

complete fertilizer is recommended. If possible, sewage effluent should not be introduced onto the site until the plants become fully established.

Another establishment method is to use greenhouse grown seedlings. The seed will not shed out of the cluster and therefore can be collected anytime from September to November. The fruiting head should be cut from the plant and stored dry and cool until use. The seed is difficult to remove from surrounding flower parts without specialized equipment, so the most satisfactory method will be to cut or tear the cluster into smaller pieces and sow them without further cleaning. Seed will germinate with or without stratification (cool, moist treatment), but three months of stratification may increase the uniformity of germination. To stratify, moisten the planting pieces thoroughly, place them in a plastic bag and store them in the refrigerator. The pieces should be sown on the surface of the growing medium and lightly covered. The medium should be kept constantly moist until the seedlings are about one inch tall, then allowed to dry somewhat between waterings. A large number of seedlings will grow from the planting pieces, so they should be

leaves are present. The seedlings can be planted on the wetland site when 4-6 inches tall.

Management

Leaf River Source requires very little care. Fertilization is not recommended unless the growing site is extremely infertile. Some leaves generally remain green throughout the winter; however, the dead seed stalks are somewhat unsightly and may be cut if desired. Weed growth may become a problem in older stands

Availability

For additional information on availability, propagation and use of Leaf River Source woolgrass, contact your local NRCS office. It is listed in the telephone directory under "U.S. Government, Department of Agriculture, Natural Resources-Conservation Service."

**Natural Resources Conservation Service
U.S. Department of Agriculture**

**Cooperating with
Mississippi Agricultural and Forestry
Experiment Station**

**and
Department of Wildlife and Fisheries
Mississippi State University**

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Leaf River Source woolgrass



Natural Resources Conservation Service

**Jamie L. Whitten Plant Materials Center
Coffeerville, Mississippi**

Leaf River Source woolgrass

Leaf River Source woolgrass, *Scirpus cyperinus* (L.) Kunth, is recommended for use in constructed wetlands and home septic systems. It can also be used for soil stabilization around the edges of lakes and ponds. The plants can provide cover for wildlife and nesting sites for some bird species.

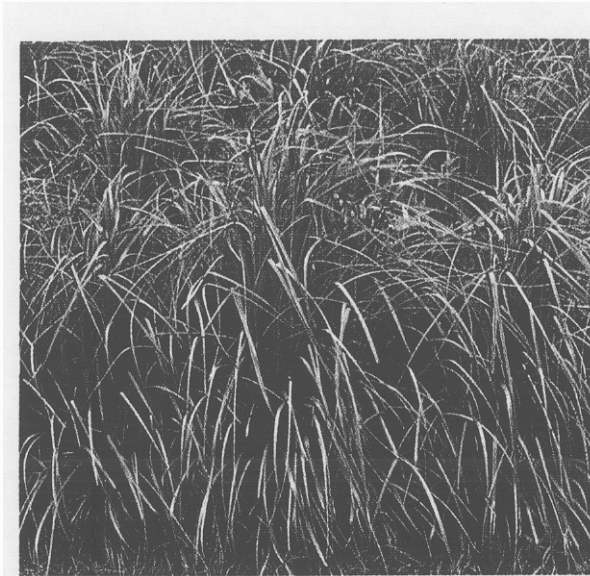
It was released as source identified material in 1996 by the Natural Resources Conservation Service (NRCS), the Mississippi Agricultural and Forestry Experiment Station (MAFES), and the Department of Wildlife and Fisheries at Mississippi State University.

Description

Leaf River Source is a clump-forming perennial with short rhizomes. The grass-like basal leaves are up to 4.5 feet in length and arch outwards from the base of the plant like a fountain. The flowering stems are 4-6 feet tall, leafy and somewhat coarse. The dense inflorescence contains numerous pale green flowers that become brown and woolly as the seeds mature. The tiny seeds are light tan and have numerous long bristles attached to them. Flowering begins in June and seed matures by September. The seeds are too small to be accurately counted, but there are at least 8 million per pound.

Adaptation

Leaf River Source was collected in southeastern Mississippi, but this species is fairly common throughout the state. The native range of woolgrass extends from Newfoundland westward to Saskatchewan, south to Florida and



East Texas. Leaf River Source has not been tested at locations other than the NRCS Jamie L. Whitten Plant Materials Center in Coffeerville, Mississippi.

Woolgrass is an invader of wet, disturbed sites and is tolerant of a wide range of hydrologic, soil, and chemical conditions. It has been found to take up heavy metals from soils. The nutrient loading capacity of Leaf River Source has not been determined, but it should tolerate moderate levels of sewage effluent.

Woolgrass is adapted to swampy or shallow water areas, so it will not tolerate long periods of inundation, particularly during the growing season. Best growth is in areas ranging from wet soil to water four inches deep. Well established plants have fairly good drought tolerance.

Establishment

It is not practical to direct seed Leaf River Source on most planting sites. It can be established using planting pieces divided from mature clumps. Each planting piece should contain a healthy shoot, a small section of rhizome, and a mass of roots. The best planting pieces are obtained from fairly young plants, because older (more than two years) clumps have fewer shoots and are difficult to divide. Care should be taken when dividing this plant because the leaves have a sharp edge that can easily cut skin. The shoot can be clipped to aid planting, but the leaves must extend several inches above the waterline; a length of 8-12 inches will be acceptable for most planting sites. If a solid stand is required, plants should be planted no more than two feet apart, because they will not spread far from the initial planting point. On sites where water levels can be manipulated, plants will establish quickly if the soil can be kept saturated with little standing water. Once the plants begin growth, water levels can be raised and a light application of

