## Fraxinus uhdei

## Tropical ash

Fraxinus uhdei (Wenzig) Lingelsh.

Family: Oleaceae

**Description:** Tall tree, bark gray or brown, furrowed. Young branches hairy but hairs are lost with age. Leaves alternate, 10 inches long, pinnately compound with 5–9 leaflets, leaflets 2 inches wide by 4 inches long, upper surface dull green, lower pale green, margin fine sawtoothed. Plants unisexual. Flowers in panicles 8 inches long, not showy. Fruits dry, winged, 1.5 inches long. *Fraxinus*, the old Latin name for these plants; *uhdei*, reference unclear<sup>(32, 70)</sup>.

**Distribution:** Native to Mexico. Some 700,000 trees were planted in forests of Kaua'i, O'ahu, Maui, Moloka'i, and Hawai'i between 1920 and the 1960s. Adapted to moist forests<sup>(32)</sup>.

**Environmental impact:** Shade tolerance and prolific seeding give this plant great potential to spread<sup>(32)</sup>.

Management: In trials at Kamakou Preserve, Moloka'i, tropical ash was susceptible to cut-surface (continuous ring) applications of 2,4-D, dicamba, glyphosate, and picloram, each of which caused complete control. Applied in 2 notches per trunk, these same herbicides, except for picloram, caused severe injury. It took 18 months for the trees to die. In comparison of applications to 4 drilled holes per tree and continuous ring notching, dicamba, glyphosate, metsulfuron, and



triclopyr provided better control in the latter method. The high efficacy of the restricted-use 2,4-D suggests that MCPA, an analog of 2,4-D and unrestricted, should be evaluated because it could provide a cheap, nonpersistent, unrestricted herbicide for tropical ash management. Pat Bily (TNC) reported good control with undiluted triclopyr amine applied to frills, but only saplings were susceptible to triclopyr ester applied basal bark. However, HAVO staff reported control with triclopyr ester at 5% product in diesel oil applied to basal bark (Chris Zimmer, HAVO).