

## ‘Akia

*Wikstroemia oahuensis* (Gray) Rock

Mezereum family (Thymelaeaceae)

Native species (endemic)

Plants of ‘akia, genus *Wikstroemia*, are easily recognized, though further identification of the species, about 12, found through the Hawaiian Islands is not so easy. Most species are evergreen shrubs, and only a few reach tree size. They have blackish or gray, often reddish brown, very tough bark with strong fibers, which served early Hawaiians as rope. These reputedly poisonous plants formerly were pounded into pulp and thrown into water to stupefy fish to aid in their capture. Plants of ‘akia are known by the mostly small narrow paired leaves, slender very tough twigs with strong fibers difficult to break, with raised triangular leaf-scars, small narrowly tubular four-lobed greenish to yellow fragrant flowers, and small orange stone fruits.

This species varies from a low shrub of 2–4 ft (0.6–1.2 m) to a small tree to 25 ft (7.6 m) high and 6 inches (15 cm) in trunk diameter. Bark dark gray or blackish, smoothish, very tough, fibrous, and bitter. Twigs paired and partly forking by two, light green when young, later dark brown, almost hairless, with raised triangular leafscars and enlarged nodes.

Leaves opposite, hairless, with short light green leaf-stalks of less than  $\frac{3}{8}$  inch (1 cm) long. Blades narrowly elliptical,  $1\frac{1}{4}$ – $2\frac{3}{4}$  inches (3–7 cm) long and  $\frac{1}{2}$ –1 inch (1.3–2.5 cm) wide, short-pointed at both ends, not toothed, slightly thick and leathery, upper surface dull green with side veins fine and inconspicuous, and lower surface dull light green.

Flower clusters (like umbels) terminal, with short stalk less than  $\frac{1}{4}$  inch (6 mm) long, which is curved down and persistent. Flowers several, short-stalked, very narrow,  $\frac{3}{8}$  inch (10 mm) long and less than  $\frac{1}{8}$  inch (3 mm) wide, light greenish yellow, without corolla, composed of tube (hypanthium), calyx with four spreading lobes turned back, eight tiny stamens, four within tube and four in the throat opposite lobes, and pistil with elliptical single-celled ovary, very short style, and larger round stigma.

Fruits (drupes) one or two, oblong or egg-shaped,  $\frac{1}{2}$  inch (13 mm) long and  $\frac{5}{16}$  inch (8 mm) in diameter, enclosed by tube, with stigma at apex, from light yel-

low to orange, fleshy, bitter. Seed single, egg-shaped,  $\frac{5}{16}$  inch (8 mm) long, pointed, blackish.

The wood of another species (*W. sandwicensis* Meisn.) is whitish and very soft, subject to blue stain.

Scattered in understory of wet forests of Oahu, for example, Niu Valley, Mt. Konahuanui, and Poamoho Ridge, to 4600 ft (1402 m) elevation.

### Range

Kauai, Oahu, Molokai, Lanai, Maui

### Other common names

asasa, false ‘ohelo

### Botanical synonyms

*Wikstroemia basicordata* Skottsb., *W. degeneri* Skottsb., *W. elongata* Gray, *W. eugenoides* Skottsb., *W. haleakalensis* Skottsb., *W. isae* Skottsb., *W. lanaiensis* Skottsb., *W. leptantha* Skottsb., *W. macrosiphon* Skottsb., *W. palustris* Hochr.; *W. recurva* (Hillebr.) Skottsb., *W. selligii* Skottsb., *W. vacciniifolia* Skottsb.

Plants of ‘akia are extremely poisonous if eaten, according to Degener (1930), though harmless to the touch. Root and bark were ingredients of a deadly drink for suicide or for execution of criminals by order of a chief. However, Arnold (1944) concluded that plants of this genus were not as poisonous as commonly reputed and possibly might not be toxic to humans. Baldwin (1979) also reported questionable toxicity, but recommended that the fruits not be eaten.

The narcotic substance of this genus and a few unrelated plants served also as a fish poison. The bark and leaves were pounded into powder with stones on rocks near a tidal pool or stream. This powder was placed in double handfuls in the fibrous sheath of a coconut leaf or in a twisted bunch of grass. Then the material was quickly inserted under a rock or in crevices where fish were expected. Within 10 minutes, the fish would swim about aimlessly or float on their sides and could be caught easily. Fortunately, fish so caught were edible.



**'Akia**

*Wikstroemia oahuensis* (Gray) Rock

Flowering twig (above), fruiting twig (below), 1 X.