

## Common Toadflax

<u>Linaria vulgaris</u>

## Description:

A perennial plant that makes seed, but reproduction is primarily by sprouting from its extensive, creeping root system (rhizomes). Toadflax prefers sandy-gravelly soils, but is adapted to a wide range of growing conditions. Despite its prolific seed production (5000 seeds/stem) and long viability (up to 10 years), germination rates are often very low – although 2-3 week old seedlings can produce creeping roots. Easily confused with Leafy spurge before flowering, toadflax stems do not contain the milky latex that spurge does. Also known as Yellow toadflax, Butter-and-Eggs.

**Stems** are erect, hairless, generally un-branched and grow to 1 m tall. Mature plants may have 1 to 25 stems.

**Leaves** are soft, lance-shaped, pale green, and very numerous. Leaves are mainly alternate but may appear opposite on the lower stem due to crowding. Leaves can be up to 10 cm long and are attached directly to the stem.

**Flowers** are bright yellow and arranged alternately in dense spikes at the ends of stems. The snapdragon-like flowers can have orange colouring on the throat and have a long spur extending from the base that is usually as long as the flower itself – in all, 2 to 3.5 cm long.







## Control

Brought from Europe over 100 years ago as an ornamental plant, Common toadflax has escaped and established itself all over North America. Spurred snapdragon, another common name for this plant, often appears in wildflower seed mixes, and should be avoided. Once present, it establishes dense patches that are extremely difficult to control, let alone eradicate. The flowers are identical to Dalmatian toadflax, but leaf shape differs between the two plants.

Pasture invasions flourish because the plant is not palatable to livestock, thereby reducing forage in the long-term.

To kill Common toadflax you must kill the roots. <u>Thorough hand-pulling can be effective in soft</u> soils where the roots can be removed easily. Repetition is required to deplete the seed bank and all root pieces. Cultivation must be frequent – but if a root fragment is carried elsewhere, it creates a new infestation, therefore not the best control option.

Some herbicides have been helpful in managing this invasive plant, primarily glyphosate, a non-selective herbicide, but this is not an option in natural areas.

Several biological control agents have been imported to attack Common toadflax. So far, climatic factors have limited successful establishment to a few locations in Alberta.

Awareness and prevention are the only truly effective strategies to manage Common toadflax.

