

# GREEN GONE BAD

FEATURED ORNAMENTAL PLANT: *QUERCUS ACUTISSIMA* (SAWTOOTH OAK)

Some exotic ornamental plants behave badly when they escape from the place they are planted. Infestations of these plants have negative impacts on natural environments. One of these plants is *Quercus acutissima*; common name: Sawtooth oak.

*Quercus acutissima* is medium to large deciduous tree in the family Fagaceae. It is native to Asia but has been widely planted in the United States as an ornamental and as food for wildlife. Particular varieties have been developed for the abundant production of acorns early in the life of the tree. *Quercus acutissima* has recently begun invading forests in the eastern United States.



*Quercus acutissima* grows up to 50 feet tall and forms a dense pyramidal crown that rounds with age. Leaves are alternate, simple, lanceolate, 3 to 7 inches long, pinnately veined with a very sharply serrate margin bearing bristle-tipped teeth. The leaves resemble some native tree species including American chestnut, Alleghany chinkapin, American beech, as well as the non-native Chinese chestnut. Acorns are oval with a cap that covers 1/2 of the nut with prominently curved scales resembling hair. Twigs are slender, red to gray-brown with multiple pubescent terminal buds. Mature bark is ridged, furrowed, and somewhat corky.



The problem with *Quercus acutissima* is that it can escape from planted landscapes into natural areas. Early mast production has led to widespread planting of sawtooth oak as a wildlife food tree in natural areas and parks. Due to the large crop of acorns, this species can out-compete the seedlings of native oaks and other species, ultimately reducing plant diversity and wildlife habitat quality. Planting stands of *Quercus acutissima* in natural areas or game animal food plots is likely to increase the establishment and spread of this exotic species. Use of *Quercus acutissima* as a landscape tree in urban areas may pose less of a danger of escape, primarily due to the short seed dispersal distance of the species. However, due to the typical decades-long lag phase for introduced trees to demonstrate their ultimate potential for invasiveness, biologists recommend that land managers and landscapers use native oaks instead of exotic trees such as sawtooth oak. The long term unintended consequences to native plant communities and wildlife could outweigh the supposed near term benefits gained by using it to help boost game populations or as an ornamental.



It may not be widely known among horticulturalists and landscapers that this plant can be harmful to natural habitats. Please consider removing this species from your inventory. There are many attractive and wildlife friendly native trees that can be sold and planted in its place. These include *Carya ovata* (shagbark hickory), *Fagus grandifolia* (American beech), and any of a large variety of indigenous oaks such as *Quercus rubra* or *falcata* (Northern or Southern red oak), *Quercus alba* (white oak), *Quercus stellata* (post oak), or *Quercus virginiana* (live oak). *Castanea pumila* (chinkapin), an attractive small shrubby tree favored by wildlife, is another option.

Please visit <http://www.invasive.org/browse/subinfo.cfm?sub=10086> and [http://www.ars.usda.gov/research/publications/publications.htm?seq\\_no\\_115=143169](http://www.ars.usda.gov/research/publications/publications.htm?seq_no_115=143169) for more information. Created by SC-EPPC and Randy G. Westbrooks, Invasive Plant Control, Inc.

See also: <http://www.se-eppc.org/southcarolina/> and <http://www.se-eppc.org/>

