

Mature Toadflax plants are strongly competitive, especially with shallow-rooted perennials and winter annuals. Dalmatian toadflax causes negative impacts in pastures, rangelands, and natural areas, where it outcompetes natives or other desirable species.

It is **not** palatable and most grazing animals will not eat it, leaving native wildlife with less forage.



Photo: Wanda Manley

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Dalmatian Toadflax

(*Linaria dalmatica*)

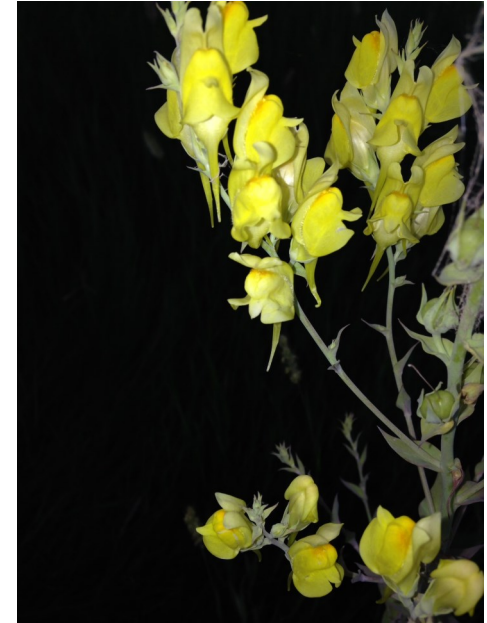


Photo: Wanda Manley

This weed destroys pastures, grazing lands, property values and has little to no wildlife value.

The Problem:

It was introduced into the western U.S. as an ornamental in 1874 and escaped cultivation. Toadflax readily spreads into adjacent non-disturbed areas. Much of this spread is by vegetative means, reflecting a vigorously-growing root system. Dalmatian toadflax roots may grow 20 inches deep or more nine weeks after seedlings have emerged and have vegetative buds that give rise to new shoots. *Patch expansion can be dramatic.*

Dalmatian toadflax typically flowers beginning in late May or June in western States and may continue until fall, particularly if moisture is not limiting. It spreads by horizontal or creeping rootstocks as well as by seed. A mature plant can produce up to 500,000 seeds



Photos: Wanda Manley

Management:

Dalmatian toadflax may be controlled with herbicides labeled for toadflax. Please consult the Laramie County Weed and Pest for specific recommendations at 634-5348, 245-3213 or the City Weed and Pest 637-6475, if you want to do this yourself.

Plan of Action:

Researchers in Wyoming sprayed Dalmatian toadflax in early September, 1994, then seeded the following year in April or August with Crested Wheatgrass, Pubescent Wheatgrass, Thickspike Wheatgrass, Russian Wildrye, or 'Sodar' Wheatgrass. The combination of spraying and seeding competitive grasses controlled Dalmatian toadflax better than spraying alone. Three years after treatments were started, control of Dalmatian toadflax ranged from 61 percent to 86 percent where grasses were seeded in April and from 76 percent to 95 percent from the August seeding, compared to no control from spraying alone.



A tow behind seeder can be rented from the Conservation District 772-2600.

Timing:

The best times to spray, just before and during blooming. Another more effective time to spray, mid September to the first of October after the first frost..

Biological Control:

Several classical biocontrol agents are available to use against toadflax. The success of these agents remains largely unknown. A defoliating moth (*Calophasia lunula*), an ovary-feeding beetle (*Brachypterolus pulicarius*), and two-seed capsule-feeding weevils (*Gymnaetron antirrhini* and *G.netum*) have been released in the U.S. and Canada to control all toadflax species. Particularly the flowering and seed feeding insects should help decrease seed production.

A stem-boring weevil (*Mecinus janthinus*) and a root-boring moth (*Eteobalea intermediella*) also were released in Canada and the U.S. to control all species of toadflax. These species may help to control shoots and seed production as well as decrease root vigor.

This method only works on large or very large stands of toadflax.

for more information on insect control.
<http://www.weedbustersbiocontrol.com/toadflaxinsects.html> or
www.intergratedweedcontrol.com