Chestnut Oak (Quercus montana)

Chestnut oak is found in the Appalachian Mountains and surrounding areas. It is a member of the white oak group. The chestnut oak is a medium-sized tree that typically grows 50 to 80 feet tall and up to two feet in diameter. The wood resembles white oak wood, and the leaves resemble American chestnut, chinkapin oak and swamp chestnut oak. The large acorns are an important wildlife food.

Identification

The leaves are the easiest characteristic to use for identifying chestnut oak. Chestnut oak leaves are deciduous, somewhat oval narrowing at the top and bottom of the leaf but widest above the middle. The edges of the leaves are scalloped, and the surface is shiny green and pale on the underside.
Bark
The bark is smooth and gray on young trees but darkens and becomes deeply furrowed on older trees. The deep furrows make it easy to identify older trees and are an excellent identifying characteristic.

Acorns
The acorns are relatively large 1 to 1 ½ inches long. They are somewhat oval with a thin warty cap that separates from the acorn when it matures. They mature in one growing season, dropping in the fall and germinating once dropped.

Using the twig and buds to identify oaks can be difficult and tricky. However oaks can be distinguished from non-oaks by the characteristic grouping of buds clustered near the tip of the twig. The twig is orange-brown or slightly grayish in color with buds that are pointed, somewhat cone shaped and longer than most other oak buds. Using a hand lens can be helpful.

General Information
Reproduction and Regeneration:
Most hardwood trees use seed and vegetative (root and stump sprouting) regeneration to reproduce.
- Seed regeneration via acorn: Chestnut oak typically begins acorn production around 20 years, but acorn production varies greatly from year to year with large acorn crops happening every four to five years. The acorns are dispersed mainly by squirrels and gravity in the fall. The acorns mature on the tree in one growing season, drop in late summer or early autumn and germinate upon dispersal.
- Regeneration via sprouting: Chestnut oaks sprout vigorously following damage to the trunk due to harvesting, fire etc. In fact, most of the chestnut oak regeneration comes from stump sprouts.

Site Location and Competition:
- Chestnut oak is usually found on dry uplands and ridgetops usually on the south or west facing slope on dry sandy soils.
- Other upland oaks often found competing with chestnut oak on these same sites include white oak, scarlet oak and black oak.

Sunlight Requirement:
- Chestnut oak is intermediate in shade tolerance and is considered similar to white oak.

Other Oaks that Look Similar:
- Chestnut oak leaves can be confused with swamp chestnut oak, swamp white oak and chinkapin oak.
Uses:
- This species is used for lumber, flooring, furniture and railroad ties.
- The wood makes excellent firewood because of its high fuel value.
- The leaves of young chestnut oak are commonly browsed by deer, and the acorns are eaten by a variety of large and small mammals as well as birds.

Other Facts:
- The bark of the chestnut oak is high in tannin content and was heavily used in the leather tanning industry prior to the 20th century.
- Chestnut oak’s scientific species name montana means “of the mountains”, probably referring to where it is found growing.
- Its common name comes from the resemblance of its leaves to the American chestnut leaves.
- As of 2020, the National Champion chestnut oak was 105 feet tall and 276 inches in circumference. It is located in the District of Columbia.

Sources