

'Hachita' Blue Grama



Circular 501
Cooperative Extension Service

'HACHITA' BLUE GRAMA

Blue grama (*Bouteloua gracilis* [H.B.K.] Lag. ex Steud.) is widely distributed throughout the Americas. It is found at elevations of 1000 to 7000 feet (305 to 2131 m) from Canada south through Mexico and into South America. It is a good ground cover and provides valuable protection from soil erosion.

Since '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 arid and semiarid Southwest. It makes excellent pasture or lawngrass. It requires less water than traditional turfgrasses.

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

'Hachita' was released by the agricultural experiment stations of New Mexico State University and Colorado State University and the Soil Conservation Service of the USDA.

Origin and Description

'Hachita' was first collected, in 1957, 32 miles (51.5 km) south of Hachita, New Mexico, from a semiarid plains site invaded by mesquite. Associated species included tobosa grass, vine-mesquite, burrograss, and three-awn. The elevation of the site was approximately 4400 feet (1342 m), and the estimated annual precipitation was 10 inches (25 cm).

'Hachita' blue grama is a native, warm-season grass. The stems of this densely tufted grass are 8 to 20 inches (20 to 50 cm) tall on the range and up to 45 inches (114 cm) tall in irrigated seed-production fields. They are leafy at the base. The leaves are 2 to 7 inches (5 to 18 cm) long and .03 to .08 inches (1 to 2 mm) wide. The leaf blades are flat or curved slightly inward along the edges. Although the blades are smooth, there are a few soft hairs at the junction of the leaf blade and stem. They are .6 to 2 inches (1.5 to 5 cm) long and are eyebrow-shaped at maturity.

Suitability

'Hachita' 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 3000 to 7500 feet (915 to 2288 m).

'Hachita' blue grama grows well on soils of all textures from sandy or gravelly 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 quicker than 'Lovington' blue grama. Both characteristics aid in the establish-

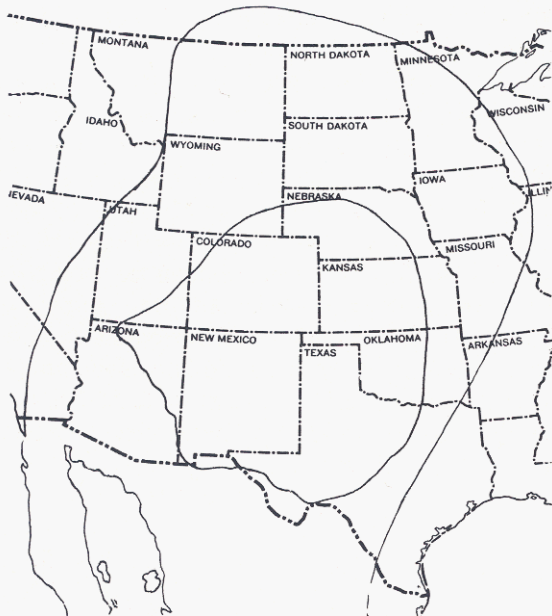
ment of 'Hachita', particularly in the arid and semiarid Southwest.

'Hachita' is extremely drought resistant. From 1961 to 1964, the average rainfall at Los Lunas from May 1 to November 1 was 4.75 inches (12 cm). That 4-year average is 1.18 inches (3 cm) less than the 20-year average. During this time, while 30 percent of the 'Hachita' solid rod-row plantings survived, 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

'Hachita' is the most drought tolerant of the available blue grama varieties





Known and suspected areas of adaptation of 'Hachita' blue grama.

than that of 'Lovington' with either 0 or 37 pounds per acre (0 or 41.5 kg/ha) 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 (3045 kg/ha) of forage, while similar research in Kansas produced 5,380 pounds per acre (6,025 kg/ha) of dry matter.

Establishment and Propagation

To establish 'Hachita' as a pasture or range grass, plant 1.5 to 2.5 pounds per acre (1.7 to 2.8 kg/ha) of pure live seed between June 15 and August 15. For a lawn, broadcast 1 pound per 1000 square feet (49kg/ha) and mulch with straw.

Availability

Breeder seed is produced by the USDA-SCS Los Lunas Plant Materials Center. Limited quantities of foundation 'Hachita' seed are available to seed growers through the New Mexico Crop Improvement Association.



Blue grama is considered highly palatable, and it cures well.

If you're interested in using 'Hachita' in a lawn, pasture, or range planting, contact your local County Extension Service or the USDA-Soil Conservation Service for information on where to buy seeds and how to use and plant them.

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