Control Methods

Mechanical- Successful hand pulling or digging can be done on very small infestations, being sure to dig out the roots. Larger patches can be controlled by clean cultivation. Begin in early June and repeat as needed so that there is never more than 7-10 days of visible green growth. It could take up to 2 years to eradicate. Irregular tilling may spread infestations since small root pieces can produce new shoots. Mowing to ground level during flowering will reduce seed production, but does not provide control of the creeping root stocks.

Biological- There is a stem-boring weevil, *Mecinus janthinus,* that has shown to be fairly successful at suppressing dalmatian toadflax.

Chemical- Dalmatian toadflax can be controlled by herbicides, although it is difficult. There are herbicides available that are registered for use in California, but multiple treatments are needed for these herbicides to be successful. Herbicides are most effective when they are applied in the fall, after the dalmatian toadflax has flowered. This will reduce the number of plants that return in the spring. As always, read and follow herbicide label directions carefully. Contact your local County Agriculture Department to determine the best herbicide for your situation.

History

Dalmatian toadflax is a native of southeastern Europe, in the Mediterranean Region. It was introduced into the Northern United States in the late 1800's as an ornamental, because of it's snapdragon-like flowers. Dalmatian toadflax is now found in 34 states, and throughout most of Canada.

Distribution

Dalmatian toadflax is most distributed in the western United States. It has a limited distribution in California . In northeastern California, there is a infestation in the Lake Almanor region of Plumas County. The Sierra Valley also has several sites.

For More Information:

- Plumas-Sierra Counties
  Department of Agriculture (530) 283-6365
  Website: *countyofplumas.com*
- California Invasive Plant Council
  Website: *www.val-ipc.org*

Photos, and text provided by:

- California Department of Food and Agriculture
- California Invasive Plant Council
- Spokane County Weed Board
  www.spokanecounty.org/weedboard
- Photos By; Spokane County, Oldenettel, Jerry, Washington State, Belliston, Nathan

Funding provided by:

- California Department of Transportation
- Renewable Resources Extension Act
- California Department of Food and Agriculture
- United States Forest Service

Editing, layout, and design by
Celeste Avila, UCCE Plumas-Sierra Counties
and Plumas-Sierra Counties Department of Agriculture

Dalmatian Toadflax

AKA: *Linaria dalmatica*

Plumas-Sierra Counties Dept. of Agriculture

We Control and Eradicate Invasive Weeds

(530) 283-6365

Find us on: facebook

This institution is an equal opportunity provider

Why should I care about noxious weeds?

Noxious weeds are non-native and very invasive. When noxious weeds spread, they impact the environment. They reduce the biodiversity of native plant communities and rapidly displace other plants that provide habitat for wildlife, food for people and livestock.

Weeds also have an economic impact by reducing the land's productivity and by decreasing the quality and value of crop and livestock production. Some weeds are poisonous to livestock. Some noxious weeds are so competitive that they crowd out all the desirable plants.

Weeds can increase maintenance costs and reduce the usefulness and value of recreation areas. Who wants to hike in noxious weeds?

What can I do?

- Drive only on established roads and trails away from weed-infested areas.
- When using pack animals, carry only feed that is certified weed free (or use pelletized feed).
- Beginning 96 hours before entering back country areas, feed pack animals only food that is certified weed free (or use pelletized feed).
- Remove weed seeds from pack animals by brushing them thoroughly and cleaning their hooves before transporting.
- If you find a few plants and decide to pull them, place the plants in a plastic bag or a similar container and dispose of them properly. Root parts can regenerate into new plants very readily from very small pieces.
- Some noxious weeds have pretty flowers and are often picked and used in floral arrangements. New weed infestations can be established when seeds shake off while these "pretty flowers" are being transported, or after the flowers are discarded. Some weeds can develop roots and produce new plants and can trigger a new infestation in your own backyard.
- If you find a weed-infested area, let the landowner or manager know so that they can take steps to control the weeds (or notify your local County Agriculture Department).
- Noxious weed seeds or plant parts may attach themselves to tires, shoelaces, camping equipment, construction equipment, garden tools, or any other surface that contacts an infested area. These seeds or plant parts can then travel hundreds of miles before falling to an uninfested area. To avoid starting a new infestation, please clean all surfaces before leaving any area.

What does Dalmatian Toadflax look like and how does it grow?

HABITAT: Damatian toadflax thrives in coarse, well-drained soils and takes root on roadsides and rangelands, in fields, overgrazed pastures, and waste areas. Establishment of dalmation toadflax is also favored by soil disturbance, such as construction, fires, and overgrazing.

GROWTH: Dalmatian toadflax has deep and widely spreading roots, little pieces of which can start a new plant. The stems and leaves have a waxy coating, making it harder for herbicides to stick. The light-green, waxy leaves are heart-shaped, alternate, and the upper leaves clasp the stem.

FLOWERS: Flowers are bright yellow with long spurs and orange-bearded throat that resembles a snapdragon. It blooms from late spring into fall. Dalmatian toadflax has also been referred to as Butter-and-eggs.

HEIGHT: Dalmatian toadflax is an attractive plant with erect stems that can grow up to 3 feet tall.

SEEDS: The seeds are tiny and produced in abundance. Dalmatian toadflax is an extremely aggressive weed because it spreads both by producing seeds and growing from root pieces.