

Gymnocladus Dioicus

The Kentucky Coffeetree

By Dominic Sandy



<http://campus.murraystate.edu/academic/faculty/hwhiteman/Field/plants/kcoffee.html>

The *Gymnocladus dioicus*, otherwise known as the “Kentucky Coffeetree”, is native to much of the Midwestern United States and very prevalent in western Ohio. At maturity, the tree stands as a true beauty but has an awkward appearance during the early growing years. It is very slow-growing but at maturity can reach upwards of 80 feet tall. The female tree’s produce a fairly large, pod-like fruit containing seeds which can be eaten if they are cooked in the right manner. Ugly in winter (shown below) and graceful in the summer (above), it is a beautiful tree that is slowly becoming more and more rare. This brochure will extensively cover all aspects of the tree in detail.



<http://davesgarden.com/guides/pf/showimage/229>

Characteristics

This perennial tree is a member of the legume or Fabaceae family. The term *Gymnocladus* means “naked branch” which refers to its ugly, naked appearance during the winter months. The term *dioicus* refers to the fact that the tree is dioecious in nature, meaning the male and female flower parts are on separate trees. If in an open area with lots of sunlight, the tree can grow to heights of 80 feet and widths of 50 feet. The trunk is rather thin for its size, reaching diameters of only 1 to 2 feet.

The Leaves

The leaves are bipinnately compound and are extremely large, reaching up to 3 feet long. The leaflets are arranged alternately to structures called rachilla, which are oppositely arranged on the rachis. Leaflets are fairly small, not toothed and pointed at the apex. They grow extremely slow and don’t emerge until late spring and fall during early autumn. Since a large portion of the year, there is no leaves, the tree looks naked and dead while other trees are in bloom. When the leaves fall, they leave very large and noticeable scars on the stems. This tree also lacks terminal buds and the lateral buds extremely small and sunk into the stems.



http://www.fnaturesearch.org/index.php?option=com_naturesearch&task=view&id=518

The Flower and Fruit



<http://www.flickr.com/photos/mightyjoepye/5702107663/>

Since everything else about this tree is slow-growing, you should have guessed by now that the flowers are too. They tend to not appear until late spring and are rather small. Often people do not even notice that the flowers are present on the tree because of their size. They are white petals with a greenish hue to them. On male trees, the flowers are shorter but they appear more often, while female trees have longer flowers but there are fewer of them.

The flowers on female trees produce a tough, inedible fruit pod that splits open to reveal several seeds. These pods start out green but will eventually turn a dark brown. Because the pods are so tough, they tend to stay on the tree way into winter, even early spring of the next year. The pulp and seeds tend to go untouched by animals because they are toxic and poisonous to animals. However, the seeds can be consumed if they are cooked to a proper temperature. Native Americans once used the seeds and pulp of the fruit both medicinally and as food.



<http://treehunter.info/Alternate/cassia/kentuckycoffeetree/kentuckycoffeetree.htm>

<http://www.cas.vanderbilt.edu/bioimages/image/g/gydi--frseeds24261.htm>

Versatility

The Kentucky Coffeetree has a variety of uses, both past and present. In the past, Native Americans used the pulp, leaves, seeds and bark from the tree both medicinally and for food. The pulp, seeds and bark were used by Native Americans for a variety of natural medicines. Some tribes also used the seeds for food, by roasting them. In the early years of our country, pioneers often used the seeds of the tree as a substitute for coffee although it lacked caffeine.



<http://lumberjocks.com/projects/69926>

Today, the most common uses for the tree are for lumber and soap. This species is pest and disease free which allows for the trees survival and so is often used for a variety of carpentry activities. The fruit is also used in making some commercially sold soap. Due to its decreasing numbers, it is not often used in decorating cities or suburban front yards but is still prevalent in some areas. The other obvious use for the tree is as a wood fuel source.

The Kentucky Coffeetree has its uses, but the tree is slowly disappearing and so it is wise to respect the tree and be mindful of the affects uses will have on the species as a whole.

References

- http://ohiodnr.com/forestry/trees/coffeetree_ky/tabid/5355/Default.aspx
- <http://wcisel.com/plants/kentuckycoffeetree/index.htm>
- <http://www.library.uiuc.edu/vex/toxic/kentucky/kentucky.htm>
- http://plants.usda.gov/plantguide/pdf/cs_gydi.pdf

