## ‘Affinity’ Northern white cedar

‘Affinity’ Northern white cedar *(Thuja occidentalis L.*) (THOC2) is a multiple use plant intended for use in field and farmstead windbreaks and as a screen or border planting in recreational and urban development. ‘Affinity’ shows promise for use as a windbreak on organic soils. In much of its range, Northern white cedar is an important source of winter browse. In all, eighty-four wildlife species (47 birds, 34 mammals and 3 herpitiles) were identified as using the various developmental stages of the Northern white cedar community.

The USDA, Natural Resources Conservation Service and the Jasper-Pulaski State Nursery of the Indiana Department of Natural Resources released ‘Affinity’ Northern white cedar.

## Description

‘Affinity’ Northern white cedar is an intermediate tree, growing to 24 meters in height, with a narrow pyramidal to oblong crown. It has a long, tapering bole supported by a shallow, wide spreading root system. Leaves are yellow-green and persistent, on lateral branchlets. They are scale-like and flattened, 0.3 cm long, obscurely glandular-pitted, with the foliage spray often fanlike. Cones are from 0.3-1.3 cm in length, erect and oblong. Seeds are released in fall, but the cones often persist through the winter. There are from 184,000 to 567,000 seeds per pound. The bark is from 0.3-1.3 cm. thick, reddish to grayish brown in color and fibrous.

## Adaptation

‘Affinity’ should prove adapted throughout the Great Lakes region within the zone of natural occurrence for northern white cedar. It grows naturally in wet sites and on poorly drained soils but is also adapted to well-drained sandy loams.

## Origin

‘Affinity’ is a relatively fast-growing, compact, upright tree with good seeding vigor. It was originally collected at the Jasper-Pulaski State Nursery in Medaryville, Indiana.

## Establishment

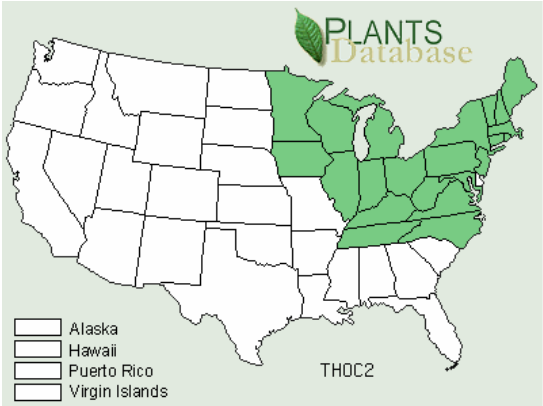
‘Affinity’ can be successfully established using 3-0 planting stock by following the normal planting procedures for bare root trees. Weed, grass, and deer and rodent control are necessary for good establishment and uniform growth. This can be obtained through cultivation, mowing and after the establishment year, application of approved herbicides. Spacing for windbreak planting is 183-305 cm (6-10 ft).

No serious disease or insect damage has been observed to limit ‘Affinity’ growth. Deer browse and rodent damage has been observed in some planting.

## Availability

Breeder seed and foundation stock of ‘Affinity’ Northern white cedar will be made available for distribution to public and commercial nurserymen through the USDA, NRCS Rose Lake Plant Materials Center, 7472 Stoll Rd., East Lansing, MI 48823.

## Area of Adaptation




## Hardiness

Plant Hardiness Zones 3, 4 and 5

## Propagation

'Affinity' is a seed propagated cultivar. Seedlings are easily grown by sowing untreated, cleaned seed in the fall. Average seedbed density should be about 530 seedlings per square meter. Sowing depth should vary between 0.3 and 0.8 centimeters. Half shade over the seedbeds is recommended during the first growing season. Cones may be picked by hand or they may be flailed or stripped onto a sheet of canvas, burlap or plastic. Seeds should be collected between mid-September to late October. Kiln drying is needed to extract seed from large quantities of cones. Seeds of Northern white cedar have been opened by exposing them for 4 hours in an internal-fan type kiln to a temperature of 45 c and a relative humidity of 38%. Small quantities of cones can be opened by drying at room temperature for a longer time. After cones have been opened, seeds may be shaken out in a mechanical cone shaker and separated from the cone scales by fanning. Seeds should not be dewinged.

Plant Solutions for Conservation Needs

## For More Information

Visit our Plant Materials website at http://Plant-Materials.nrcs.usda.gov to find more information on using plants to solve conservation problems.

USDA/ NRCS
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NRCS Natural Resources Conservation Service
Plant Materials Program

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***An improved conservation plant selected by:***

## Rose Lake Plant Materials Center

***East Lansing, Michigan***