

Pinus elliottii slash pine

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Slash pine (*Pinus elliottii*) is a great timber tree of the Coastal Plain. It was first described in 1824 as a variety of loblolly pine (*Pinus taeda* var. *heterophylla*). Since its first identification as a species or variety, it has been called *Pinus elliottii* (1875 & 1880), *Pinus heterophylla* (1849 & 1893), *Pinus caribaea* (1927), and *Pinus palustris* (1933). The scientific name is derived from the famous botanist Stephen Elliott who named the tree. Its common names are slash pine, yellow slash pine, yellow pine, southern pine, Honduras pine, Cuban pine, swamp pine, and pitch pine.

There are two generally accepted types of slash pine – a standard type and a South Florida type. The Southern Florida slash pine was first identified as a variety in 1952 and suggested as a species (*Pinus densa*) in 1960. The Southern Florida slash pine (*Pinus elliottii* var. *densa*) grows in south Florida and the Keys, and is sometimes called a Dade County slash pine. The standard slash pine (*Pinus elliottii* var. *elliottii*) grows over the southern and southeastern United States into central Florida. The standard slash pine was once proposed to be identified as *Pinus densa* var. *austrokeyensis* in 1960. The slash pine range generally follows the lower Coastal Plain southeast of a line from the far southeast corner of North Carolina to Louisiana, with some naturalized escapees in eastern Texas. It has a relatively small range. Note the Georgia range map.

Slash pine is a tall tree growing from 80-100 feet in height (maximum = 130 feet tall), and 2-3 feet in diameter (maximum = 4 feet). Slash pine grows to be 150 years old. The growth Hardiness Zone is 8a - 10b and the Heat Zone is 9-11. The lowest number of the Hardiness Zone tends to estimate the northern range limit of the tree and the largest Heat Zone number tends to estimate the southern end of the range. Coder Tree Grow Zone C-D. Slash pine grows well in many types of warm coastal plain sites but is best in lowland coastal areas, especially in sandy soils with plenty of water. Slash pine does not grow well in wet areas with poorly drained soils. It does not grow in swamps or on deep dry sands. Slash pine is not as resistant to fire as many of the other southern pines.

Slash pine needles are dark, shiny green in color and 7 - 11 inches long. They can be found in bundles of two and three on the same branch. The needles are thick, stiff and not twisted. They are held on the tree only about two years which gives the tree crown a more open look with needles crowded near the ends of branches and twigs. Slash pine does not have a grass stage of early growth like longleaf pine *Pinus palustris*.

Slash pine becomes sexually mature by 12 years of age and produces heavy cone crops every 3 years. The female cones are 2.5 - 6.5 inches long. The cones are egg-shaped and are open at maturity before they quickly fall. The cones are shiny (varnished looking) chocolate brown to reddish brown in color with a thin small sharp prickle on the ends of the cone scales. Cross pollination is needed for the best seed yield.

The twigs are thick, rough, and orange brown in color. The buds have reddish scales with reddish to light tan trichomes (hairs). The tree crown holds a few heavy branches and the crown appears more open than most pines. The bark is thin but deeply furrowed with orangish to purplish colored plates which peel away in papery layers. Bark cross sections have thin layers of purplish and ivory colors. Slash pine has rapid stem and branch growth, notoriously brittle branches but wind-firm roots, plates, and needles dropping all at once.

Slash pine will hybridize with other pines where their range overlaps. Slash pine will form hybrids with loblolly pine *Pinus taeda*, southern Florida slash variety *Pinus elliottii* var. *densa*, sand pine *Pinus clausa*, longleaf pine *Pinus palustris*, shortleaf pine *Pinus echinata* (these show many dwarf off-spring), pitch pine *Pinus rigida*, and Caribbean pine *Pinus caribaea*. Slash pine hybridization can lead to confusion in identification. Slash pine can be confused with loblolly pine *Pinus taeda* which has 3 needles per bundle, a smaller cones by several inches in length, a dull brown colored cone, and cone scales with sharp prickles. Slash pine can also be confused with longleaf pine *Pinus palustris* which has 3 needles per bundle, a cone 5-10 inches long, and a silvery white-hair covered terminal bud.

Slash pine is one of the most important woods for human use in the southeastern United States. It is used extensively for lumber, plywood, pulp, and resin products (naval stores). It has also been used for fuelwood and pine straw mulch. Slash pine is now planted extensively in the warm parts of the world for timber. Native Americans used slash pine for basket work, lodge building, torches, glue, chairs, poles, and for tanning hides. Medicinally slash was historically used to make a water bath and rubbed on eternally for treatment of pain and soreness, back pain, and hemorrhoids. The wood, bark, buds, and roots were soaked in water and then applied to sore spots.



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