

Forages



ESTABLISHMENT OF BERMUDAGRASS

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Soil Preparation

Prior to any land preparations, take a soil sample for analysis. Apply fertilizer and lime according to the soil test recommendations. It is desirable to apply sufficient lime to raise the soil pH to between 5.8 and 6.5. A small amount of nitrogen fertilizer (40 to 60 lb/A) should be applied prior to planting. Heavy nitrogen fertilization should be avoided until there is enough grass to take advantage of it. Sulfur (10-12 lb) may also be required on sandier soils. This can be supplied as part of the nitrogen fertilizer if ammonium sulfate is available as the nitrogen source. Fertilizer and lime may be broadcast over the field and incorporated with the tillage operations preparing the seedbed.

The field should be thoroughly tilled to kill any growing weeds and to loosen the hardpan, if necessary. Final tillage operations should break up clods to provide good sprig-to-soil contact and smooth the surface of the field for future haying operations.

Where to Get Sprigs

Use of certified sprigs is recommended to assure that the farmer is receiving the cultivar requested and that it is free of common bermudagrass and weeds. Certified sprigs are available in Georgia, North Carolina, and South Carolina. Names of

producers can be obtained from your local county Extension agent.

The farmer may also dig his own sprigs from a nurse patch. Either a commercial digger or a spring-tooth harrow is frequently used to dig the sprigs. After digging, the nursery may be cross-cut with a disk to cut the sprigs into shorter pieces. A side-delivery rake works well to shake loose excess soil and gather the sprigs into windrows.

Tops may also be used to establish some of bermudagrass varieties. The procedure is simply to mow a field of the desired variety and immediately collect the green tops for sprigging. Some varieties (such as Tifton 78) establish well from tops and others do not - be sure to check the variety before attempting this method. Tops are easier to obtain than sprigs but result in later establishment and less yield the first year.

When to Plant

Bermudagrass may be sprigged anytime from February through the remainder of the growing season. February and March are the recommended times, if adequate moisture is available, so that the sprigs have a chance to develop a root system before the hottest, most drying weather occurs. Early planted sprigs will tend to have a competitive advantage

over the weeds and may allow a cutting for hay to occur during the establishment year.

If seed (of the seed-producing varieties) is used, it should be planted in March or April when the soil is warm and moist to allow rapid establishment.

Sprigging with tops is normally done during June. The late date is necessary to provide sufficient growth of the source patch. The late establishment will reduce the growth the first year and may reduce winter survival.

How to Establish

Sprigs should be kept moist and cool and replanted as quickly as possible. Drying is more of a problem when sprigs are planted later in the season under higher temperatures. If sprigs appear dehydrated they can be thoroughly wetted for 12-15 hours prior to planting.

The rate of sprigging depends on how soon a stand is desired - higher rates result in faster stand development but at higher establishment costs. Higher sprigging rates will also help control weeds. If sprigging in rows 3 feet apart, 10 to 15 bushels per acre will allow placement of a sprig every 1 to 1.5 feet and will result in rapid coverage. Broadcast sprigging requires more sprigs (25 to 40 bushels/A) because many sprigs are covered either too deeply or not deep enough and die.

The ideal placement of sprigs in the ground is to have the sprig vertical, or nearly so, with all but 1/2 to 1 inch of the sprig buried. Planting can be done by hand with a hoe or stick if the area to be planted is small. It is important to firm the soil around the sprigs to provide good soil contact. Another method of planting is to dig a furrow, drop the sprigs into the soil and cover with a cultivator or a disk bedder. A third method is to use a transplanter such as a tobacco planter, a tree transplanter, or a grass sprigger. The fourth, and most common method of establishing pastures, is to use a commercial, broadcast sprigger. A fifth method sometimes used

is to spread the sprigs with a manure spreader and disk lightly (about 2 inches deep) to cover the sprigs. This method, while less expensive, tends to result in poorer stands because sprigs are likely to be poorly distributed, have uneven soil coverage, and be exposed to drying conditions before being covered with soil.

If the bermudagrass is to be seeded rather than sprigged, it is necessary to prepare a smooth, firm seedbed. The bermudagrass should be seeded at a depth of 1/4 to 1/2 inch when the soil is moist. The recommended seeding rate is 6 to 8 lb/A. Soil should be firmed around the seed to provide good soil contact.

Weed Control

Weed control during establishment is very important. Weed competition will cause the bermudagrass to spread less rapidly and not to provide a solid, high-yielding stand. The first step, as mentioned previously, is to plant into a weed-free bed to delay weed competition as long as possible. Grassy weeds coming up after sprigging may be controlled by mowing or grazing after 10 inches of growth has occurred. (When grazing, be careful not to graze so closely that cattle are eating the runners of the stoloniferous types.)

Severe weed problems may justify further chemical control. Most annual and perennial broadleaf weeds may be controlled with 2,4-D applied at 0.5 to 1.5 lb Ai/A. Application may be made anytime after sprigging. Repeated applications may be required. Avoid applying when very high air temperatures are expected. Milking cows must be kept off the treated areas for 7 days after application. Karmex (diuron) may be applied at the rate of 0.4 to 0.8 lb Ai/A anytime after sprigging to control most annual grasses and broadleaf weeds. This herbicide will control weeds two to four inches tall when applied with a surfactant. Some leaf burn on the bermudagrass will occur. Forage must not be grazed or fed to cattle for 70 days after application.