

# 'LK 517f Germplasm' Saltgrass

*Distichlis spicata* (L.) Greene

## Description

LK517f saltgrass is a California native, perennial, warm season rhizomatous grass forming large colonies. Saltgrass is an alternate host for the red rust which is a disease of spinach, however LK517f was selected for its resistance to red rust compared to other saltgrass accessions. LK 517f is coarse-leaved with narrow leaves that obtain an average height of 8.0 inches. LK-517F does not set seed and is propagated by distribution of rhizomes.

## Source

LK 517 saltgrass was collected from a native stand near Pixley, California at an elevation of 246 feet above sea level in May of 1982. It was evaluated in a common garden at the Lockeford Plant Materials Center against 70 other populations assembled from California. In 1993 six accessions were selected for advanced evaluations based upon vigor, growth pattern, and ecotype and disease resistance to *Puccinia aristidae*, red rust. In 1993, a replicated advanced evaluation planting of the six accessions was established near Winters, California. The advanced evaluation site had clay soils and was on the side slope of an irrigation canal. In October 1994, evaluation of the accessions confirmed 9032700 as having overall better performance.

## Conservation Uses

LK517f saltgrass germplasm is suitable for erosion control, stabilization of shorelines and riparian restoration. The grass produces an extensive rhizome system that stabilizes erodible soils. LK517f saltgrass tolerates saline and alkaline habitats. Saltgrass is an important species for wildlife providing habitat and forage for birds, mammals and invertebrates. As a summer growing grass under the Mediterranean conditions of California, it provides important shelter and forage over the summer months when other native grasses become dormant.

Saltgrass may be used in livestock production as it tolerates moderate levels of grazing due to its rhizomatous habit and stays green for longer than other grasses. The forage value of the grass is fair to good.

Saltgrass is of great cultural significance for Native American tribes in California who use the plant for harvesting salt. The leaves concentrate salt crystals and California Indians collected the salt crystals by threshing the leaf blades. This salt was used for a spice and widely traded.

## Area of Adaptation and Use

The primary adaptation of LK517f saltgrass is to MLRA 17, although it is also adapted to MLRA's 16, 18. LK517f saltgrass germplasm is suitable for riparian restoration and bank and shoreline stabilization.

## Establishment and Management for Conservation Plantings

Establishment should be in the late spring using rhizomes or plugs planted on one-foot centers. Rhizome cuttings, must not be allowed to dry out. It is recommended that the rhizomes be stored in a temperature range of 35-50° F and in 60-75% relative humidity. They may be stored up to 28 days. Rhizomes can be planted any time of the year at a depth of 1-2 inches. However, rhizomes sprout better at 77-86° F. Irrigation water should be applied the first summer to ensure stand establishment.

Saltgrass can be managed by burning between September 1 and February 1 biannually. Following burning, four inches of re-growth should be obtained before grazing is allowed.



LK517 saltgrass (*Distichlis spicata* (L.) Greene) is selected germplasm released in 2005 by the Lockeford Plant Materials Center.

### **Ecological Considerations**

Saltgrass is grazed by both cattle and horses and it has a forage value of fair to good because it remains green when most other grasses are dry during the drought periods and it is resistant to grazing and trampling. It is cropped both when green and in the dry state; however, it is most commonly used during the winter for livestock feed. The LK517f germplasm was selected on the basis of resistance to infection by *Puccinia aristidae*, red rust in trials at the Lockeford PMC. In a further trial on clay soils in Winters, CA LK515f was rated 4 for disease incidence on a scale of 1 excellent to 9 poor. Many other saltgrass cultivars are highly susceptible to the fungus and act as the alternate host for the red rust that infects spinach. Although the red rust disease is difficult for shippers to detect, it grows rapidly during transit of spinach. Since little is known about this disease, there are no recommended control techniques. Saltgrass eradication in areas adjacent to spinach production fields has been the only method used so far because the pathogen cannot complete its life cycle without this alternate host plant

### **Seed and Plant Production**

LK517f saltgrass germplasm does not set seed and is propagated by distribution of rhizomes. Due to the limited viability of the rhizomes, harvest is recommended in late winter with planting on 1 ft. centers in early spring.

### **Availability**

*For conservation use:* LK517f saltgrass germplasm is available from specialty commercial seed and plant producers.

*For seed or plant increase:* Plantings of LK517f saltgrass germplasm are maintained by the USDA-NRCS California Plant Materials Center in Lockeford, CA. Rhizomes and cuttings in limited amounts can be provided upon request.

### ***For more information, contact:***

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### **Citation**

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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 at <<http://www.plant-materials.nrcs.usda.gov>>

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