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Plains Germplasm Prairie Acacia

Acacia angustissima

Plant Introduction

Plains Germplasm Prairie Acacia is a native, perennial, warm-season, hardy, deep-taprooted legume. It is a smooth and small rounded shrub, forming colonies by means of woody rhizomes with aerial stems that are thornless and rarely over three feet tall. The plant has an attractive and delicate fern-like foliage which closes at night and when touched. Stems are thin, usually unbranched, glabrate, and ridged. Leaves alternate- the blade is usually divided into 3-12 pairs of segments, and divided again into 6-20 pairs of tiny leaflets. Flowers are small and white to creamy yellow. It has five petals and numerous stamens, congested in rounded terminal clusters on long stalks arising from upper leaf axils. Fruit is a brownish flat seed pod 1.6 to 2.8 inches long and 0.25 to 0.3 of an inch wide. Plant is similar in appearance to Illinois bundleflower, *Desmanthus illinoensis*, but the fruit and leaf structures are different.

Availability of Plant Materials

Generation Zero (G0) seed (equivalent to Breeder seed) will be maintained by the NRCS James E. "Bud" Smith Plant Materials Center near Knox City, Texas. Field production (G1) seed for grower increase will soon be available through the Texas Foundation Seed Service in Vernon, Texas, phone number 940.552.6226.

For More Information

Contact your local Natural Resources Conservation Service Office at the USDA Service Center for more information or visit the web at: <http://Plant-Materials.nrcs.usda.gov> to find more information on solving conservation problems using plants.

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Plant Materials Center

Plains Germplasm Prairie Acacia

A select germplasm conservation plant release by the NRCS James E. "Bud" Smith Plant Materials Center Knox City, Texas



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Use and Adaptation

Plains Germplasm Prairie Acacia may provide ground cover vegetation for critically eroding areas to reduce soil erosion and improve water quality. It is a hardy and drought tolerant plant that is useful for revegetation of land disturbed by mining or road construction. The native legume is high in crude protein, nutritious, palatable and readily eaten by all classes of livestock. Being a prolific seed producer, quail and other birds utilize the seed for food and the vegetation cover is a component for wildlife habitat.

Plains Germplasm Prairie Acacia is adapted throughout parts of Texas and southern Oklahoma. It requires at least 14 inches of annual precipitation for production, but may be produced successfully in areas of lower precipitation if irrigated.

Origin

Plains Germplasm Prairie Acacia is a composite of 17 accessions and was originally collected from seed of several native plants from different eco-regions in Texas. Range of elevation for each of the seed collection sites was approximately 200 to 2,550 feet. The soils at the collection sites were clay, shallow clay, gravelly, silty clay, and clay loam. The average precipitation from the collection sites was between 14 to 44 inches per year.

Planting Method

Plains Germplasm Prairie Acacia can be established by direct seeding or transplanted from seedlings. If direct seeding, the site should be prepared during the early fall prior to establishment to create a firm, weed-free seedbed. Tillage should be completed in the fall to allow time for the site to settle and accumulate moisture before the spring planting.

Plains Germplasm Prairie Acacia seed is best planted using a grass drill at a depth of .5 to .75 inch in the soil and then compacted for good seed and soil contact. Broadcasting the seed after tracking the ground with a bulldozer is another planting method used in undulating terrain. The seeding rate is 5 pounds Pure Live Seed (PLS) per acre with the proper inoculant mixed with seed. There are approximately 22,600 seeds per pound.

If transplanting seedlings, watering would be necessary during the first growing season for establishment.



Management

Plains Germplasm Prairie Acacia starts growth in spring and will remain green until frost. This plant is a highly palatable legume with high crude protein herbage. It also forms a symbiotic association with rhizobial bacteria, which converts nitrogen from the air to build up nitrogen in the soil.

Plains Germplasm Prairie Acacia has the ability to spread by seed and rhizomes, but can be controlled by disking or using the proper foliar herbicide. It will decrease under misuse or heavy grazing. These plants are attractive to bees, butterflies and birds, and have potential for aesthetic landscaping.

