

ATLANTIC WHITE CEDAR

Chamaecyparis thyoides (L.)
B.S.P.

Plant Symbol = CHTH2

Contributed By: USDA NRCS National Plant Data
Center & the Biota of North America Program



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Alternate common names

Southern white-cedar, white-cedar, swamp cedar

Uses

The wood is light, soft, close-grained, and slightly fragrant. It is easily worked, resistant to decay, and shrinks and warps very little during seasoning. It has been used for shingles, posts, woodenware, and interior finishes, but primary current uses are for telephone poles, piling, ties, siding, and boat railing. Many cultivars of Atlantic white-cedar have been described (see Rehder 1949).

Heavy cutting for many commercial uses during this century has considerably reduced even the largest stands, but it is still considered a commercially important species in the major supply areas of southeastern Virginia, North Carolina, South Carolina, and northwestern Florida.

Cultivars have been selected for shape and needle color – they are useful for naturalizing in wet areas.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status, such as, state noxious status and wetland indicator values. Atlantic white-cedar is considered rare in Georgia, Mississippi, Maine, Maryland, New York, New Hampshire, and Maine.

Description

General: Cypress family (Cupressaceae). Native evergreen trees growing to 20 (-28) meters tall; trunks to 0.8 (-1.5) meters in diameter. **Bark:** reddish-brown, irregularly furrowed and ridged, peeling in long, fibrous strips, often partially twisted around the trunk. **Branchlets** are terete or rhombic in cross-section, in fan-shaped sprays, covered with dark blue-green, overlapping scale leaves to 2 mm long; facial and lateral leaves similar, usually with circular leaf glands. **Seed cones** are globose, 4-9 mm broad, bluish-purple to reddish-brown at maturity, with a somewhat crumpled appearance; scales 5-7. **Native.** The common name reflects its occurrence on the Atlantic coastal plain and its light-colored wood.

Variation within the species: populations of Atlantic white-cedar in Florida, Alabama, and Mississippi have been segregated as *Chamaecyparis henryae* Li (= *C. thyoides* var. *henryae* (Li) Little), based on differences in bark, branchlets, leaves, and fruit, but the species also is variable in the Atlantic coastal segment of its range and the Gulf coast segregate has not generally been accepted.

Arborvitae (*Thuja occidentalis*) can be distinguished from Atlantic white-cedar by its flattened branchlets with clearly differentiated facial and lateral leaves and its ellipsoid seed cones.

Distribution: Atlantic white-cedar grows in a narrow coastal belt 80 to 210 km (50 to 130 miles) wide from southern Maine to northern Florida and west to

southern Mississippi. The scarcity of suitable growing sites makes distribution of the species within the coastal belt very patchy. The species is now classified as rare in Georgia, Mississippi, Maine, Maryland, New York, New Hampshire, and Maine.

Adaptation

Atlantic white-cedar is found most frequently in small dense stands in fresh water swamps and bogs, sometimes on sandy soils, but usually on acidic muck (peat). The species is absent or uncommon in areas where muck is underlain by clay or contains appreciable amounts of silt or clay. Habitats in southeastern New Jersey range from about 1 meter elevation, where the trees border the tidal marsh, to 43 meters in some inland stands. The species currently grows in at least one upland bog in northern New Jersey at an elevation of 457 meters.

Establishment

Trees of Atlantic white-cedar in open stands start bearing seed at 4-5 years, although these seeds may be relatively low in viability; trees in dense stands begin cone production at 10-20 years. Fair to excellent seed crops are produced each year.

Germination occurs in a variety of light conditions, even in very low light intensity, but relatively open conditions are essential for good survival and growth of Atlantic white-cedar seedlings in competition with associates of shrubs and hardwoods (especially red maple, blackgum, sweetbay, and others). Establishment in nature usually occurs following disturbance of the canopy. Seedlings develop a very short taproot, and successful establishment requires not only adequate surface moisture for seed germination but also available moisture within reach of the shallow root systems. Suitable seedbeds include moist rotting wood, *Sphagnum* moss, muck, and moist mineral soil – these on hummocks where standing water is not present all year. Thick litter and slash are unfavorable for germination and establishment.

Increases in height slow after about 50 years and stop after 100 years; increases in diameter may continue at a relatively even rate up to 100 years. Stand age rarely exceeds 200 years, although some trees have apparently reached 1000 years of age.

Management

Because of the shallow root system, trees of Atlantic white-cedar are extremely susceptible to windthrow, especially where they occur in permanently saturated sites and where stands have been opened by partial

cuttings. Fungi and insects usually do not cause serious damage.

Cultivars, Improved and Selected Materials (and area of origin)

Contact your local Natural Resources Conservation Service (formerly Soil Conservation Service) office for more information. Look in the phone book under "United States Government." The Natural Resources Conservation Service will be listed under the subheading "Department of Agriculture."

References

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Edited: 13nov00 jsp;10feb03 ahv; 05jun06 jsp

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