

Australian toon

Toona ciliata M. Roem.

Rue or citrus family (Rutaceae)

Post-Cook introduction

Large tree introduced in 1918 from Australia for forest plantations, characterized by large compound leaves with 10–20 paired narrowly ovate unequal-sided leaflets, apparently deciduous, and oblong seed capsules splitting into five parts. About 50 ft (15 m) tall and 1 ft (0.3 m) in trunk diameter, possibly becoming larger. Bark light gray, smoothish, finely fissured. Inner bark with brownish outer layer, inner layer pink and white streaked, bitter. Twigs stout, brown, hairless, with large half-round leaf-scars.

Leaves alternate, even pinnate, 12–16 inches (30–41 cm) long, hairless, with slender round light green axis. Leaflets paired, mostly 10–20, on slender stalks of $\frac{3}{8}$ inch (1 cm). Leaflet blades narrowly ovate, $2\frac{1}{4}$ –7 inches (6–18 cm) long and $1\text{--}2\frac{1}{2}$ inches (2.5–6 cm) wide, long-pointed at apex, blunt and unequal at base, slightly curved and unequal-sided, not toothed on edges, thin, hairless, above slightly shiny green, beneath paler.

Flower clusters (panicles) 12–16 inches (30–41 cm) long, slender, branched, spreading from near ends of twigs. Flowers many, very short-stalked, white, slightly fragrant, cylindrical, $\frac{1}{4}$ inch (6 mm) long, composed of five tiny brownish green sepals, corolla of five white oblong petals, five alternate stamens within corolla, and pistil with conical five-celled ovary and short style.

Fruits (seed capsules) oblong, $\frac{3}{4}$ inch (2 cm) long, $\frac{3}{8}$ inch (1 cm) in diameter, with tiny style at apex, brown to blackish, splitting open from apex into five parts and exposing five-angled light brown axis. Seeds several, $\frac{5}{8}$ inch (15 mm) long, narrowly oblong, whitish, much flattened, two-winged.

Sapwood is pale brown and the heartwood reddish brown, strongly scented, lightweight (sp. gr. 0.35) soft, resistant to dry-wood termites, but not resistant to decay in ground. The wood has been tested at the Forest Products Laboratory and found to be similar to red alder (*Alnus rubra*) in most properties. Its shrinkage in drying is, however, quite high for its density. The wood is similar also to that of the related Spanish-cedar (*Cedrela* spp.). Elsewhere used for furniture, cabinet-work, and construction. So far very little wood has been

used in Hawaii. It is rather soft for furniture and paneling but is so utilized in Australia.

The brown 5-parted seed capsules and their five-angled axes have been used in Hawaii in dry fruit and flower arrangements.

Australian toon is found in forest plantations in moist areas throughout the Hawaiian Islands. It is suitable also as a shade tree. This was the most commonly planted tree in the Waiakea Forest Reserve near Hilo during the 1960s. Now, there are over 2300 acres (931 ha). The best stand, on Round Top Drive in Honolulu was planted in 1924.

Special areas

Wahiawa, Tantalus

Champion

Height 117 ft (35.7 m), c.b.h. 11.3 ft (3.4 m), spread 72 ft (21.9 m). Kohala Forest Reserve, Muliwai, Hawaii (1968).

Range

Native of Himalaya region of tropical Asia from India to China and through Indonesia to Australia. Introduced elsewhere for forest plantations.

Other common names

Australian redcedar, Burma toon; tun (Puerto Rico)

Botanical synonym

Cedela toona Roxb.

The Hawaiian tree is the southern variety native in eastern Australia, *Toona ciliata* var. *australis* (F. Muell.) C. DC. (*Cedrela australis* F. Muell.).



Australian toon

Toona ciliata M. Roem.

Flowers, leaf, and fruits (lower left), $\frac{2}{3}$ X.