

Dalmatian Toadflax

Linaria dalmatica

Dalmatian toadflax is an attractive but aggressive, highly competitive noxious weed that was brought from its native Mediterranean region to the west coast of North America in the late 1800s as an ornamental. Pioneers loved this plant with its lavish, snapdragon-like flowers and its durability—it was drought resistant! It was first found in Washington along the Little Spokane River in 1926 and has now spread to 15 states and 6 Canadian provinces, displacing native plant species, livestock forage, and wildlife habitat. There is an economic impact associated with the loss of rangeland and wildlife habitat, and the added cost of maintenance on agricultural land.

Dalmatian toadflax is a deep-rooted, short-lived (3 to 4 years) perennial that spreads by horizontal or creeping rootstocks up to 10 feet in length and by seed (up to 500,000 on a mature plant). Seeds are viable up to 10 years and most seedlings emerge in the spring. The flowers are yellow, tinged with orange, resemble snapdragon flowers, and appear May-August. Pea size seed capsules form and seed dispersal begins in July and continues into winter, with a few retained through the following year. The plant is pale green with 2 to 4 foot branched stems. The heart-shaped leaves clasp the stem and both have a waxy coating that helps the plant retain water and survive drought conditions.



Dalmatian toadflax is often associated with disturbed or open habitats and with coarse gravel to sandy loams. It is highly competitive in areas where summers tend to be dry. With these conditions it can out-compete grasses during times of drought with its deep extensive root system and waxy leaf. Add in its heavy seed production and you have a plant that can spread rapidly and is very difficult to manage. Yet one more advantage this plant has is its high genetic variability, enabling it to adapt to a wide variety of conditions.



Farmers control this pesky weed by cultivation—starting in early June and repeating every 7 to 10 days the first year and 4 to 5 times the next year. This depletes all the root reserves. Joseph Yenish, Assistant Scientist/Extension Specialist at WSU said that residential gardeners should follow the same practice—pull and remove as much of the root as possible, then remove new shoots shortly after they start poking out of the soil in order to deplete the root system. Practices to avoid because they stimulate the growth of new shoot development include mowing plants that are actively growing; hand pulling without a follow up of hand weeding; herbicides applied in the spring or excessively high foliar herbicide rates.

Picloram, picloram + 2,4-D, and dicamba all provide effective control, although repeated applications of dicamba may be necessary to achieve complete control. To treat plants close to trees or near streams, use glyphosate (Roundup, i.e.) and other non soil-active herbicides, using methods to avoid drift damage to surrounding landscape.

Resources:

Weeds of Eastern Washington,

PNW Weed Management Handbook

www.nwcb.wa.gov/weed_info/Written_findings/Linaria_dalmatica.html