

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE
LOCKEFORD, CALIFORNIA

NOTICE OF RELEASE OF 'MARIPOSA' BLUE WILDRYE

The Natural Resources Conservation Service, U.S. Department of Agriculture announce the naming and release of 'Mariposa' blue wildrye (*Elymus glaucus* Buckl.). 'Mariposa' blue wildrye has been assigned the PI number 613563.

Collection Site Information: 'Mariposa' was collected from a native stand near Mariposa, California at an elevation of 600-ft. (183 m) above sea level, LAT. 37 32' 00" LON 120 05' 00". Employees of the NRCS (formerly the Soil Conservation Service) originally obtained the seed in 1982.

Description:

Morphological description

'Mariposa' blue wildrye is a loose tufted perennial grass, erect, 130 to 160 cm tall. Foliage is light blue green. Foliage is 35 to 45 cm wide. Blade width is 8 to 14 cm, flat, and sheath glabrous. The spike is 14 to 22 cm long. Glumes not curving outward at base, base of lower florets concealed, awns are straight.

Agronomic characteristics

The seed germinates with autumn rains and early growth is satisfactory as long as soil moisture and temperature is suitable. Minimum rainfall requirements vary from 9 to 15 inches depending on soil type, elevation and aspect.

Flowering occurs in the spring typically in April. It is highly self-fertile and self-pollinated. Adequate moisture will promote good seed set, but even under adverse conditions of low moisture, seed will be produced in most years. Seed is ripe 6 to 8 weeks after flowering. There are 134,900 seeds per pound. The planting rate for most vegetative practices is 8 pounds pure live seed per acre drilled and 12 pounds pure live seed per acre broadcast.

'Mariposa' blue wildrye has shown a preference for loam to clay loam soils. It can persist on moderately deep road cut slopes. It is best grown for seed on well to moderately well drained, moist, medium textured soils. It does not tolerate poor drainage or prolonged flooding. It can be harvested with a flail vac harvester and multiple harvest trips can be made during the 2 to 3 week seed maturity period.

Method of Breeding and Selection: 'Mariposa' was evaluated in a common garden at Lockeford plant materials center against 50 other populations assembled from California. In 1987 four accessions were selected for advanced evaluations. In 1988 three replicated advanced evaluation plantings of the four accessions were established. A 1990 evaluation confirmed that PI - 613563 was superior.

'Mariposa' was not bred but selected for its overall performance and uniformity. It has been evaluated for foliage size, abundance and uniformity; vigor; resistance to disease and drought. The variety can be distinguished from other populations tested by its combination of (1) greater foliage size and abundance, (2) excellent vigor, (3) excellent resistance to disease, (4) excellent resistance to drought, (5) good seed amount and fill. 'Mariposa' maintains a good vigor for the first four years and ranks high in terms of foliage appearance (primarily less leaf rust). The variety is dormant in the late summer (July to mid-October)

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

Conservation Use: 'Mariposa' blue wildrye is a California native, cool season, perennial bunchgrass. 'Mariposa' is suitable for erosion control and quick, self-perpetuating cover. Prior to maturity, blue wildrye is considered fair to good forage for cattle, horses, deer, but poor for sheep.

Areas of Adaptation: 'Mariposa' is primarily adapted to Major Land resource Area, (MLRA), 18; However, it is also adapted to MLRA's 14, 15, 16, 17, and up to 4000 feet elevation in MLRA 22. Establishment should be in the fall.

Availability of Plant Materials: The multiplication generations are breeders, foundation and certified. Foundation seed can be produced from foundation seed in the event breeders seed is depleted. The Lockeford PMC will maintain breeders and foundation seed and foundation seed will be made available through the Foundation Seed Service, University of California, Davis.

Prepared by: David A. Dyer, Plant Materials Center Manager, USDA Natural Resources Conservation Service, P.O. Box 68, Lockeford, CA 95237


Signatures for release of:

'Mariposa' Blue Wildrye (*Elymus glaucus* Buckl.)



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

8/13/02
Date



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

9/19/02
Date