

**INTEGRATED WEED MANAGEMENT OF  
DALMATION TOADFLAX  
(*Linaria dalmatica*)**



**Escaped ornamental in beautiful bloom**

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## **INTEGRATED WEED MANAGEMENT OF DALMATION TOADFLAX**

No single control method should be used in managing weeds. A combination of methods (IPM) should be used. An integrated pest management plan deals with prevention as well as control. Eradication of weed species is not usually a practical goal, but reducing infestation to manageable levels should be the objective.

### **DALMATION TOADFLAX**

*(Linaria dalmatica)* is a colony-forming perennial from deep underground and extensive horizontal roots. Stems are 1-4 ft. tall, ridged, branching above. Leaves are alternate, lacking petioles, oblong or lance-shaped, divided into spiny tipped irregular lobes. Flowers are unisexual, on separate plants; flowers purple in heads ½ - ¾ inch in diameter; involucre bracts spineless.

### **Cultural**

**Plant competition is an effective way to prevent the invasion Dalmation toadflax. Proper management of perennial grasses will inhibit the establishment of this weed.**

Overgrazing is a major cause of perennial weed invasion. In Douglas County, one horse requires 35 to 40 acres of pastureland if no supplemental feed is provided. Residents should consider the above facts when planning recreational or hobby activities as it pertains to horses.

A general rule of thumb to prevent overgrazing is the take-half, leave-half principle. A stand of grass will maintain or even improve its condition if no more than one-half of its annual production is used. In other words, animals could graze until, on average, fifty percent of the grass has been utilized. Animals would then be removed until the vegetation recovers its original height.

Other cultural methods include:

- fertilization when necessary  
(A soil test is the best way to determine fertilization on a site. Contact the Douglas County Extension Office for soil test kits.)
- water management
- where the perennial vegetation has been depleted, reseeding adapted varieties is recommended
- disturbed areas should be revegetated as soon as possible to prevent weed invasions

## **Biological**

Insects are being utilized as a means for long-term management of weeds. In Colorado, insects have been released on an experimental basis to control Dalmation toadflax. At this time, none are available to the general public.

## **Mechanical**

One season of intensive tillage from spring until freeze-up will usually eliminate over 90% of Dalmation toadflax. Cultivate every 14 to 21 days. Cut plants no more than 4 inches below the surface. Persistence and proper timing are important.

Mowing would weaken the plant, but not kill it. Mowing at least as often as the suggested tillage treatments.

### **Non-sensitive rangeland/roadside areas:**

1qt-Vanquish/acre + Telar 1.5oz/acre (non-crop land). Rangeland-1qt/acre Vanquish + .75oz/acre Escort.

**Small Grains:** 1/10oz Ally (ag label-Escort) + ¼ pt Banvel (in crop suppression). .47 oz/acre Amber.

### **In root zone of desirable trees:**

Telar – 2.5 oz/acre or Escort @2oz/acre OR  
Plateau @ 12 oz/acre in the fall after a hard frost.

### **Non-sensitive rangeland or roadsides:**

1. Tordon (picloram) – (1-2qts/acre)
  - a. Treat while actively growing. Optimum treatment from bud to early bloom.
  - b. When using 1 quart/acre plan to treat 3 consecutive years minimum.

## **Home owners should use:**

Corsair @ 1 gram + 2,4-D amine @ 1.5 tablespoons /1000 sqft. in the spring at the bloom stage or in the fall.  
Escort @ 2oz/acre.