

after planting. Broadcast 10-5-10 or equivalent at the rate of 150-200 pounds per acre annually in mid-summer.

Planting date are as follows: December 1 through February 1 in South Florida; March 1 through April 15 in North Florida; or June 1 to August 1 during the rainy season throughout Florida.

Irrigation until well established (up to 6 months) is recommended for beach settings. Watering should be done only when the plants show visible signs of stress.

Disease and Insect Problems

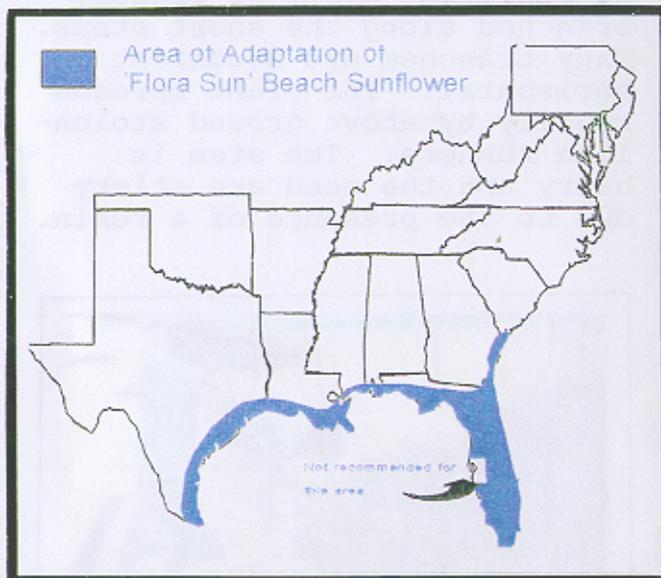
There is occasional leaf spotting, cause unidentified, that disappears after approximately 30 days without treatment. Thick vegetation may experience decay underneath. This is believed to be caused by poor air circulation.

The sunflower does not appear to be effected by insects.

Availability

The SCS-Plant Materials Center at Brooksville, Florida, will maintain breeder's material of *Flora Sun*. For additional

information on availability and use of *Flora Sun* beach sunflower, contact your local SCS office listed in the telephone directory under U.S. Government, U.S. Department of Agriculture, Soil Conservation Service.



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Soil Conservation Service



'Flora Sun'
beach sunflower



'Flora Sun' Beach Sunflower

Conservation Use

Sand dune stabilization, wind erosion protection, and beach beautification are the principle conservation uses of the beach sunflower. The seed of Flora Sun also provides food for wildlife. Though seed production is enough to warrant collection for propagation, it is propagated vegetatively to maintain the purity of the genetic base of this species, discouraging the possibility of cross pollination with other sub-species of sunflower.

Due to the attractiveness of the bright yellow flowers and deep green leaves, some protection from visitors may be necessary to protect the plant.

Collection of the original seed material of Flora Sun was made in 1977, from the community of Jensen Beach, Martin County, Florida. The material has been maintained by vegetative means since its collection.

Description

Flora Sun beach sunflower (*Helianthus debilis* subsp. *debilis*), is a low-growing, native, tender herbaceous

perennial forb [in southern Florida and a reseeding annual throughout central Florida]. Leaves alternate along the stem and are deep green on both upper and lower surfaces. Leaves are broad wedge-like to heart-shaped and approximately 5-8 cm long. Flowers are a daisy-like composite, bright yellow, and approximately 7 cm across. The plant is broadly branched along the short stems. Many branches are decumbent or horizontal. The plant spreads readily by above ground stolon-like runners. The stem is hairy and the seed are sticky due to the presence of a resin.



Under normal Florida conditions Flora Sun can be expected to flower from March through November each year. The plant is salt tolerant and thrives in situations with a low amount of available water.

Adaptation

The beach sunflower is adaptable to some poorer soils such as sandy disturbed areas, parks and solid waste reclamation sites, in addition to beaches. Flora Sun came from Florida's southeast coast and will not be likely to survive north of St. Johns County because of the cooler temperatures. Because of this, the area of adaptation is the East coast of Florida from St. Johns county south and the Gulf coast of southern Texas. In Florida, Flora Sun is not recommended for use on the West Coast and in particular introduction into an area from Pinellas to Sarasota county, to avoid the possible genetic cross with other *Helianthus debilis* prominent in that area.

Establishment

Site preparation is not an essential element for establishment. Plant soil and rootmass 1/2 to 1 inch below prevailing soil surface in rows on a 12 to 30 inch spacing. Offset plants in rows to deter wind erosion. Place one third of an ounce of slow release fertilizer, such as Osmocote 14-14-14, in the hole with each plant or broadcast 100-150 pounds of 10-5-10 fertilizer per acre two to three weeks