

# 'Zorro'

## Annual fescue

*Vulpia myuros* (L.) C. C. Gmel.

A Conservation Plant Release by USDA NRCS Lockeford Plant Materials Center, Lockeford, CA



'Zorro' annual fescue (*Vulpia myuros*) is a cultivar released in 1977 in cooperation with the California Agricultural Experiment Station. ©Lockeford Plant Materials Center.

### Description

'Zorro' annual fescue is an aggressive, early maturing, winter-growing annual grass, 10 – 20 inches in height. Leaves are smooth and narrow. Seeds germinate following the first rains in fall, flowering occurs from March through May, with maturation occurring from April through May depending on location. The fibrous root system is extensive and provides desirable erosion control. The grass can tolerate soil conditions of acidity and low fertility. 'Zorro' is drought tolerant given a minimum annual precipitation of 10 inches.

### Source

Annual fescue is believed to have been introduced to California inadvertently during the Mission Period from Europe. Originally from a Mediterranean climate, the grass naturalized and is now found throughout California. The source for 'Zorro' annual fescue was seed collected from naturalized stands on the site of the Lockeford Plant Materials Center in California in June of 1971. The

original seed increase block of one acre was planted at the Lockeford Plant Materials Center in 1973. Plantings from this harvest were carried out at 29 sites through California during 1974 – 1976 to assess establishment and vigor. This collection was assigned as P1-109-71 and named 'Zorro' in 1976 prior to release in 1977.

### Conservation Uses

'Zorro' annual fescue has a fibrous, netlike root system and good soil holding capability, which makes it an excellent choice for erosion control. It has good seedling vigor, early growth and shade tolerance, and provides fast cover with minimal seedbed preparation in cover crop plantings.

'Zorro' is a successful cover crop species for orchards and vineyards throughout California. The grass provides fast cover and early protection from wind and water erosion in the winter. It is competitive and prevents a troublesome establishment of weeds and late maturing grasses. Due to its early maturity, 'Zorro' does not deprive moisture from grapes. If allowed to set seed the grass will reestablish in the autumn with the first rains.

'Zorro' has been used successfully for vegetation of mine tailings in reclamation activities.

In plot trials during 1977 – 1979 'Zorro' produced 1,300 – 2,600 lb/acre unfertilized and 2,000 – 4,400 lb/acre in fertilized plots.

### Area of Adaptation and Use

Annual fescue is believed to have originated in the Mediterranean region. The grass is naturalized in the western US with a range from British Columbia to Baja California, from the Coast Ranges of California, eastwards to through much of the US. It is found on sites from sea level up to 4,500 feet elevation. The plant tolerates a range of soil types and grows in soils with a pH of 4.3 or higher.

'Zorro' annual fescue was tested in 28 areas in California including MLRAs 14, 15, 17- 20, and 22 with good establishment and survival. A planting in the Lake Tahoe basin (MLRA 22) established poorly and did not persist.

### Establishment and Management for Conservation Plantings

The optimum time for seeding 'Zorro' annual fescue is prior to the first rains, during October through mid-November in California. The recommended seeding rate is 12 lbs. per acre broadcast, and 6 lbs. per acre drilled with a planting depth of 0.25-0.5 inch. Mix seeds with rice hulls agitate in the seed box to prevent the seed from clumping and ensure proper spacing of seed. For best results prepare a weed-free seed bed prior to seeding and lightly pack the soil.

'Zorro' is self-reseeding, and will continue to maintain a good stand for several years, if mowing is delayed until seed has reached full maturation. 'Zorro' is suitable as a cover crop in almond and walnut orchards and extensively used for inter-rows in vineyards. It improves soil permeability, has shade tolerance, causing no residue problems at harvest. With increasing trends towards non- and minimum tillage cover crops, many growers sow winter annuals that reseed in summer and germinate with first fall rains, and die in late spring. Depending upon management, 'Zorro' annual fescue may need to be reseeded periodically every 3 or 4 years, or become a minor component of the ground cover.

### **Ecological Considerations**

'Zorro' fescue has no known insect or disease problems. It provides poor fodder value but is not toxic for livestock. In spring it may provide food, nesting sites, and cover for wildlife. 'Zorro' competes with native perennial grasses and so should not be considered for native habitat restoration.

*Weed issues:* Annual fescue is listed as moderately invasive in California.

### **Seed and Plant Production**

'Zorro' is seeded in the fall prior to the first rainfall using a seed drill with a seeding rate of 6 lb per acre at a depth of 0.5 inches. Mixing the seed with rice hulls is recommended to provide an even planting. Irrigation is usually not required as 'Zorro' is drought tolerant and grows well in areas with more than 10 inches of rainfall. Seed shatters easily as it ripens so plantings must be monitored closely as it matures. A combine can be used at harvest, when the majority of seed is ripe. 'Zorro' annual fescue can be expected to produce 100-200 lb seed per acre.

### **Availability**

*For conservation use:* 'Zorro' annual fescue is available through seed companies in Oregon and California.

*For seed or plant increase:* Foundation seed is maintained by the USDA-NRCS Plant Material Center in Lockeford, California and available in limited quantities through the California Crop Improvement Association to interested parties for increase purposes. Long-term preservation of seed is stored at the National Plant Germplasm System (NPGS).

*For more information, contact:*

USDA-NRCS

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

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