



NOXIOUS WEEDS

Status: Introduced

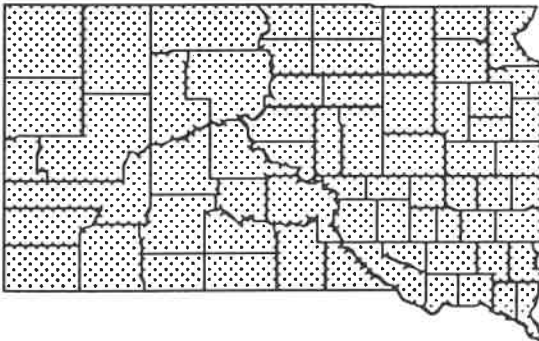
PURPLE LOOSESTRIFE

(*Lythrum salicaria*)

Description

This *noxious weed* is a popular garden plant because of its showy purple flowers and ease of growing. Purple loosestrife is a bushy plant with stiff, 4 to 6-sided stems that will grow up to 8 feet (2.5 m) tall. The plant's showy flowers, with 5 to 6 petals, are displayed on long spikes. The egg-shaped seeds, about the size of a tip of a pin, are light tan to golden brown. Many of these tiny seeds are contained in each seed pod. The leaves vary, but are usually opposite one another on the stem, linear with smooth edges, and lack a *petiole*.

Distribution



This long-lived *perennial* is a native of Eurasia and Africa that was accidentally introduced to North America in the mid-1800's. Its spread across the country is associated with the commercial distribution of *Lythrum* for use in gardens and as bee forage. Currently, purple loosestrife is not widely established in South Dakota. It is known across the state in a limited number of "wild" local infestations primarily in marshes, along



streams, or in wetlands. There are fairly large stands of loosestrife on the Missouri River above Lewis and Clark Lake.

Natural History

Loosestrife is a semi-aquatic plant that usually grows on moist or saturated soils. Marshy areas or wetlands that support cattails, reed canarygrass, sedges or rushes are prone to purple loosestrife invasions. Loosestrife has a woody taproot with a fibrous root system that forms a dense mat. Root buds in the mat can produce 30 to 50 plant stems annually. The plant can reproduce from broken plant parts and from seeds.

Purple loosestrife has a long flowering period, from mid- to late-summer. An individual plant produces 300,000 to 2.7 million seeds that can be dispersed by moving water, wind, clinging to wildlife, clothing, boots, equipment and vehicles.

Significance

Loosestrife is a vigorous competitor that crowds out native plants and destroys waterfowl, game and fish habitat. The plant itself has almost no wildlife food or shelter value. An estimated 475,000 acres of wetlands are infested annually in the United States by purple loosestrife. Farmers and ranchers also suffer from loosestrife because invasions of this plant reduce floodplain pasture and meadow capacity, costing American agriculture an estimated \$2.6 million annually.

Management Considerations

While there are a limited number of loosestrife infestation in South Dakota, steps are being taken to prevent further spread. It is critical to control wild infestations of purple loosestrife immediately. Left untreated, this species can develop a large and persistent seed bank in a wetland within 5 to 10 years of its introduction. After the seed bank is established, it is practically impossible to eliminate purple loosestrife from the area.

Small populations of this species, fewer than 100 plants, are best removed by hand, either by pulling or digging. Plants and plant parts should be burned to prevent new plants from sprouting from the cut or broken pieces. If possible, the plants should be pulled when they are young, early in the season to prevent accidentally dispersing the seeds.

Larger populations may be controlled with herbicide. Selective techniques are important to minimize effects on native plants. Mowing may be a temporary option, but it will not prevent regrowth. Biological control with insects is being evaluated.

Purple loosestrife is under quarantine in South Dakota, which makes selling *Lythrum* illegal. Gardeners who enjoy the color and appearance of loosestrife can plant other ornamental species that are less harmful to the environment. Some choices are blazing star (*Liatris* spp.), fireweed (*Epilobium angustifolium*), obedient plant (*Physostegia virginiana*) or spike speedwell (*Veronica spicata*).

Glossary

Noxious weed - designation of the State Weed Control Board. These are weeds that are difficult to control once they are established.

Perennial - a plant that lives more than two years.

Petiole - a small stem that attaches a leaf to a branch.

References

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Cooperative Extension Service, South Dakota State University U.S. Department of Agriculture. Noxious Weeds of South Dakota Extension Special Series 34.
Klingman Glenn C., Weed Science, 1982. John Wiley & Sons Inc. NY.
Zimdahl, Robert L., 1989. Weeds and Words The Etymology of the Scientific names of Weeds and Crops. Iowa State University, Ames, Iowa.

Selected Resources For Teachers

- Noxious Weeds of South Dakota*, Extension Special Series 34, 1993. Cooperative Extension Service, SDSU, Brookings, SD 57007.
South Dakota/Nebraska Weed Identification Guide, 1994. Black Hills RC&D Office, 515 9th Street, Rapid City, SD 57701-2663.

Technical Reference:

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