

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

and

CALIFORNIA AGRICULTURAL EXPERIMENT STATION

and

CALIFORNIA DEPARTMENT OF FISH AND GAME

NOTICE OF RELEASE OF 'MARANA' FOURWING SALTBUSH

The United States Department of Agriculture, Soil Conservation Service; the California Agriculture Experiment Station; and the California Department of Fish and Game announce the release of 'Marana' fourwing saltbush, Atriplex canescens (Pursh.) Nutt. 'Marana' was developed at the SCS Plant Materials Center, Lockeford, California.

'Marana' fourwing saltbush has shown excellent performance for use as a conservation plant on critical areas for upland game cover and for environmental enhancement on sandy to clay loam, well-drained soils. This species occurs abundantly in the Colorado and Mohave deserts of southern California, but is also adapted to the other parts of the Mediterranean climate of California at elevations up to 1220 m (4,000 feet) and at annual precipitation ranging from 20 to 100 cm (8-40 inches).

Description

A native, evergreen shrub with dense foliage, about 1.8-2.7 m high and 2.4-3.6 m wide (6-9 x 8-12 feet). The leaves are gray-green, 1½-5 cm. long, 2-8 mm. wide (½-2 x 1/16-3/8 inches), linear, alternate, 1-veined from base, elliptical or spatula-shaped, covered by dense gray scales on both surfaces, directly attached to stem. Staminate and pistillate flowers are usually borne on separate plants. Male flowers are found in dense spikes forming long terminal panicles; female flowers in dense leafy spike-like panicles. The flowering period is from July through August. Seed, is enclosed in bracts and matures through the fall months. Bracts are directly attached, forming four projected fringed wings united in a thick body over the seed, 6-15 mm long and 4-8 mm wide (¾ x ¼-3/8 inches).

Source

On November 20, 1961, seed was collected from native plants near El Cajon, San Diego county, California. Elevation about 182m (600 feet). Number PL-324-61 was assigned to this accession.

Development of Plant

Original seed was increased in 1964 from plants grown at the Pleasanton Plant Materials Center. Plants were propagated from seed and gallon-container plants were initially used in secondary testing at the Graylodge and Sunol Field Evaluation Planting sites. Continued testing included both plants and direct seeding at about 30 sites throughout California.

This strain has shown superior performance to all accessions of this species tested to date in the Mediterranean climate.

Seed or Plant Production

This fourwing saltbush strain is an excellent seed producer, with seed maturing from October through December. Seed dries on the plant and allows some flexibility in harvesting, but wind and heavy rains can shatter seed, also. There are about 132,000 dewinged seeds per kilogram (60,000/lb.) Seed is dewinged by the use of a hammermill and cleaned with a seed cleaner using a No. 2 top screen and a No. 8 bottom screen. Seed germination has varied from 55 to 85%. Plants are propagated by seeding into containers in the greenhouse.

Seed Source

The Lockeford Plant Materials Center will be responsible for maintaining a supply of breeder seed. Limited numbers of live container plants and seed will be available for establishing seed source nurseries for initial commercial production of plants during 1979-80 season. Commercially available plants are expected for the 1980 season.

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United States Department of Agriculture
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State Conservationist Date
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California Agricultural Experiment Station
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California Department of Fish and Game
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