



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

Cajun Sunrise Germplasm ashy sunflower *Helianthus mollis* Lam.

A Conservation Plant Release by USDA NRCS Golden Meadow Plant Materials Center, Galliano, Louisiana



Gary Fine. Bayou Land RC&D.

Cajun Sunrise Germplasm ashy sunflower

Cajun Sunrise Germplasm ashy sunflower, (*Helianthus mollis* Lam.) is a selected plant material cooperatively released in 2012 with the Golden Meadow and East Texas Plant Materials Centers, and the Louisiana Native Plant Initiative (LNPI) partners.

Description

Ashy sunflower is a native, warm-season, perennial forb and is a dicot of the family Asteraceae. It is typically found growing in well-drained soils and full sun. Stems are erect, solitary or clustered, densely pubescent gray, growing from rhizomes to a height of 3.5 feet. Leaves are opposite, stiff, ascending, sessile and clasping with a rough-hairy grayish-green surface to 4.75 inches long and 3.25 inches wide. Leaf margins are entire to shallowly toothed with a pointed tip. Inflorescence consists of single flower heads terminating stems. Flowers exhibit 15-30 yellow petals (sterile ray florets), 1-1.25 inches long encompassing fertile yellow disk florets compressed to 1 inch in diameter. Each disk floret has a glabrous corolla tube to .25 inch long, and 5 stamens with whitish filaments and dark-brown anthers. Fruits are achenes that are wedge shaped, dark-brown or black, and tipped by two scales with pointed tips each enclosing a small single seed. Ashy sunflower is hardy, tolerant to fairly extreme climatic conditions, and is a prolific seed producer.

Source

Cajun Sunrise Germplasm ashy sunflower is a composite selection of 10 accessions collected from southwestern Louisiana within MLRA 151. Collections were planted at McNeese State University Ag Farm, Coastal Plains Conservancy Kayouche Prairie, Nicholls State University Ag. Farm, and University of Louisiana at Lafayette Center of Environmental and Ecological Technology, and the East Texas Plant Materials Center (ETPMC) for seed

increase. Observational evaluations were used to determine vigor, survival, and potential seed production (germination potential and high seed production).

Uses

Conservation/Restoration: Ashy sunflower can be used to increase forb diversity in conservation plantings. Annual stems are produced from underground rhizomes, allowing ashy sunflower to spread and form dense plant clusters, reinforcing soil and preventing erosion.

Livestock: it is a palatable livestock forage species.

Ornamental: The bright yellow flowers and unique grayish-green, neatly shaped, densely hairy leaves of ashy sunflower make it an excellent candidate for use in native gardens.

Restoration: Ashy sunflower can be used for conservation planting for habitat development, prairie restoration, landscaping, and range and pasture maintenance. It can be used in filterstrip plantings.

Wildlife: Butterflies, bees, flies and other plant insects visit the flowers. Upland game birds, and small non-game birds consume its seeds. Seeds and young foliage is consumed by small rodents, deer, rabbits, and livestock. Habitat and cover are provided to birds and small mammals by individual plant clusters and dense colonies formed with other shrub like plants.

Area of Adaptation and Use

Cajun Sunrise germplasm is adapted for use in southern Louisiana, southeast Texas, and southern Mississippi. It is adapted to the following MLRA's: 131A Southern Mississippi River Alluvium; 131B Arkansas River Alluvium; 131C Red River Alluvium; 131D Southern Mississippi River Terraces; 133A Southern Coastal Plains; 133B Western Coastal Plains; 134 Southern Mississippi Loess; 150A Gulf Coast Prairie; 151 Gulf Coast Marsh; 152A Eastern Gulf Coast Flat Woods; 152B Western Gulf Coast Flat Woods.

Establishment and Management for Conservation Plantings

Begin seedbed preparation in advance of spring planting. Prepare a clean, weed free seedbed by either tillage of herbicides. Ashy sunflower is best seeded using a drill or planter. Broadcast seeding may be used, but additional coverage such as cultipacking or light dragging should ensure good seed to soil contact.

Cajun Sunrise Germplasm has an average of 138,000 seed per pound. Planting rates are projected at 6.3 pounds PLS (pure live seed) per acre when targeting 20 live seed per square foot or 9.5 pounds PLS per acre when targeting 30 live seed per square foot. Seed should be planted ¼ inch or less deep. In planting mixtures, reduce the rate according to the percent of ashy sunflower desired.

Ecological Considerations

Ashy sunflower may have an allelopathic affect on radish and wheat root and shoot development, and inhibited radical development of little bluestem.

Seed and Plant Production

Seed production fields are planted in the spring on 40" rows. The fields are irrigated to aid in stand establishment.

Avoid excessive fertilization due to the potential for lodging which reduces harvesting efficiency. Seed production fields can be harvested with a conventional combine in late October. Seed need to be air dried before processing. A two screen scalper is used to separate stems and leaves from the seed. The bulk material is cleaned using a three screen air cleaner. Cleaned seed yields are approximately 100 pounds per acre.



Figure 2: Photo showing seed size

Seed of ashy sunflower should be cold moist stratified for 60 days before germination testing. In tests at the ETPMC, seed germination has varied from 61% to 86%.

Availability

For conservation use: Seed availability is limited at this time. Commercial seed growers are being recruited.

For seed or plant increase: Seed for commercial production will be distributed through the Louisiana Native Plant Initiative partnership.

First Generation seed (G0) equivalent to breeders seed is maintained at the USDA-NRCS East Texas Plant Materials Center, Nicholls State University Farm, University of Louisiana Lafayette-Center for Ecology and Environmental Technology and McNeese State

University Agriculture Farm. Generation 1 (G1) seed will be made available for commercial seed increase by the Golden Meadow Plant Materials Center, 438 Airport Rd, Galliano, LA 70354. Production is limited to five generations.

For more information, contact:
Golden Meadow Plant Materials Center,
438 Airport Road
Galliano, LA 70354
Phone: (985) 475-5280
Fax: (985) 475-6545
<http://plant-materials.nrcs.usda.gov/lapmc>

Citation

Thomassie, G. Riche', C. and Houck, M. 2012. Release Brochure for Cajun Sunrise Germplasm, ashy sunflower (*Helianthus mollis* Lam.). USDA-Natural Resources Conservation Service. Galliano, LA, 70354.

Published July, 2012.

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

Helping People Help The Land

USDA IS AN EQUAL OPPORTUNITY PROVIDER AND EMPLOYER