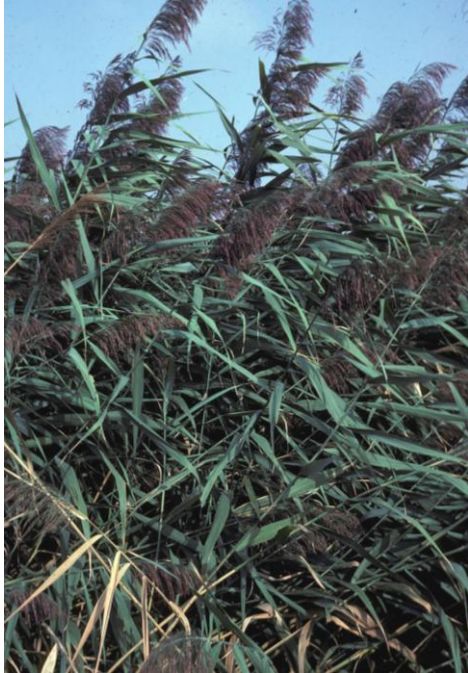


## Common Reed

*Phragmites australis* (Cav.) Trin. ex Steud.

Grass Family (Poaceae)



### **DESCRIPTION**

Common reed is a tall, perennial, wetland grass.

Horizontal stems (rhizomes) give rise to annual erect shoots that support broad sheath-like leaves and a plume-like flower head. Leaves and stems are stiff and sharp, due to a high content of cellulose and silica. Plants often originate from a rhizome fragment or occasionally from seed, and can form colonies hundreds of acres in size.

Reed canary grass (*Phalaris arundinacea*), which can be 4–5 feet tall, also forms large uniform stands in wetlands, however, it is neither as large nor as stiffly erect as common reed.

**Height** - Common reed ranges in height from 3–15 feet.

**Stem** - The stiff, smooth, erect stems are hollow, round, and unbranched. The stems can be almost woody, and are sometimes purplish.

**Leaves** - The leaf blade is 2–24 inches long and ½–1½ inches wide. It tends to be stiff and flat, with rough margins. The leaf surface is hairless and prominently veined above, the underside is smooth or sparsely hairy. Leaf blades taper to a long point and narrow slightly toward the stem. The foliage is gray-green during the growing season. The plant turns tan in the fall and most leaves drop off but the erect stems with their plume-like tips remain conspicuous in the winter landscape.

**Flower and seed** - The feathery, purple-brown, plume-like flower heads appear at the tips of the stems by late June and are 5–16 inches long. Individual clusters of flowers are arranged densely along the branches of the plume. The flowers are surrounded by silky white hairs, and are purplish at first, becoming tawny to dark brown in fruit. Seeds are brown, thin and delicate; they are approximately ⅓ inch long including a long, narrow bristle. Large quantities of seed are produced, however research has shown that few are viable.

**Roots** - Common reed has long, stout, scaly, creeping rhizomes (horizontal underground stems) that form extensive mats just below the soil surface. Roots and erect shoots are produced at the joints (nodes) of the rhizomes.

## **DISTRIBUTION AND HABITAT**

Recent research in molecular genetics has shown that although there are native North American strains of common reed, they have been largely replaced by an invasive form from Eurasia in the Northeast.

See below for a preliminary comparison of characteristics separating native and non-native forms of common reed. In attempting to distinguish between native and non-native forms it is important to remember that many of the characteristics listed in the table are qualitative differences, rather than absolutes, and may be affected by local growing conditions.

**Comparison of characteristics of native and non-native forms of common reed (Swearingen and Saltonstall 2010).**

	<b>ligule length</b>	<b>upper glume length</b>	<b>leaf sheath</b>	<b>growth form</b>	<b>culm texture</b>	<b>culm color</b>	<b>leaf color</b>
<b>North American</b>	> 1.0 mm	> 4 mm	loose, falls off	mixed stands	smooth, shining	dark red under UV	yellow-green
<b>Eurasian</b>	< 1.0 mm	< 4 mm	persistent	dense mono-culture	dull, ridged	green	gray-green

Common reed occurs throughout most of the United States and southern Canada. It grows in all areas of Pennsylvania in open wetland habitats such as along the shores of lakes, ponds, streams, brackish and freshwater marshes, and even wet fields. The species is particularly frequent in disturbed or polluted soils along roadsides, ditches, dredged areas, and almost anywhere there are slight depressions that hold moisture. One of the most common means of spread appears to be by fragments of rhizome that are transported by road maintenance equipment. Common reed is known to tolerate both alkaline and acidic conditions. Once established, it spreads rapidly.

## **EFFECTS OF INVASION**

The invasive Eurasian strain of common reed grows aggressively in areas that are disturbed or stressed by pollution, dredging or other alteration of the natural hydrologic regime. Invaded wetlands have reduced native plant diversity compared to areas without common reed.

## **REPRODUCTION AND METHODS OF DISPERSAL**

Common reed spreads mainly by elongation and fragmentation of rhizomes. Although occasional establishment of new populations may occur from seed, it appears that few viable seeds are produced.

## **CONTROL**

Careful planning and long-term management can yield varying levels of control of common reed. Because a healthy wetland ecosystem is generally resistant to invasive species, long-term control of common reed depends upon restoration of the health of the ecosystem.

**Mechanical** - Cutting, pulling, or mowing can be done in late July and should be repeated for several years. All cut shoots should be carefully removed to prevent resprouting. The placement of black plastic over cut stems has produced some success and burning in combination with herbicide application has also been effective in some situations. Hydrologic controls such as flooding for an extended period during the growing season may also be successful.

**Chemical** - Herbicide application with glyphosate is most effective in the early fall, after flowering; because common reed often grows in or near water, only formulations approved for aquatic use (Rodeo) should be utilized. Applications will need to be made at least two years in a row.

Methods of application will depend on the associated plant community but may include aerial spraying, hand-held or backpack sprayers, and hand wicking. Herbicide use in combination with burning has generally proven to be the most effective means of control, and results in minimal disturbance to wetlands. Only a biodegradable herbicide that is licensed for use in wetlands and is non-toxic to animals can be used.

**Biological** - No biological controls are known at this time.

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**Internet resources** – <http://www.paflora.org>, <http://www.invasivespecies.gov>

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