**Abies firma**: Japanese Fir

Edward F. Gilman and Dennis G. Watson

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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. 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.

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**General Information**

- **Scientific name**: Abies firma
- **Pronunciation**: AY-beez FEER-muh
- **Common name(s)**: Japanese Fir
- **Family**: Pinaceae
- **USDA hardiness zones**: 5B through 8B (Fig. 2)
- **Origin**: not native to North America
- **Uses**: Christmas tree; highway median; specimen; screen; Bonsai
- **Availability**: not native to North America

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**Description**

- **Height**: 20 to 30 feet
- **Spread**: 10 to 15 feet
- **Crown uniformity**: symmetrical

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Figure 1. Middle-aged *Abies firma*: Japanese fir

Credits: Ed Gilman

Figure 2. Range

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U.S. Department of Agriculture, UF/IFAS Extension Service, University of Florida, IFAS, Florida A & M University Cooperative Extension Program, and Boards of County Commissioners Cooperating. Nick T. Place, dean for UF/IFAS Extension.
**Crown shape**: pyramidal  
**Crown density**: dense  
**Growth rate**: slow  
**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**: evergreen, needled evergreen  
**Leaf blade length**: less than 2 inches  
**Leaf color**: green  
**Fall color**: no color change  
**Fall characteristic**: not showy

![Figure 3. Foliage](image)

### Flower

**Flower color**: unknown  
**Flower characteristics**: not showy

### Fruit

**Fruit shape**: cone, elongated  
**Fruit length**: 3 to 6 inches  
**Fruit covering**: dry or hard  
**Fruit color**: brown  
**Fruit characteristics**: does not attract wildlife; not showy; fruit/leaves not a litter problem

### Trunk and Branches

**Trunk/bark/branches**: branches droop; not showy; typically one trunk; thorns  
**Pruning requirement**: little required

### Breakage

**Breakage**: resistant  
**Current year twig color**: green  
**Current year twig thickness**: medium, thick  
**Wood specific gravity**: unknown

### Culture

**Light requirement**: full sun  
**Soil tolerances**: clay; sand; loam; acidic; well-drained  
**Drought tolerance**: high  
**Aerosol salt tolerance**: unknown

### Other

**Roots**: not a problem  
**Winter interest**: no  
**Outstanding tree**: yes  
**Invasive potential**: little invasive potential  
**Ozone sensitivity**: unknown  
**Verticillium wilt susceptibility**: resistant  
**Pest resistance**: free of serious pests and diseases

### 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 that 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 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.