



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

Bonita Germplasm plains lovegrass

Eragrostis intermedia A.S. Hitchc.

A Conservation Plant Release by USDA NRCS Tucson Plant Materials Center, Tucson, Arizona



Figure 1: Plains lovegrass reflects a pink hue in the grasslands of Arizona.

Bonita Germplasm (*Eragrostis intermedia* A.S. Hitchc.) plains lovegrass is a selected class plant release developed by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Tucson Plant Materials Center.

Description

Plains lovegrass is a native, warm season perennial bunchgrass. It typically grows 2 to 3.5 feet tall. The leaf blades are usually narrow and grow 12 to 35 inches long. The inflorescence is an erect, open, pyramid-shaped panicle 8 to 16 inches long and 6 to 12 inches wide, with numerous branches that branch again. The fresh inflorescence is pinkish in color. The spikelets have 3 to 9 flowers. The seed is reddish-brown, very small, and rectangular-prismatic in shape.

Plains lovegrass occurs on clay, sandy and rocky soils, and often on disturbed sites. In Arizona, it can be found at elevations ranging from 3,800 to 6,000 feet.

Source

Bonita Germplasm plains lovegrass is a composite developed from collections made at 30 distinct sites within southeastern Arizona (figure 2). Plant materials were collected from distinct locations in southeast Arizona to develop a population of plains lovegrass with a broad genetic base and greater likelihood of adaptation to

the range of conditions found in the region of collection. Collections were planted into a field at the Tucson Plant Materials Center in September 2005. Visual evaluations revealed little to no discernible differences among accessions for flowering dates, number of flowers, size, or vigor. The assemblage contained no observable detrimental characteristics; therefore no direct selection was made.

Conservation Uses

The potential uses of Bonita Germplasm plains lovegrass include restoration of disturbed areas, wildlife habitat improvement, and increasing plant diversity on lands in southeastern Arizona and southwestern New Mexico. Because of its importance as an early spring forage grass, and its quick response following fire, the potential use of this species for restoration is high.

Area of Adaptation and Use

Bonita Germplasm plains lovegrass was developed for use in southeastern Arizona.

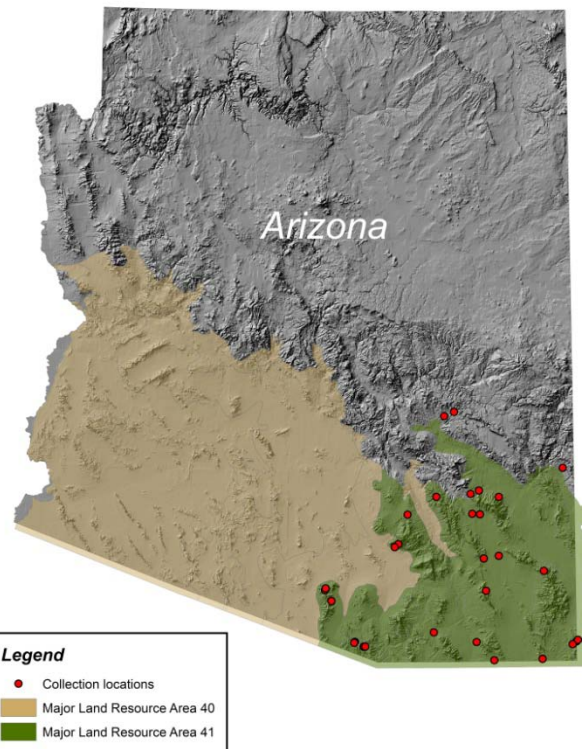


Figure 2: Collection locations of Bonita Germplasm plains lovegrass

Establishment and Management for Conservation Plantings

The recommended seeding rate for plains lovegrass is 0.3 pure live seed (PLS) pounds per acre if planted with a drill, and approximately 0.6 PLS lbs per acre if seed is broadcast. When used as part of a mix, the seeding rate should be adjusted to the desired percentage of the mixture. There are approximately 3,386,000 seeds of plains lovegrass per pound.

Seed should be planted into a firm, weed-free seedbed at a ¼ inch depth. Due to the small seed size, the use of a carrier, such as rice hulls, should be considered in order to obtain better control of the seeding rate. Broadcast seeding should be followed with a cultipacker or harrow to provide seed with a shallow covering of soil.

Due to its high seed stalk to leaf ratio, this species is intermediate in forage preference to cattle. However, it is often heavily grazed because it is one of the first species to green up in the spring. Where grazing occurs, it often declines. On ranges where this species is still present, grazing should be deferred during July and August every third year in order to preserve or increase it.

Ecological Considerations

Plains lovegrass is at risk of overgrazing, and should be carefully managed where grazing occurs.

Seed and Plant Production

Bonita Germplasm plains lovegrass should be planted in early spring into a firm, weed free seedbed at 1/4 inch depth with 24-40 inches within row spacing. Row spacing can vary from 36-40 inches.

The planting should be irrigated to maintain a moist soil surface and to avoid soil crusting. Plants require 30 pounds per acre available nitrogen during the establishment year. Pre-emergent herbicide such as Oryzalin may be used to control weeds.

Established fields require 45 pounds per acre available nitrogen per year and should be irrigated approximately every 4 weeks during the growing season. Apply phosphorus according to soil test recommendations.

Seed is produced from summer to fall. Seed harvest may be accomplished by direct combining or using a Woodward Flail Vac Seed Stripper. Yields for irrigated production fields average 180 pounds per acre, but may vary from year to year.

To clean harvested material, seed with attached rachillas may be put through a hammer mill to break up stems and

remove seedheads from the rachillas. Seed may then be separated from the chaff using a clipper air screen cleaner with 11/32 top screen and 60x60 bottom screen. Little to no blower is needed.

Availability

For conservation use: Plains lovegrass has limited commercial availability but may be available from specialized seed producers on request.

For seed or plant increase: Seed production of Bonita Germplasm plains lovegrass will be maintained by the USDA NRCS Tucson Plant Materials Center. Limited quantities of G2 seed are available to seed producers for increase and to other interested parties, as available.

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

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