

Invasive Species in Minnesota - Strategies for Control of Reed Canarygrass

Why is Reed canarygrass a problem?

Reed canarygrass, *Phalaris arundinacea* L., is an aggressive plant that often produces dense stands in wetlands and along the shores of lakes, rivers, and streams. The establishment of Reed canarygrass can lead to declines in native plants. Reed canarygrass has little value for wildlife.

Attempts to restore wetlands or lakeshores in Minnesota and elsewhere often fail to establish native vegetation due to invasion by Reed canarygrass. Control efforts are often followed by rapid recolonization.

What are some tips for effective control?

- **Glyphosate can control Reed canarygrass.** Glyphosate, the active ingredient in Monsanto's Rodeo® and Roundup® products, is the most commonly used herbicide to treat Reed canarygrass and can be very effective. The herbicide is non-selective; it will kill non-target grasses and forbs with which it comes in contact. Glyphosate has very low toxicity to animals.
- **Choose the appropriate glyphosate product.** When standing water is present, use products approved for aquatic use, like Rodeo®. When standing water is not present, use other products, like Roundup®. Follow specifications for perennial weeds on the label to determine application rate and concentration.
- **Apply glyphosate late in the season.** Application of glyphosate late in the season, e.g., during August or September, will achieve maximum control. This is due to movement of the herbicide in the plant along with energy reserves, which are moved from aboveground shoots and leaves down to rhizomes. Rhizomes are underground stems where energy reserves are stored. Application of glyphosate early in the growing season, when the plant is moving energy reserves from rhizomes to aboveground shoots, kills the aboveground vegetation, but allows rhizomes to survive and produce new shoots.
- **Plan for multiple years of control.** Even if an application of glyphosate kills both the above ground shoots and rhizomes of Reed canarygrass present at a site, it is likely that the plant will re-colonize through germination from the seedbank. Therefore, continued spot-treatment with herbicide or hand pulling of newly established Reed canarygrass plants will be needed at most sites.
- **Spring burning may increase Reed canarygrass.** Spring burning removes Reed canarygrass thatch or litter and increases the amount of sunlight reaching the soil surface, which in turn increases both germination of seeds and production of new shoots by rhizomes. For these reasons, spring burns increase the shoot density of reed canarygrass. Some managers have suggested that germination of seeds following spring burns might reduce the numbers of Reed canarygrass seeds in the soil. No evidence of such an effect has been found by current research on this question.
- **Burning is not required for complete coverage of the plant with herbicide.** Glyphosate can move throughout the entire plant even if the plant is only partially covered with herbicide. Burning, therefore, does not increase the effectiveness of a subsequent herbicide application.
- **Controlling Reed canarygrass should be part of the site preparation for wetland restoration before flooding.** Implementing control after a basin has been flooded is logistically difficult—tractors cannot be used to apply herbicide, and there is a greater chance that recolonizing native species will be negatively impacted by control efforts.

NOTE: Mention of particular products in this fact sheet is not intended as an endorsement of the product by the agencies that produced this fact sheet.