



USDA-NRCS James E. "Bud" Smith PMC

'Aztec' Maximilian sunflower (*Helianthus maximiliani* Schrad.) was released from the James E. "Bud" Smith Plant Materials Center in Knox City, Texas in 1978.

Description

Maximilian sunflower is a native perennial forb. Plants have one to several stems that range in height from three to nine feet tall. The leaves measure six to eleven inches and are alternate, lanceolate, and acuminate. Maximilian sunflower produces a large yellow flower in late summer. Seeds are a flattened achene, with about 302,364 seeds per pound.

Source

Aztec Maximilian sunflower is a composite plant release of five collections from Throckmorton, Mitchell, Hamilton, Blanco, and Bandera Counties, Texas.

Conservation Uses

Maximilian sunflower may have potential as a renewable biofuel resource in the Southern United States. The ability to produce high yields of biomass and the wide adaptability of Aztec attracts attention for its use as a biofuel. Aztec also provides food and cover for deer, game birds, songbirds, and many other wildlife species. The foliage is highly palatable and eaten by all classes of livestock. Aztec is also an important pollinator plant. The flowering from July to October can attract many species of pollinators such as bees and butterflies. Maximilian sunflower is a caterpillar food source for Silvery Checkerspot and Border Patch butterflies. Monarch butterflies are also common at the James E. "Bud" Smith PMC when Aztec is flowering.

Area of Adaptation and Use

Aztec is adapted in most soil types in areas that receive 18 inches of rainfall or more each year. It favors soils with good internal drainage and sunny locations. Salinity and excessive wetness may reduce stands. The range of adaptability includes the southern three-fourths of Oklahoma and all of Texas with the exception of the Trans-Pecos region.

Establishment and Management for Conservation Plantings

For range seeding mixtures, use a seeding rate of $\frac{1}{4}$ to $\frac{1}{2}$ a pound of seed per acre. For planting strips or blocks, use a rate of 1 pound of seed per acre. Seed should be placed from $\frac{3}{8}$ to $\frac{1}{2}$ inch deep. In rows for hedges or screens, plant seed $\frac{1}{2}$ to 1 inch apart and thin to 8 inches apart when plants are about 2 inches tall. Allow about 3 feet to each side of planting to allow for plants to spread.

Seedbed preparation should begin the year prior to a scheduled spring seeding of Aztec Maximilian sunflower. This will help increase the chances of not having severe weed problems the first year of establishment. Plow and work the site as necessary during the summer or early fall prior to establishment to create a firm, weed-free seedbed. Work should be completed in the fall to allow time for the soil to settle and accumulate moisture.

Plantings should be well established before livestock grazing is permitted. Maximilian sunflower is sensitive to overgrazing, especially during the establishment year and should be managed accordingly. The approximate minimum grazing height is 4 inches, but contact your local U.S. Department of Agriculture-NRCS field office for assistance in planning and applying prescribed grazing plans. After establishment, Aztec requires little maintenance. Strips or blocks used for wildlife may benefit from fertilizer application to stimulate vigorous growth. Soil tests should be conducted to determine the amount of fertilizer applied to sustain a medium level of fertility.

Ecological Considerations

Aztec Maximilian sunflower has shown damage from root rot.

Seed and Plant Production

Aztec Maximilian sunflower is harvested by direct combining. Shredding during late spring to early summer will aid in the harvest process. Average seed yield is 85 pounds per acre.

Availability

For conservation use: Commercial seed is available from several commercial seed companies.

For seed or plant increase: Breeder seed will be maintained by the USDA-NRCS Plant Materials Center, Knox City, Texas and is available to seed growers through the Texas Foundation Seed Service in Vernon, Texas, phone number (940) 552-6226.



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Citation

Release Brochure for Aztec Maximilian Sunflower (*Helianthus maximiliani*). USDA-Natural Resources Conservation Service, James E. "Bud" Smith Plant Materials Center. Knox City, TX 79529. Published July, 2011.

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/>>



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