



## *Abies firma* Japanese Fir<sup>1</sup>

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### INTRODUCTION

Japanese Fir has a similar form to White Fir, but has stiffer, medium to dark green needles and may grow taller (Fig. 1). It probably grows 20 feet in 30-years. The trunk grows straight up the center of the tree and the crown maintains a soft, tight, pyramidal shape without pruning. Branches are held upright on young trees but give way to a more horizontal form as the tree grows older. The tree looks best with lower branches left on the tree so they sweep the ground. Growth is very slow in the seedling stage and after transplanting, but once established the tree will grow about 12 inches per year.

### GENERAL INFORMATION

**Scientific name:** *Abies firma*

**Pronunciation:** AY-beez FEER-muh

**Common name(s):** Japanese Fir

**Family:** *Pinaceae*

**USDA hardiness zones:** 5B through 8 (Fig. 2)

**Origin:** not native to North America

**Uses:** Bonsai; recommended for buffer strips around parking lots or for median strip plantings in the highway; screen; specimen; Christmas tree

**Availability:** grown in small quantities by a small number of nurseries

### DESCRIPTION

**Height:** 20 to 30 feet

**Spread:** 10 to 15 feet

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

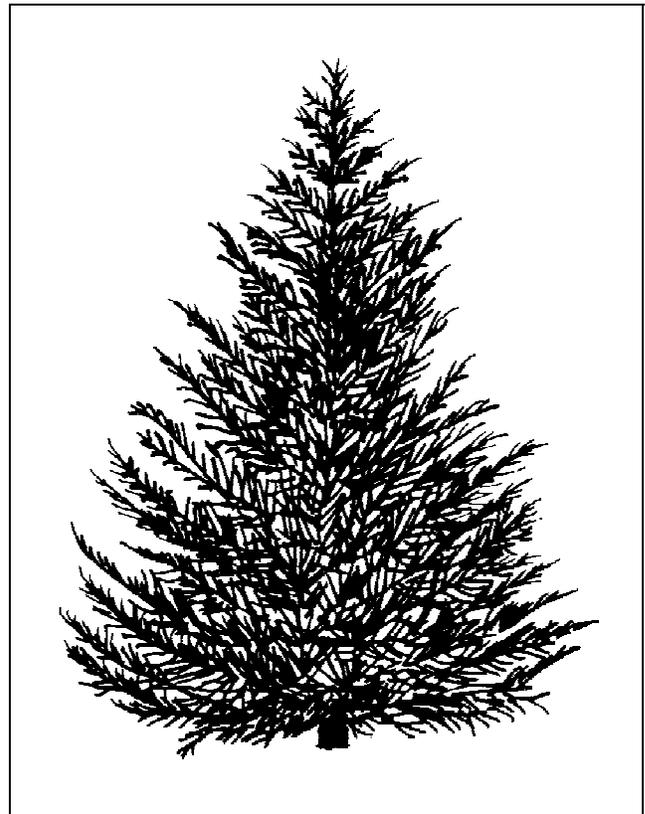


Figure 1. Middle-aged Japanese Fir.

or less identical crown forms

**Crown shape:** pyramidal

**Crown density:** dense

**Growth rate:** slow

**Texture:** fine

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Figure 2. Shaded area represents potential planting range.

**Foliage**

- Leaf arrangement:** spiral (Fig. 3)
- Leaf type:** simple
- Leaf margin:** entire
- Leaf shape:** needle-like (filiform)
- Leaf venation:** parallel
- Leaf type and persistence:** evergreen; needle leaf evergreen
- Leaf blade length:** less than 2 inches
- Leaf color:** green
- Fall color:** no fall color change
- Fall characteristic:** not showy

**Flower**

**Flower characteristics:** inconspicuous and not showy; spring flowering

**Fruit**

- Fruit shape:** elongated
- Fruit length:** 3 to 6 inches
- Fruit covering:** dry or hard
- Fruit color:** brown

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

**Trunk and Branches**

- Trunk/bark/branches:** 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:** needs little pruning to develop a strong structure
- Breakage:** resistant
- Current year twig color:** green
- Current year twig thickness:** medium; thick

**Culture**

- Light requirement:** tree grows in full sun
- Soil tolerances:** clay; loam; sand; acidic; well-drained
- Drought tolerance:** high

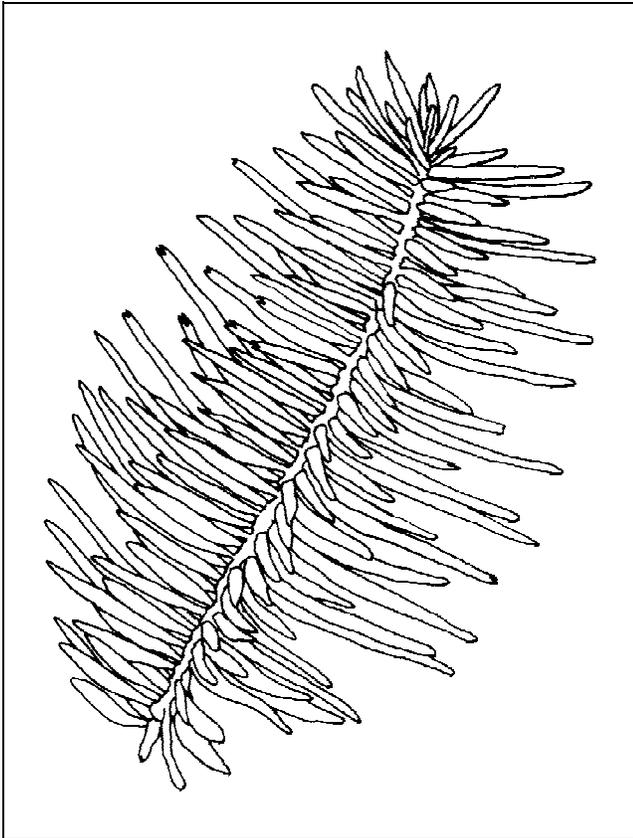


Figure 3. Foliage of Japanese Fir.

clay soil but allow for good drainage. It has not grown well in alkaline soil. It should be a low-maintenance tree requiring little or no fertilizer or irrigation. It is probably one of the best (if not the best) firs to grow in the southeast.

Propagation is by seed.

### **Pests and Diseases**

There are no reports of serious pest problems, although the tree has not been grown much or extensively tested in the east.

### **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**

It is used as a Christmas tree in the western United States, and should be tried in the east as a landscape plant and Christmas tree. Although rare in the nursery trade, Japanese Fir is a beautiful plant making an outstanding specimen which should be grown and planted more often. It can be seen in a number of arboreta in the southern part of the country. Use it to create a slow-growing screen planted on 10 foot centers, or as a specimen.

Grown best in acid soil in the full sun, Japanese Fir is surprisingly tolerant of heat and drought, even in