

Dalmatian Toadflax

Linaria dalmatica ssp. *dalmatica* Figwort Family

Identification Tips

- Perennial herb with extensive roots
- Reaches up to 3 feet tall
- Multiple narrow stems grow from a single woody base
- Bluish green, waxy, heart-shaped leaves enwrap the stem
- Flowers bright yellow, tinged with orange, resembling snapdragon flowers

Biology

Spreads by seed and horizontal or creeping rootstocks. Flowers May to August. One mature plant can produce up to 500,000 seeds, which remain viable in the soil up to 10 years. Roots can grow 4-10 feet deep and extend 10 feet from parent plant. Most above-ground growth dies back in the fall; short, prostrate stems persist through the winter.

Impacts

Displaces native and beneficial plants. Has no value as a forage plant. Poisonous to cattle if consumed in large quantities.

Distribution

Establishes in areas with full sun and limited water; can also grow in poor, rocky soil. Often found along roadsides, in vacant lots, railroads, rangelands, overgrazed pastures, and other disturbed sites.

What You Can Do

The Noxious Weed Control Program is actively trying to control Dalmatian toadflax throughout the county. Do your part by checking for this noxious weed on your property and contacting the Noxious Weed Control Program if you see any growing in King County.

Control Methods

If you find this weed on your property, choose one or a combination of the control methods listed below:

Manual:

For small sites with few plants, carefully pull or dig up plants, removing as much root as possible so the plants will not resprout. This works best for sites where plants are growing in sandy or moist soil. Manual control must continue for several years to remove all root fragments. If the plants are in seed, carefully bag and cut off seed heads before digging up the plants. Brush off boots and clothes before leaving the infested area. Sites where mature plants are dug up may become infested with new seedlings, unless they are planted with perennial grass or other competitive vegetation and carefully monitored. Infested areas typically have many seedlings and an

**Class B Noxious Weed:
Control Required**



Dalmatian toadflax was introduced from the Mediterranean as an ornamental plant in the late 1800s.



This weed is starting to take hold in natural areas, replacing beneficial plants.

Questions?

King County Noxious Weed Control Program: **206-477-WEED** kingcounty.gov/weeds

extensive seed bank.

Mechanical:

Mowing or cutting flower heads will not effectively control Dalmatian toadflax because mature plants also spread through vegetative means. Remember to thoroughly clean any machinery that has been in an area infested with this plant. Root fragments are easily moved to uninfested areas via mowers and other field equipment.

Cultural:

In pastures, maintain healthy, competitive grasses by fertilizing and using proper pasture management techniques. Avoid over-grazing. Seed or plant disturbed or bare areas. If closely monitored, goats and sheep can be used to manage Dalmatian toadflax. While the glucoside in the plant can be toxic to cattle, sheep and goats can graze it without harm. Field studies in Montana have shown that sheep can help to suppress stands of Dalmatian toadflax and limit seed production.

Chemical:

Follow labels exactly as written and follow all applicable laws and regulations regarding herbicide use on your site. Chemical control of toadflax can be difficult. The waxy leaves make it necessary to add an oil-based or silicon surfactant to the herbicide mix. Spray in late spring when plants begin to flower or in the fall. Wet all foliage thoroughly but avoid excessive runoff. Dalmatian toadflax is controlled by using 2-3 oz/acre of the selective broadleaf herbicide chlorsulfuron. Spray foliage and the area immediately around the plant. Avoid use in areas with shallow water tables, sandy soils, or where soil movement is possible. Small infestations can also be controlled with the non-selective herbicide glyphosate, but take care to avoid damage to grass. Glyphosate can either be sprayed on plants or wiped directly on stems and leaves (read the label for directions). Chemical control options may differ for private, commercial, and government agency users. For more information, contact the Noxious Weed Control Program.



Heart-shaped leaves wrap around the stems.



One mature plant can produce up to 500,000 seeds.

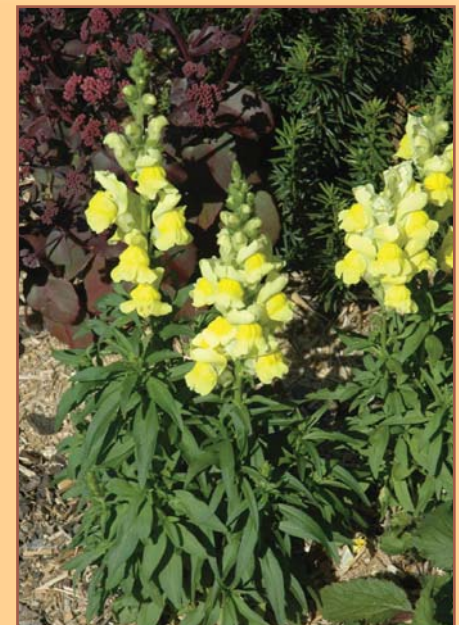
Could be confused with:

Yellow Toadflax (*Linaria vulgaris*) is widespread in King County and a non-regulated noxious weed.

Yellow toadflax is similar to Dalmatian toadflax in appearance and habitat preferences, but is a smaller plant with narrow leaves. Another similar plant is the **snapdragon (*Antirrhinum spp.*)**, a garden plant which is smaller, much leafier, and has a lot more flowers.



Yellow toadflax



Snapdragon