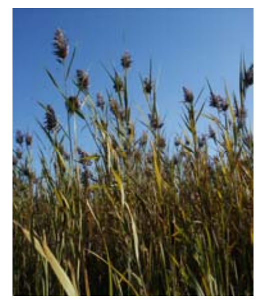
NOXIOUS WEED FACT SHEET

Invasive emergent aquatic Species

Purple loosestrife, Garden loosestrife
Phragmites

Purple loosestrife (*Lythrum salicaria L.)* is an emergent aquatic plant that usually grows on moist or saturated soils. A mature, well established plant often grows up to 10 feet tall and 5 feet wide. Each plant can contain 30-50 herbaceous stems that arise from a common rootstock. The purple-magenta colored, five to six petalled flowers grow on long spikes. Purple loosestrife seed production depends on plant age, size and vigor. A 4-5 year old plant with 30 stems can reportedly produce an estimated 2,700,000 seeds. Seed maintains viability of over 80 percent for at least 3 years. Purple loosestrife is native to Eurasia and was first discovered in the Puget Sound region in 1929. Impacts on native vegetation have been dramatic. It is a vigorous competitor and can crowd other vegetation including native species. In a short period of time it will completely dominate a site. Impacts on wildlife have not been well studied; however purple loosestrife appears to reduce waterfowl and aquatic fur bearer activity.

Garden loosestrife *(Lysimachia vulgaris)* is an erect rhizomatous perennial that may attain a height of one meter or more. Both the stems and the leaves are softly hairy. Lance-shaped leaves, 8-12 cm long, occur on the stem in an opposite or whorled arrangement. The leaves are dotted with black or orange glands. The yellow, primrose-like flowers occur in a cluster at the top of the plant. Each flower has five petals and a calyx with reddish-brown margins. The fruit is a dry capsule. Much like purple loosestrife, garden loosestrife invades wetlands and is a vigorous competitor crowding out native vegetation.



Phragmites *(phragmites australis)* is a large perennial, grass or reed with creeping rhizomes. The woody hollow stems can grow to 12 feet tall. Leaves are lanceolate, ranging from 8-16 inches long and .5- 1.5 inches wide. The sheath of the leaf blade is smooth and it is loose, allowing it to twist in the wind, so the blades turn to one side. Dense silky flowers develop in mid July through October. The densely flowered floral spikelets is feathery, tawny or purplish, 6–16 inches long, with the branches ascending. Phragmites is frequently regarded as an aggressive, unwanted invader. It displaces native species that provide valuable forage for wildlife.

Control Options:

► Manual Techniques

Cutting, mowing and digging purple and garden loosestrife is only partial effective, meaning these methods prevent seed production, both plants may re-sprout. Cutting has been used successfully to control Phragmites. Since it is a grass, cutting several times during a season, at the wrong times, may increase stand . However, if cut just before the end of July, most of the food reserves produced that season are removed with the aerial portion of the plant, reducing the plant's vigor. This regime may eliminate a colony if carried out annually for several years. Care must be taken to remove cut shoots to prevent their sprouting. Using this technique may be difficult due the issue of access to the site in aquatic and wetland areas.

► Biological Techniques

For purple loosestrife: *Galerucella calmariensis* and *G. pusilla* - are both leaf-feeding chrysomelids. These beetles defoliate, and attack the terminal bud area, reducing seed production. The mortality rate to purple loosestrife seedlings is high. Evidence of *Galerucella* ssp. damage are round holes in the leaves. Four to six eggs are laid on the stems, axils, or leaf underside. The larvae feed constantly on the leaf underside, leaving only the thin cuticle layer on the top of the leaf. In Thurston County *Galerucella* was collected and planted at Capitol Lake in 1999. No biological control agents are available for garden loosestrife and phragmites.

► **Chemical Techniques** Herbicide spraying within 50 feet of a water body requires the use of an herbicide formulated for aquatic settings. **Aquatic herbicides are restricted for use in Washington State to licensed applicators only.** Currently, Aquamaster™ (active ingredient is glyphosate) is the only aquatic herbicide for the control of these invasive emergent aquatic plants that is considered "low in hazard" by Thurston County's pesticide review process. Only spot applications are recommended.

Spot applications with glyphosate products are effective. Spot application means the herbicide is applied only to the plants and not on the surrounding plants or soil. Spray each plant thoroughly on the stems and leaves enough to be wet but not dripping.

Products containing the active ingredient ***imazapyr*** **(Habitat™),** are considered "moderate in hazard" and are also a second choice for chemical control.

Foliar applications of *imazapyr* (Habitat™),

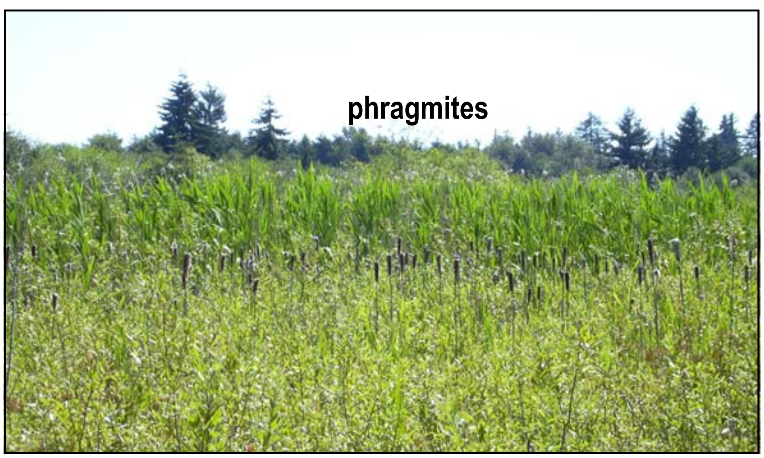
Licensed applicators are required to use this product.

- Spot applications with i*mazapyr* products are effective.
- Do not use on lawns walks driveways or similar areas where roots of desirable vegetation may extend and be exposed to potential injury.

Timing:

- Apply to actively growing foliage during the summer or fall before a killing frost. Bagging and disposing of mature seed heads is recommended to prevent further spread of the species even with treatment.

READ AND FOLLOW ALL LABEL DIRECTIONS AND RESTRICTIONS. Obey all label precautions and safety measures. Always use personal protective equipment that includes coveralls, waterproof 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 and product names and formulations may vary from year to year.



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