

South Florida Slash Pine

Pinus elliottii densa

Slash Pine is named after the “slashes” – swampy ground overgrown with trees and bushes – that constitute its habitat. At Corkscrew, the undergrowth is primarily Saw Palmetto with some Cabbage Palm.

The currently accepted scientific name of slash pine is *Pinus elliottii*. The species is divided into two geographic varieties: *Pinus elliottii elliottii*, the typical Northern Slash Pine, and *Pinus elliottii densa*, South Florida Slash Pine.

The varietal name *densa* refers to the extremely dense heartwood and also to the seedling which has a short thick trunk, a thick tap root, and densely clustered needles.

The native range of the Northern Slash Pine variety includes the coastal plain from southern South Carolina to central Florida and west to eastern Louisiana.

South Florida Slash Pine occurs in central and southern Florida and in the lower Florida Keys.

The two varieties differ considerably in morphology. South Florida Slash Pine has longer needles, smaller cones, denser wood, and a thicker and longer taproot. The trunk forks into large spreading branches which form a broad, rounded crown.

Mature South Florida Slash Pine trees attain only 56 feet in height compared to 100 feet for the typical slash pine. The relatively short stature of South Florida slash pine probably evolved to avoid tropical storm damage.

South Florida Slash Pine grows well on low ground, hammocks, in swamps, and along streams. It is exceptional in its ability to thrive in hot, dry, nutrient-poor soils and survive fire, yet produce iron-hard heartwood and dark green foliage.

Slash pine is an important timber species in the southeastern United States. Its strong, heavy wood is excel-



lent for construction purposes. Because of its high resin content, the wood is also used for railroad ties, poles, fence posts, and pilings.

Slash pine is a native evergreen conifer with thick platy bark, relatively long needles, and an extensive lateral root system. It grows rapidly and can live up to 200 years. Its rapid growth also makes it a desirable timber species.

Slash pine is also a valuable wild-life tree. Its seeds are eaten by birds and small mammals. Cattle and deer occasionally browse seedlings. The dense foliage of slash pine provides cover and shelter for wildlife. Large slash pine provide nest sites for bald eagles, including the pair at Corkscrew. The endangered red-cockaded woodpecker is known to nest in slash pine, although it is not this cavity dweller’s preferred species.

Slash pine is monoecious. Trees usually begin producing cones between 10 and 15 years of age. Good cone crops occur every four years for the South Florida variety. Ninety percent of the light, winged seeds fall within 164 feet of the source tree.

Male strobili begin to develop in June, grow for several weeks, and then go dormant until midwinter. They then turn purplish and a thick, yellow pollen is shed from late January to February.

Female strobili begin to develop in late August and grow until they are fully developed. Cones mature in September,

approximately 20 months after pollinization.

Normal seed fall is in October. Unlike some western conifers, slash pine seeds do not need fire to begin the germination process.

Seedlings of the South Florida variety have a “grass stage” similar to that of the northern longleaf pine. The grass stage lasts from two to six years and the pines have a short stem, less than four inches, and a tuft of crowded needles. During the grass stage, seedlings develop an extensive root system and a thick root collar.

Once initiated, height growth is rapid. South Florida slash pine seedlings are more drought and flood tolerant than those of the typical variety.

South Florida slash pine grass-stage seedlings can sprout from the root collar if the tree is top-killed by wildlife browsing, cutting, or by fire.

The South Florida variety is more fire resistant than the typical variety because seedlings and saplings have thicker bark. The estimated natural fire frequency of South Florida slash pine communities is 25 fires per century. Crown fires are rare because frequent fires reduce fuel build-up, trees self-prune well, and stands are open. In addition to adaptations of the typical slash pine variety, the South Florida variety is fire resistant in the seedling grass stage. A dense tuft of needles protects the terminal bud.