

Invasive Plants in Pennsylvania

Reed canary grass

Phalaris arundinacea



Brett Pifer, DCNR - BOF

Background:

Both Eurasian and native ecotypes of reed canary grass are thought to exist in the United States. Invasive populations may be descendants of non-native cultivars or ecotypes, although this is not clear. Aggressive strains have been planted throughout the United States since the 1800s for forage and erosion control.

Habitat:

Reed canary grass can be found growing in most types of wetlands, including marshes, alluvial meadows, stream and river banks, shores and ditches. This plant does best in fertile, moist, organic soils in full sun. It has been known to occasionally grow in dry soils in partial shade in upland habitats.



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Description:

Reed canary grass is large and coarse, reaching up to nine feet in height. Its flat, blue-green leaves are roughly textured. In June and July, large flower plumes are produced, which are green with a purplish tinge, eventually becoming light tan in color. The stems do not remain standing through the winter.

How to Control this Species:

Physical

Small patches may be effectively dug up or hand pulled. They may also be covered by black plastic for at least one growing season. Be watchful of rhizomes spreading beyond the edge of the plastic.

Mowing twice yearly (early to mid-June and early October) can help control dense stands.

Disrupting the roots every two to three weeks weakens established plants and depletes the seed bank.

Chemical

In small populations, glyphosate can be applied directly to cut stems to avoid collateral damage to native plants nearby.

Herbicide is best applied in early spring when most native species are dormant.

Before applying herbicide, remove dead leaves from the previous year to maximize growing shoot exposure. Use a formulation of glyphosate designed for wetlands.

Range:

This wetland grass is native to temperate regions of Europe, Asia and North America. Non-native strains have become naturalized throughout much of the northern half of the United States, and are still being planted on steep slopes and created wetlands.

Biology and Spread:

Although it produces few viable seeds, which are wind, water, animal and machine-dispersed, reed canary grass manages to colonize new sites quite easily. Once established in a wetland, it spreads aggressively by way of rhizomes.

Ecological Threat:

Reed canary grass forms large, monotypic stands that harbor few other plant species and are little use to most native wildlife. It constricts waterways by promoting silt deposition, yet may also encourage erosion of soil beneath its dense mats in places where water flows rapidly. Overtime, it builds up a tremendous seed bank that will erupt when sites are treated for this invasive.

Look-A-Likes:

Reed canary grass could be confused with many grasses, including the non-native orchard grass (*Dactylis glomerata*) and native bluejoint grass (*Calamagrostis canadensis*).

Reed canary grass (*Phalaris arundinacea*)



Closeup of Reed canary grass plant (Photo by Field Biology of Southeastern Ohio)



Early flowering form of Reed canary grass (Photo by Chris Evans)

Reed canary grass (*Phalaris arundinacea*)



Reed canary grass growing on ROW edge.

Reed canary grass Treatment Guidance

If found in “trace” populations, hand pull or dig out the plants. When attempting to remove reed canary grass, it is essential to remove the entire rhizome carefully to ensure no re-sprouting occurs.

Larger populations must be cut or mowed, then allowed to re-sprout prior to herbicide treatment, thus depleting the rhizome reserves. Herbicides must be applied following re-sprouting, but prior to stems reaching 12 inches in height. Glyphosate (a broad spectrum herbicide) can be applied if non-target species are absent (glyphosate will impact all vegetation present) or Poast Plus (sethoxydim), a grass specific herbicide that controls annual and perennial grasses, can be used to reduce impacts to non-target herbaceous vegetation in the vicinity of reed canary grass.