

Background

Purple loosestrife likes to grow in damp soils. It invades stream banks, wet meadows and fields, marshes, and the shores of ponds and lakes. It grows up to 10 feet tall and can clog irrigation ditches. Purple loosestrife spreads rapidly through wetlands and quickly replaces native plants. Soon nothing but loosestrife grows there. Many ducks, wading birds, and other wildlife depend on certain native plants, so they leave the wetlands when purple loosestrife takes over.

When loosestrife takes over an area, it can crowd out all native plants within 4 or 5 years. Many waterfowl and wading birds avoid such dense stands of loosestrife, although some ducks and red-winged blackbirds will feed on the seeds. The tall stalks also make it hard for people to reach the water to fish, swim, or boat.

All of these impacts add up. Researchers estimate that the United States spends about \$45 million a year to control purple loosestrife. This weed also reduces the value of riparian areas for wildlife, livestock, farming and recreation. It's also one of the fastest spreading weeds in the West.

Purple loosestrife has tall stems of showy purple flowers-it's one of the prettier weeds. It's so pretty that some garden shops and catalogs sell purple loosestrife for people who plant in their yards. But it's a noxious weed in many states and can spread from your yard into nearby wetlands.

Purple loosestrife is hard to control because it can grow from both seeds and roots. So if you mow the weeds, they grow back. And if you pull them, some of the roots will break off in the ground. They can grow back into a whole new stand of weeds. And a single purple loosestrife plant can produce up to 2.5 million seeds! The seeds spread easily on moving water, wind and in the feathers of waterfowl, the fur of deer, muskrats, and other animals, and by hitching rides on people's clothes or on their boats and vehicles.

Purple Loosestrife

Purple loosestrife spreads rapidly through wetlands and quickly replaces native plants. Soon nothing but loosestrife grows there.

How do we control the spread of purple loose-strife?

Students will examine the use of bio-controls to limit the spread of noxious weeds in a bio-control blast!

Levels

Grades 4-8

Subjects

Science, Performing Arts, Language Arts

Skills

Discussing, Identifying, Sketching, Examining, Describing, Observing

Concepts

Structures and functions of living things;
life cycles;
interactions of living things and environments inquiry process;
observation; classification; connection of science;
technology, society and local landscapes;
investigations with tools, measurements and data collection

Objectives

Students will understand mechanisms that noxious weeds use to spread across landscapes.
Students will explore different bio-controls used in noxious weed management.
Students will create and perform skits to demonstrate bio-control methods.

This activity is directly tied to the ninth spread, pages 17 and 18, in the *What's In Your World?* publication located inside the back pocket of the activity tool kit.



Materials

(20 student class-size)

What's in Your World? booklets (pp. 17-18) - 1 per student
journal or notebook and pencil - 1 per student
bio-control information cards - 1 set per student,
What's In Your World? booklet supplement
hand lenses and aspirators - 1 each per student,
What's In Your World? activity tool kit
gloves - 1 pair per student

Time Considerations

Preparation - 10 minutes
Activity - 1 hour 45 minutes

Lesson Overview

- Bio-Control Blast! (60 minutes)
- Inspiring Insects - Collection and Observation (40 minutes)