Scientific Name: *Phragmites australis* (Cav.) Trin. ex Steud.
Family: *Poaceae*

Common Names: reed grass, common reed grass, giant reed grass, carrizo

Plant Description

Perennial grass 1.5 to 4 m tall, reed-like; rhizomes stout, creeping, about 3 cm in diameter; leaf blades are flat and hairless (10 to 40 cm long); sheaths loose; ligule composed of hairs; plume-like flower cluster (10 to 40 cm long), branches ascending to drooping and covered with long silky hairs; tawny or purplish spikelets 1 to 12 flowered and up to 2 cm long; palea shorter than lemmas (Moss 1983, Royer and Dickinson 2007).
Fruit: Caryopsis (Royer and Dickinson 2007).

Habitat and Distribution

Edges of wetlands and marshes (Royer and Dickinson 2012).

***Phragmites australis* in flower**

Seral Stage: Common reed is considered both a pioneer and a climax species. It regenerates and establishes well on disturbed sites and is often considered a weedy or nuisance species. Generally, it is shade intolerant, appears early in primary open water succession, and sprouts rapidly after top-killing disturbances (Gucker 2008).
Soil: Coarse to fine textures soil, pH 4.5 to 8.7, high salinity tolerance, shade intolerant (USDA NRCS n.d.). Can tolerate salt concentrations up to 40.6 dS/m (Royal Botanic Gardens Kew 2008).
Distribution: Circumpolar, boreal. British Columbia to Nova Scotia, generally distributed to the south (Moss 1983).

Phenology

Flowers July to August (Royer and Dickinson 2007).

Pollination

Wind pollinated (Tannas 2004). Some self-pollination has been reported (Gucker 2008).

Genetics

2n=36, 48, 54, 72, 84, 96 (Moss 1983).

Symbiosis

Form associations with arbuscular mycorrhizal (AM) and dark septate endophytic (DSE) fungi (Dolinar and Gaberščik 2010).

Seed Processing

Collection: Strip seed off the plant and store in paper bag until seed can be cleaned.
Seed Weight: 0.11 g/1,000 seed (Royal Botanic Gardens Kew 2008).
Harvest Dates: July or August.
Cleaning: Screen and winnow seeds until all chaff is gone.

Storage Behaviour: Orthodox (Royal Botanic Gardens Kew 2008).
Storage: IPGRI preferred conditions (Royal Botanic Gardens Kew 2008).
Longevity: Oldest collection at Royal Botanic Gardens Kew is 15 years old and germination only changes from 93% to 90% (Royal Botanic Gardens Kew 2008).

Propagation

Natural Regeneration: By seed but spread more aggressively by rhizomes (Gucker 2008, Tannas 2004). Rhizomes can extend 5 to 10 m (Lady Bird Johnson Wildflower Center 2007).
Germination: Have achieved germinations rates 86% to 95% on a 1% agar media conditions varying. The highest germination rate was incubated at 35°C day/20°C night and received 8 hrs of light and 16 hrs night (Royal Botanic Gardens Kew 2008).
Pre-treatment: No pre-treatment was required (Royal Botanic Gardens Kew 2008).
Planting Density: 8,500 to 11,900 plants/hectare (USDA NRCS n.d.).
Direct Seeding: Difficult to grow from seed, recommend starting seedlings in greenhouse, once seedlings are established they spread rapidly from rhizomes (Tannas 2004).
Easily grown, surface sow in spring, without shade (Plants for a Future n.d.).
Vegetative Propagation: Divide in spring, any section with bud can grow a new plant (Plants for a Future n.d.).
Micro-propagation: Embryonic calli are produced in florets from inflorescences when exposed to 2,4-dichlorophenoxyacetic acid (Lauzer et al. 2000).

Aboriginal/Food Uses

Food: Root can be cooked like potato with up to 5% sugar, best when young and growing. Roots can also be dried and ground for porridge or starch.
Young shoots are good raw or cooked (potherb).
Dried leaves can be ground to add to dumpling flour.
Seeds are edible raw or cooked or dried and ground into flour. Sugar can be extracted from stalks with a sweet liquorice flavour. Stems may be boiled in water and the water boiled down to extract sugar as well. A sugary gum can be rolled into balls and eaten as sweets (Plants for a Future n.d.).
Medicinal: Leaves can be used to treat bronchitis and cholera. A decoction of flowers can treat cholera and food poisoning. The stem is an antiemetic and the root is an antiasthmatic, antiemetic, diuretic, sedative and stomachic and used to treat a variety of digestive illnesses (Plants for a Future n.d.).
Other: Used to make rope, baskets and mats by a number of native groups (Tannas 2004).
Flowers can produce a light green dye or be used as brooms (Plants for a Future n.d.).

Wildlife/Forage Usage

Wildlife: Provides good cover for wetland wildlife species (Lady Bird Johnson Wildflower Center 2007).
Livestock: Good forage for livestock, quality of forage does decrease as the season advances when the foliage becomes more fibrous (Tannas 2004).
Grazing Response: Increaser (Tannas 2004).

Reclamation Potential

Useful for stabilizing wet areas and it has been used to treat industrial wastewater (Tannas 2004).
Stabilizes banks and gradually builds soil, raising banks in time (Plants for a Future n.d.).
Able to tolerate the presence of heavy metals (Zn, Pb, Cd, Cu and others) and can be used as a bio-accumulator (Ye et al. 1998).
Difficult to eradicate once established (Plants for a Future n.d.).

Commercial Resources

Availability: No literature found.
Cultivars: No literature found.
Uses: No literature found.

Notes

Synonym *Phragmites communis* (Gucker 2008).

Photo Credits

Photo 1: Wikimedia commons, 2012.

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