



Dalmatian toadflax

Linaria dalmatica ssp. *dalmatica*
Family: Scrophulariaceae

Class B-Designate Noxious Weed
Control Required

Background Information

Dalmatian toadflax is of the Figwort family. It was introduced into the United States in the late 1800s as an ornamental species because of its showy flowers. Flowers resemble those of the common garden snapdragon. It may also be referred to as Butter and Eggs and Wild Snapdragon. Dalmatian toadflax is an erect perennial forb reproducing by seed and creeping rootstock.; vegetative reproduction also occurs from adventitious root buds. Its deep taproot and extensive horizontal root system makes the plant very efficient in capturing water, re-sprouting after fire, and withstanding grazing or hand pulling.

The plant begins growing from a woody, branching base to a height of 3 feet or more. Pale green, heart-shaped, waxy leaves clasp the stems. Flowers are bright yellow, with an orange tinged throat and a long spur. Dalmatian toadflax is a prolific seed producer. A single, mature plant can produce up to 500,000 seeds. Seed production begins on lower portions of the plant while upper portions are still in various stages of bloom, prolonging seed production from June through October.

Impacts

An aggressive spreader, Dalmatian toadflax establishes quickly in disturbed areas on rangeland, roadsides and waste areas, outcompeting native species. Unpalatable to cattle, forage value is significantly reduced where large infestations exist. Although cattle avoid grazing Dalmatian toadflax, ingestion of large quantities is harmful to cattle, livestock and wildlife because of a poisonous compound, glucoside.



Key Identifying Traits

- ◆ Leaves are waxy, blue-green, heart-shaped coming to a point. Alternate leaves clasp the waxy stems.
- ◆ Stems emerge from mature root crown.
- ◆ Flowers are bright yellow with long spur and orange throat.
- ◆ Fruit is brown, round, pea-sized two-celled capsule.
- ◆ Seeds are dark brown to black, 1/2 inch in diameter, flattened with a papery wing.



Clasp leaves



Emergent leaves

Biology and Ecology

- ◆ Perennial with extensive root system.
- ◆ Grows in dense patches to a height of 3 feet or more.
- ◆ Reproduces from creeping roots and seeds.
- ◆ Flowers produced summer through fall.
- ◆ Favors dry sandy or gravelly sites.
- ◆ Contains a poisonous glucoside harmful to livestock and wildlife if consumed in large quantities.



Control Measures

Prevention: Minimize soil disturbances and do not overgraze. An early detection, rapid response approach is crucial to prevent infestation.

Biological: A stem mining weevil, *Mecinus janthiniformis* is beneficial in remote areas with terrain inaccessible to equipment.

Cultural: Preventing the establishment of populations through best management practices is the most cost effective method of control. Clean farm and recreational equipment before moving from an infested area to an un-infested area. Promote desired vegetation to provide competition.

Mechanical: Hand pulling small infestations is most successful on soft, young plants. Make sure to remove the entire root. On large infestations and mature plants, mechanical control is challenging because of the extensive root system and the ability of the plant to regrow from the crown when damaged.

Chemical: Herbicides known to be effective on Dalmatian toadflax are Telar (Chlorsulfuron), Perspective (Aminocyclopyrachlor & Chlorsulfuron) applied in the fall. Include a surfactant (MSO) to penetrate the leaves waxy surface and ammonium sulfate to acidify the water and help with herbicide uptake.

Multiple applications are necessary depending on the length of establishment. Remember to follow up!

ALWAYS FOLLOW LABEL INSTRUCTIONS, THE LABEL IS THE LAW

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