

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

and

CALIFORNIA AGRICULTURAL EXPERIMENT STATION
Davis, California

NOTICE OF RELEASE OF 'ZORRO' ANNUAL FESCUE
FOR SOIL STABILIZATION AND COVER

The United States Department of Agriculture, Soil Conservation Service and the California Agricultural Experiment Station announce the naming and release of 'Zorro' fescue, Festuca megalura Nutt.

Zorro fescue is an aggressive, early-maturing, winter-growing annual grass, introduced into California during the mission period. This species is common at many locations throughout California below 5500 feet. It also occurs in Oregon, Washington, Idaho, Nevada, Arizona, Texas and several localities on the East Coast. Zorro fescue has been *tested* throughout California for erosion control on natural and man-made disturbed areas **and** for orchard and vineyard self-perpetuating cover.

Description

Zorro is an aggressive annual grass, 20-60 cm. high. Sheaths and blades are smooth with narrow panicles, 7-20 cm. long. Spikelets are 4-5 flowered, 10-30 mm. long; glumes smooth, unequal, about 3-10 mm. long, lemmas 4-6 mm. long, scabrous and ciliate on upper half; awns are scabrous, 10-20 mm. long. **Zorro** has an excellent fibrous root system that provides desirable erosion control and assists in the enrichment and tilth of the soil. In cover crop plantings, it has increased water penetration and provides a self-perpetuating cover.

Zorro has excellent seedling vigor and has shown superior seedling establishment to 'Blando' brome, Bromus mollis, on infertile, shallow or droughty soils where erosion control is critical. It matures seed about 10 days to two weeks earlier than Blando brome (in May-June) if moisture conditions are normal. This earlier maturity assures perpetuation in droughty and low rainfall areas.

Source

On June 8, 1971, seed was collected from native plants on droughty strips of Colombia fine sandy loam, Lockeford Plant Materials Center, Lockeford, California. This collection was assigned as P1-109-71 and named **Zorro** in December 1976.

Development of Plant

Original seed was increased in 1973 at the Lockeford Plant Materials Center in a one acre block. It was included in initial and secondary testing in 1974 on several problem sites. It was compared to Blando brome and red brome, *B. rubens*, in most of the trials. It was the only grass that perpetuated itself on the highly acid sedimentary soils and mine spoils (pH 4.5) near Ione. In cover crop plantings in almonds, it has been superior where shorter cover is desired and mowing is frequent. It seems to take more abuse than Blando brome and produces less residue.

The drought during the 1975-76 season made field plantings of Zorro fescue show their merit during a crucial period. Plantings that were in before December 1, germinated early and survived the dry year by producing a seed crop. More interest is being developed for this plant on orchards going into drip irrigation systems where rainfall is low and it takes several years for the native herbaceous vegetation to move in.

Adaptation

Zorro is drought tolerant and will persist and provide good erosion cover with an annual precipitation of 10-12 inches, on areas receiving run-in moisture, or on areas receiving some supplemental irrigation. It has persisted on sites up to 4500 feet and tolerates acid soil conditions. It germinates early and tolerates low fertility and shallow soils.

Seed Production

Zorro fescue has been grown in large scale increase at the Plant Materials Center for the last three years. Seed was planted at a 3 lb./Acre rate in 30 inch rows with a Planet Junior planter. Herbicides, 2, 4-D, and Sinox were used for weed control. Seed is combined direct with an Allis Chalmers All-Crop Harvester, Model 72. Shattering is a problem at harvest time, so seed is usually harvested with some green. Therefore, seed has to be dried in the field or in a dryer before cleaning.

Seed Source

Breeder and Foundation seed will be produced by the SCS Lockeford Plant Materials Center, Lockeford, California. Foundation seed will be available to qualified growers through the Foundation Seed and Plant Materials Service, University of California, and the Resource Conservation District Seed Increase program in 1977. Commercial seed is expected for the 1978 season.

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