaded area represents potential planting range.

compacted soil, and/or drought are common

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

**Leaf color:** green

**Fall color:** no fall color change

**Fall characteristic:** not showy

## DESCRIPTION

**Height:** 50 to 75 feet

**Spread:** 15 to 30 feet

**Crown uniformity:** symmetrical canopy with a regular (or smooth) outline, and individuals have more or less identical crown forms

**Crown shape:** pyramidal

**Crown density:** open

**Growth rate:** medium

**Texture:** coarse

## Foliage

**Leaf arrangement:** spiral (Fig. 3)

**Leaf type:** simple

**Leaf margin:** ciliate

**Leaf shape:** lanceolate

**Leaf venation:** parallel

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

**Leaf blade length:** less than 2 inches

## Flower

**Flower characteristics:** inconspicuous and not showy

## Fruit

**Fruit shape:** round

**Fruit length:** 1 to 3 inches

**Fruit covering:** dry or hard

**Fruit color:** brown

**Fruit characteristics:** does not attract wildlife; inconspicuous and not showy; no significant litter problem

## Trunk and Branches

**Trunk/bark/branches:** droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; showy trunk; should be grown with a single leader; no thorns

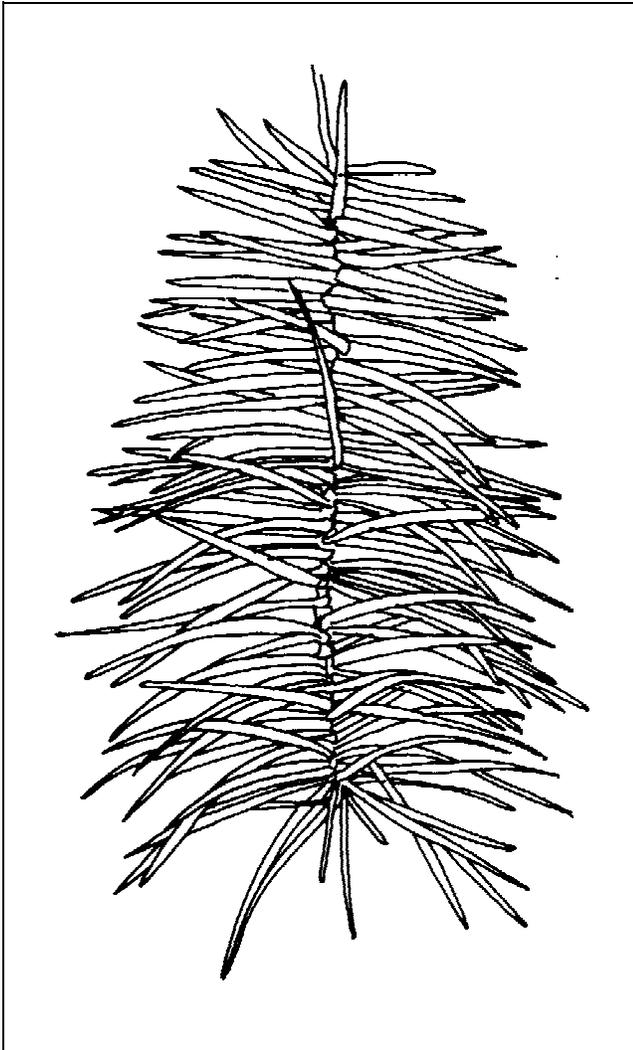


Figure 3. Foliage of China-Fir.

**Pruning requirement:** needs little pruning to develop a strong structure

**Breakage:** resistant

**Current year twig color:** green

**Current year twig thickness:** thick

### Culture

**Light requirement:** tree grows in part shade/part sun; tree grows in full sun

**Soil tolerances:** clay; loam; sand; acidic; well-drained

**Drought tolerance:** high

### Other

**Roots:** surface roots are usually not a problem

**Winter interest:** no special winter interest

**Outstanding tree:** tree has outstanding ornamental features and could be planted more

**Invasive potential:** little, if any, potential at this time

**Verticillium wilt susceptibility:** not known to be susceptible

**Pest resistance:** no pests are normally seen on the tree

### USE AND MANAGEMENT

China-Fir is best used as a specimen, at the corner of a large building, or as a large-scale screen planted 15 to 20 feet apart. Young specimens maintain a fairly tight crown but they open up with age, becoming asymmetrical with large pieces of the crown missing. It works well in oriental gardens and the foliage keeps well indoors in a vase of water. Not a tree you would use everywhere, China-Fir has its place as an occasional accent and conversation piece, particularly in a park or on a golf course. It is too big for a residential landscape but useful on campuses and other large-scale landscapes.

China-Fir should be grown in full sun or partial shade (will grow in shade but with poor, open form) on moist, well-drained, acid soil. Although the leaves may be damaged by severe frosts, they are quickly replaced in springtime. China-Fir is extremely drought tolerant and grows well in poor, compacted clay soil. It is very adapted to urban soils except those poorly drained.

The cultivar 'Glauca' has blue/green foliage.

Propagation is by cuttings.

### Pests and Diseases

No pests or diseases are of major concern. Brown foliage stays on the interior branches but this is a normal condition, usually not caused by insects or disease.