

This WEED REPORT does not constitute a formal recommendation. When using herbicides always read the label, and when in doubt consult your farm advisor or county agent.

This WEED REPORT is an excerpt from the book *Weed Control in Natural Areas in the Western United States* and is available wholesale through the UC Weed Research & Information Center (wric.ucdavis.edu) or retail through the Western Society of Weed Science (wsweedscience.org) or the California Invasive Species Council (cal-ipc.org).

Bryonia alba L.

White bryony

Family: Cucurbitaceae

Range: Montana, Idaho, and Utah.

Habitat: Open woodlands and brushy riparian sites.

Origin: Native to Eurasia and northern Africa. Sometimes grown as an ornamental or medicinal plant and escaped from cultivation about 1975.

Impacts: Grows up and over the top of trees, shading and sometimes killing them. Berries are toxic to humans.

Western states listed as Noxious Weed: Idaho, Oregon, Washington

White bryony is an herbaceous perennial vine that grows to 12 ft long or more, often to the tops of brush and trees. Its roots are thick, fleshy, and light yellow in color and the stems climb via tendrils that curl around other vegetation or structures; tendrils arise from leaf axils and are unbranched. The leaves are simple, with 3 to 5 lobes and broadly-toothed margins, roughly triangular or maple-like with palmate venation, and up to 5 inches long. Upper and lower surfaces bear small white glands.

Plants are monoecious, so male and female flowers are on separate plants. The flowers are borne in clusters of 8 to 10 in axils of upper leaves. Flowers are about 0.5 inch wide, with 5 or 6 greenish to cream colored petals, fused into a tube at the base. The fruits are smooth, round berries that ripen from green to black and are about 0.3 inches in diameter. Seeds are slightly ovoid, somewhat flattened, and number 3 to 6 per fruit. Birds are the primary dispersal mechanism for seeds. Birds eating the berries deposit seeds beneath other shrubs and fences which provide optimal structures for new plants to climb. There are no reports of seed longevity in the soil.



Photo by Tim Prather



Photo by Rich Old

NON-CHEMICAL CONTROL

Mechanical (pulling, cutting, disking)	White bryony is difficult to control mechanically. Vines grow from a large perennial root that is extremely difficult to completely remove from soil. Control by digging is most effective if the root is severed at least 3 to 4 inches below the crown; the more shallow the cut, the more likely the plant will resprout. Repeat as necessary to control any regrowth. Mowing will not generally kill the plants. Cultivation is not usually an option as this plant generally is found growing on and over established bushes and trees that will be injured by cultivation equipment.
Cultural	Grazing is not an option for this plant, given its habit of twining over other vegetation. Apparently all parts of the white bryony plant are toxic, but most concern is about ingesting the berries or the root. Birds apparently eat the berries with no ill effect, and are the chief source of spread of the species. Plastic or fabric mulches placed over established crowns may aid in control, provided that vines are not allowed to grow outside the mulched area or from seams or holes.
Biological	There are no known biological control agents to aid in the control of white bryony.

CHEMICAL CONTROL

The following specific use information is based on reports by researchers and land managers. Other trade names may be available, and other compounds may also be 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.

AROMATIC AMINO ACID INHIBITORS

Glyphosate	Rate: 100% <i>Roundup ProMax v/v</i> for cut stem treatments
<i>Roundup, Accord XRT II,</i> and others	Timing: Any time of the year, including when plants are dormant or rapidly growing. Remarks: Cut about 3 to 4 inches below the crown and apply enough full-strength solution to wet the surface of the root. Foliar treatment of white bryony is difficult, since the plant often grows over the top of desirable vegetation that can be injured if sprayed by glyphosate. If the vine is separated from its support before foliar application, it may allow for selective foliar treatment of white bryony using glyphosate.

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.