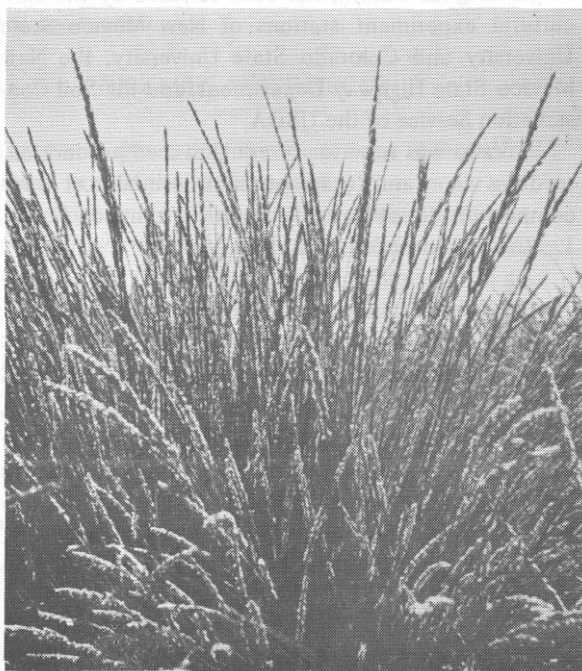


*El Vudo*  
Spike Muhly



- SUITABLE FOR SOIL STABILIZATION AND RANGE REVEGETATION
- RESISTANT TO WHEAT CURL MITE
- SUPERIOR SEED PRODUCTION
- RESISTANT TO SHATTERING
- PALATABLE



# El Vado

## Spike Muhly

'El Vado', a new variety of spike muhly (*Muhlenbergia wrightii* Vasey), has been released by the agricultural experiment stations of New Mexico State University and Colorado State University, the New Mexico State Highway Department, and the Soil Conservation Service of the USDA.

El Vado was superior or equal in seed production, seedling vigor, and forage production in almost every comparison to other spike muhly strains at Clovis, Las Cruces, and Los Lunas, New Mexico.

### DESCRIPTION

The original seed of this warm-season, perennial bunchgrass variety was collected west of Park View, New Mexico in 1958. Plants are light green and have stems 8 to 20 inches (20 to 50 cm) tall. Leaf sheaths are purple near the stem joints. Leaves are 3 to 6 inches (8 to 15 cm) long and 1/8 inch (0.3 cm) wide. Short underground stems or rootstocks are found on some plants.

### AREA OF ADAPTATION AND USE

Spike muhly is adapted to a wide variety of soil types in the upper pinyon-juniper and ponderosa pine vegetation zones at elevations from 3800 to 9000 feet (1000 to 3000 m) in Colorado, New Mexico, Utah, and Nevada. It is most abundant in meadows or parklike openings of forested areas.

This species is a good soil binder. El Vado can be used for soil stabilization and revegetation where vegetation has been reduced or destroyed by surface mining, construction activities, brush control, overgrazing, or fires.

**This** grass is palatable to all classes of domestic livestock. It is excellent forage for deer and elk throughout the year.

For rangeland plantings, a seeding rate of 1 pound per acre (1 kg/ha) of pure live seed is recommended.

### SEED YIELD

At Los Lunas, El Vado produced a four-year average yield of 150 pounds per acre (168 kg/ha) of pure live seed in one field and a two-year average of 116 pounds per acre (130 kg/ha) in another planting.

Unlike many grass species, mature plants of El Vado are resistant to seed shattering. This is an asset to seed production.

### DISEASES AND INSECTS

Diseases of this variety have not been observed in rangeland or seed production planting.

El Vado is naturally resistant to wheat curl mite (*Aceria tulipae*) which produces a seedhead gall. This gall moderately to severely reduced seed yields on all other spike muhly strains at most test locations. Four species of stem-boring insects *Hymenoptera*, have been found in El Vado plants, but their effect on seed yield has not been determined.

### SEED PRODUCTION TIPS

Planting date varies with location, but the seed should generally be planted during mid-spring or late July. Annual weeds are usually less competitive in late July plantings.

Recommended planting rate is 2 to 3 pounds per acre (2.2 to 3.3 kg/ha) of pure live seed. Plant seed 0.25 inch (6 mm) deep in rows 30 to 40 inches (80 to 100 cm) apart so there is room to irrigate and cultivate. If the seed rows are placed on beds or beside corrugations, and if the field is properly leveled and smoothed, the new planting can be irrigated without covering the seed with water. This is especially important in establishing a stand in soils susceptible to surface crusting.

A soil test is recommended as an aid in determining fertilizer needs. However, experience may be the best guide. In lieu of other guides, annual fertilizer rates of 80 pounds per acre (90 kg/ha) of available nitrogen may be used under irrigation.

Seed matures in October or early November at Los Lunas, New Mexico. A small-grain combine can be used to harvest the seed.

## SEED SUPPLY

Limited amounts of foundation El Vado spike muhly seed are available to seed growers through crop improvement associations and natural resource or soil and water conservation districts. Some seed is commercially available.

### ACKNOWLEDGMENT

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