

# Common reed

United States Department of Agriculture

Natural Resources Conservation Service Plant Materials Program

## Phragmites australis (Cav.) Trin. Ex Steud.

'Southwind'

A Conservation Plant Release by USDA NRCS Manhattan Plant Materials Center, Manhattan, KS



Figure 1. Field of Southwind Common reed in a vegetative state. Photo by R. Alan Shadow, ET PMC

'Southwind' Common Reed (*Phragmites australis*) is a cultivar released in 1998 in cooperation with the Kansas State University Agricultural Experiment Station.

### Description

Southwind is a warm-season, perennial reed-like grass with culms 3 to 14 feet tall. New growth is initiated from stout rhizomes that spread horizontally below the soils surface. This species also spreads via stolons that are horizontal stems that run above the soils surface. The stout erect stems are smooth and have a hollow center. Leaf blades are rolled in the bud, flat at maturity, smooth and not hairy, mostly 12 to 18 inches long and 3/4 to 1 1/2 inches wide. The inflorescence is a dense, plumose panicle up to 18 inches long, with branches, spikelets are 3 to 6 flowered and caryopses are ellipsoid, 1/16 inch long. Germination of carvopses collected at the Manhattan PMC indicated that Southwind seed units germinated at a rate of 43.5 percent. Germination speed also increased under higher temperature treatment regimes.

### Source

Original source materials collected in Pottawatomie County, Kansas and Woodward County, Oklahoma and grown adjacent to each other for over 20 years. Selection of material for Accession 9050017 was performed on the basis of cold tolerance, drought resistance, plant vigor and rate of spread.

### **Conservation Uses**

Common reed grows well in wet soils along stream bank and shoreline stabilization areas with conservation uses especially for dam face erosion problems. Common reed is palatable and readily eaten by livestock in its juvenile or rapidly growing phase. It becomes tough and stemmy as it matures which reduces its palatability for livestock consumption. It is not particularly beneficial to wildlife as habitat or for food. It has been successfully used in rockreed filter systems in domestic septic filter fields in southeastern Kansas. Its vegetative growth and reproduction are ideal for erosion control on potentially wet sites.

### Area of Adaptation and Use

'Southwind' has potential for use in eastern Kansas and Oklahoma where the rainfall totals are 30 inches or greater. Common reed is well adapted to a wide variety of soils as long as moisture and fertility are adequate. Common reed grows on wet soils along lakes, streams, and marshes where salinity is low. Established stands can withstand considerable periods of drought.

# Establishment and Management for Conservation Plantings

Prepare a tilled, firm, weed free area on new establishment sites. Fertilization of the site, with a 50 pound per acre rate of nitrogen and phosphorous, will aid in overall plant establishment. Rhizome pieces, approximately 6 inches long containing at least two nodes, should be planted at a one to two foot interval in a 4 to 6 inch deep trench. A minimum of three rows, 40 inches apart, should be planted beginning at the waterline and moving up slope. Water should be applied at planting time if the site is not moist. Site should be kept moist to help ensure plant growth and establishment. Livestock need to be excluded from the area until plants are firmly established. Establishment on old dam sites can be accomplished by digging post holes 6 inches deep, 8 inches apart in a row with 2 feet between rows up the slope. Again plant a minimum of three rows beginning at the waterline and moving up slope. One horizontal and three vertical rhizomes should be planted per post hole. The holes should then be filled with soil, firmed, and watered to aid in establishment.

### **Ecological Considerations**

Common reed is a vegetatively aggressive species that reproduces by rhizomes and stolons. These horizontal stems can grow 30 to 45 feet in a growing season under favorable moisture and fertility conditions. Under good conditions common reed can become a monoculture stand in a short amount of time choking out other plant species. This is not ideal for wildlife habitat or species diversity in an ecosystem.

### Seed and Plant Production

Rhizome production fields can be established with rhizomes being placed 2 feet apart within the row and row spacing of 6 to 8 feet between rows. Two growing seasons are normally required prior to digging rhizomes for sale. With the wide between row spacing, the producer can alternately dig on one side of the row one year and the other the next. Thus, allowing the original plants time to recover yearly without undue stress on the individual plants and maximizing stand persistence and longevity.

#### Availability

*For conservation use:* The general commercial availability of the material is limited. There is only a Certified Class of rhizomes recognized; there is no Registered Class for this release.

*For plant increase:* Foundation class stock (rhizomes) is available and maintained by the Manhattan Plant Materials Center.

*For more information, contact:* Manhattan Plant Materials Center 3800 South 20<sup>th</sup> Street Manhattan, KS 66502 (785) 539-8761 FAX (785) 539-2034 http://www.plant-materials.nrcs.usda.gov

#### Citation

Release brochure for Southwind Common reed (Phragmites australis). USDA-Natural Resources Conservation Service, Manhattan PMC, Manhattan, Kansas 66502. Published: [March 2013]

For additional information about this and other plants, please contact your local USDA Service Center, NRCS field office, or Conservation District <<u>http://www.nrcs.usda.gov</u>>, and visit the PLANTS Web site <<u>http://plants.usda.gov</u>> or the Plant Materials Program Web site <<u>http://www.plant-</u> materials.nrcs.usda.gov>