

United States Department of Agriculture Natural Resources Conservation Service **Plant Materials Program**

'Hachita'

blue grama

Bouteloua gracilis (Willd. ex Kunth) Lag. ex Griffiths

A Conservation Plant Release by USDA NRCS Los Lunas Plant Materials Center



'Hachita' Blue Grama

'Hachita' blue grama (*Bouteloua gracilis* (Willd. ex Kunth) Lag. ex Griffiths) was released by the New Mexico State University's Los Lunas Agricultural Science Center, Colorado State University, and the USDA Natural Resources Conservation Service Los Lunas Plant Materials Center.

Description

Hachita blue grama is a native, warm-season grass. The stems of this densely tufted grass are 8 to 20 inches tall on the range, and up to 45 inches tall in irrigated seed production fields. They are leafy at the base. The leaves are 2 to 7 inches long and .03 to .08 inches wide. The leaf blades are flat or curved slightly inward along the edges and are predominantly smooth with a few soft hairs at the junction of the leaf blade and stem.

Source

Hachita blue grama was first collected in 1957 from a semi-arid plains site that had been invaded by mesquite 32 miles south of Hachita, New Mexico.

Associated species included tobosagrass (*Pleuraphis mutica*), vine mesquite (*Panicum obtusum*), burrograss (*Scleropogon brevifolius*), and threeawn (*Aristida* spp.). The elevation of the site was approximately 4,400 feet, and the estimated annual precipitation was 10 inches.

Conservation Uses

Hachita blue grama is a good ground cover and provides valuable protection from soil erosion. Because Hachita blue grama is more drought resistant than other varieties of blue grama, it is well-suited for rangeland improvement, mine-spoil reclamation, and roadside stabilization in the semiarid Southwest. It makes excellent pasture or lawngrass. It requires less water than traditional turfgrasses.

Area of Adaptation and Use

Blue grama is widely-distributed throughout the Americas. It is found at elevations of 1,000 to 7,000 feet from Canada, south through Mexico and into South America.

Hachita blue grama is climatically adapted to areas of southeastern Utah, northeastern Arizona, New Mexico, Kansas and the panhandles of Texas and Oklahoma, where blue grama is recommended at elevations of 3,000 to 7,500 feet.

Establishment and Management for Conservation Plantings

To establish Hachita blue grama as a pasture or range grass, plant $1\frac{1}{2}$ to $2\frac{1}{2}$ pounds per acre of pure live seed between June 15 and August 15. For a lawn, broadcast 1 pound per 1000 square feet and mulch with straw.

Ecological Considerations

Hachita blue grama's high palatability to livestock makes it a choice forage species. Because it cures well on the ground by retaining as much as 50% of its nutritive value, it makes good fall and winter forage. It also withstands grazing.

Seed and Plant Production

Hachita blue grama grows well on soils of all textures from sandy or gravely loams to clays.

Tests by USDA-Science Education Administration– Agriculture Research (SEA–AR) in Fort Collins, Colorado show that Hachita has greater seedling vigor and that it develops adventitious roots(roots growing from the stem) quicker than 'Lovington' blue grama. Both characteristics aid in the establishment of Hachita, particularly in the arid and semi-arid Southwest.

Hachita blue grama is extremely drought-resistant. From 1961 to 1964, the average rainfall at Los Lunas from May 1 to November 1 was 4.75 inches. That 4-year average is 1.18 inches less than the typical 20-year average. During this time, 30 percent of the

Hachita plantings survived while most of the other varieties died.

Forage production of Hachita blue grama varies widely, depending on the fertilization level, soil fertility and precipitation. Tests in Oklahoma show that the crude protein yield and digestibility of Hachita was significantly higher than that of Lovington with either 0 or 37 pounds per acre of nitrogen. Hachita also had a significantly higher response to nitrogen fertilizer than did Lovington. Field research in Nebraska produced 2,719 pounds per acre of forage, while similar research in Kansas produced 5,380 pounds per acre of dry matter.

Availability

For conservation use: If you're interested in using Hachita blue grama in a lawn, pasture, or range planting, contact your local County Extension Service or your local USDA–NRCS Office for information on where to buy seeds and how to use and plant them.

For seed or plant increase: Breeder seed is produced by the USDA-NRCS Los Lunas Plant Materials Center. Limited quantities of foundation Hachita blue grama seed are available to seed growers through New Mexico State Seed Certification Program. For more information, contact: Los Lunas Plant Materials Center1036 Miller Road SW Los Lunas, NM 87031 Tele: 505-865-7340 FAX: 505-865-5163 <u>https://www.plant-</u> materials.nrcs.usda.gov/nmpmc

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 <<u>http://www.nrcs.usda.gov/></u>, and visit the PLANTS Web site <<u>http://plants.usda.gov</u>> or the Plant Materials Program Web site <<u>http://www.plant-materials.nrcs.usda.gov</u>>



This is a joint release among New Mexico State University's Los Lunas Agricultural Science Center, the Colorado State University, and the USDA Natural Resources Conservation Service Los Lunas Plant Materials Center.