

Thuja plicata: Giant Arborvitae¹

Edward F. Gilman and Dennis G. Watson²

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

Crown uniformity: symmetrical

Crown shape: pyramidal, columnar

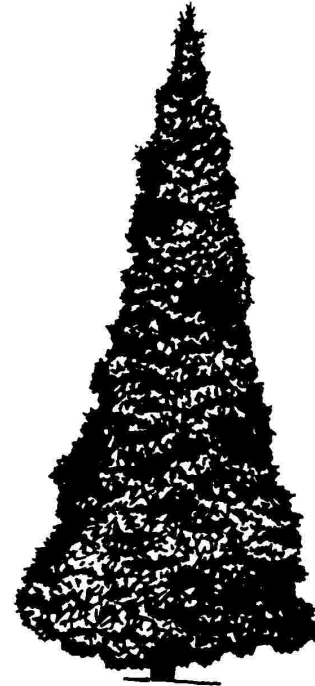


Figure 1. Mature *Thuja plicata*: Giant Arborvitae

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

1. This document is ENH-788, one of a series of the Environmental Horticulture, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Original publication date November 1993. Revised December 2006. Reviewed May 2011. Visit the EDIS website at <http://edis.ifas.ufl.edu>.

2. Edward F. Gilman, professor, Environmental Horticulture Department; Dennis G. Watson, former associate professor, Agricultural Engineering Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, FL 32611.



Figure 2. Range

Leaf venation: none, or difficult to see

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

Flower

Flower color: yellow

Flower characteristics: not showy

Fruit

Fruit shape: cone, elongated

Fruit length: .5 to 1 inch

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 don't droop; very showy; typically one trunk; thorns

Pruning requirement: little required

Breakage: resistant

Current year twig color: green, brown

Current year twig thickness: thin

Wood specific gravity: 0.32

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



Figure 3. Foliage

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 Indians 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.