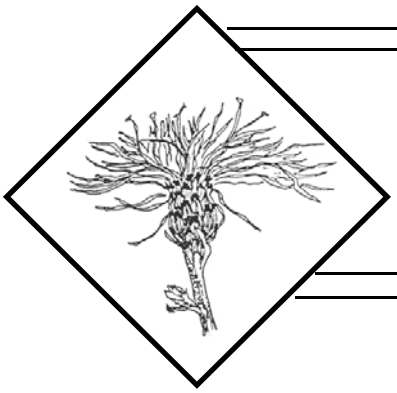


Weeds in the Garden
Purple Loosestrife

Common Name: Purple loosestrife

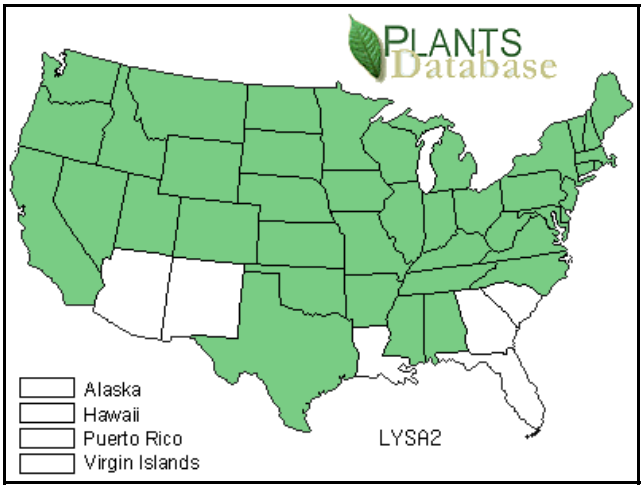
Scientific Name: *Lythrum salicaria*

Characteristics: Purple loosestrife is a perennial herb three to seven feet tall with a dense growth of stems. The flowers grow on long spikes and have five to seven petals. The purple blooms appear from July to September. The plant has a large dense root system with a sturdy taproot. Its lance shaped leaves have smooth edges, and are found on opposite sides of the stalk.

"Look Alikes": Several native species can be mistaken for loosestrife. These include: vervain, fireweed and wing-angled loosestrife. Fireweed has larger flowers and often grows in areas that have been burned. Wing-angled loosestrife has single flowers rather than a many flowered spike. Vervain has smaller flowers which are a deeper hue than purple loosestrife's.

Habitat: Purple loosestrife thrives in wet habitats such as marshes, stream margins, flood plains, sedge meadows and wet prairies. It also is found in disturbed sites such as drainage ditches, and wet pastures and meadows. Originally planted in gardens and lawns, it can adapt to drier upland conditions.

Current Range: found through much of the U.S.



Origin: Purple loosestrife was introduced from Europe in the 1800's as an ornamental and as a crop for honey production. It was used for livestock bedding and forage and its seeds also arrived in the waters used for ship ballast. Loosestrife seeds soon escaped from gardens and lawns to native communities. The first purple loosestrife in Michigan was found near Houghton around 1900.

The Problem: A key characteristic of purple loosestrife is its versatile reproductive strategy. It can spread vegetatively from root or stem segments, or by seeds. A single loosestrife stalk can produce 100,000-300,000 seeds per year. Mature plants can produce up to 50 stems, thus a single plant can produce two million seeds per year. Seeds can remain viable for 20 years. Loosestrife can take over an entire wetland by out-competing native vegetation. In addition to these reproductive advantages, purple loosestrife has few predators in the insect or animal world. Infested wetlands often loose 50% of native plant biomass and some wetlands are 100% affected. This can impact waterfowl populations, insects, and ultimately entire predator/prey relations in a wetland community. Loosestrife is especially problematic in areas with threatened and endangered species. Although purple loosestrife has invaded huge percentages of our native wetlands, at present, only 24 states list it as "noxious" to prevent its sale and distribution.

Solutions:

Prevention – Citizens can assist by identifying pioneering plants and eliminating them. People can also destroy plants in their own yards and gardens or talk with friends and neighbors who may have domestic plants. People can prevent seed dispersal on vehicles by carefully cleaning boats, boat trailers, autos which have been in infested areas.

Biological control – One species of weevil and two species of leaf-eating beetles are now being used on a limited basis to control purple loosestrife. State and federal agency staff are working with cooperators to implement distribution of insects and evaluate results. In the Upper Midwest, the beetle, *Gallerucella calamarvensis*, is being used by natural resource agencies to control some loosestrife infestations. It is hoped that use of these insects may be a more widespread tool for control in the near future.

Mechanical – It is possible to pull small plants, but large plants are very difficult to remove. For individual plants or small infestations hand pulling may be an option. Cutting is less effective. If cutting is used, flowers must be cut and removed from the site prior to seed formation. Mowing is only effective if plants are covered with at least 10 inches of water for a year after mowing. Burning is largely ineffective.

Chemical – Chemical treatment is by far the most commonly used method of control for purple loosestrife. Glyphosphate can be applied to cut stems of flowering plants or to 25% of plant leaves. Foliar (leaf) application of Triclopyr is also effective and does not impact sedges and other monocots. Prior to use of chemical herbicides, it is important to consult with local natural resource staff to determine which herbicides would be the most effective and would have the least impact on native species. It is also essential to follow safety instructions on the selected product.

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