

Garden Loosestrife *(Lysimachia vulgaris)*

Description: Garden loosestrife (*Lysimachia vulgaris*) is an attractive, upright perennial plant that grows from rhizomes to 4 ft tall or more. Both the stems and leaves are softly hairy. Lance shaped leaves grow 3 to 5 inches long and are dotted with black or orange glands. Yellow ½ to ¾ inch flowers appear from June to September growing in clusters at the top of the main stem and side branches near the top of the plants. Each flower has five petals and a calyx with distinctive reddish-brown margins. Flowers sometimes have a red or orange eye, but are often entirely yellow. Seeds are born in dry capsules. Once new infestations are established, spread occurs primarily from rhizomes.

Identification of garden loosestrife is often complicated because of its name and appearance. Though this species occupies similar wetland habitats, it looks nothing like, and is not related to purple loosestrife (*Lythrum salicaria*) as its name would imply. It is, however, related to a commonly grown ornamental species (*Lysimachia punctata*) that is also sometimes known as garden loosestrife or yellow loosestrife. The flowers on the ornamental species are very similar, but are only born in the leaf axils next to the main stems, not in clusters at the tops of stalks. This look-alike can also be some-what invasive, especially in riparian areas, but is not currently listed as a noxious weed.

Impacts: The ability of garden loosestrife to invade and establish itself in wetlands, lakeshores and riverbanks, threatens native species in those sensitive areas. It can outcompete most native plants, and even other invasive species like purple loosestrife. Control of invasive plants in this habitat is complicated due to difficulty with access, movement, and sensitivity to disturbance. Early detection, which is a vital element of successful noxious weed management, is very difficult due to its habit of delaying blooming until it is well established. Garden loosestrife will sometimes remain vegetative for many years before blooming.

Control Options: Thurston County's Integrated Pest Management emphasizes cultural, biological, and manual control methods to keep pests and vegetation problems low enough to prevent damage. The strategy of Thurston County's IPM policy is to minimize the use of pesticides.



Photo courtesy of Whatcom County Noxious Weed Control

► Cultural / Habitat

Covering with black plastic can be used in limited areas to suppress seedlings, but other measures will likely be needed to effect complete control. Covering with plastic will not control or suppress older plants. To prevent plants from spreading from known infestations, carefully clean vehicles, boats and trailers, boots, clothing, and pets after visiting infested areas.

► Manual / Mechanical

Cutting or mowing garden loosestrife is only partly effective. These methods can prevent seed production, but plants will resprout and usually bloom again the same season. Small areas of seedlings or isolated larger plants (one or two— more if plants are manageable and access is not difficult) can be dug up, but care must be taken to remove all rhizomes or plants will regrow from

remaining pieces. Pulling is not effective, as plants break off easily. Using these techniques may also be difficult due to the issue of access to the site in aquatic and wetland areas. All removed plant parts should be double bagged carefully and disposed of to prevent spreading seeds or rhizome remnants to new areas.

► Biological

There are currently no known biological control agents available for use on garden loosestrife.



Lysimachia vulgaris



Look alike: *Lysimachia punctata*

► Chemical

Aquatic / Riparian Applications: Garden loosestrife usually grows in wet areas along lakes, streams, and ditches. If there is a chance for your herbicide to get into a water body, the use of an herbicide formulated for aquatic settings is required. **Aquatic herbicides are restricted for use in Washington State to licensed applicators only.** Herbicides that have been shown to be effective in controlling garden loosestrife at aquatic infestation sites include **imazapyr** (Habitat®) and **triclopyr TEA**. Because of the restrictions and difficulty in controlling these sites, you will probably need to contact a licensed applicator to develop a control plan.

Terrestrial Applications: The same active ingredients are also available in products labeled for use by homeowners in terrestrial (dry) environments: (for example, **imazapyr** (Polaris®) and **triclopyr TEA** (Lilly Miller's liquid concentrate "Blackberry and Brush Killer" and Ortho's "Brush-B-Gon Poison Ivy Killer Concentrate").

Thurston County has observed that most ready-to-use, pre-mixed products do not contain sufficient active ingredients to be as effective as concentrated products that are then mixed with water to create a specific finished concentration. The following instructions are for products containing concentrates which will be mixed down to a specified dilution rate. Be sure to read your label carefully, and make adjustments to rates accordingly.

Foliar applications of imazapyr (Polaris®):

- Using a spot application, spray each plant thoroughly on the stems and leaves, enough to be wet but not to the point of dripping. Spot application means the herbicide is applied only to the garden loosestrife plants, and not on the surrounding plants or soil.
- Follow label directions for mixing product to application strength. Products containing the active ingredient imazapyr are considered "moderate in hazard" by Thurston County's pesticide review process for the potential for chemical mobility and persistence.

Foliar applications of triclopyr TEA:

- Triclopyr is very useful for garden loosestrife control since native grasses and sedges are unaffected. Triclopyr products are rated as "moderate in hazard" by Thurston County's pesticide review process because broadcast applications of triclopyr at greater than 2 lbs of active ingredient per acre can result in contaminating the food supply for birds and small animals. Since this prescription recommends only spraying individual garden loosestrife plants, the risk to birds and small animals is greatly reduced.

Timing:

Apply to actively growing plants at full to late flowering stage. Seedlings may be effectively treated early in the season after a fall application to mature plants. Flowers should be clipped and bagged carefully to prevent seed spread.

Pollinator Protection: To minimize negative impacts to bees and other pollinators, treatment prior to blooming is recommended. Removal of flowers before treatment can be an option in some situations. If treatment must occur during the blooming period, try to spray early or late in the day or on cloudy, cool days when pollinators are least active.



Product/Method	Rates	Mix
Triclopyr TEA Lilly Miller® "Blackberry & Brush Killer" or Ortho® "Brush-B-Gon Poison Ivy Killer Concentrate"	4-8 oz. per gallon water for up to 500 ft ²	To determine the amount of mix needed, first measure the area to be treated, then measure the amount of plain water needed to spray the area using a backpack or tank sprayer. Allow sufficient time for the area to dry completely before treatment. Then add 4 to 8 oz. of product to enough water for each 500 sq. ft of area that needs to be treated. Higher rate should be used for large, mature plants, lower rate for subsequent growth of new, young plants. Spray plants until they are wet but not dripping.
Imazapyr Polaris®	1-2%	Add 1.3 to 2.6 oz concentrated product per gallon of water. Higher rate should be used for large, mature plants, lower rate for subsequent growth of new, young plants. Spray plants until they are wet but not dripping.

READ AND FOLLOW ALL LABEL DIRECTIONS AND RESTRICTIONS. Obey all label precautions including site specific and safety measures. Always use personal protective equipment that includes coveralls, chemical resistant gloves, shoes plus socks, and protective eyewear. Use of brand names does not connote endorsement and is for reference only; other formulations of the same herbicides may be available under other names. Information provided is current as of the date of the fact sheet. Pesticide product registration is renewed annually. Product names and formulations may vary from year to year.

REFERENCES:

Written Findings of the Washington State Noxious Weed Control Board
 USGS Non Indigenous Aquatics Species: <http://nas.er.usgs.gov/queries/factsheet.aspx?SpeciesID=254>

Washington State Department of Ecology, Non-native Invasive Freshwater Plants: <http://www.ecy.wa.gov/programs/wq/plants/weeds/aqua007.html>

Whatcom County Noxious Weed Control Fact Sheet: <http://www.co.whatcom.wa.us/publicworks/weeds/pdf/GardenLoosestrife2.pdf>

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