

# Giant Arborvitae, Western Arborvitae

## *Thuja plicata*

Alex X. Niemiera, Associate Professor, Department of Horticulture

### Summary:

Foliage: Flat scale-like foliage with a pleasant sweet fragrance when crushed; evergreen

Height: About 60 feet

Spread: About 20 feet

Shape: Conical

Main features: Giant arborvitae is a conical conifer tree species. This species has a stately appearance and useful as a specimen plant (used alone as a focal point), accent plant, as a border planting, or anywhere a conical evergreen is appropriate. There is significant variation within the species. This variation is evident in view of the numerous cultivars (more than 20) that vary in size, form, and color. The species is typically slow-growing but there are medium to fast-growing cultivars. It is quite tolerant of adverse conditions. Western arborvitae tolerates dry, alkaline, and moist soils, although growth will be especially slow under these conditions. In contrast to pines, western arborvitae holds its lower foliage with age. The green foliage evident during the growing season usually turns a yellow/brown-green in the winter, especially in windy locations (considered unsightly). 'Green Sport' and 'Virescens' reputedly have a decent green winter foliage color. 'Green Giant' is a very popular fast-growing clone in the nursery and landscape trade, and is recommended as a replacement for Leyland cypress. This cultivar is a putative hybrid between *Thuja plicata* and an Asian arborvitae species (*T. standishii*). 'Green Giant' is reported as having green foliage in the winter (no typical foliage browning as other *Thuja* (and *Platycladus*) species, but observations prove otherwise. Other cultivars will be described.

### Plant Needs:

Zone: 5 to 7

Light: Full sun (will be less dense in part shade; will not tolerate shady sites)

Moisture: Average but will tolerate dry to moist soils

pH range: Acid to alkaline

### Functions:

Western arborvitae's conical form and retention low foliage at the base of the plant confers a formal appearance. Thus, it is suitable as a specimen plant, accent plant, as a border plant, or anywhere a conical evergreen species is appropriate.

### Care:

Western arborvitae has a slow to medium growth rate, however, fast-growing clones (more than 2 feet per year) are available. This species is tolerant of pruning so once per year pruning can keep the plants at a desired size; one can even manage this species to form a medium sized hedge (less than 8 feet tall). When pruning, one must not remove all the foliage from any one branch. Since new buds are only produced on branches with new foliage, new growth will not emerge if one cuts off all the foliage on a branch. One should select single trunk plants since multi-stem plants are prone to splitting apart in heavy snow.

**Additional Information:**

There are numerous cultivars that vary in size, form, and color. Some of the more popular cultivars in the trade are:

'Atrovirens' a fast-growing conical form with dark green foliage; suitable for a hedge

'Candian Gold' broad conical form with striking yellow foliage

'Green Giant' a very popular fast-growing clone in the nursery and landscape trade, and is recommended as a replacement for Leyland cypress. This cultivar is a putative hybrid between *Thuja plicata* and an Asian arborvitae species (*T. standishii*). 'Green Giant' is reported as having green foliage in the winter (no typical foliage browning as other *Thuja* (and *Platyclusus*) species, but observations prove otherwise.

'Green Sport' ('Watnong Green') typical of the species but with good green winter foliage color (reputedly)

Green Splendor™ fast-growing conical form with lustrous green foliage

Steeplechase® narrow conical form with lustrous dark green foliage; reputedly deer resistant but internet feedback appears this claim is untrue. Originated as a sport (mutation) from

'Green Giant'

'Sunshine' slow-growing conical form with yellow foliage

'Virescens' typical of the species but with good green winter foliage color (reputedly)

'Zebrina' slow-growing conical form with yellow banding on foliage (except in southern locations)