

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).

Lysimachia vulgaris L.

Garden loosestrife

Family: Primulaceae

Range: Reported in Washington, Oregon, Montana, and Colorado.

Habitat: Wetlands, riparian areas, and shores of lakes and ponds.

Origin: Native to Eurasia and northern Africa. Escaped from cultivation as an ornamental.

Impacts: Forms dense stands in wetlands and outcompetes native vegetation.

Western states listed as Noxious Weed: Washington

Garden loosestrife is a rhizomatous perennial to 3 to 6 ft tall. The leaves are opposite or in whorls of 3 to 5, lanceolate in shape, to 5 inches long and about an inch wide, and generally sessile on the stem. Leaf margins are not toothed, and blades are softly hairy and dotted with black or orange glands. The stems are usually branched near the top, bearing multi-flowered clusters along these branches and in upper leaf axils. Rhizomes, or sometimes stolons, can measure as long as 15 ft from a single stem.

Flowers are 0.5 inch wide with 5 yellow petals that are fused and often orange near the base. Sepals also number 5 and are distinctly orange-tipped. Fruits are dry capsules about ¼-in wide that split apart at maturity to spill the small seeds. Garden loosestrife spreads both by seed and from rhizomes. However, new seedlings are not as important to its spread compared to vegetative expansion. Although the seed have dormancy, they do not appear to survive for more than 3 years in the soil. Garden loosestrife has successfully invaded cattail (*Typha latifolia*) dominated sites in Washington, and is reported to outcompete purple loosestrife (*Lythrum salicaria*). Another species also called garden or yellow loosestrife (*Lysimachia punctata*) is sometimes found in similar habitats. Of the two species, *Lysimachia vulgaris* is more likely to be found in wetland areas, and bears flowers on branches and clusters at the top of the plant. *Lysimachia punctata* is generally on drier sites and bears flowers in axillary clusters on mostly unbranched stems.



NON-CHEMICAL CONTROL

Mechanical (pulling, cutting, disking)	Digging of garden loosestrife is feasible for individual plants or small stands. Remove as much root and rhizome as possible, as broken root and rhizome sections will resprout from fragments. Hand pulling is not an effective strategy, as it is rarely possible to remove roots and rhizomes without substantial breaking. Hand digging is often impractical for well-established and extensive infestations. Mowing is difficult in wetland sites, and unless applied repeatedly, mowing will not generally control this perennial species. However, timely mowing can prevent seed production. Mulching with plastic or fabric sheets may suppress growth of garden loosestrife. Shoots emerging from around edges or holes in the mulch should be controlled as they appear.
Cultural	Draining water from infested areas may slow growth of garden loosestrife, or allow other control options to be employed. Conversely, inundation with deep water for an extended period of time may result in

	some control of the species.
Biological	There are no known biological control agents to aid in the control of garden loosestrife.

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. Most herbicide applications will require multiple applications to fully control garden loosestrife. Because it usually is found growing in or near standing water, only aquatic herbicide formulations are recommended for use. Additionally, most states require specific aquatic endorsements for applicators of aquatic herbicides. 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

Triclopyr <i>Renovate</i>	<p>Rate: Broadcast treatment: 6 to 8 qt product/acre (4.5 to 6 lb a.e./acre). Spot treatment: 1 to 1.5% v/v solution</p> <p>Timing: Postemergence to rapidly growing plants at mid- to full-bloom.</p> <p>Remarks: Use up to 1% non-ionic surfactant approved for aquatic use to improve herbicide uptake. Triclopyr is relatively safe on monocot plants such as grasses, rushes, sedges, and cattails.</p>
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AROMATIC AMINO ACID INHIBITORS

Glyphosate <i>Rodeo or Aquamaster</i>	<p>Rate: Broadcast treatment: 4 pt product (<i>Rodeo</i> or <i>Aquamaster</i>)/acre (2 lb a.e./acre). Spot treatment: 1 to 1.5% v/v solution</p> <p>Timing: Postemergence to rapidly growing plants at full to late flowering, or as an autumn application.</p> <p>Remarks: Use up to 1% non-ionic surfactant approved for aquatic use to improve herbicide uptake. Glyphosate overspray will injure or kill other plants that it contacts.</p>
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BRANCHED-CHAIN AMINO ACID INHIBITORS

Imazapyr <i>Habitat</i>	<p>Rate: 1 pt product/acre (0.25 lb a.e./acre)</p> <p>Timing: Postemergence to rapidly growing plants in summer.</p> <p>Remarks: Use up to 1% non-ionic surfactant approved for aquatic use to improve herbicide uptake. Imazapyr overspray will injure or kill other plants that it contacts.</p>
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<p>RECOMMENDED CITATION: DiTomaso, J.M., G.B. Kyser et al. 2013. <i>Weed Control in Natural Areas in the Western United States</i>. Weed Research and Information Center, University of California. 544 pp.</p>
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