



Cladrastis kentukea American Yellowwood¹

Edward F. Gilman and Dennis G. Watson²

INTRODUCTION

Yellowwood is so-named because the freshly-cut heartwood is a muted to brilliant yellow color, and the wood is known to yield a yellow dye (Fig. 1). This seldom-used, native, deciduous tree makes a very striking specimen or shade tree, reaches 30 to 50, rarely 75 feet in height, with a broad, rounded canopy, and has a vase-shaped, moderately dense silhouette. Smooth, grey to brown bark, bright green, pinnately compound, 8 to 12-inch-long leaflets, and a strikingly beautiful display of white, fragrant blossoms make Yellowwood a wonderful choice for multiple landscape uses.

GENERAL INFORMATION

Scientific name: *Cladrastis kentukea*

Pronunciation: kluh-DRASS-tiss ken-TUCK-ee-uh

Common name(s): American Yellowwood, Virgilia

Family: *Leguminosae*

USDA hardiness zones: 4 through 8 (Fig. 2)

Origin: native to North America

Uses: recommended for buffer strips around parking lots or for median strip plantings in the highway; shade tree; specimen; residential street tree

Availability: somewhat available, may have to go out of the region to find the tree

DESCRIPTION

Height: 30 to 50 feet

Spread: 40 to 50 feet

Crown uniformity: irregular outline or silhouette

Crown shape: round; vase shape

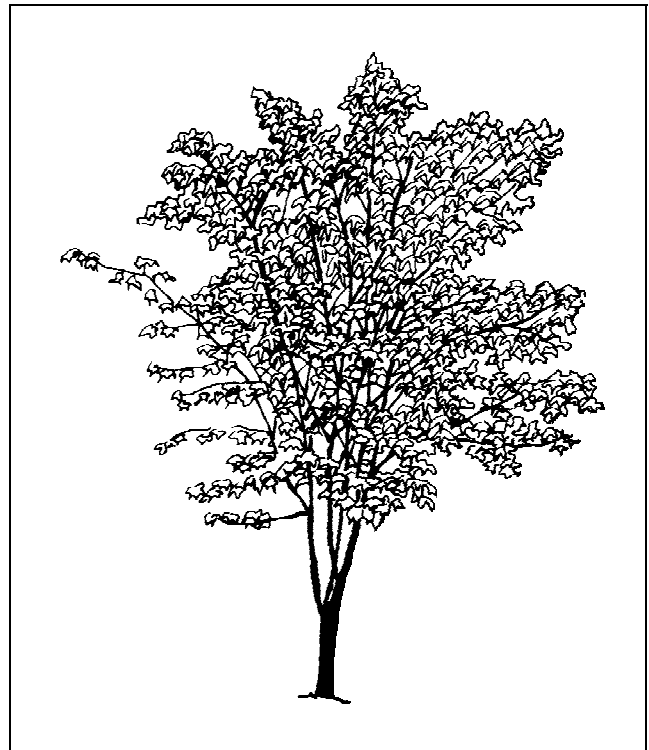


Figure 1. Young American Yellowwood.

Crown density: moderate

Growth rate: medium

Texture: medium

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: odd pinnately compound

Leaflet margin: entire

Leaflet shape: elliptic (oval); ovate

1. This document is adapted from Fact Sheet ST-170, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: November 1993.
2. Edward F. Gilman, associate professor, Environmental Horticulture Department; Dennis G. Watson, associate professor, Agricultural Engineering Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville FL 32611.



Figure 2. Shaded area represents potential planting range.

Leaflet venation: banchidodrome; pinnate

Leaf type and persistence: deciduous

Leaflet blade length: 2 to 4 inches

Leaf color: green

Fall color: copper; yellow

Fall characteristic: not showy

Flower

Flower color: white

Flower characteristics: pleasant fragrance; summer flowering; very showy

Fruit

Fruit shape: elongated

Fruit length: 3 to 6 inches; 1 to 3 inches

Fruit covering: dry or hard

Fruit color: white

Fruit characteristics: does not attract wildlife; no significant litter problem; persistent on the tree; showy

Trunk and Branches

Trunk/bark/branches: bark is thin and easily damaged from mechanical impact; droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; showy trunk; should be grown with a single leader; no thorns

Pruning requirement: requires pruning to develop strong structure

Breakage: susceptible to breakage either at the crotch due to poor collar formation, or the wood itself is weak and tends to break

Current year twig color: brown

Current year twig thickness: thin

Culture

Light requirement: tree grows in part shade/part sun; tree grows in full sun

Soil tolerances: clay; loam; sand; acidic; occasionally wet; alkaline; well-drained

Drought tolerance: moderate



Figure 3. Foliage of American Yellowwood.

Other

Roots: surface roots can lift sidewalks or interfere with mowing

Winter interest: tree has winter interest due to unusual form, nice persistent fruits, showy winter trunk, or winter flowers

Outstanding tree: not particularly outstanding

Invasive potential: little, if any, potential at this time

Verticillium wilt susceptibility: susceptible

Pest resistance: no pests are normally seen on the tree

USE AND MANAGEMENT

The one-inch-wide, fragrant flowers appear in dense, showy, pendulous, terminal panicles, 12 to 14 inches long, in early summer and are set off nicely against the lush foliage. Flowers are visited by a large number of bees. Trees may not flower until they are 10-years-old and then seem to give outstanding displays only in cycles of every two to five years but the gorgeous display is well worth the wait. The flowers are followed by showy, three to four-inch-long, whitish-grey pods which persist through the winter.

Unpruned trees fall apart in 30 to 40 years. Yellowwood should be pruned when young to develop branches having a wide angle with the trunk and a

‘U’-shaped crotch. These should be pruned back so that they are not allowed to grow larger than half the diameter of the trunk. Develop 7 to 10 major lateral limbs spaced along the trunk, not clustered together. Good luck! This will help them develop strong attachments to the trunk and provide for a longer-lived tree than one which is not pruned in this way. Weakly-attached branches with embedded bark are susceptible to breakage and may be a problem as the tree grows older. Any pruning should be done in summertime because excess bleeding may occur if done in the winter or spring. It could be used as street tree if properly pruned to avoid weak crotches. It is often planted as a specimen or shade tree for smaller properties due to its flowers and medium size.

Yellowwood grows slowly in full sun on moist, well-drained soils but growth may be more rapid if provided with some shade in the southern part of its range and in the plains states. It grows slowly on poor soil but looks fine, responding to better soil with moderate growth. It tolerates alkaline (it is native to dry limestone outcroppings as well as along stream banks) or acidic soil and urban conditions. It performs well with only occasional irrigation once established, even in poor, compacted soils. It adapts to wet soils by growing a shallow root system. There are several very large, coarsely-branched roots dominating the root system which makes care following transplanting very crucial. But planting from containers is no problem.

The cultivar ‘Rosea’ has pinkish flowers.

Propagation is by seed or cuttings.

Pests and Diseases

No pests or diseases are of major concern. Verticillium wilt may occasionally be a problem.