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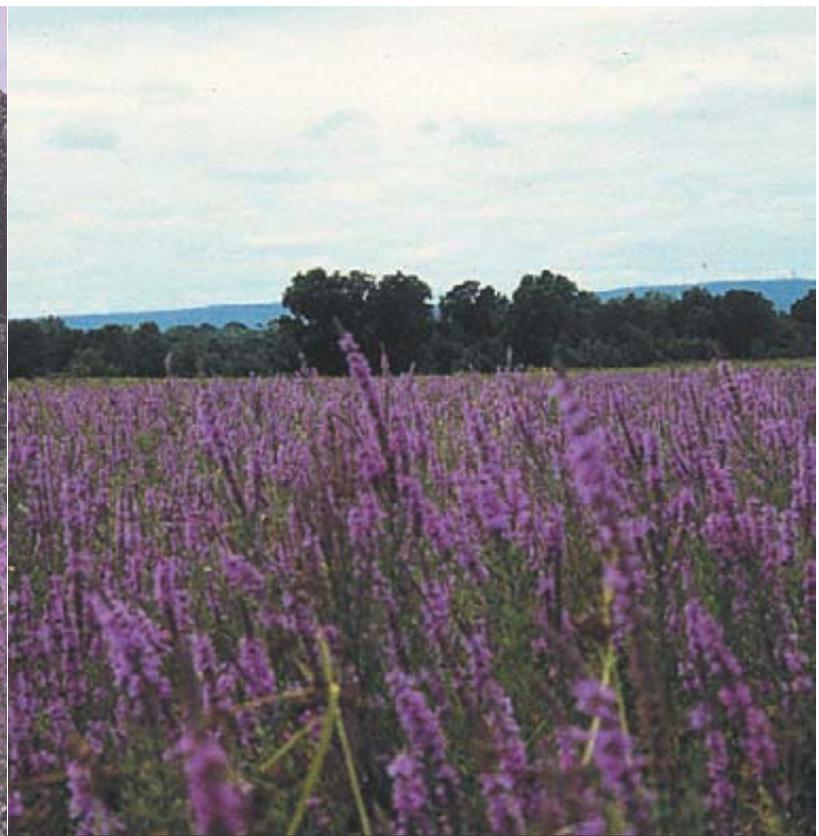
PURPLE LOOSESTRIFE:

Beauty
or
Beast?



WHERE DOES PURPLE LOOSESTRIFE GROW?

Purple loosestrife prefers open, sunny areas where the soil is wet. It is typically found in wet meadows, open fields, river and stream banks, floodplains, ponds, lakes and marshes. Purple loosestrife plants are also common to disturbed areas, such as roadside drainage and construction sites.

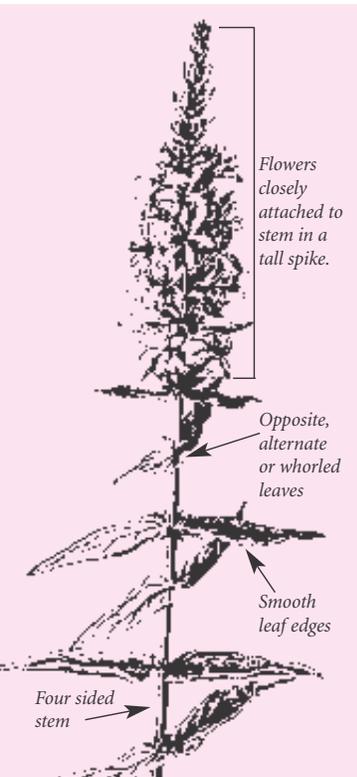


WHY IS PURPLE LOOSESTRIFE A PROBLEM?

Purple loosestrife (*Lythrum salicaria*) is an invasive non-native plant from Europe and Asia that was introduced into North America almost 200 years ago. The largest occurrences of this species are found in wetlands in the northeastern U.S., including all counties in Connecticut. When purple loosestrife aggressively moves into wetlands, it eliminates native plants such as cattails, sedges, bulrush and ferns. As these wetlands become infested with purple loosestrife, desirable food and nesting sites for wildlife are lost and there are fewer stopover sites for migrating birds.

PLANT DESCRIPTION

Purple loosestrife (*Lythrum salicaria*) is a herbaceous perennial that may grow up to 10 feet tall and 4 feet wide. Plants can reach maturity in 3 to 5 years, producing as many as 50 stems per plant. Leaf arrangement is opposite, alternate or in whorls of three. The leaves are lance-shaped and directly attached to stems. Stems are usually square, but may become five- or six-sided and woody as plants mature. Leaves and stems of purple loosestrife may be smooth or covered with soft hairs.



The woody roots form a dense mat underground, up to 20 inches in diameter. The taproot is a major source of food for the plant that is used for regrowth when aboveground vegetation is mowed, suppressed by herbicides or damaged by insect feeding. The ability to rapidly send up new shoots gives purple

loosestrife a competitive advantage over other plant species in disturbed habitats.

Purple loosestrife blooms during the summer months. The reddish-purple flowers, each with 5 to 7 petals, are produced on a tall inflorescence. Purple loosestrife has three flower types, and seeds are produced between plants of different flower types. As a perennial, these plants will continue to produce seeds year after year. Purple loosestrife seeds are as small as a grain of sand and dustlike, and they are easily carried by wind or water. Seeds may also be moved about on animal fur or feathers or on muddy boots.

Purple Loosestrife Cultivars are NOT STERILE.



Researchers have determined that all purple loosestrife ornamental cultivars, such as “Morden Pink” or “Morden Gleam”, are not sterile but are, in fact, very fertile. All purple loosestrife cultivars can serve as pollen or seed sources. Purple loosestrife is insect pollinated. When bees, wasps or butterflies visit these garden plants, the insects carry pollen to purple loosestrife plants in nearby wetlands, adding to the spread of this invasive species in natural areas. With one purple loosestrife plant producing as many as 2.5 million seeds each year, an acre of purple loosestrife yielding up to 24 billion seeds per year, and seeds remaining viable in the ground for at least 5 years, even a few plants can pose a serious threat to the environment.

CONTROL OF PURPLE LOOSESTRIFE

Hand-pulling. Young purple loosestrife plants can be pulled by hand or with a garden fork, as long as the entire plant and the roots are removed completely. If the roots become broken during removal, they may sprout new shoots and regrow. Hand-pulling older, larger plants is more difficult, and may need to be repeated several times each year until the desired control is achieved.

Cutting or mowing. Flower spikes can be cut from the plants before or at the beginning of bloom to reduce seed production. Entire plants can be cut or mowed to the ground, but this method will also need to be repeated because new shoots will continue to be produced during the summer.

Herbicides. Approved herbicides labeled for purple loosestrife will kill all other broad-leaved plants that the herbicide spray comes in contact with, and some herbicides non-selectively kill all broad-and narrow-leaved plants. (Note: to apply herbicides on purple loosestrife growing in standing water, a permit is required from the Connecticut Department of Environmental Protection).

Biological control. Biological control is recommended as a sustainable, cost-effective, long-term method to reduce populations of purple loosestrife. The goal of biological control is to reduce, not eliminate, purple loosestrife,

so that it becomes part of a diverse community of wetland plants. In 1992, The U.S. Department of Agriculture approved several different species of insects for biological control of purple loosestrife infestations. *Galerucella californiensis* and



Galerucella pusilla are two beetles that feed on leaves, stems and shoot tips of purple loosestrife. These beneficial insects are very host-specific, feeding primarily on purple loosestrife and not on native wetland or garden plants. Approximately one million *Galerucella* beetles were released in the U.S. in 1997, and more than 250,000 biological control agents have been introduced into Connecticut wetlands since 1996. These wetlands will be monitored for several years to study the impact of the beetles on purple loosestrife populations.

WHAT CAN BE PLANTED AS ALTERNATIVES TO PURPLE LOOSESTRIFE?

It is recommended that nursery growers and garden centers gradually phase out production of purple loosestrife cultivars over the next several years.

If you are a grower or if you currently sell purple loosestrife, you can offer alternative plants for customers who are looking for non-invasive perennials with similar growth form and/or color of purple loosestrife. If you are a homeowner, consider alternative perennials for your garden. Visit your local nursery or garden center for more information on the following plants that are recommended as alternative perennials for purple loosestrife:

- Blue Flag Iris (*Iris versicolor*)
- Blue Vervain (*Verbena hastata*)
- Cardinal Flower (*Lobelia cardinalis*)
- Delphinium (*Delphinium* spp.)
- False Spirea (*Astilbe* spp.)
- Fireweed (*Epilobium angustifolium*)
- Foxglove (*Digitalis purpurea*)
- Garden Sage, Salvia (*Salvia* spp.)
- Ironweed (*Vernonia* spp.)
- Joe-Pye Weed (*Eupatorium* spp.)
- Lilies (*Lilium* spp.)
- Lupine (*Lupinus*)
- Obedient Plant (*Physostegia virginiana*)
- Purple Coneflower (*Echinacea purpurea*)
- Siberian Iris (*Iris sibirica*)
- Speedwell (*Veronica spicata*)
- Spiked Gayfeather, Blazing Star (*Liatris* spp.)
- Swamp Milkweed (*Asclepias incarnata*)



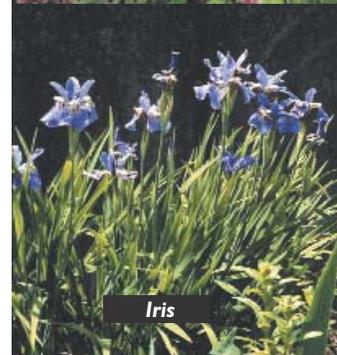
Liatris



Veronica



Eupatorium



Iris