

Management

————— Reduce seed production by integrating available tools —————

Cultural control

As an annual species, stinkwort can be effectively removed by hand or with the use of a hoe, prior to flowering. However, once flowering has started plants must be removed from the site to ensure seeds are not produced. Plants that have begun to flower will even produce viable seeds when they have been pulled out! Mowing is marginal because of low-growing branches, but if done after bolting, but before flowering, regrowth is limited. These techniques are not practical on a large scale. *Advisory: Stinkwort can cause dermatitis for some people, so it is best to wear gloves when working with it.*



Photo: Pamela Beitz

In the fall, stinkwort flowers, releases its seed and then dies. The best time for management is before flowering begins.

Mechanical control

Prescribed burns have not been shown to be effective for control of stinkwort since usually plants are in areas with minimal vegetative cover to carry fire. Grazing is not recommended as stinkwort is unpalatable and may be poisonous to animals. Mowing can be effective, but is infeasible on a large scale.



Photo: tmousecmouse.blogspot.com

Biological control

There are currently no approved insects or pathogens available to attack stinkwort.

Chemical control

Chemicals can be a useful tool when combined with non-chemical methods in an integrated approach. Consideration for species of concern and non-target plants must be taken.



Get involved!

Want to play a role in the management of noxious weeds in your parklands? Inquire with your local EBRPD park staff about the possibility of setting up a work day for your organized group or visit <http://www.ebparks.org/getinvolved/volunteer/operations> for more information and to register for volunteer opportunities. See you in the parks!

Text and design: Courtney Glettner
Cover photo: Wilde Legard
Back photo: Pamela Beitz

This brochure is provided as a public service of the Stewardship Department of the East Bay Regional Park District.

Stinkwort



East Bay 
Regional Park District

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How did it get here?

Stinkwort (*Dittrichia graveolens*), native to the Mediterranean region, has become an invasive weed worldwide. Relatively new to invasive plant scene in California, Stinkwort was first observed in CA in 1984, and its infestation area has been reported to have expanded at an exponential rate. The mechanism of its arrival in CA is unknown, but its small seeds are easily spread by wind, animals, humans, and machinery, explaining its rapid invasion in CA.



Photo: Pamela Beitz

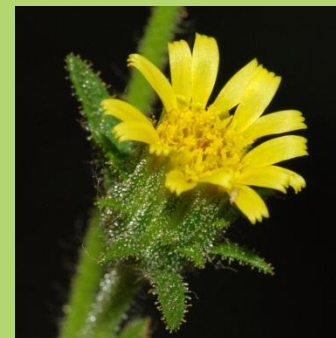
A dense stand of stinkwort at Lake Chabot Regional Park. From afar it can look simply like a green bush. However, it has the ability to form dense monocultures rapidly and can cause skin irritation if touched.

Identification

Stinkwort is most easily identified by its strong, aromatic odor. It has narrow grey-green leaves and the plant is covered with resin, making it sticky to the touch. Stinkwort seeds germinate in the winter and spring. Plants remain low to the ground until late summer when it bolts to 2.5 feet tall, before flowering, producing seed, and dying in the fall. Flowers are bright yellow and resemble those of a daisy.

Characteristics of an invader

Stinkwort has been able to spread rapidly because of some key adaptations that allow it to thrive in many environmental conditions and reproduce very successfully. Adapted to grow in many soil types, including rocky, sandy soils, stinkwort does best in areas with hot, dry summers and can form deep taproots to access water. One large plant can produce up to 25,000 seeds, of which an estimated 90% are viable. Plants can even produce viable seed after they have been pulled out of the ground if they are close to flowering. Its small seeds can stick to animal fur, hikers, vehicles and machinery, which is one reason why the plant has spread so profusely along roadways.



Stinkwort is found most commonly in disturbed areas in full sunlight, such as along roadsides, but may be found in pastures and grasslands, and can be identified by its strong odor and sticky leaves.

What's the big deal?

If left unmanaged, these plants can grow to dense stands, creating a nuisance for recreation since stinkwort can cause dermatitis, and degrading rangelands. Stinkwort is not palatable to livestock and can quickly form monocultures, or stand of a single plant species, in pastures and rangelands once introduced. The exclusion of all other types of vegetation by stinkwort alters the functioning of the ecosystem. The loss of native forbs impacts native pollinators, like bees, as well as other species that rely on the diversity of the ecosystem. Native grasses provide habitat and play an important role in carbon sequestration and surface water infiltration. Such ecosystem services are lost with an invasive monoculture.



Photo: Don Wood