



Gymnocladus dioicus Kentucky Coffeetree¹

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INTRODUCTION

This is a medium-growing tree that will reach a height of about 70 feet while spreading 45 to 60 feet (Fig. 1). The state tree of Kentucky should be used more often because it is adaptable to many soils, including alkaline, has interesting bark and grows with an open canopy allowing light to penetrate to the ground for adequate turf growth beneath the canopy. The coarse branch texture in the winter is also quite unique, forming an interesting silhouette of only several large branches. Large seed pods hang on the tree in the winter but can be a litter problem when they fall in the spring. They are very hard and can be 'shot' from a lawnmower running over the fruit. Male trees are sometimes available and they do not set fruit, but this is often unreliable. The seeds (in a 5 to 10-inch-long pod) and leaves may be poisonous to humans. The pod contains seeds which used to be roasted as a coffee substitute. The leaves are bipinnately compound and can be up to 18 inches long, resembling walnut.

GENERAL INFORMATION

Scientific name: *Gymnocladus dioicus*

Pronunciation: jim-NOCK-luh-dus dye-oh-EE-kuss

Common name(s): Kentucky Coffeetree

Family: *Leguminosae*

USDA hardiness zones: 3B 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; reclamation plant; shade tree; specimen; residential street tree; no proven urban tolerance

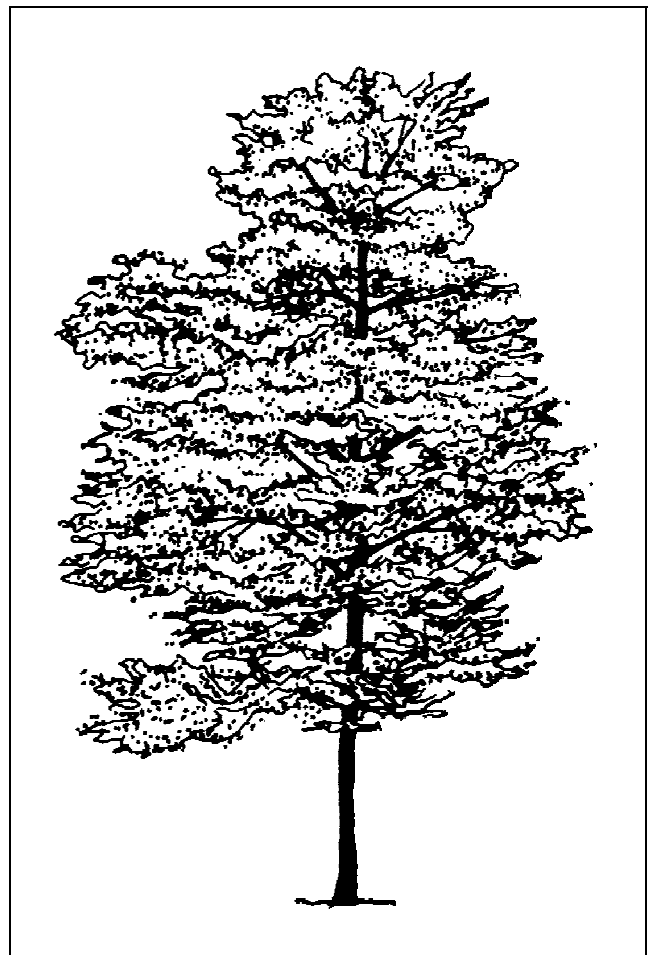


Figure 1. Middle-aged Kentucky Coffeetree.

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

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Figure 2. Shaded area represents potential planting range.

DESCRIPTION

Height: 65 to 70 feet
Spread: 45 to 60 feet
Crown uniformity: irregular outline or silhouette
Crown shape: oval
Crown density: open
Growth rate: medium
Texture: medium

Foliage

Leaf arrangement: alternate (Fig. 3)
Leaf type: bipinnately compound; odd pinnately compound
Leaflet margin: entire
Leaflet shape: elliptic (oval); ovate
Leaflet venation: pinnate
Leaf type and persistence: deciduous
Leaflet blade length: less than 2 inches
Leaf color: green
Fall color: yellow
Fall characteristic: showy

Flower

Flower color: white
Flower characteristics: pleasant fragrance; inconspicuous and not showy; spring flowering

Fruit

Fruit shape: elongated; pod
Fruit length: 6 to 12 inches; 3 to 6 inches
Fruit covering: dry or hard
Fruit color: brown; green
Fruit characteristics: does not attract wildlife; fruit, twigs, or foliage cause significant litter; persistent on the tree; showy

Trunk and Branches

Trunk/bark/branches: 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: needs little pruning to develop a strong structure
Breakage: resistant
Current year twig color: brown; green

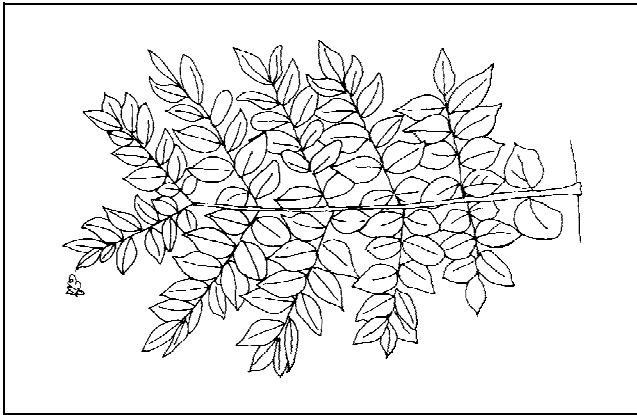


Figure 3. Foliage of Kentucky Coffeetree.

Current year twig thickness: stout

Culture

Light requirement: tree grows in full sun

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

Drought tolerance: high

Aerosol salt tolerance: moderate

Soil salt tolerance: poor

Other

Roots: surface roots are usually not a problem

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

Outstanding tree: tree has outstanding ornamental features and could be planted more

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

Ozone sensitivity: sensitive or moderately tolerant

Pest resistance: no pests are normally seen on the tree

USE AND MANAGEMENT

The trunk normally grows straight up through the crown and is very strong. Branches grow at wide angles to the trunk and are usually well-spaced along the trunk. This configuration adds to the durability of the tree. Be sure that major limbs are kept at less than about half the diameter of the trunk to ensure that they remain well-attached to the tree. The crown is round or oval in youth, becoming more upright and oval with age.

Some people object to the sparse branching when this tree is young, but some pruning to create more branches can help. Any shortcomings of the tree are

made up by the almost total lack of insect or disease problems. Lawns grow well beneath the tree due to the light shade cast by the thin, open canopy.

Kentucky Coffeetree is well-adapted to urban soil and could be used more often and, like most trees, does best when provided with irrigation until well-established. Amazingly tolerant of drought and poor soil once established although it is native to rich bottomland soil. Used as a street tree in some communities. Be careful using the tree in a lawn since the pods could become projectiles from mowing equipment.

Male cultivars without fruit should be available soon. These will be well-suited for planting along streets.

Propagation is by seed, or grafting male plants.

Pests and Diseases

No pests or diseases of major concern.