

THE UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
TUCSON PLANT MATERIALS CENTER
TUCSON, ARIZONA

AND

THE UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
LAS VEGAS FIELD OFFICE
LAS VEGAS, NEVADA

NOTICE OF RELEASE OF A SELECTION OF ALKALI SACATON
SELECTED CLASS OF GERMPLASM

The U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS), and the U.S. Department of the Interior, Bureau of Land Management (BLM) announce the release of a selected class of alkali sacaton (*Sporobolus airoides* (Torr.) Torr.) developed for use in southern Nevada.

As a selected release, this germplasm will be referred to as Vegas Germplasm alkali sacaton to document general collection location. It has been assigned the NRCS accession number 9092744. Vegas Germplasm is released as a selected class of certified seed.

This alternative release procedure is justified by the lack of existing commercial sources of alkali sacaton developed specifically for the Mojave Desert of southern Nevada. Propagation material of this species is needed for ecosystem restoration and enhancement in southern Nevada. The potential for immediate use is high. Current released cultivars of alkali sacaton were developed from other areas of species adaptation. The cultivar 'Saltalk' was collected from Erick, OK and 'Salado' from Claunch, NM.

Species:	<i>Sporobolus airoides</i> (Torr.) Torr.
Common Name:	alkali sacaton
Plant Symbol:	SPAI
Accession Numbers:	9092744

Collection Site Information

Vegas Germplasm is a composite of 4 accessions collected from native alkali sacaton stands in southern Nevada (Table 1). Plant materials were collected from distinct locations at the peripheries of southern Nevada to develop a population of alkali sacaton with a broad genetic base and adapted to the range of conditions in southern Nevada.

Description

Alkali sacaton is a native, long-lived, warm-season, perennial bunchgrass. It reaches heights of 20 to 40 inches (50-100 cm). The panicles, nearly half the length of the plant, are stiff and slender on widely spreading branches. Spikelets diverge from the panicles and have one flower. Seed fall readily from the spikelet when mature. The species is a facultative halophyte, having a broad tolerance to salinity. Alkali sacaton reproduces from seeds and tillers. It blooms from April to May, producing seed from late summer to October. Plants produce abundant seed that remain viable for many years, in fact seed germination is best after ripening for a period of several months. In natural settings seed usually germinate in July after a 9-month after-ripening period. Alkali sacaton grows in soil textures ranging from sand to clay, usually with low organic matter. Alkali sacaton may grow in saline or nonsaline soils, often occurring in pure, dense, stands. It is common in moist alkaline flats, due to its adaptation to soils containing high sodium chloride concentrations and soils containing mixtures of other salts such as bicarbonate and sulfate compounds. On saline soils it is commonly found as a primary or secondary invader. After establishment, it is tolerant of both drought and inundation by water.

Table 1. Accession number and origin of collections for Vegas Germplasm alkali sacaton

Composite Accession Number	Accession Number	BLM Number	Collection Site	Site Name
9092500	9092497	NV-052-0077R	N 36° 42.651 N 114° 42.630	Moapa
	9092498	NV-052-0055R	N 36° 42.271 N 114° 41.311	
	9092499	NV-052-0036R	Moapa NWR	
9092503	9092501	NV-052-0107R	N 37° 18' 43.3" N 115° 7' 34.7"	Pahranagat
	9092502	NV-052-0106R	N 37° 13' 58.4" N 115° 5' 25.8"	
	9092508	NV-052-0037R	Pahranagat NWR	
9092506	9092504		Ash Meadows NWR	Ash Meadows
	9092505	NV-052-0119R	Ash Meadows NWR	
9092507	9092507	NV-052-0043R	Sacaton Canyon	Sacaton Canyon

Method of Selection

Vegas Germplasm was developed from collections made at nine distinct sites within Clark, Lincoln and Nye Counties in southern Nevada. Accessions were planted in a 0.5 ac field at the PMC in June 2005. Plugs were planted into a latin square design to maximize hybridization between accessions. An experimental unit consisted of 10 plants. Seed were harvested 3 times during the growing season with the Woodward Flail vac seed stripper. For species like alkali sacaton with indeterminate flowering, this process allows for multiple harvests throughout the growing season. Multiple harvests insure that germplasm is represented in the new population regardless of time of maturity. The seed from the 3 harvests were combined to produce the Vegas germplasm of alkali sacaton.

Ecological Considerations

Vegas Germplasm alkali sacaton is a composite of naturally occurring germplasm and has undergone minimal purposeful selection. Vegas Germplasm does not differ significantly in rate of spread, seed production, or vigor from naturally occurring alkali sacaton. Vegas Germplasm spike dropseed was determined “OK to release” when evaluated through the “Worksheet for Conducting and Environmental Evaluation of NRCS Plant Releases”.

Anticipated Conservation Use

The potential uses of Vegas Germplasm alkali sacaton include restoration and rehabilitation of riparian systems, wildlife habitat improvement, restoration of disturbed areas, and for increasing plant diversity in areas along the Virgin River and other lands in the southern Nevada area.

Anticipated Area of Adaptation

Vegas Germplasm alkali sacaton was developed for use in the Mojave desert of southern Nevada. Alkali sacaton is found naturally growing in sandy to clay soils. It may grow in saline or nonsaline soils.

Availability of Plant Materials

Seed production will be maintained by the USDA-NRCS Tucson Plant Materials Center. Limited quantities of seed are available to seed producers for increase and to other interested parties as available.

References.

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Signatures for release of:

Vegas Germplasm Alkali Sacaton (*Sporobolus airoides*)

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