UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
LOCKEFORD CALIFORNIA

NOTICE OF RELEASE OF SALTGRASS FOR MAJOR LAND RESOURCE AREA 17f SELECTED CLASS OF NATURAL GERMPLASM

LK 517f Germplasm

The Natural Resources Conservation Service announces the release of a selected ecotype of saltgrass, Distichlis spicata, for Major Land Resource area (MLRA) 17f.

Origin: Tulare County, Township 23S Range 24E Section 10, elevation 246 feet.
Mean annual precipitation is 7 to 10 inches.

Botanical description of species: LK 517f saltgrass is a California native, perennial, warm season grass with extensive creeping, yellowish, scaly rhizomes forming large colonies. LK 517f is coarse-leafed with an average leaf width of 0.120 inches; average leaf length of 2.9 inches; average height of 8.0 inches.

Method of Breeding and Selection: LK 517f saltgrass was selected and tested by the USDA Natural Resources Conservation Service under accession number 9032700.

LK 517f saltgrass was collected from a native stand near Pixley, California. Employees of the NRCS (formerly the Soil Conservation Service) originally obtained the plant material on May 31, 1982. It was evaluated in a common garden at Lockeford plant materials center against 70 other populations assembled from California. In 1993 six accessions were selected for advanced evaluations. 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 slopes of an irrigation canal. In October 1994, an evaluation confirmed that accession number 9032700 was superior.

Evidence for Selected Material supporting identity of the species and performance characteristics: LK 517f was not bred but selected for its overall performance and uniformity. It has been evaluated for foliage abundance and uniformity, vigor, and resistance to disease and drought.

Summary of performance data of LK517f saltgrass, Distichlis spicata.
Randomized block plots with four replications. Evaluation taken October 1994 near Winters, California. F-A = Foliage Abundance, F-U = Foliage Uniformity, V = Vigor, DI = Disease, DR = Drought.

F-A	F-U	V	DI	DR
4	4.5	3	4	4

Rating criteria: 1= excellent, 9 = poor

Ecological Impact Assessment: There are no significant adverse effects on the environment as documented by completion of plant materials program environmental evaluation worksheet. LK517f saltgrass is a California native grass.

Area of adaptation and primary conservation use of Selected Materials: LK517f saltgrass primary adaptation is to MLRA 17f; however, it is also adapted to MLRA's 16, 18 and all of MLRA 17. Establishment should be in the late spring using rhizomes or plugs planted on one-foot centers. Irrigation water should be applied the first summer to ensure stand establishment. LK517f is used for riparian restoration and bank and shoreline stabilization.

Procedure for maintaining planting stock: The Lockeford PMC will maintain breeders and foundation planting stock.

Site description: The soil found at the collection site is a deep, poorly drained clay with a clay loam substratum. Slope is 0 to 1 percent. There is a perched water table at a depth of 3 to 6 feet. Annual rainfall is 7 to 10 inches.

Literature review: There is a need for an adapted variety of saltgrass for use through out parts of central California for riparian restoration use and for bank and shoreline stabilization. Saltgrass does not grow straight, but sprawls and forms dense mats. It is a perennial California native grass and grows in or near marsh areas. It is a warm season grass, growing from April to November. Saltgrass can be used for forage. Also, it can tolerate both water logging and long periods of drought.

Availability of plant material: Rhizomes or plugs will be made available through the Foundation Seed Service, University of California, Davis.

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References:

1. Annual Technical Report – Los Lunas Plant Materials Center, 1980.
2. Reduction of Levee Erosion in the Sacramento – San Joaquin Delta, Department of Environmental Horticulture, UC Davis.
3. The Jepson Manual of Higher Plants of California, Hickman, Ed., 1993.
4. Saline Agriculture, International Affairs National Research Council, 1990.
5. Grass, an Identification Guide, Lauren Brown, 1979.

Signatures for release of:

LK517f Saltgrass (Distichlis spicata)

CHARLES W. BELL
State Conservationist
United States Department of Agriculture
Natural Resources Conservation Service
Davis, California

5/16/02
Date

for DIANE E. GELBURD
Director, Ecological Sciences Division
United States Department of Agriculture
Natural Resources Conservation Service
Washington, D.C.

7/8/02
Date

Exhibit 540-31 Worksheet for Conducting an Environmental Evaluation on NRCS Plant Releases

Introduction

This worksheet is used to conduct and document an Environmental Evaluation of Plant Materials releases. Criteria relating to the biological characteristics of a plant, the potential impact on ecosystems, the ease of managing the plant, and conservation need are scored. These scores and their interpretation are used with a decision flowchart to determine the appropriate course of action for making a release. As with any such ranking system, it is necessary to use sound judgement and experience when interpreting the final results.

Understanding this worksheet

The primary purpose for this worksheet is to determine if the plant release has the potential to adversely affect the environment or natural surroundings. It is possible for a plant to rate low on Part 1 (Impact on Habitats), and thus be released without further consideration, and still have a high rating on Part 4 (Biological Characteristics) indicating that the plant has the ability to propagate and maintain itself naturally. Good conservation plants usually need to persist to be able to solve the conservation problem or need for which they were intended. This is even more important for plants used in critical areas, i.e. severely eroding sites. In light of this fact, the most important criteria being used in this worksheet to determine release include those in Part 1 (Impact on Habitats) and Part 2 (Ease of Management). Parts 3 (Conservation Need) and 4 (Biological Characteristics) are used when the decision is not so clear and there is the potential for a high impact on habitats and control may be moderate to difficult.

Instructions

Rate the plant or release based on the following criteria by circling your assessment. If the criteria does not apply to the species or release, then do not rate for that criteria. If you do not have enough information on the species or plant release to complete at least Parts 1, 2 and 4 in Section A, then additional data must be accumulated through literature searches, cooperators, or studies to be able to complete these sections. Additional notes which may be used to clarify or interpret the ranking should be included in the margins of this worksheet.

All rating criteria must be completed, even if it is found in Section A, Part 1 that the plant has a low impact on the environment. Evaluation of all criteria will provide documentation that a thorough evaluation was completed for the plant at the time of release. This documentation may be needed in the future if questions are raised about the potential invasiveness or control of the plant.

When finished with ranking, interpretation, and decision making, record the final decision on the next page of this worksheet. A completed worksheet must be included with the release documentation and a copy sent to the NPMC for filing.