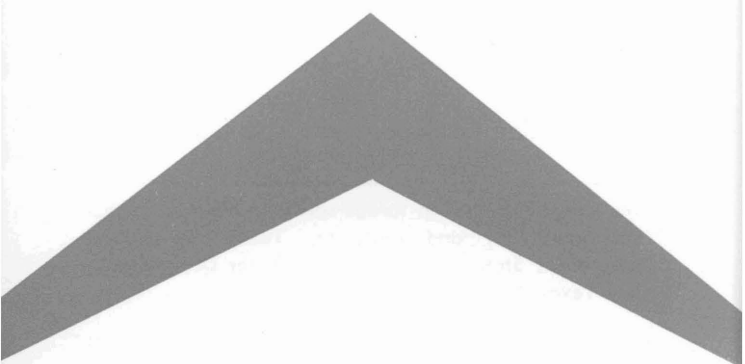


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# Kleingrass-75



TEXAS AGRICULTURAL EXTENSION SERVICE  
THE TEXAS A&M UNIVERSITY SYSTEM  
J. E. Hutchison, Director, College Station, Texas

# Kleingrass

J. N. Pratt, A. C. Novosad and E. C. Holt\*

**DESCRIPTION** Kleingrass (*Panicum coloratum* L.) is a warm-season perennial bunchgrass introduced into this country from Africa. Introductions were made as early as 1942. It was not until the 1950's that desirable types were introduced and evaluated. Kleingrass is fine-stemmed, leafy and grows to a height of 3 to 4 feet. It is of the same genus as switchgrass and blue panicgrass, but bears only a passing resemblance to them. Kleingrass is quite variable in its makeup, with some plants displaying abundant pubescence while others are relatively smooth. Plants vary from prostrate to erect in growth form, but most are upright. Kleingrass spreads by tillers or short rhizomes and will root at the nodes where the stems come in contact with wet soils.

**VARIETIES** Kleingrass Selection 75 is a variety that has been extensively tested in Texas. It was released jointly by the Texas Agricultural Experiment Station and the Soil Conservation Service and approved for certified seed production in 1968. It is recognized as the variety that is best adapted to Texas soil and climatic conditions. The planting of

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\* Respectively, Extension forage specialist; Extension pasture specialist; and professor, Texas Agricultural Experiment Station (Soil & Crop Sciences Department); The Texas A&M University System.

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certified seed is the greatest assurance a forage producer has for obtaining a stand of this strain. The information in this publication was obtained from research conducted on Kleingrass 75 by the Soil Conservation Service and the Texas Agricultural Experiment Station. New varieties of kleingrass are being developed and will be named and released when they show sufficient advantages over Kleingrass 75.

## ADAPTATION AND

**PERFORMANCE** Kleingrass appears to be adapted to a wide range of soil and climatic conditions. Plantings have done well on heavy soils in Central Texas under dry conditions and on wet soils in the Gulf Coast. The grass also has been grown successfully on shallow, sandy soil near College Station and on deep sand and medium-textured soils in the Rio Grande Plain and Rolling Plains.

Growth of kleingrass is influenced by available moisture but it seems to tolerate a rather wide range of moisture conditions. It is being grown successfully in trial plantings from the high rainfall areas of East Texas and the Gulf Coast to the limited rainfall areas of the Rio Grande Plain and the Grand Prairie. The lower limits of moisture for survival and growth have not been specifically determined. The northern limits of adaptation have not been established specifically, but kleingrass has survived for several years in plantings in the Lubbock and Hereford areas. Stand losses from winter killing have been reported in the Panhandle area during severe winters which occurred during the year of establishment. Established stands which survive the first winter appear to be able to tolerate the expected low temperatures in most of the state.

The leaves of kleingrass remain green in the fall until temperatures drop below 25° F. Green leaves are usually present at the base of the plant during much of the winter. Active growth begins in early spring. Kleingrass can be expected to respond favorably to irrigation and moderate-to-heavy fertilization. It does not have the potential for extremely high levels of production of such grasses as Coastal bermudagrass. However, it may equal or outperform these grasses under moderate production conditions, especially in terms of livestock production. Kleingrass is extremely attractive to livestock as either green forage or cured hay. Because of good palatability, planting in pure stands is recommended. Animal performance has been above average for a warm-season perennial grass.

**ESTABLISHMENT** Kleingrass is easily established from seed. Seedling plants are sturdy, have good root development, but grow slowly initially. The seedbed should be clean, firm and well-prepared. The seed is small and smooth; there are approximately 500,000 per pound. Stands are obtained with  $\frac{3}{4}$  to 1 pound PLS per acre in 38- to 42-inch rows or 2 pounds PLS broadcast or close drilled. Seeding should be done in the spring after danger of frost is past or in early fall in South Texas. A planting mechanism capable of handling small seed, such as a vegetable planter or grass drill with depth bands, is necessary. Cover the seed  $\frac{1}{2}$  to  $\frac{3}{4}$  inch deep in a firm, clean seedbed.

Kleingrass seed are low in viability immediately after harvest because of seed dormancy. Avoid planting freshly harvested seed. Viability increases with time, and good germination is obtained after about six months.

Grazing should be restricted until new plants are well established. Because initial seedling development is slow, weed control in new plantings is highly important. Kleingrass seedlings will tolerate considerable weed competition, but plant development is retarded by such competition. Cultivation of row plantings reduces broadleaf weed competition. This is one advantage of row plantings.

**MANAGEMENT** Fertilization is necessary for optimum growth and quality. Although kleingrass may not respond to high rates of fertilizer, essentially all soils, especially in the higher rainfall areas, will need fertilization to maintain production. A soil test is the best way to determine fertilization needs for establishment and production.

**SEED PRODUCTION** Kleingrass seed mature unevenly and shatter as they mature. Although a satisfactory seed crop is produced, there is never a time at which all the seed are mature and ready to harvest. Accordingly, seed yields per acre will not be large until better seed producing varieties are developed. A variety of harvesting and handling methods are being explored and developed by Texas A&M University, Soil Conservation Service and specialized seed producers.



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