



Boulder County • Land Use Department Weed Alert • Yellow Toadflax

Yellow Toadflax (*Linaria vulgaris*) Information

Characteristics

Yellow toadflax (*Linaria vulgaris*), sometimes called common toadflax and "butter and eggs", is an invasive, perennial weed that is noxious in Colorado. Its displacement of desirable grasses not only reduces ecological diversity, it also reduces rangeland value and can lead to erosion problems. It was introduced from Europe as an ornamental and has now become a serious problem to rangeland and mountain meadows.

It is a perennial reproducing from seed, as well as from underground rootstalk. The stems of yellow toadflax are from 8 inches to 2 feet tall and leafy. The roots grow 3 feet deep or more with lateral roots that may extend several yards. It is adapted to a variety of site conditions, from moist to dry and does well in all types of soils.

Leaves are pale green, alternate, narrow, and pointed at both ends. The flowers are bright yellow with deep orange centers. The flowers are about an inch long and blossom in dense clusters along the stem as it lengthens and grows. The fruit is round, about ¼ in diameter, brown, and contains many seeds.

Shoots that grow from roots emerge as early as mid-March along the Colorado Front Range, but emergence may not begin until mid to late June at higher elevations. Seeds germinate and emerge in early to mid-May. Flowering begins mid to late May along the Front Range, but may be delayed until late July at higher elevations. Under drought conditions, flowers may be delayed until fall.

Control

Because of its early vigorous growth, extensive underground root system, and effective seed dispersal methods, yellow toadflax is difficult to control. The key is to prevent seed spread from established colonies through cutting, pulling, digging, and/or spraying prior to seed set. Once current seed production has been controlled, seedlings that emerge from the soil seed bank and root system must be destroyed every year until the plant is eradicated.

Yellow toadflax rapidly colonizes open sites. Disturbed or cultivated ground is a prime candidate for colonization. The seedlings of yellow toadflax are considered ineffective competitors for soil moisture with established perennials and winter annuals. However, once established, yellow toadflax suppresses other vegetation mainly by intense competition for limited soil water. Mature plants are particularly competitive with winter annuals and shallow-rooted perennials.

Management Strategies

Mechanical: Hand pulling/digging before seed set each year can be an effective control method especially in coarse-textured soils where large portions of the roots can be extracted. However, this method must be repeated as long as there are viable seeds in the soil (up to 10 years). Cutting or mowing reduces the current year growth and possibly seed dispersal, but will not kill the plant.

Herbicides: Research in Colorado has show that Tordon applied when the plant is flowering has been the most effective herbicide. Application should be continued over three consecutive years.

For More Information Contact...

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http://www.co.boulder.co.us/lu/

The following internet site is recommended:
<http://www.ext.colostate.edu/pubs/natres/03114.pdf>

