United States Department of Agriculture
NRCS Natural Resources Conservation Service
Plant Fact Sheet
Plant Materials Program

GULF-COAST SPIKERUSH

Eleocharis cellulosa Torr.

plant symbol = ELCE

Contributed by: USDA NRCS Kika de la Garza Plant Materials Center

Uses

Wildlife: Gulf-coast spikerush (*Eleocharis cellulosa*) can be used as a wetland restoration plant within its range. It provides habitat for waterfowl and other wetland wildlife, including snow geese and mottled ducks. Its seeds are an excellent food source for ducks. Snow geese, mallards, mottled ducks and pintails will eat the tubers. Geese will also eat the basal portions and rhizomes.

Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status (e.g. threatened or endangered species, state noxious status, and wetland indicator values).

Description

Gulf-coast spikerush is a member of the Cyperaceae or sedge family. It is a native, rhizomatous perennial, often forming extensive colonies. It grows from a tuberous rootstock and can reach 30 inches in height. Often there are small (3-6mm), whitish tubers found growing along the roots. It produces seed heads throughout the warm season.

Gulf-coast spikerush has approximately 360,000 seeds per pound, and can produce 10 to 53 pounds of seed per acre.

Adaptation

Gulf-coast spikerush is frequently found in fresh-water mud on the edges of ponds, creeks, and marshes, but can tolerate salinities up to 3.5 ppt. It can be found in the coastal areas from North Carolina to Texas and south to Mexico, and also grows in the West Indies and Bermuda. In Texas, it is present throughout South Texas, predominately in the coastal regions and the Edwards Plateau, and more rarely in the Rio Grande Plains and East Texas.

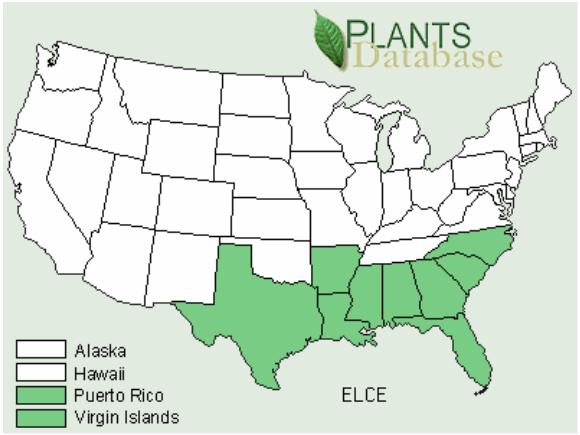
Establishment

Gulf-coast spikerush may be propagated from rootstocks, division of rhizomes, or seed. Additionally, whole plants may be transplanted. We recommend using one of the vegetative methods of propagation with gulf-coast spikerush at this time. Although we have been able to grow new plants from seed, germination rates have not been high, and the survival rate of new seedlings has been only about 25%.

Management

Gulf-coast spikerush generally requires little management. Plants seem to survive at a variety of water levels. Plants need to be dewatered (drained) in early spring after geese have fed there to allow new plants to regrow. Deep flooding after geese have caused damage to the plants can result in a complete loss of the stand.

Known Distribution



Pests and Potential Problems

If you must grow gulf-coast spikerush from seed, use of wet-stored seed (seed stored submerged in a container of de-ionized water in a refrigerator at 35ºF) is recommended. A 28 day study conducted at the Kika de la Garza Plant Materials Center in the spring of 1999 found that at temperatures between 72º and 85ºF, seed that had been stored in water in a cool place would germinate (9.5% germination), but that dry-stored seed stored in a cool place would not. In addition, a second gulf-coast spikerush germination study conducted by the Kika de la Garza PMC had the best success germinating wet-stored seed (17.5%). This study used temperatures between 70ºF and 100ºF. Minimal germination of dry stored seed was achieved during this study. A third study at the Center also used the warmer temperatures, but found no significant difference in germination between wet and dry-stored seed, or between harvest years.

Seedings are best done in the summer when the day temperatures are hot. Seeds should be laid on a bed of moistened soil. The soil should be kept moist until seedlings have matured to a height of a few inches tall. If conditions are too dry, the seedlings will wilt and die. If the seedlings are too wet, they are subject to damping off. Once established though, the young plants are fairly hardy.

For additional assistance regarding the production and establishment of gulf-coast spikerush, please contact the Plant Material Center at (361) 595-1313.

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For more information about this and other plants, please contact your local NRCS field office or Conservation District, and visit the PLANTS <http://plants.usda.gov> and Plant Materials Program Web sites <http://Plant-Materials.nrcs.usda.gov>.

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