



# Yellow Toadflax

**Scientific Name:** *Linaria vulgaris*

**Common Names:** Yellow toadflax, Butter and Eggs

**Description.** Yellow toadflax is a pretty ornamental with small yellow snapdragon flowers. It is in the Scrophulariaceae family, the snapdragon family. Plants have slender, narrow leaves that are 1 to 2 inches in length. The stems are smooth near the top and woody closer to the base. Plants grow rhizomatously; numerous shoots are all connected underground via an extensive root system. Plants have some branching and are one to two feet tall in our mountain environments. Plants can reproduce by seed and by root fragments. Native bumblebees love to collect nectar from these flowers in the late summer, when most native wildflowers have already senesced.

## Management.

### *Methods that work.*

1. Spot-spraying individual plants with Round-Up. When small patches (fewer than 100 stems) are spot sprayed with over the counter herbicide for a couple years, the patch declines and can soon be eradicated in this way. If there is good natural seed input, the site will readily go back to natives. If the site is a lawn or garden, you will want to encourage revegetation by planting seeds or desirable plants to take the place of the toadflax.

### *Methods that might work.*

1. Black Plastic. We have an on-going experiment where we put black plastic (2 meters x 2 meters) on top of a monoculture for several years. Yellow toadflax stems sprouted out from the edges of the plastic and were spot sprayed. We removed the plastic in 2016 and reseeded plots with native seed in 2016 and 2017. We'll see in 2018 if this is an effective way of controlling yellow toadflax.
2. Repeated pulling. Pulling on occasion doesn't work, but if you pull the plants up repeatedly throughout the growing season, you might be able to keep the patch from growing. We don't have data to support this, but if you don't want to use an herbicide, this will at least keep the plants from setting seed and potentially keep the patch small.
3. Soil nutrient manipulation. We have an on-going experiment to test whether increasing or decreasing available nitrogen in the soil can change the competitive dynamics between yellow toadflax and native plants. Many invasive plants tend to invade high nitrogen environments. One hypothesis is that if nitrogen is limited, the native plants will outcompete toadflax. Stay tuned for future results.

### *Methods that don't work.*

1. Pulling. If you pull up yellow toadflax once or twice, it grows right back again from the roots.
2. Biocontrol. There is a weevil that burrows into stems and can reduce seed set, but it has no effect on a patch size. Plants can still grow and spread via roots.
3. Organic chemicals. Clove oil will damage the stems, but are harmless to the roots. They have no effect on the persistence of a yellow toadflax population. The plants will regrow the following year and possibly within the same season.
4. Vinegar. This is the same as organic chemicals. It will kill the stems, but not the roots. Plants will just regrow.
5. Milestone. Milestone is a mild herbicide. It does not work on yellow toadflax.
6. Watering. There is some thought that yellow toadflax does well in our dry climate because it is a good competitor for water. We did an experiment where we watered some plots and left control plots alone. Watering had no effect on yellow toadflax relative to native plants.

## Additional resources

[Colorado Weed Management Association](#)

[Colorado State Extension Site](#)

