**Thuja plicata: Giant Arborvitae**
Edward F. Gilman and Dennis G. Watson

**Introduction**
A native western North American tree, giant cedar can reach 180 to 200 feet in height in some areas of the Northwest but is more often seen at 50 to 70 feet in height with a spread of 15 to 25 feet. Forming an upright pyramidal silhouette with strongly horizontal branches, giant cedar is an evergreen with fragrant, dark green, delicate needles which generously clothe the branches, casting dense shade beneath the tree. The insignificant yellow flowers are followed by small, half-inch cones which seem a little out-of-place on such a large tree.

**General Information**
- **Scientific name:** Thuja plicata
- **Pronunciation:** THOO-yuh ply-KAY-tuh
- **Common name(s):** Giant arborvitae, giant cedar, western redcedar
- **Family:** Cupressaceae
- **USDA hardiness zones:** 6A through 8A (Fig. 2)
- **Origin:** native to North America
- **Invasive potential:** little invasive potential
- **Uses:** hedge; screen; specimen; highway median
- **Availability:** somewhat available, may have to go out of the region to find the tree

**Description**
- **Height:** 50 to 70 feet
- **Spread:** 15 to 25 feet

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Crown uniformity: symmetrical  
Crown shape: pyramidal, columnar  
Crown density: dense  
Growth rate: moderate  
Texture: fine  

Foliage  
Leaf arrangement: unknown (Fig. 3)  
Leaf type: simple  
Leaf margin: entire  
Leaf shape: scale-like, ovate  
Leaf type and persistence: evergreen, fragrant  
Leaf blade length: less than 2 inches  
Leaf color: green  
Fall color: no color change  
Fall characteristic: not showy  

Culture  
Light requirement: full sun, partial sun, or partial shade, shade tolerant  
Soil tolerances: clay; sand; loam; acidic; alkaline; well-drained; occasionally wet  
Drought tolerance: moderate  
Aerosol salt tolerance: moderate  

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  
Tolerating shearing quite well, giant cedar is ideal for use as a hedge or screen, or a specimen for a large landscape. The wood of this tree is commercially used in North America for the manufacture of roof shingles, deck boards, and siding and the split trunks were often used by Native Americans for making totem poles or canoes. Due to its narrow crown, it works well close to buildings where soil is frequently alkaline and drainage is poor.

Giant cedar naturally occurs on river banks, swamps, and even bogs so should be grown in full sun or partial shade on moist, well-drained, fertile soil, and prefers a moist atmosphere. Apparently pH adaptable, growth is stunted on dry soils. Provide irrigation during the summer or locate in an area with moist soil.

A few of the many cultivars include: 'Atrovirens', excellent shining green foliage; 'Canadian Gold', golden foliage; and 'Fastigiata' ('Hogan'), dense columnar silhouette, very resistant to bagworms - they do not appear to infest this cultivar as much as the species.

Propagation is by seed or cuttings.

Pests and Diseases  
No pests or diseases are of major concern but may be occasionally bothered by bagworm.

Figure 3. Foliage