

Background

Yellow toadflax grows as a one- to three-foot stalk covered in showy flowers that are buttery yellow and egg-yolk orange. Some people call this weed “butter and eggs.” It’s such a pretty plant, people wanted to grow it in their gardens.

In 1874, someone shipped Dalmatian Toadflax from its home around the Mediterranean Sea to the United States. By 1952, the weed had made its way to Montana. Today, Dalmatian Toadflax is found across the United States and Canada.

What’s this weed got to do with toads, you ask?

Look closely at the opening of the flower--whoever named this plant had a vivid imagination. *Can you see the wide mouth of a toad?* Before this weed flowers, its stalk looks like the stem of another plant called flax. Put the two together and you get toadflax. And despite its pretty face, toadflax is a serious problem.

Once toadflax invades an area, it crowds out native plants and is extremely hard to get rid of. A single toadflax plant can produce 500,000 seeds a year. Many of those seeds will sprout into new plants. But the seeds can live up to 10 years in the soil before sprouting. So even if you remove all the adult plants, there will be seeds in the ground just waiting to grow.

This weed can also reproduce from its roots. A full-grown toadflax plant has a web of shallow roots near the surface that may reach 10 feet from the plant. Toadflax also has a deep taproot, burrowing down up to 6 feet into the ground. Together, these roots take water from the soil making less available for native plants. Toadflax is poisonous to livestock, so it’s best to prevent it from growing in pastures where horses and cattle graze.

Dalmatian Toadflax

This activity is directly tied to the seventh spread, pages 13 and 14, in the *What’s In Your World?* publication located inside the back pocket of the activity tool kit.

Some weeds are covered in thorns or have sharp, spiky stems and some weeds have leaves that are gray and waxy, making them look just like weeds. But not all weeds are ugly! Students will determine which plants are weeds and which are not. Students will also participate in hands-on investigation of plant parts and the function of each part.

Levels

Grades 4-8

Subjects

Science, Language Arts

Skills

Discussing, Analyzing, Identifying, Investigating

Concepts

Structure and functions of living things; diversity of life; inquiry process; observation

Objectives

Students will understand that weeds can be any plants, including plants that do not appear to be weeds. Students will learn and identify the 6 parts of a plant. Students will examine toadflax plant parts and its two methods of reproduction.

Materials
(20 student class-size)

- What’s In Your World? booklets (pp. 13-14) - 1 per student
- 10 Pictures or examples of noxious weeds, numbered 1-10
- 4 or more different plants (alive or fake)
- hand lenses - *What’s In Your World?* activity tool kit
- plant part tags - 6 Cards with one plant part on each and a clip or hook - 1 set per pair or small group
- journal or notebook and Pencil - 1 per student



Time Considerations

- Preparation - 30 minutes
- Activity - 90 minutes

Lesson Overview

- Not All Weeds Are Ugly (25 minutes)
- Plant Parts Identification (45 minutes)