



Managing Purple Loosestrife

Purple loosestrife (*Lythrum salicaria*) was first brought to the U.S. from Eurasia by early settlers and grown for its medicinal uses, ornamental qualities, and pollen-bearing capabilities (beekeepers). A major route of entry into U.S. waterways was unintentional transport in ship ballast. Known for its striking and prolonged floral display, this plant is still popular with gardening enthusiasts. But don't let its beauty fool you! Purple loosestrife is listed as a Noxious Weed in PA, and for good reason. It threatens our wetlands and waterways with dense, monotypic stands that eliminate biodiversity, and have little value as wildlife habitat.

A Closer Look At Loosestrife

Loosestrife is an herbaceous perennial that thrives as an emergent plant along shorelines and in ditches, but also grows in sites that are not saturated (Figure 1). Typically this plant is found in full sun, but can tolerate some shade.

The most recognizable feature of loosestrife is the lavender flower spike that persists for weeks on top of the 2 to 7 foot tall stems. Loosestrife is characterized by a square stem; and opposite or whorled, narrow leaves with smooth margins that attach directly to the stem (no petiole, or leaf stalk) (Figure 2). It has a strongly developed taproot with major branching that becomes woody and effectively anchors the plant. The multiple flowering stems and abundance of flowers are responsible for the tremendous amount of seed this plant produces. Seed production estimates vary, but over 100,000 seeds per plant is realistic.

There are several desirable plants of wet areas that look similar to loosestrife. Fireweed (*Epilobium angustifolium*) has



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Figure 2. Purple loosestrife is characterized by a square stem and opposite or whorled, narrow leaves that attach directly to the stem without a petiole, or leaf stalk. The magenta flower spikes bloom for an extended period of time and ripen from the bottom-up.

narrow leaves and a prominent spike-like flower head, but the leaves *alternate* on the stem. Blue vervain (*Verbena hastata*) and American germander (*Teucrium canadense*) have square stems and opposite leaves with purplish flower spikes, but their leaves are *stalked* and have *toothed margins*. The blazing stars (*Liatrus* spp.) have pink-to-magenta flower spikes and narrow, stalkless leaves, but the leaves *alternate* on the stem.

Purple loosestrife spreads readily. The buoyant seeds can be distributed over great distances by water. Wind, animals, and people are also responsible for the movement of these tiny seeds. Seeds are highly viable and can lie dormant in submerged soil for years and develop during dry periods when water levels recede. The crown atop the branched taproot continues to expand, producing more stems each growing season.

Control Strategies

Although it's typically an aquatic or wetland plant, loosestrife will grow under a variety of soil conditions from wet to dry. Plants usually occur on terrestrial sites due to



Figure 1: Purple loosestrife occupying drainage swales in a roadside setting. This plant likes 'wet feet' and takes advantage of sites that are occasionally flooded.



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