Hedera helix L.; English ivy
Hedera canariensis Willd.; Algerian ivy
(= *H. helix* L. ssp. *canariensis* (Willd.) Cout.)
Hedera hibernica (G. Kirchn.) Bean; Irish or Atlantic ivy

English, Algerian and Atlantic ivy

Family: Araliaceae
Range: Many western states, including Washington, Oregon, California, Idaho, Arizona, and Utah.
Habitat: Riparian corridors, moist woodlands, forest margins, coastal habitats, and disturbed sites such as cleared forests, urban waste places, and old homesteads. Requires some moisture year-round. Tolerates deep shade, but thrives where plants receive some summer shade and direct winter sun.
Origin: Native to Europe and introduced to the United States as an ornamental. English ivy is still a common landscape ornamental of which there are numerous cultivars.
Impacts: Under favorable conditions, plants spread invasively and can develop a dense cover that outcompetes other vegetation in natural areas. Infestations around old homesteads have been present for many years and serve as nursery sites for further spread. It has escaped from cultivation in many places, especially near the coast and along riparian corridors. English ivy grows over the natural vegetation in an area, including trees, and eventually kills most resident plants by shading them out with its dense canopy of foliage. It thrives in deciduous trees, which allow plants to receive more light and to continue upward growth during winter months. Trees covered with ivy are more susceptible to wind damage from the extra weight. English ivy berries and leaves can be toxic to humans and cattle when ingested in quantity, and the sap can cause contact dermatitis in sensitive individuals, which includes about 10% of the population.
Western states listed as Noxious Weed: *H. helix,* Oregon, Washington; *H. canariensis* and *H. hibernica,* Washington
California Invasive Plant Council (Cal-IPC) Inventory: High Invasiveness

English ivy and other closely related *Hedera* species are fast growing, perennial, evergreen vines that vigorously climb other vegetation and on structures. Plants have two growth forms. The juvenile form has viny stems to about 12 inches long with leaves that are usually three-lobed. The adult reproductive form has erect shrubby stems with ovate to diamond-shaped leaves. Juvenile stems are vine-like, growing both on the ground and vertically into canopies. Juvenile stems develop adventitious roots along the ground and aerial root-like structures that enable stems to cling to objects such as trees and buildings. Juvenile leaves are palmately three to five lobed and vary in size, up to 12 inches long. Adult reproductive stems are erect, shrubby, lack aerial roots, and are non-climbing. Adult leaves are ovate to diamond-shaped and up to 6 inches long. Leaves of both forms have smooth upper surfaces, often slightly glossy, and usually dark green. Leaf stalks and lower leaf surfaces are sometimes glabrous but usually covered with grayish star-shaped hairs.

Unlike most plants in the region that flower in spring or summer, ivy flowers in fall. The shrubby adult form develops flowers in racemes or panicles of simple umbels. The juvenile stage may last for 10 years or more before reproducing by seed. Fruits are berrylike, dark blue to black, about 4 to 8 mm wide. Fruits mature in spring with an individual plant producing tens of thousands of fruit each year. Fruits are consumed and dispersed primarily by birds. English ivy also reproduces vegetatively from juvenile stems. Stem fragments of juvenile and adult plants left in contact with moist soil can regenerate into a new plant. Plants can live 100 years or more.

NON-CHEMICAL CONTROL

Mechanical (pulling, cutting, disking)	When the plant carpets the forest floor, individual stems can be readily pulled off the ground; however, it is essential to remove all runners. If off-site removal is not possible, all plant parts must be placed off the ground in such a way that they can dry out. Repeated removal efforts over multiple years may allow desirable vegetation to colonize the area. Because ivy can resprout and establish from stem fragments, mowing or cutting is not recommended. Small or young ivy plants can be pulled off supporting structures or trees, and roots dug out. The roots of young plants can be easily dug out, particularly when the soil is moist, from the ground around the base of infested trees. Older individuals generally do not resprout. Gloves should be worn as many people are sensitive to the dermatitis-causing agents in the plant. Cutting ivy off 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. Cut ivy at ground level with power or manual saws, and then pry the vines from the tree or structure. Once the vines are cut they will eventually die and fall from the tree, usually after the first extended hot and dry period. Occasionally vines will be embedded in the trunk of the tree, which makes control by both hand and chemicals very difficult.
Cultural	Grazing and burning are not considered effective control options. The leaves and fruit can be toxic to livestock. Deer have been shown to feed on ivy in its native range. Although prescribed burning is not an effective control option, the use of a blowtorch can be successful. To be successful, plants and resprouts must be repeatedly burned until the plant's resources are exhausted.
Biological	Because *Hedera* species are still widely used as ground covers and ornamentals, there is no biological control program established for their management.

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	
Picloram *Tordon 22K*	**Rate:** Broadcast foliar treatment: 3 to 4 pt product/acre (0.75 to 1 lb a.e./acre) plus 0.25 to 0.5% v/v surfactant to thoroughly wet all leaves **Timing:** Postemergence foliar treatments are best when plants are growing rapidly at or beyond early to full bloom stage. **Remarks:** High levels of picloram can give long-term soil activity for broadleaves. Picloram has proved successful in Australia. Picloram is a restricted use herbicide. It is not registered for use in California. Do not apply near trees, or damage may occur through root uptake.
Triclopyr *Garlon 3A*, *Garlon 4 Ultra*, *Pathfinder II*	**Rate:** Spot treatment: 2 to 5% v/v solution of *Garlon 4 Ultra* and water plus 0.25 to 0.5% v/v surfactant to thoroughly wet all leaves. Low volume/thinline treatment: 10% v/v solution of *Garlon 4 Ultra* plus a 20% v/v basal oil concentrate in water. Basal cut stump treatment: 20% v/v *Garlon 4 Ultra* in water. Cut stump treatment: undiluted *Garlon 3A* or 33% *Garlon 3A* in water. Stem injection treatment: drill and fill the stem of large mature plants that are climbing up other trees with 100% *Garlon 3A* or *4 Ultra*. Basal bark treatment: 20% v/v *Garlon 4 Ultra* in 20% v/v basal oil and water, or *Pathfinder II* as a ready-to-use formulation. **Timing:** Postemergence when plants are growing rapidly. Cut stump and basal bark treatments can be applied anytime as long as the ground is not frozen. **Remarks:** Triclopyr is a selective herbicide for broadleaf species. In areas where desirable grasses are growing under or around ivy, triclopyr can be used without non-target damage. For cut stump treatments, cut stems horizontally at or near ground level. Apply herbicide solution immediately after the stump is cut. Suckering from the roots typically occurs after cutting, but the treatment should control most resprouts. Basal bark treatment: spray the lower trunk, including the root collar, to a height of 12 to 15 inches from the ground; the spray should thoroughly wet the lower stem but not to the point of runoff. When making bark treatments, be careful not to get the spray solution on the bark of desirable trees. Plants should not be cut for at least one month after basal bark treatments. Spraying triclopyr immediately after the removal of most leaves and young shoots with a string trimmer has also proved successful.

AROMATIC AMINO ACID INHIBITORS	
Glyphosate *Roundup*, *Accord XRT II*, and others	**Rate:** Spot treatment: 2 to 4% v/v solution of *Roundup ProMax* (or other trade name with similar concentration of glyphosate) in water to thoroughly wet all leaves. Low volume/thinline treatment: 10% v/v solution of *Roundup* (or other trade name) in water. Cut stump treatment: 25% v/v *Roundup* (or other trade name) in water. **Timing:** Postemergence when plants are growing rapidly. Foliar treatments should be made in late summer or early fall. For cut stump treatment, application in late summer, early fall or dormant season provides best control. Treatment should occur immediately after cutting. **Remarks:** Glyphosate is a nonselective systemic herbicide with no soil activity. It gives good control with some resprouts. Plants should not be cut for at least 4 months after foliar treatments. Cut stump applications are made as described for triclopyr. Glyphosate has also proved successful in Australia.
BRANCHED-CHAIN AMINO ACID INHIBITORS	
Imazapyr *Arsenal*, *Habitat*, *Stalker*, *Chopper*, *Polaris*	**Rate:** Spot treatment: 1 to 2% v/v solution of *Stalker* plus 0.25 to 0.5% surfactant v/v in water to thoroughly wet all leaves. Low volume/thinline treatment: 10% v/v solution of *Stalker* plus a 20% v/v ethylated crop oil in water. Cut stump treatment: 20% v/v solution of *Stalker* plus a 20% v/v ethylated crop oil in water or 20% *Habitat* v/v in 80% water carrier. Basal bark treatment: 20% v/v solution of *Stalker* plus a 20% v/v ethylated crop oil in water. **Timing:** Postemergence when plants are growing rapidly. Best when used in late summer to early fall. **Remarks:** Imazapyr is a soil residual herbicide and may result in bare ground around plants for some time after treatment. Cut stump and basal bark applications are made as described for triclopyr. Plants should not be cut for at least 4 months after basal bark treatment. Another ALS inhibitor, metsulfuron, has proved successful in Australia.

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.