Common Reed or Phragmites: Options for Control

Common Reed (*Phragmites australis*), **a class-C** noxious weed in Lincoln County, Wash. *also known as* **Phragmites**, is of the Poaceae family. There are both native and non-native strains of this plant in Washington. Due to its **aggressive** tendencies and **impact** to **waterways**, the non-native strain or haplotype was added to the Washington State Noxious Weed List in 2003. Unfortunately, only the non-native strain is known to be present in Lincoln county, thus far.

Phragmites originates from Eurasia. It is found in marshes and in shallow water along the shoreline of lakes, ponds, swamps, ditches, streams, canals, rivers, and estuaries. Once established, Phragmites **spreads** by **rhizomes** and **stolons** and often forms **dense**, monospecific colonies. Rhizomes are reported to grow up to about 6 feet per year and be **as long as 60 feet**. It is a cane-like grass that commonly grows from **12 to 16 feet in height**, forming dense stands. Stems are round and hollow with flat leaves along its length. Leaves are long (up to 24 inches by 2 inches wide) and gradually taper to a point. The seed head is at the end of the stem and is multi-branched, 8 to 16 inches long. Silky hairs along the flowers axis give a silky appearance.

Phragmites will typically form an exclusive stand that **chokes out** other vegetation, quickly becoming a **monoculture**. Dense colonies of Common Reed may **impede** water flow, recreational activities such as fishing, and **restrict** view from shoreline areas. Researchers have recently begun investigating the potential for biological

Close-up of Phragmites spikelet

Do not disturb the rhizomes. Breaking them up may result in an increased population and encourage its spreading.

Clones of Phragmites commonly expand by vigorous lateral growth of large rhizomes.

Key identifying traits

- **Leaves** of Common reed grow alternately along the top half of the stem.
- **Leaves** are flat and strap-like; an inch or more wide, tapering to a long point, growing up to 2 feet long.
- Erect, smooth **stems** can grow as high as 6 to 15 feet tall.
- Silky **inflorescence** grow at the tops of the stems, draping to one side growing one to two ft. long, and several inches wide.

Biology and ecology

- **Robust perennial** grass, reproduces by **rhizomes** and **seeds.**
- **Habitat:** Along streams, lakeshores, around ponds, sloughs, ditches.
- Stout, **creeping rhizomes** form dense colonies
- **Rhizomes** grow up to **6 feet a year** and as **long** as **60 feet.**
- **Seeds** are generally **only viable** for **1 or 2 years**.
- Dense silky **flowers** develop in late June and **seeds** are formed by August .
- Can **grow** in water **several feet deep** or on lakeshores, riverbanks and ditches, and can cover large areas.

The ligule where the leaf attaches to the stem is the most definitive characteristic separating the native from the non-native species.

Flowering begins late June, and seeds are formed by August.

As seeds mature, the panicles begin to look "fluffy" due to the hairs on the seeds and take on a grey sheen.

Expectations are low for restoring wetlands already colonized by large, long-established populations of Phragmites in disturbed landscapes.

Phragmites has a large plume-like flower that persists throughout winter.

Phragmites before seeding out on the left, and after at right

Control Measures

- **Biological:** None available.
- **Cultivation:** Disking **could potentially** result in an **increase** of Phragmites since pieces of the rhizomes can produce new plants.
- **Mowing:** Since it is a grass, cutting several times during a season, at the wrong times, **may increase stand density**. However, if cut just before the end of July, most of the food reserves produced that season are removed with aerial portion of the plant, reducing the plant's vigor. This regime may eliminate a colony **if** carried out annually for several years. Care must be taken to remove cut shoots to prevent their sprouting and forming stolons.
- **Chemical:** Aquatic Glyphosate's are labeled for control. For best results, **treat** during **late summer or fall** months when plants are actively growing and in full bloom. Due to the dense nature of the vegetation, which may prevent good spray coverage and uneven stages of growth, **repeat** treatments may be necessary to maintain control. Visual control symptoms will be slow to develop.
- You **must** have an Aquatics Pesticide license to purchase or apply an aquatic herbicide. Read label instructions before applying any herbicides!

Common Reed is a highly invasive grass. Water flow or circulation is adversely affected by this species.

Excavation of sediments may also be effective at control, but if small fragments of root are left in the soil, they lead to re-establishment.

Aquatic Glyphosate formulations have been approved by the U.S. Environmental Protection Agency for use in wetlands, is a broad spectrum aquatic herbicide that is virtually nontoxic to mammals, birds, and fish when used according to instructions.

When applied to the foliage of actively growing plants, Glyphosate is rapidly absorbed and transported throughout the plant tissues. The herbicide kills the entire plant: leaves, stems, and rhizomes. This is especially important in the control of Phragmites since it spreads through rhizomes. It may be applied in or around wetlands using aerial spray equipment, a boom or handgun from a boat, or from the shore using spray equipment. However, large stands in open areas are best treated with an aerial application by helicopter. Phragmites can be treated successfully with Glyphosate when plants are actively growing and are at mid- to full-bloom (late July through October but before a killing frost).

Treatment before or after this stage of growth may result in reduced control. Glyphosate should be applied at a rate of 6 pints per acre. Be sure to follow the dilution and surfactant rates prescribed on the product label for maximum effectiveness. The use of a surfactant ensures that the herbicide is absorbed by the plant stems and leaves. Enough herbicide should be applied to wet the plant but avoid runoff. Spray coverage should be uniform and complete. Phragmites will die within 6-8 weeks and should then be burned or mowed. In heavily infested areas some re-growth may occur from unconnected rhizomes. In addition, seedling growth may occur. For best results, the same area should be sprayed in two successive years, then spot-treated in succeeding years to prevent re-establishment.

For more information see our website @ co.lincoln.wa.us/weedboard

Photos and information courtesy of : B. Blossey, Department of Natural Resources, Cornell University; 2005 Luigi Rignanese, University of Florida; Written Findings, WA State Noxious Weed Control Board, USDA Plants Database; Plant Conservation Alliance's Alien Plant Working Group; www.nps.gov; Lake Huron Center for Coastal Conservation; Center for Aquatic Plants.

Lincoln County Noxious Weed Control Board
405 Ross St. / Box 241
Davenport, WA 99122
509-725-3646