KING COUNTY NOXIOUS WEED CONTROL PROGRAM WEED ALERT

Dalmatian Toadflax

Linaria dalmatica Figwort Family

Class B Noxious Weed: Control Required

Identification Tips

- Perennial herb with extensive roots
- Reaches up to three feet tall
- Multiple narrow stems grow from a single, woody base
- Bluish green, waxy, heart-shaped leaves that wrap the stem
- Flowers are bright yellow, tinged with orange, resembling snapdragon flowers
- Similar to yellow toadflax (*Linaria vulgaris*) in appearance and where it grows, but yellow toadflax is a smaller plant with narrow leaves; it's widespread in King County and a non-regulated noxious weed

Biology

- Flowers from May to August
- Spreads by horizontal or creeping rootstocks and by seed
- Most above-ground growth dies back in the fall, with the exception of short, prostrate stems that persist through the winter
- Roots can grow 4-10 feet deep and extend 10 feet from parent plant
- A mature plant can produce up to 500,00 seeds
- Seeds remain viable in the soil up to 10 years

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, vacant lots, rangelands, overgrazed pastures, and disturbed sites

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

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

Questions?

King County Noxious Weed Control
Program Line: **206-477-9333**
www.kingcounty.gov/weeds

King County

What You Can Do

The King County 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.

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, hand pull or dig up plants, removing as much root as possible so the plant will not re-sprout. 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 the seed heads before digging up the rest of the plant. Brush off boots and clothes before leaving the infested area. Areas where mature plants are dug up may become infested with new seedlings unless they are carefully monitored and planted with perennial grass or other competitive vegetation. Infested areas typically have many seedlings and an extensive seed bank.

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

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

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

Chemical: Follow labels exactly as written and only use products appropriate and legal for the site. Herbicides should only be applied at the rates specified on the label. 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. Spraying should be done in late spring when plants begin to flower or in the fall. Wet all foliage thoroughly, but avoid excessive run-off. Toadflax is controlled by using 2-3 oz/acre of the selective broadleaf herbicide chlorsulfuron (Telar). Spray foliage and also the immediate area around the plant, covering root and seedling area. Avoid use in areas with shallow water tables, sandy soils or where soil movement is possible. Small infestations of toadflax can also be controlled with the non-selective herbicide glyphosate (Roundup or Aquamaster) but take care to avoid damage to grass. Glyphosate can either be sprayed on the plants or wiped directly on stems and leaves (the rate is higher for wiping, read the label for directions). Follow the labels; proper application will reduce herbicide use. Chemical control options may differ for private, commercial and government agency users. For questions about herbicide use, contact the King County Noxious Weed Control Program at 206-477-9333.