Reed Canary Grass

Invasive species

Background, Life History

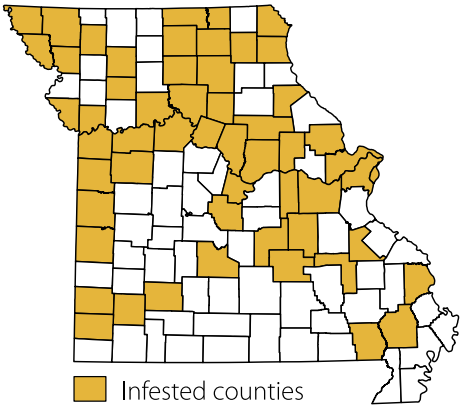
Reed canary grass (*Phalaris arundinacea*) is a cool-season, rhizomatous perennial wetland grass native to temperate regions of Europe, Asia and North America—including northern Missouri. The Eurasian ecotype has been selected for its vigor and has been planted throughout the United States since the 1800s for forage and erosion control. It has become naturalized in much of the United States.

Reed canary grass is a large, coarse grass growing 2 to 9 feet tall. The stem is erect and hairless with gradually tapering leaf blades 3½ to 10 inches long and ¼ to ¾ inch in width. Blades are flat and have a rough texture on both surfaces. To see the large transparent membrane (the ligule), pull the blade slightly away from the stem. Dense and compact branched spike-like inflorescences (flowering cluster) are erect to slightly spreading and range from 3 to 16 inches long with branches 2 to 12 inches in length. This grass is one of the first to sprout in spring, and it forms a thick rhizome system that dominates the subsurface soil. Seeds are shiny brown in color.

Our native ecotype of reed canary grass is not easily distinguished from the Eurasion ecotype, but it typically does not form dense stands, and co-exists with other native vegetation in high-quality moist prairies. Even as a single invading plant, the Eurasian ecotype rapidly forms a dense clump and starts to spread out aggressively. Reed canary grass may also resemble the native bluejoint grass (*Calamagrostis canadensis*) and orchard grass (*Dadylis glomerata*), especially in the spring.

Reed canary grass spreads aggressively by prolific seed production and creeping rhizomes. The plant produces leaves and flower stalks for five to seven weeks after germination in early spring, then spreads laterally. Growth peaks in early summer, with a second growth spurt in the fall. The shoots collapse in mid to late summer, forming a dense, impenetrable mat of stems and leaves. The seeds ripen in mid-summer and shatter when ripe. Seeds may be dispersed from one wetland to another by waterways, animals, people and machines.

Barry Rice, saracenia.com; www.forestryimages.org



Source: Missouri Botanical Garden

To see the large transparent membrane where the blade meets the stem, pull the blade slightly away from the stem.

Reed canary grass closely resembles orchard grass, but the inflorescence of reed canary grass is more narrow and pointed.

Reed canary grass is one of the first grasses to sprout in the spring.

Impacts

Reed canary grass forms dense monotypic stands that crowd out native plants and grows too thick to provide suitable cover for wildlife. Although used as hay for livestock, it is of little value as food for wildlife. It promotes silt deposition and can constrict waterways and irrigation canals. Conversely, when its colonies perch on top of cut banks, it can promote further erosion of soil beneath the dense mats of rhizomes by causing cutaways where water flows rapidly.

Control

Because reed canary grass has underground rhizomes and a prolific seed bank, this plant is difficult to eradicate. It is important to plant native species adapted to the local area immediately after efforts to control or eradicate reed canary grass have been conducted.

In high-quality areas with a large component of native vegetation, use prescribed burns to help native plants out-compete the reed canary grass. Timing is important because early spring burning may accelerate the invasive species' spread. Burn in late spring or late fall annually for five to six years. If the grass is too green to burn, apply 1.5 percent active ingredient solution of glyphosate to "brown off" the grass.

Glyphosate formulated for use in wetlands will kill reed canary grass (especially young plants) when applied to foliage. Apply in early spring when most native plant species are dormant. To maximize growing shoot exposure and to minimize herbicide use, remove the previous year's dead leaves by burning or mowing before applying herbicide. To avoid impacting shorter vegetation, apply herbicide to taller stands of reed canary grass with a wick applicator attached to a tractor.

Another control method is to mow in mid to late September, then spray reed canary grass in October (after warm season grasses are dormant) with a 5 percent active ingredient solution of glyphosate.

To reduce reed canary grass cover, deplete the seed bank and stimulate native seed banks, apply a wick application of glyphosate in late May or early June followed by a mid to late summer burn.

Alternative Native Plants

Virginia wild rye, prairie cordgrass

For Additional Information

www.mdc.mo.gov/nathis/exotic/vegman/twentyon.htm

www.ipaw.org/invaders/reed_canary_grass/index.aspx

www.na.fs.fed.us/fhp/invasive_plants/weeds/reed-canary-grass.pdf

www.dnr.state.wi.us/invasives/fact/reed_canary.htm

www.ecy.wa.gov/programs/wq/plants/weeds/aqua011.html

www.paflora.org/Phalaris%20arundinacea.pdf

www.MissouriConservation.org
For more information or to report a population, contact your local Missouri Department of Conservation office, e-mail **WildlifeDivision@mdc.mo.gov**, or write:

Reed Canary Grass
Missouri Department of Conservation
Invasive Species Coordinator
P.O. Box 180
Jefferson City, MO 65102–0180

Serving nature and you

W00045 7/2010