



GRASSES

Native to Wetlands

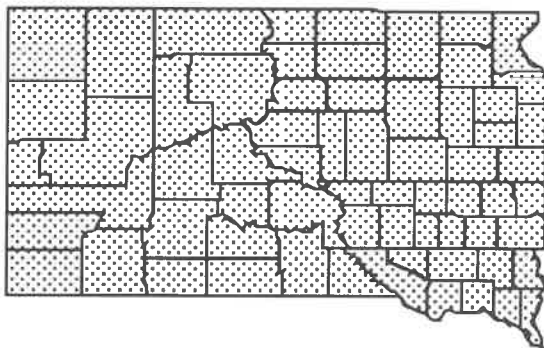
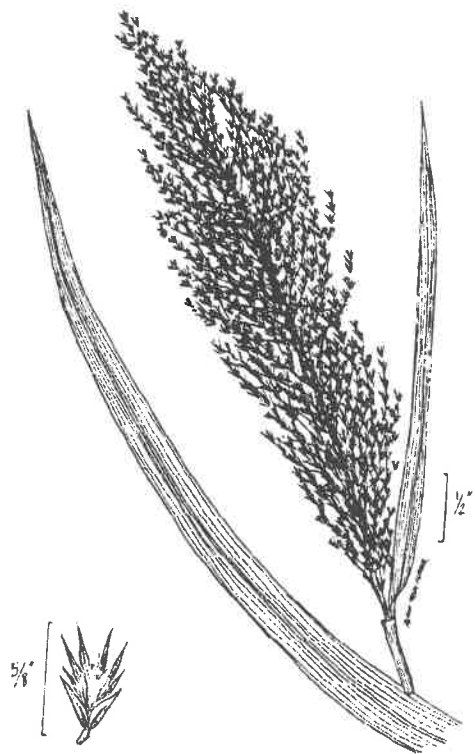
COMMON REED

(*Phragmites australis*)

Description

The tallest native grass of the prairie region does not grow in prairie, but rather in wetlands. Large, dense patches of common reed, with stems reaching to over 10 feet (3 m) tall, are common in wet ditches and marshes, and at the edges of lakes, rivers and streams throughout the state and country. By late summer, large plume-like *panicles*, up to 16 inches (40 cm) long, wave in the wind, like so many tan feather dusters at the tops of the stiff slender *culms*. The fluffy *panicles* remain aloft on the cane-like *culms* well after frost and into the winter.

The genus name of common reed, *Phragmites*, is from the Greek language and means "growing in hedges," a reference to the plant's dense, uniformly tall growth along water's edge. The



Species Distribution

second name, *australis*, is Latin and means "southern." The latter seems inappropriate, given the wide distribution of the plant.

The leaves of common reed are soft, flat and broad with sheaths that overlap for most of the length of the purplish *culm*. The blades range from 4 to 24 inches (10-60 cm) long and from 1/2 to 2 1/2 inches (1-6 cm) wide. The *ligule* is a very short membrane about 1 mm long. When the *panicle* first emerges from the uppermost leaf on the *culm*, it is smooth and purplish. As the seed head matures,

the purple fades to tan and long silky hairs emerge from among the *bracts* to give the feathery appearance. The mature *panicles* are attractive and sometimes cut and dried for use in floral arrangements.

Distribution

Common reed has been described as the most widespread flowering plant. It is found worldwide, except for the Amazon Basin of South America and in parts of tropical Africa. In South Dakota, this grass occurs in marshy habitats statewide, although it appears to be uncommon in the Black Hills.

Because the plant can reach water that is well below the soil surface, it is sometimes seen on hillsides or embankments where the water table is perched near the surface. Thus the common reed is a good indicator of a shallow water table when no surface water is present. Common reed is also quite salt tolerant, so it is often found in wetlands having high salt content in the water, including *estuaries*.

Natural History

Like most other plants that dominate wetlands, common reed forms typically pure stands by *vegetative reproduction*. A patch often develops from a single seedling that eventually produces a *clone*. Germination of the wind blown seed requires exposed wet soil, so that new *clones* start from seed mainly during a wetland *drawdown*. Once established, the plant produces stout, scaly *rhizomes* that branch and grow through the mud at the amazing rate of over 1 yard (about 1 meter) per year, giving rise to new upright stems at evenly spaced intervals along their length.

During drought periods, some of the *rhizomes* can become *stolons*, creeping over exposed mud as though in pursuit of the retreating water's edge. Either way, the result is a rapidly spreading colony limited only by the need for water of the proper depth (from within 3 feet of the soil surface to no deeper than 2 feet

over the soil) and competition from other aggressive marsh plants like cattail and bulrushes. No wonder the common reed is considered a weed in many parts of the world.

Significance

Common reed is of some value as protective cover for ducks during their flightless molting period of late summer, and it creates excellent nesting sites for several nongame marsh birds, including the abundant yellow-headed and red-winged blackbirds. The *rhizomes* and young shoots are a favorite food of muskrats, and they can even be cooked for human food. Common reeds also provide winter cover for resident wildlife species such as deer, pheasants, foxes, coyotes, and raccoons.

Waterfowl biologists usually consider common reed to be an undesirable plant in our marshes because of its tendency to eliminate open water needed by ducks and their broods as feeding habitat. For this reason, large stands of reed are sometimes mowed during winter or burned to provide openings. Thick stands of reed can even become an obstacle to large game animals and humans, because the tough woody *culms* can remain standing for up to four years, creating a tangled barricade of old stems. Seed production is generally poor and the grains are very small, so the plant really provides little if any food for waterfowl.

Because it is so widely distributed, the common reed has been put to various uses by people around the world. Natives of the American Southwest made arrow shafts from the woody *culms*. The coarse stems were used for thatching and for weaving mats. The stem fibers are tough and can be twisted into string used for cordage and nets. In the Danube Delta of Romania (southeastern Europe) large areas of reed have actually been "farmed," with large scale harvesting of stems done annually for paper pulp production. Thanks to their rapid and vigorous growth, reed colonies are efficient in removing dissolved nutrients

(mainly nitrates and phosphates) from polluted water. For this reason, common reed is sometimes planted (along with cattails) into lagoons for the final

treatment of municipal waste water. The extensive system of roots and *rhizomes* also makes reed a good plant for protecting shorelines from wave erosion.

Glossary

Bract - a reduced, modified leaf associated with the flowers.

Clone - a population of individuals all produced from the same plant, genetically identical to the parent.

Culm - the stem of a grass or grass-like plant.

Drawdown - the drying phase of a wetland when water declines leaving exposed soil.

Estuaries - marshes along coastlines where salty sea water mixes with fresh water from the inland.

Ligule - in grasses, a membrane or fringe of hairs that extends upward from the leaf sheath where it adjoins the leaf blade.

Panicle - a branched and rebranched flower or seed head in which the flowers are borne at the tips of the branches.

Rhizome - a modified, often scaly, underground stem that produces roots and new shoots along its length.

Stolon - similar to the rhizome but creeping over the soil surface.

Vegetative reproduction - development of a new individual from a non-sexual part of the plant such as from a leaf, stem or rhizome.

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