

Reed Canary Grass *Phalaris arundinacea*

About

Reed canary grass is a perennial invasive grass introduced from Eurasia. It is a rhizomatous bunchgrass that forms thick mats along ditches, wetlands, and streams. These varieties of *Phalaris arundinacea* may hybridize with other bunchgrasses already present in North America to produce offspring that spread aggressively and follow the pattern of an invasive plant.

Legal Status

Reed canary grass is regulated under the *Community Charter, Spheres of Concurrent Jurisdiction – Environment and Wildlife Regulation* (https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/144_2004). Check your responsibilities according to your municipality or regional authority.

Distribution

P. arundinacea is found throughout British Columbia with most of the population being concentrated to the southern regions. It has been observed in the northern Stikine Region.

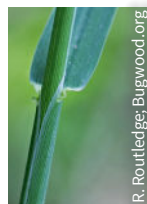
Identification

Flowers: Long, fluffy-looking collection of spikelets that appear purplish early in the season, and then change to straw-coloured as they mature. Flowering occurs in June and July in the Pacific Northwest. Flowers grow in dense, branched clusters.



Theutter; Bugwood.org

Stems: Culms (hollow stalks like those of bamboo), that are capable of regenerating into a new plant if the cut portions contain nodes. Can grow up to 2 m in height.



R. Routledge; Bugwood.org

Leaves: Long green leaves are flat, often rough on both surfaces and sometimes are striped. Leaves grow from the stem at a right angle, are flat and taper to a point. Leaf blades can be 9-25 cm long, up to 2 cm wide, much wider than most other grasses.

Seeds: Late summer changes the flower to a straw colour indicating seed maturity. Plants produce large quantities of highly mobile seeds even in the first year of life. Seeds are capable of germinating immediately after ripening.

Similar Species: Orchard grass (*Dactylis glomerata*) looks similar but is smaller, and the flowers are less feathery.

Immature culms can be mistaken for European common reed (*Phragmites australis* spp. *australis*).

Ecological Characteristics

Habitat: Often found in the open areas on the edges of rivers, wetlands, and streams. It grows best in very moist soils and will tolerate being submerged for prolonged periods of time, although that will limit growth.

Reproduction: Reed canary grass reproduces through seeds, rhizomes, and tillers. When established it can build up a very large seed bank. This allows it to form extremely dense monocultures that suppress native plant species. Clonal reproduction via regrowth of cuttings of the culm also occurs in this species.

Dispersal: Natural dispersal occurs along waterways and to other new areas via seeds or pieces of stem, roots, and rhizomes. Reed canary grass was also introduced to many areas as livestock feed and for erosion control.

Impacts

Ecological: Reed canary grass can drastically alter stream flow, increase bank sedimentation, and obstruct salmon migration routes. Dense monocultures can displace native species, overtake entire wetland communities, prevent regeneration, and smother the natural seed bank of native species.

Economic: Some cultivars are fed to livestock, but others are toxic to cattle and sheep. These can reduce available forage and increase associated costs. Reed canary grass seed contamination can reduce crop yields and increase costs associated with removal.

Integrated Pest Management

IPM is a decision-making process that includes the identification and inventory of invasive plant populations, assessment of the risks that they pose, and development of well-informed control options that may include several methods, site treatment, and monitoring.

Prevention: Once established, Reed canary grass is exceedingly difficult to eradicate. Any new plants should be removed immediately, and the area monitored routinely.

If working with or near Reed canary grass, be sure to inspect and remove all plant parts and seeds from gear, clothing, pets, vehicles, and equipment and ensure soil, gravel, and other fill materials are not contaminated before leaving an infested area.

Consider that Reed canary grass is highly shade intolerant year-round when planning restoration to discourage growth and seed germination.

Do not buy, sell, trade or plant *P. arundinacea* plants or seeds for any erosion control or ornamental purposes.

Mechanical Control: Hand-pulling small infestations will work, but future monitoring for regrowth from seeds or plant fragments is necessary. Mowing prior to the seed set will help reduce the seed bank but will not kill plants or eradicate infestations. All cuttings, roots, and rhizomes should be captured, bagged, and buried as new plants will grow from root and stem parts with nodes. Covering areas with tarps/mulch/cardboard to block sunlight will also reduce biomass but should be maintained for at least one growing season.

Chemical Control: Herbicide recommendations and use must consider site characteristics and be prescribed based on site goals and objectives. Herbicide labels and other sources of information must be reviewed before selecting and applying herbicides.

Since this grass often grows in riparian habitats, herbicide usage is limited and there are currently no herbicides registered for aquatic use that are recommended for this species. The use of herbicides in aquatic environments in Canada is extremely limited and very restrictive. Glyphosate herbicides are effective on Reed canary grass but cannot be applied within or allowed to enter the pesticide-free zone (PFZ) of 1 m from the high-water mark. <https://www2.gov.bc.ca/gov/content/environment/pesticides-pest-management/business-industry/authorization-to-sell-or-use-pesticides>. Other effective and registered products are restricted to the 10 m PFZ. Exceptions require approval by a permit in BC.

Application of pesticides on Crown Land must be carried out following a confirmed Pest Management Plan (*Integrated Pest Management Act*) and under the supervision of a certified pesticide applicator. <https://www2.gov.bc.ca/gov/content/environment/pesticides-pest-management>.

Disposal: Note: Disposal of invasive plants varies by region. Contact your local government for specific information on how to dispose of your invasive plants.

- » Tarp and bag removed plants, plant parts, and seeds before transporting to a designated disposal site (e.g., landfill or transfer station).
- » Plant parts or infested soil should undergo deep burial (at least 5m deep) at a landfill.
- » Never compost as the rhizomes and stems can grow new roots under moist conditions.



Reporting

Report Reed canary grass by using the mobile Report-Invasives-BC app for Apple and Android platforms <https://bcinvasives.ca/take-action/report/>.

Report online to the Province or the ISCBC at info@bcinvasives or 1-888-933-3722. <https://forms.gov.bc.ca/industry/report-an-invasive-species/>.

References/Links

https://bcinvasives.ca/wp-content/uploads/2021/01/Grass_Gone_Bad_Webinar.pdf.

<https://fviss.ca/invasive-plant/reed-canarygrass>.

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