

## CHINKAPIN

*Castanea pumila* (L.) P. Mill.

Plant Symbol = CAPU9

Contributed by: USDA NRCS National Plant Data Center



Male flowers. A.B. Russell. 1997.  
NC State University.  
*Trees of the Maritime Forest.*



Female flowers. G. Nelson. 1996.  
*Shrubs and woody vines of Florida.*

### Alternate Names

Allegheny chinkapin, American chinquapin, *Castanea alnifolia*, *Castanea ashei*, *Castanea floridana*, *Castanea margaretta*, *Castanea nana*, *Castanea paucispina*, chinquapin, dwarf chestnut, *Fagus pumila*, golden chinquapin.

### Uses

**Economic:** Chinkapin nuts and wood are sold commercially. The wood is light, hard, close-grained, and strong. It is used for fence posts and fuel although it is not timbered because of its small stature and scattered occurrence.

**Ethnobotanic:** The Cherokee Indians used dried leaves as washes to alleviate headaches, fevers, chills, cold sweats, and fever blisters. The Koasati Indians used the roots of chinkapin as a decoction for stomachaches.

**Food source:** Chinkapin nuts are palatable to humans as well as wildlife. They have a sweet flavor and are often preferred over the fruit of the American chestnut.

**Landscaping:** Chinkapin is sometimes used for landscaping as a small ornamental tree or shrub. Its flowers are attractive but have an unpleasant odor.

**Restoration:** Chinkapin can be used to rehabilitate disturbed sites because of its ability to adapt to harsh conditions. The threat of chestnut blight often deters this decision by land managers.

**Wildlife:** Squirrels, chipmunks, opossums, white-tailed deer, blue jays, woodpeckers and other birds consume chinkapin nuts. White-tailed deer browse the foliage.

### Legal Status

Chinkapin is rare in its range. It is threatened in Kentucky, endangered in New Jersey, and has been extirpated from most of Alabama by chestnut blight. Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

### Description

**General:** Beech Family (Fagaceae). Chinkapin is a monoecious small tree or large shrub that grows to be 2 to 5 m tall. The twigs are densely hairy (tomentose) when young, becoming shiny brown with densely reddish-hairy buds. The leaves are alternate, simple, short-stemmed, prominently veined, oblong with fine pointed teeth or bristles, up to 15 cm long, and tomentose on the lower surface. Male flowers are borne in the leaf axils, elongated, yellow to white, clustered, and have a strong odor. Female flowers are rounder with a diameter up to 3 cm. The fruit is a spiny bur that houses a single nut. Male flowers appear in May and June, female flowers later in the season. Fruits mature in autumn and winter.

**Distribution:** Chinkapin is native to the eastern and southern United States. Its native range is from New Jersey and West Virginia, west to Missouri and Oklahoma, and south to Texas and Florida. It has been planted in Wisconsin and Michigan where it has become a forest tree. For current distribution, please

consult the Plant Profile page for this species on the PLANTS Web site (<http://plants.usda.gov>).

**Habitat:** Chinkapin occurs in mixed hardwood forests among longleaf pine and scrub oak trees on high ridges and slopes that are free from limestone. It grows on black sandy dunes in the Carolinas, but not on frontal dunes. It is also found on well-drained stream terraces, dry pinelands, and disturbed sites such as railroad rights-of-way, power line clearings, fence and hedgerows, pine plantations, and old fields.

#### **Adaptation**

The USDA hardiness zones for chinkapin are 6 to 10. Chinkapin occurs in xeric and mesic sites on dry, rocky, sandy, or loamy soils. It ranges in elevation from sea level to about 1,350 m (4,455 feet). It occurs in open areas and is tolerant of high heat. It is not tolerant of coastal salt spray or shade.

#### **Management**

Chinkapin plants form extensive clones where it has been burned annually. It resprouts vigorously following top-kill by fire. It will also regenerate upon overstory removal in stands where it had once been out-competed by canopy trees.

Chinkapin is not resistant to herbicides such as 2,4,5-T, bromacil, dicamba, picloram, and silvex. It may resprout following herbicide treatments.

#### **Pests and Potential Problems**

Chinkapin is moderately resistant to chestnut blight, but fewer trees are reported each year due to the inhibitory effects of the fungus.

#### **Seeds and Plant Production**

Chinkapin plants and seeds are not commonly produced commercially. It reproduces readily from seed. Collect seeds immediately after the spiny husks have split open to expose the nut. Seeds that are planted in the fall show good germination (>90%) while seeds stored over winter dry out and germinate at reduced rates (<50%). Seedlings will produce nuts in the third growing season, with large nut crops occurring during the fifth and sixth season. Chinkapin also sprouts from rhizomes, forming dense colonies.

#### **Cultivars, Improved, and Selected Materials (and area of origin)**

The NRCS Plant Materials Program has not released chinkapin cultivars for conservation use. The 'golden' cultivar is produced for its wildlife value and adaptability to harsh sites. Chinkapin cultivars

may be of value for breeding blight-resistant trees with flavorful nuts.

Contact your local Natural Resources Conservation Service (formerly Soil Conservation Service) office for more information. Look in the phone book under "United States Government." The Natural Resources Conservation Service will be listed under the subheading "Department of Agriculture."

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS Web site <<http://plants.usda.gov>> or the Plant Materials Program Web site <<http://Plant-Materials.nrcs.usda.gov>>

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