**Thuja occidentalis** - American Arborvitae (*Cupressaceae*)

*Thuja occidentalis* is a common evergreen shrub. American Arborvitae is often pyramidal in shape, and useful for foundations and enclosures or as a privacy screen when in rows.

**FEATURES**

**Form**
- Small, medium, large, or very large evergreen shrub, depending on cultivar
- Often maturing at about 20' tall x 8' wide in urban landscapes; however, the species form and larger cultivars can slowly get much bigger over time, to 50' tall x 15' wide, while dwarf cultivars can mature at 3' in height with a slightly wider width
- Upright pyramidal, upright columnar, or rounded growth habit, depending upon cultivar
- Slow growth rate

**Culture**
- Full sun to partial sun
- Prefers a moist, well-drained, loamy soil in full sun, but tolerates soils that are poor, rocky, clay, compacted, dry, and of various pHs extremely well, and is very urban tolerant to heat, drought, humidity, and pollution; however, not tolerant of shady situations
- Propagated primarily by rooted stem cuttings
- One annual pest (bagworms, which cause minor to major feeding damage to the new foliage) and one long term disease (heartwood rot of the interior wood, which leads to a decline in vigor with maturity) are noteworthy; several other potential diseases and pests occur rarely
- Abundantly available in B&B or container forms
- Very prone to having its vertical branches permanently separated in the upper canopy when under ice or wet snow loads, due to the very flexible and lightweight wood with dense evergreen foliage that catches and retains the heavy winter precipitation

**Foliage**
- Sprays of scales
- Evergreen
- Old foliage abscising in autumn, new foliage yellows or browns in winter but remarkably turns back to dark green in Mar.
- Scented when cut or bruised
- Dark green, but can vary depending on cultivar

**Flowers**
- Insignificant (Apr.)

**Fruits**
- Small cones, often not noticed (Sept.)

**Twigs**
- Brown, covered with green scaly foliage

**Trunk**
- Exfoliating to a brownish red
- Often hidden by foliage

**Function**
- Foundation, hedge, entranceway, privacy screen, non-thorny barrier, or specimen shrub
- Often overused

**Texture**
- Medium texture
- Thick density

**Assets**
- Very urban-tolerant evergreen shrub
- Foliages to the ground even at maturity
- Responds well to continuous shearing (although it is rarely needed, except when it exceeds the height or width for which it was originally intended)
- Cold hardiness (to zone 2)

**Liabilities**
- Winter evergreen foliage color is often an unattractive yellow-brown
- Prone to bagworms and their feeding damage
- Prone to branch separation under snow and ice loads
- Widens at its base with age, or separates into several leaning but divergent canopies with age
- Does not recover from severe pruning (where the bare stems are exposed, although side branches may slowly envelope the dead stems)
- Interior foliage noticeably sheds in autumn

**Habitat**
- Zones 3 to 7
- Native to Eastern U.S.

**SELECTIONS**

**Alternates**
- Evergreen shrubs, especially those that are columnar, upright oval, or pyramidal

**Cultivars - Variants - Related species**
- Many exist, selected for habit, height, width, summer foliage color (a few are yellowish), and better winter foliage color
- 'Pyramidalis' - Narrow pyramidal form that is very subject to winter burn, to 15' x 4'
  - 'Rheingold' - Unusual copper to yellow-brown foliage year-round, with a more awl-type of foliage, resembling a juniper in this respect, conical to globe in shape (5' x 4')
  - 'Techny' (also known as 'Mission') - The long-standing traditional cultivar that has dark green foliage year-round, to 12' x 4', broadly pyramidal or upright oval in shape
- 'Hetz Midget' - Globed form, to 3' x 3'
- 'Nigra' - Upright columnar form with dark green winter foliage, to 20' x 4'
- 'Emerald' (Also known as 'Smaragd' or 'Emerald Green') - Rapidly becoming the most popular cultivar, a relatively new introduction having emerald green foliage that retains its vibrant green color throughout the winter, with very dense foliage held in somewhat short vertical scalloped sprays, narrowly pyramidal to columnar in growth habit, to 12' x 3'

**USE**