Delairea odorata Lem.

Cape-ivy

Family: Asteraceae
Range: Mainly along the coast of California and Oregon. Also invasive in Hawaii.
Habitat: Riparian corridors, seasonal wetlands, coastal habitats, coastal bluffs and scrub, moist canyons, coastal grassland, oak woodlands, and disturbed sites such as roadsides, urban waste places, or other areas. Requires some moisture year-round. Grows in deep shade or under cloudy conditions and does not tolerate full sunlight. Tolerates serpentine soils, and established plants can survive drought conditions.
Origin: Native to the moist mountain forests of South Africa and introduced to the United States in the late 1800s as a houseplant**.** Also considered an invasive weed problem in Australia.
Impacts: Under favorable conditions, plants spread invasively and can develop a dense cover that outcompetes other vegetation in natural areas. Vines grow over trees and shrubs and can form dense mats that smother underlying vegetation. Such problematic infestations also reduce native species richness and seedling recruitment in the community. Cape-ivy contains pyrrolizidine alkaloids (liver toxins) and can be toxic to animals when ingested; fish can be killed when plant materials are soaking in waterways.
Western states listed as Noxious Weed: California
California Invasive Plant Council (Cal-IPC) Inventory: High Invasiveness

Cape-ivy is a fleshy perennial vine, with stems to about 30 ft long. The leaves are glossy green, glabrous, alternate, broadly deltate to "ivy-shaped", 1 to 4 inches long, 1.5 inches wide with 5 to 9 lobes. The foliage is evergreen in mild climates and the leaves and stems are deciduous elsewhere.

The flowers are yellow, grouped on terminal and axillary corymbs, with disk flowers approximately 5 mm long arranged in clusters. The fruits are achenes about 2 to 3 mm long, often with a pappus or a crown of hairs. Plants reproduce primarily vegetatively, from fragments of rhizomes, stolons, and stems. A stem fragment as small as one inch, if it has a node, can generate a new plant. Even small fragments of dying stems can resprout, although the regeneration rate is reduced by about one-third. While most seeds produced are not viable, some viable seeds develop in sites throughout California and Oregon. When viable seed are produced, they can disperse long distances by wind.

NON-CHEMICAL CONTROL

Mechanical (pulling, cutting, disking)	Manual removal of plants, including roots and rhizomes, before viable seed develops can help control infestations in areas where plants are accessible. Removing all plant material from the site will help prevent rerooting of rhizomes, stolons, or stem fragments. Follow-up removal of resprouts is essential. In some large patches, all stems can be cut at ground level and Cape-ivy rolled up like a rug. Although the below-ground reproductive tissues will resprout, this strategy makes it possible to detect and spot-treat new sprouts while avoiding contact with desirable vegetation. Because Cape-ivy can resprout and establish from stem fragments, mowing is not recommended. Cutting off Cape-ivy before it flowers will reduce seed production and deplete the plant's energy reserves. Resprouts are common after treatment. Cutting should be combined with an herbicide treatment or with multiple cuttings over a period of years. All plant parts should be bagged and properly disposed of.

Cultural	Grazing and burning are not considered effective control options. The leaves and stems can be toxic to livestock.
Biological	To date, no biological control agents have been released. However, extensive research by USDA-ARS has been ongoing since 1998. Several species of insects are being examined as potential controls, including a gall-forming fly (*Parafreutreta regalis)*, a leaf-mining moth (*Acropelia* spp.), a defoliating moth (*Diota rostrata*), and a stem-boring moth (*Digitivalva delaireae*). The two most promising, the stem-boring moth and the gall-forming fly, are going through the final stages of testing.

CHEMICAL CONTROL

The following specific use information is based on published papers and reports by researchers and land managers. Other trade names may be available, and other compounds also are labeled for this weed. Directions for use may vary between brands; see label before use. Herbicides are listed by mode of action and then alphabetically. The order of herbicide listing is not reflective of the order of efficacy or preference.

GROWTH REGULATORS	
Clopyralid *Transline*	**Rate:** Spot treatment: 0.5% v/v solution plus 0.25 v/v surfactant to thoroughly wet all leaves. **Timing:** Postemergence when plants are growing rapidly. **Remarks:** Clopyralid is a selective herbicide for broadleaf species. This compound has been shown to be successful in controlling Cape-ivy in Australia.
Triclopyr *Garlon 4 Ultra*, *Pathfinder II*	**Rate:** Spot treatment: 0.5 to 1% v/v solution of *Garlon 4 Ultra* and water plus 0.25 to 0.5% v/v surfactant to thoroughly wet all leaves. **Timing:** Postemergence when plants are growing rapidly. **Remarks:** Triclopyr is a selective herbicide for broadleaf species. In areas where desirable grasses are growing under or around Cape-ivy, triclopyr can be used without non-target damage.
AROMATIC AMINO ACID INHIBITORS	
Glyphosate *Roundup*, *Accord XRT II*, and others	**Rate:** Spot treatment: 1 to 2% v/v solution of *Roundup ProMax* (or other trade name with similar concentration of glyphosate) in water, or 1% *Roundup* (or other trade name) plus 0.5% *Garlon 4 Ultra* v/v plus silicon surfactant in water to thoroughly wet all leaves. Wiper treatment: 33 to 50% of concentrated product. **Timing:** Postemergence when plants are growing rapidly. Best results when treated in late summer or early fall. **Remarks:** Glyphosate is a nonselective systemic herbicide. It gives good control with some resprouts. In many situations, it may be more appropriate to use a wiper application to achieve selectivity. Glyphosate can be combined with triclopyr for more effective control. Use a surfactant when applying this combination.

RECOMMENDED CITATION: DiTomaso, J.M., G.B. Kyser et al. 2013. *Weed Control in Natural Areas in the Western United States*. Weed Research and Information Center, University of California. 544 pp.