

# TOADFLAX

Rex Warren



YELLOW TOADFLAX—  
*Linaria vulgaris*—Showing  
stem with leaves and flowers,  
nature of root growth, and  
seed. Seed enlarged 7 dia-  
meters.

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## Yellow Toadflax

*Linaria vulgaris*

Other common names: Butter-and-eggs, wild snapdragon.

**Y**ELLOW TOADFLAX spreads by seed and by vigorous, woody, underground rootstocks. It does not occupy large areas, but is found in practically all sections of the State. This plant was introduced from Europe and first planted as an ornamental in yards and cemeteries, but now has escaped cultivation and become a rather serious weed in some sections. It produces very showy flowers and numerous pale green leaves. Many shoots are produced in clumps along the rootstocks, giving the appearance of stools from a crown similar to alfalfa. The stems are 1 to 2 feet tall, smooth, erect, and are sometimes branched. Numerous leaves, smooth and pointed at both ends, are produced along the woody stem.

The snapdragon-type flowers are an inch or more in length and bright yellow with a deep orange center—hence the common name “butter-and-eggs.” They are borne in erect, dense clusters that blossom progressively along the stem as it lengthens and grows. Seed is often found in the lower part of the plant while the flowers in the upper part are in various stages of blossoming. The seed is round, 1/12 inch in diameter, dark brown to black and possesses notched, papery margins or collars that act as wings in spreading the seed. The brown, globe-shaped seed capsules are about 1/4 inch in diameter and composed of two chambers, each containing many seeds. The plants are reported to contain a poisonous glucoside and may be regarded with suspicion.

## Dalmatian Toadflax

*Linaria dalmatica*

Dalmatian toadflax is a relatively uncommon weed in Oregon. It has been found in the vicinity of Condon, in eastern Oregon. Dalmatian toadflax resembles yellow toadflax in plant characteristics. This weed, if allowed to spread, can become a range pest similar to

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St. Johnswort and tansy ragwort. Escaped plants are likely to be found on vacant city lots, city dumps, and around neglected cemeteries.

Dalmatian toadflax is a perennial plant which spreads by seed and underground roots. It has many bright, yellow flowers tinged with orange. The flowers closely resemble tame snapdragons. Seed pods, flowers, and flower buds are often present on the long flowering stalk at the same time.

The stems are light green, erect, smooth, and grow 3 to 6 feet high. Several to many stems are produced from single crowns. Each plant is capable of producing as many as 400,000 seeds.

The leaves are light green, alternate, heart-shaped, and clasp the stems. They have a waxy covering which makes the plant difficult to control with most herbicide sprays.

The vertical root system is large, rough, and somewhat branching. It extends 6 feet or more into the soil. This large root system makes the plant thrive under adverse dry conditions. Long, slender, shallow-growing lateral roots branch from the vertical roots and may extend 10 feet or more from the mother plant. The lateral roots produce buds from which new plants grow.

Root crowns are covered in the fall with a prolific growth of new shoots. Some of these new shoots grow into flowering stems the following season, or new stems may come entirely from new spring growth.

## **Control**

Hormone chemicals such as 2,4-D, 2,4,5-T, and mixtures of these chemicals have not satisfactorily controlled dalmatian or yellow toadflax. The most effective chemicals are soil sterilants. Sodium chlorates or borate-chlorate mixtures will control these two pests. Apply sodium chlorate at 4 pounds per square rod. Apply borate-chlorate mixtures at 10 to 14 pounds per square rod. Treatments should be made in October and November in areas having less than 20 inches of moisture per year. Treatments should be made in April in areas with excess of 20 inches of moisture per year.

## **Cultivation**

Summer fallowing, supplemented by fall cropping, is a good way of controlling yellow and dalmatian toadflax, when growing in areas too large to treat with soil sterilants. Infested areas should be reworked for two summers. Better control is obtained if each cultivation is delayed until the weeds have 7 to 10 days green growth.

This will require 6 to 8 cultivations the first year and 4 to 5 the second year. Seed infested areas at heavy seeding rates (10 to 25 per cent more than normal) in the early fall to early maturing crops, such as winter barley for grain or annual legumes for hay or silage. As soon as the grain, hay, or silage crop is removed, recultivate the area. One year of smother cropping (grain, hay, or silage) and two years of fallowing will control practically all of the weed. Individual weeds not eradicated can be treated later with soil sterilants.