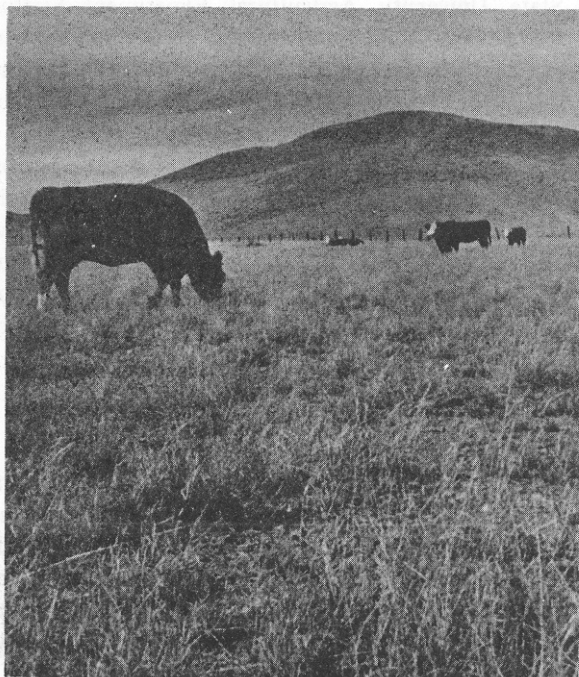


Nogal

BLACKGRAMA



- WELL ADAPTED TO LIGHT, SHALLOW SOILS
- LONG-LIVED, DROUGHT TOLERANT
- SPREAD AND REPRODUCTION VERY GOOD BY AGGRESSIVE STOLONS
- SEEDLING VIGOR AND FORAGE PRODUCTION GOOD
- SEED PRODUCTION GOOD FOR THE SPECIES
- FREE OF DISEASE
- FOUNDATION SEED AVAILABLE

**Cooperative Extension Service
New Mexico State University**

Nogal Black Grama

'Nogal' black grama *Bouteloua eriopoda* (Torr.) Torr. was released July 1971 by the New Mexico State University Agricultural Experiment Station and the U.S. Department of Agriculture Soil Conservation Service. The original seed was collected in 1957 from a native stand 72.5 km (45 miles) south of Socorro, New Mexico.

Nogal was tested as NM 44 in plots at the Soil Conservation Service Plant Materials Center, Middle Rio Grande Branch Station, Los Lunas, and at the Experiment Station's Plant Science Farm, near Las Cruces. The variety was field tested on various farms and ranches in the southern half of New Mexico.

DESCRIPTION

This variety is a native, long-lived, warm-season, low-growing, stoloniferous range grass. It attains a height of 61 cm (24 inches) in irrigated seed-production blocks. The plants are less erect than 'Sonora' black grama. Stems range from upright to decumbent. Natural propagation on range land is mainly by relatively aggressive stolons.

AREA OF ADAPTATION

Black grama is the most important forage grass over much of the drier desert grassland range of the Southwest. This grass provides sustained forage production and soil stability where the range condition is good and the grass is the predominant species. It grows mostly in open grasslands and on dry-gravelly, sandy, or sandy loam soils. In New Mexico, this is in the southern desert at elevations below 2 km (7,000 feet).

SEED PRODUCTION

The average seed yield from Nogal at Los Lunas from 1966 through 1970 was 10.9 kg (24 pounds) pure-live-seed per acre, with a high of 25 kg (55 pounds). Inherently, black grama produces less seed than many other species.

Nogal produced more forage than most other black grama strains evaluated at Los Lunas. Black grama is palatable and nutritious to livestock all year. Its relatively high protein and carotene content during winter contribute considerably to the value of the grass.

SEEDLING VIGOR AND STOLON SPREAD

Seedling vigor of Nogal is good under both cultivated and range conditions. Stolon spread is above the average of other strains tested. Vegetative reproduction by stolons is most important under range conditions since this is its primary means of either maintaining or increasing stand.

INSECTS AND DISEASES

Serious problems with insects or diseases have not been encountered in range plantings of Nogal black grama. Diseases have not been a problem in seed production under cultivation. However, thrips (*Chirothrips simplex* Hood and *C. falsus* Priesner) can limit seed production in some years.

SEED PRODUCTION TIPS

Irrigation and intensive management is necessary for dependable seed production in New Mexico. Level seed beds are necessary so that the seeds receive adequate moisture for germination. Irrigation water can pond in low spots and kill seedlings or retard growth. Best stands are generally obtained on beds which can be sub-irrigated by corrugations. Irrigation water should not cover seedlings until they become well established.

At Los Lunas, the best stands are obtained from plantings made between early July and mid-August. Seedlings emerge within three or four days at this time of year.

Plant 2.5 to 3.75 kg of pure-live-seed per hectare (2 to 3 pounds per acre) about 0.6 cm (0.25 inch) deep. The rows should be spaced from 0.75 to 1.0 m (30 to 40 inches) apart for ease of cultivation and irrigation.

The critical period for stand establishment is during and shortly after emergence. Cultivate as soon

as weeds appear and grass seedlings appear in the rows. Certain herbicides and hand weeding may be used to advantage after the seedlings reach the five-leaf stage. Preemergence herbicides, applied in the fall, have given good control of many weeds on established stands.

Delay the first irrigation on established fields until mid-July so the grass will flower, pollinate, and seed in late summer when temperatures begin to decline. Apply 80 kg of available nitrogen per hectare (70 pounds per acre) at the time of first irrigation.

Seed yields can be significantly increased by thrips control. Three applications of a suitable insecticide at weekly intervals, beginning shortly before the grass began to bloom, effectively reduced thrips numbers and increased seed yields.

Consult your county extension agent or a reliable pesticide dealer for recommended herbicides and insecticides, and precautions in handling and applying them.

Seed can be direct-combined with a small-grain combine with all air shut off. At Los Lunas, seed is ready to collect during the last half of October to the first week in November. Combine-run material can be cleaned to a plantable product by running through a hammermill using a 0.48 cm (3/16-inch) screen and speed of 500 RPM, and processing through a 4-screen fanning mill using screen sizes 10, 8, and 7 round and a blank on the bottom.

SEED SUPPLY

Breeder and foundation seed of Nogal black grama is produced and maintained at the Soil Conservation Service Plant Materials Center, Middle Rio Grande Branch Station, Los Lunas, New Mexico. Limited quantities of seed will be available to growers through the Soil and Water Conservation District Seed Increase Program and through cooperative agreement with the New Mexico Crop Improvement Association. Standards for all classes of seed are contained in the latest edition of the Crop Improvement Association's Seed Certification Handbook for New Mexico.

Published and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914, by the Cooperative Extension Service of New Mexico State University, Philip J. Leyendecker, director, and the U.S. Department of Agriculture, cooperating.

New Mexico State University is an equal opportunity employer. All programs are available to everyone regardless of race, color, or national origin.