Slash pine

Pinus elliottii Engelm.

Pine family (Pinaceae)

Post-Cook introduction

Large introduced narrow-leaf or needle-leaf evergreen tree of forest plantations. Trunk long and straight, to 90 ft (27 m) in height and 2 ft (0.6 m) in diameter, with branches in horizontal tiers or rings, more than 1 annually. Bark gray, very thick, cracking into long narrow plates and peeling off, exposing dark brown layer, becoming purplish brown with large flat scaly plates. Inner bark whitish beneath dead orange brown outer layer, resinous. Twigs stout, brown, rough, and scaly. Winter buds cylindrical, pointed, reddish brown, with fringed spreading scales.

Leaves or needles two or three in cluster, stiff, spreading, 6–12 inches (15–30 cm) long, slightly shiny dark green, with many fine whitish lines on each surface, finely toothed edges, and sharp point. Sheath at base of leaves about ½ inch (13 mm) long.

Cones few, conical or narrowly egg-shaped, symmetrical, 3–6 inches (7.5–15 cm) long, maturing in 2 years and shedding, leaving a few basal scales attached. Cone-scales at exposed end shiny dark brown, four-sided with stout short prickle. Seeds paired and exposed at base of cone scales, with egg-shaped, blackish mottled body ¼ inch (6 mm) long and detachable wing about 1 inch (2.5 cm) long.

This species and longleaf pine *(Pinus palustris)* are leading producers of naval stores or oleoresins. The lumber of both serves elsewhere for miscellaneous factory and construction uses, flooring, railroad-cars, and ships. Other uses are poles, piling, and pulpwood. Some thinnings of the Hawaiian plantations have been used for fenceposts.

The wood of one tree grown at Lalakea, Hawaii, was tested at the Forest Products Laboratory. Also, an increment core survey was made of the wood specific gravity of several stands (Skolmen 1963). These studies indicated that the wood produced by the species in Hawaii is considerably less dense (sp. gr. 0.42) than is normal for the species in its native habitat (sp. gr. 0.54). Thus, the wood may have strength properties and pulp yields similar to those of western hemlock (*Tsuga heterophylla),* rather than those of the very strong southern-grown slash pine. Such strength properties would almost certainly be adequate for construction lumber.

Slash pine grows well in plantations in the Hawaiian Islands. It has been planted on eroded lands on Kauai and Molokai in mixture with other pines to control erosion. There are 1100 acres (446 ha) of pine, mostly slash, in the Puu Ka Pele Forest Reserve on Kauai and 700 acres (283 ha) on the south-facing ridges of Molokai. In addition, this species has been planted at the Waiahou Spring Forest Reserve and Kula Forest Reserve on Maui and at several locations on the Island of Hawaii. It attains its best growth at 3000-4000 ft (914–1,219 m) elevation where the rainfall is about 60 inches (1,524 mm), but ft is also growing very well in two locations on stony organic muck soil in 200 inches (5080 mm) rainfall. On Molokai, it has been damaged by the fungus *Diplodia pinea.*

Range

Southeastern continental United States, Coastal Plain from southern South Carolina to southern Florida, also Lower Florida Keys, and west to southeastern Louisiana.

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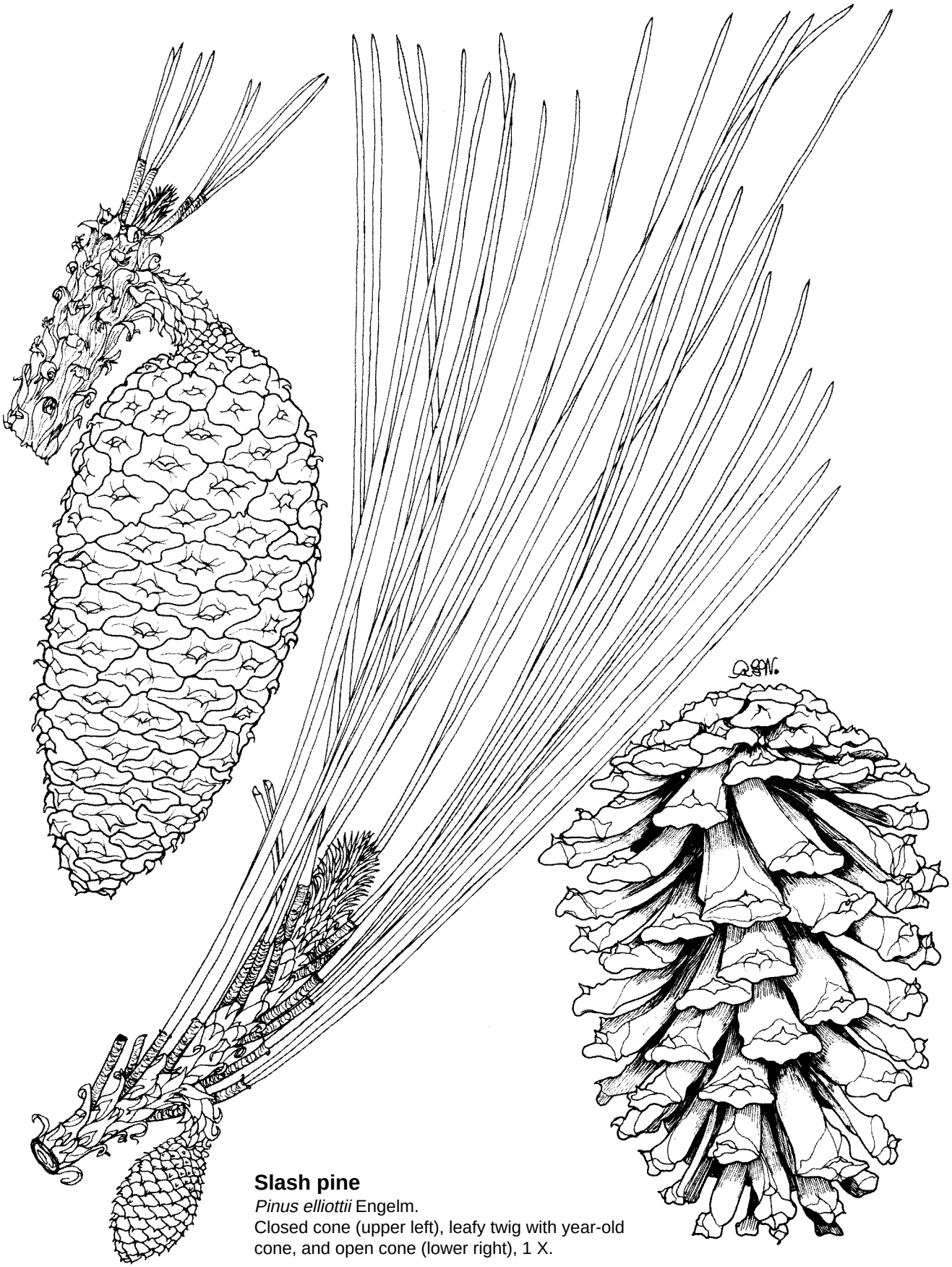

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Closed cone (upper left), leafy twig with year-old cone, and open cone (lower right), 1 X.

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