

plants can be planted year round, but spring and fall planting will be less stressful. Recommended plant spacing is 2-3 feet. After planting, water levels should be kept at about 1-2 inches until the plants become established. A light application of complete fertilizer may be applied to aid establishment. Sewage effluent should not be allowed onto the area until the plants are fully established.

There is a lack of information on methods to propagate this plant from seed. Seedling germination has been noted along the margins of the PMC growing ponds, but germination testing in the greenhouse has not produced acceptable results. There are approximately 1.3 million seed per pound.

Maintenance

Established plants will tolerate water depths up to one foot during the growing season, with greater depths acceptable when the plants are dormant. If the growing site is infertile, the plants will respond to two or three light applications of complete fertilizer during the growing season. Burning or mowing is not recommended. No pest or disease problems have been noted, however, some late summer leaf dieback has been noted at the PMC. It is not known if this dieback is due to exposure to full sunlight or to poor water quality in the growing ponds.

Availability

For additional information on availability, propagation and use of Leflore Source creeping burhead, 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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Leflore Source creeping burhead



Natural Resources Conservation Service

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Coffeeville, Mississippi

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Leflore Source creeping burhead, *Echinodorus cordifolius* (L.) Griseb., is an ornamental aquatic plant that is recommended for use in shallow ponds and pools. It may also be suitable for use in constructed wetlands. Wildlife benefits have not been documented, but it can provide some cover for smaller 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

Leflore Source is a creeping annual or short-lived perennial. The leaves are broadly heart-shaped, 2-7 inches long and almost as wide. The principal veins are conspicuous and impressed on the upper surface of the leaf blade. The



petioles are 4-20 inches long, enlarged and spongy towards the base. The flowering shoot (*scape*) can reach 3 feet or more in length; scapes are upright when young, often drooping and rooting at the tips to produce new plantlets. Numerous whorls of flowers with white petals and greenish centers are located along the scape. Flowering begins in June and continues until frost. The fruiting heads are round, bur-like clusters of small brown seeds.



Adaptation

Leflore Source was collected in the Mississippi Delta and has not been tested at locations other than the NRCS Plant Materials Center (PMC) in Coffeeville, Mississippi. The native range of the species is from Maryland south to Florida, west to Missouri and the panhandle of Texas.

This species has not been used extensively in commercial situations, so its environmental tolerances are not documented. It is usually found growing in swamps, wet woodlands, marshes, and ditches. There are some indications that it prefers a slightly shaded location. Best growth is generally on wetland soils with fairly high organic matter. Leflore Source has not been tested in wetlands subject to sewage effluent, so its adaptation to those conditions is not known.

Establishment

Leflore Source is established using transplants. The creeping nature of this plant produces numerous small plantlets that can be dug and divided from the parent plant. Larger plants can also be dug and should be planted without further division. Cutting the leaves before planting is usually not necessary unless they are unusually tall, however, cutting any attached flower scapes is recommended. The

