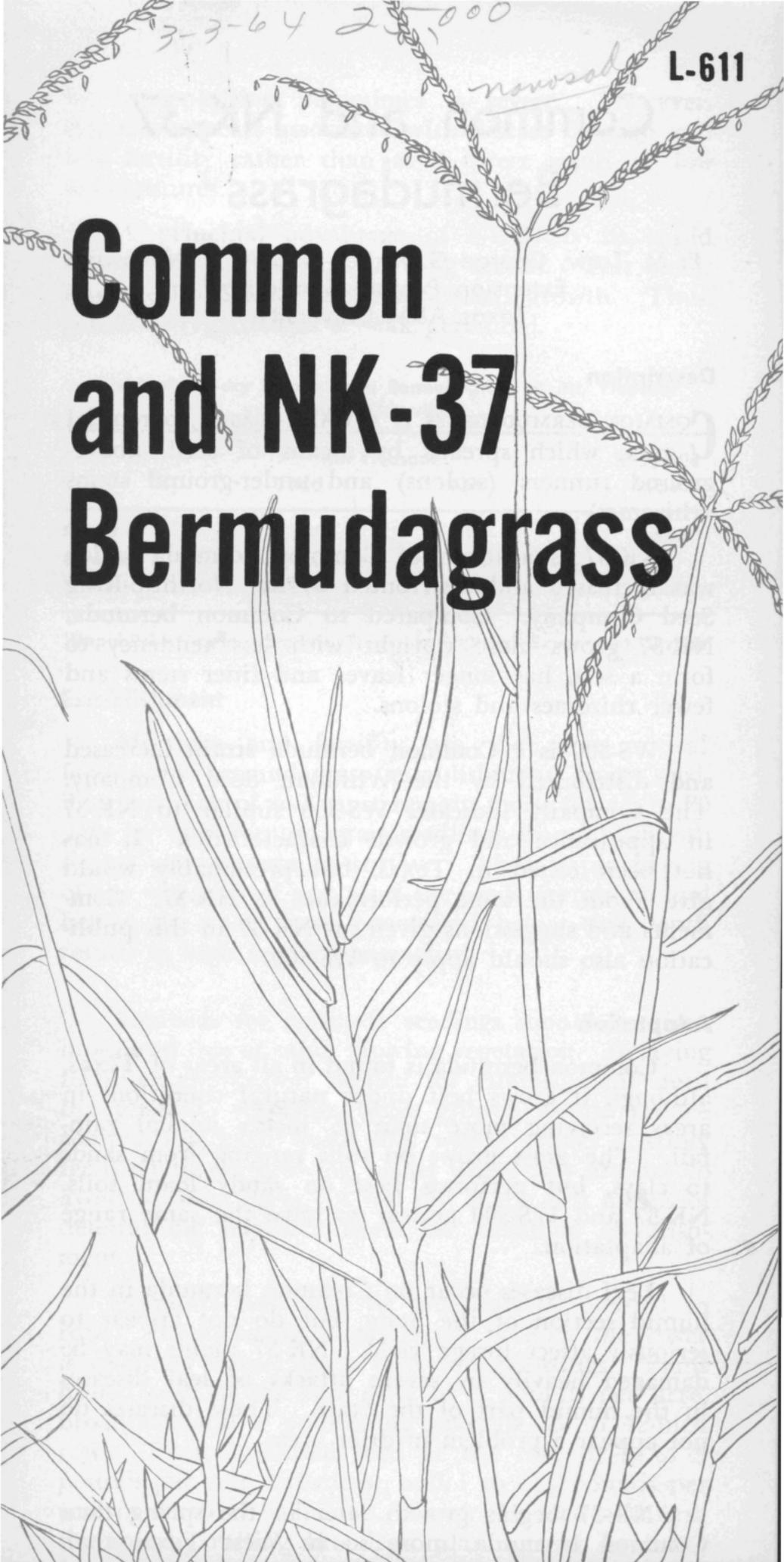


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Common and NK-37 Bermudagrass



Common and NK-37 Bermudagrass

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Description

COMMON BERMUDAGRASS IS A WARM-SEASON, perennial grass which spreads by means of seed, above-ground runners (stolons) and under-ground stems (rhizomes).

NK-37 is a strain of Common bermuda which was increased and distributed by the Northup-King Seed Company. Compared to Common bermuda, NK-37 grows more upright with less tendency to form a sod, has longer leaves and finer stems and fewer rhizomes and stolons.

WS-300 is a Common bermuda strain increased and distributed by the Whitman Seed Company. The Company indicates WS-300 similar to NK-37 in appearance and growth characteristics. It has not been tested in Texas, but presumably would give about the same performance as NK-37. Comments and suggestions given on NK-37 in this publication also should apply to WS-300.

Adaptation

Common bermuda is found in all areas of Texas, although it grows best under natural conditions in areas receiving more than 25 inches annual rainfall. The grass grows on soils ranging from sands to clays, but performs best on sandy loam soils. NK-37 and WS-300 appear to have the same range of adaptation.

Leaf diseases occur on Common bermuda in the humid section of the State, but do not appear to seriously affect forage yield. NK-37 plants may be damaged heavily by severe attacks of leaf diseases in the humid part of the State. These diseases do not appear a problem in drier areas.

NK-37 begins growth later in the spring than Common bermuda, more so in West Texas than in East and South Texas. NK-37 plant loss, caused

by winter-killing, sometimes is severe. However, this loss appears associated with disease damage and low fertility rather than as a direct result of low temperatures.

A principal advantage of NK-37 is its rapid growth during the first growing season. Test yields have declined after the first season's growth. Thus, NK-37 is regarded as a weak perennial.

Yield of Air-dry Forage from Bermudagrass at Mt. Pleasant and Kirbyville¹

Grass	Mt. Pleasant		Kirbyville
	1960	1961	1959
NK-37	5,600	4,010	4,580
Common	9,710	12,320	
Coastal	13,160	13,990	5,830

¹Unpublished data from the Texas Agricultural Experiment Station.

Establishment

Moisture and fertility are the most critical factors in bermudagrass establishment from seed. The top inch of soil must remain moist for 15 to 20 days for new bermudagrass seedlings to establish sufficient root systems to survive. Thus, rapid drying of the top inch of soil after the seeds germinate and before the roots have penetrated below this depth results in high seedling mortality.

Seedbeds for bermuda seedlings should be firm, moist and free of other growing vegetation. Delaying fertilizer application needed for establishment until the bermuda seedlings begin growth should reduce competition from weeds and weedy grasses. Apply fertilizer to the growing plants when they are dry to avoid burning them. A soil test is the best means of determining fertilizer needs for bermuda establishment.

Bermuda seed may be broadcast or planted in rows. Broadcasting is preferred, because the cover is obtained sooner than with row plantings. Plant hulled seed at the rate of 2 to 4 pounds per acre, broadcast, and 1 pound per acre in 36 to 42-inch rows. Plant unhulled seed at the rate of 3 to 5 pounds per acre, broadcast, and 1 to 1½ pounds per acre in 36 to 42-inch rows. Cover the seed and firm the soil by rolling broadcast plantings or by using presswheels when row planting.

Plant hulled seed when established bermuda plants in the area begin growth. Unhulled seed may be planted 30 to 45 days before bermuda generally begins growth in the area.

Seeding is not necessary to obtain stands of Common bermuda on most of the sandy loam soils in areas receiving 30 or more inches annual rainfall. There is enough Common bermuda in most open sites in these areas to spread to a good cover when adequate fertility is made available. Raise fertility to the necessary level through the addition of fertilizer or by growing properly fertilized annual legumes, such as crimson clover and vetch, for one or two seasons. Grow an adapted small grain with the legume for grazing and apply fertilizer based on a soil test recommendation. The annual legume-grass method is a practical means for obtaining a cover of Common bermuda, and the cost of bermuda establishment may be recovered by grazing the annual crops or seed production, or both.

Management

Avoid overgrazing bermudagrass. Established Common bermuda can withstand heavy grazing pressure, but overgrazing encourages weeds and weedy grasses, prevents efficient use of moisture and plant nutrients due to the restricted bermuda root system and reduces forage yield. Remove livestock when Common bermuda plants have been grazed down to a 3-inch height to allow the plants to recover. NK-37 is more sensitive to grazing pressure and should be grazed no closer than 4 inches.

Fertilizer is necessary in most cases for good forage yields. In general, apply fertilizer according to soil test recommendations. Bermuda is an efficient plant in the utilization of nitrogen fertilizer when other factors do not limit growth. Growing an adapted legume such as whiteclover, crimsonclover, vetch or button burclover with the bermuda provides part of the nitrogen requirements of the grass. Also, the legume provides grazing during part of the time the bermuda is dormant.