

Ulex europaeus

Gorse, furze

Ulex europaeus L.

Family: Fabaceae

Description: Erect, semiwoody shrub to 15 ft tall. Leaves reduced, leaving thorns very prominent. Flowers in showy clusters, bright yellow; blooms profusely in summer. Pods hairy, short, 0.8 inches long, split explosively upon maturity, flinging seed several feet away. Seeds small, hard, olive brown. Gorse can produce 14 million seeds/acre/year that can persist for up to 50 years. Apparently germination is suppressed under the gorse canopy until that canopy is removed. *Ulex* is the Latin name for a related plant^(25, 70).

Distribution: Native to Western Europe, a weed in 30 countries, introduced to Hawai'i as a hedge plant or ornamental. Spread also by water, birds, and vehicles. A serious weed from northern California to Washington State, New Zealand, and Australia, where it is considered one of their 20 most unwanted weeds⁽¹⁰⁾, Brazil, Chile, England, Germany, Spain, and India⁽²⁵⁾. First collected on Maui in 1910. Occurs in higher-elevation pastures, disturbed forests, and non-crop land in two large infestations, one on the east slope of Mauna Kea, Hawai'i, and the other in the Olinda area on Haleakala, Maui⁽⁷⁰⁾.

Environmental impact: Forms dense, tall stands that shade out plants beneath. Renders high pastures totally unproductive and impassable. Even when killed by herbicides, the dead plants hinder access to pastures for over a year. Gorse is an extreme fire hazard. Direct competition from gorse and indirect effects of increased fire hazard threaten high-elevation māmane forests and associated native birds, especially the palila (*Loxioides bailleui*). Gorse is a prolific pollen producer and is valued by bee keepers.



Management: Sensitive to picloram and to triclopyr, especially the amine formulation, but a good surfactant is important. Metsulfuron with a good surfactant was also very effective on young gorse plants^(51, 55). Sensitive to drizzle applications of 1 lb/acre triclopyr ester in 1:1 crop oil:water carrier⁽⁵⁶⁾. Dicamba, 2,4-D, and tebuthiuron were not effective. Does not tolerate shade and can be suppressed by taller forest species (USFS and DOFAW). Several biocontrol agents have been introduced in Hawai'i including the gorse spider mite (*Tetranychus lintearis*). Though damage is noticeable on individual gorse plants or patches of plants, the agents do not seem to be reducing gorse populations. A combined suite of controls including burning or mechanical treatment to remove biomass, followed by herbicide treatments and/or grazing to reduce seedling establishment and growth and heavy shading from planted trees may provide long-term suppression. Quarantine, monitoring, and rapid response are necessary to prevent spread to uninfested areas.