



FORAGE FACTS

Publication Series

BERMUDAGRASS

INTRODUCTION

Bermudagrass is a warm-season, deep-rooted perennial pasture grass that can be used for grazing or hay in Southeast Kansas. Bermudagrass requires a high degree of management for favorable production results. Yields and subsequent profit from bermudagrass will vary according to the amount of management the grass receives.

SEEDBED PREPARATION AND SPRIGGING RATE

The major requirement in planting bermudagrass sprigs is a well-prepared, firm seedbed similar to that for corn or soybeans. All lime and fertilizer requirements should be incorporated during seedbed preparation, especially phosphorus and potassium.

A minimum sprigging rate of 15 bushels per acre is necessary in loose, dry soil, but a sprigging rate of 20 bushels per acre is preferred. Drying of the sprigs before or after planting will cause decay and molding which will prevent growth of the young buds.

Producers should use only freshly dug sprigs or those that have been properly stored, and the sprigs should have a minimum amount of top growth and old dead crowns included. Good sprigs are dug from fields that were well fertilized and managed the year before digging. If sprigs are to be transported or stored for any period of time, they should be covered and protected from wind. Moisture may need to be added, but producers should take care to avoid over-watering.

TIME OF PLANTING

Bermudagrass should be planted as early in the spring as the sprigs can be dug. Planting sprigs too late is much more of a concern than planting too early. If plantings are delayed until early June, most stands fail to establish. It is important to get the sprigs into the ground before they are subjected to hot, dry soil conditions.

DEPTH OF PLANTING

The sprigging machine should be set to plant the sprigs about 2 inches deep. If the roots are in a large clump, the machine may be set a little deeper. The soil should be firmed around the sprigs at planting time with press wheels or the wheels of a tractor. If soil moisture is adequate at planting time, some of the sprigs may have their tips slightly exposed. During warm weather and under good moisture conditions, sprigs will start emerging within two weeks after planting and continue for three to four weeks if moisture conditions allow. The depth of planting and plant food content of the roots affect the rate of emergence of the bermudagrass sprigs.

WEED CONTROL

The control of weeds and weedy grasses is very important in establishing bermudagrass because young emerging plants are susceptible to shading. It is also difficult to get a good establishment when undesirable weeds and grasses compete for water and nutrients. There are several methods to control weed growth in bermudagrass pastures, but the use of herbicides such as 2,4-D and Karmex are probably the most important.

2,4-D should be applied at a rate of about $\frac{1}{2}$ to 1 pound of active ingredient per acre. It should be applied after the bermudagrass is sprigged and when broadleaf weeds are young and actively growing. In fields where crabgrass and other foxtail grasses are not

a problem, 2,4-D can be used very economically to control broadleaf weeds in the establishment of a bermudagrass pasture.

Karmex should be applied at a rate of 1 to 2.4 pounds of active ingredients per acre to control unwanted grass species of weeds. It should be broadcast after sprigging and before weeds emerge. A post-emergence treatment of .8 pounds per acre can be applied after sprigging and when the weeds have germinated and are not more than 4 inches tall. Karmex requires a 70-day grazing restriction after application.

Be sure that applicators read the labels of pesticides and apply accordingly.

FERTILIZATION

Fertilization is the key to economical production of bermudagrass forage because the greatest return per dollar invested comes from the proper application of fertilizer. It takes much less water to produce a pound of dry matter on well-fertilized soils than on soils of low fertility. Since bermudagrass is a high user of plant nutrients, a balance must be maintained in the soil for continued high production. It is important to apply nitrogen, phosphorus and potassium according to soil test recommendations. It has been shown that the winter-hardiness of bermudagrass may be greatly reduced by low potassium, especially under high nitrogen fertilization.

FERTILIZER FOR NEW STANDS

At planting time, the application of nitrogen should be limited to 20 pounds per acre. This small application results in feeding only the new seedlings of bermudagrass that will be emerging. Stimulation of weed growth occurs with higher rates of nitrogen. After the new bermudagrass is about 6 to 8 weeks of age, apply up to 50 pounds of nitrogen per acre if the new bermudagrass has started to run. This will supply additional amounts of nitrogen for the new plants to continue to grow during the seedling year.

FERTILIZER FOR ESTABLISHED STANDS

Fertilizer use, particularly nitrogen, increases yield and protein content of bermudagrass forage and increases the carrying capacity of the pastures, but will have little effect on daily gain of the livestock. The timely application of proper amounts of nitrogen is one of the best management tools to increase livestock production and profits from bermudagrass.

A fertilizer application of 150 to 200 pounds of actual nitrogen during the growing season is considered a profitable amount. Nitrogen should be split into two or three applications during the summer. The first application should be made on May 1 with additional applications at six-week intervals. Application of phosphorous and potassium should be based on soil test recommendations and applied with the first application of nitrogen each year. Bermudagrass is the most efficient user of nitrogen fertilizer of any crop in Kansas.

HAY PRODUCTION

The production of high quality hay is important in a profitable bermudagrass program. Excess forage produced in the spring should be harvested as hay. Likewise, excess fall forage may be cut for hay if done by September 15. Proper fertilization and timely cutting are the main factors in increasing the protein and energy content of bermudagrass hay. Generally, fertilized bermudagrass cut every 25 to 30 days contains 12 percent protein.

BERMUDAGRASS AND COMPANION CROPS

Planting winter cereals into bermudagrass is best accomplished by the use of a grassland and/or hoe-type drill. The bermudagrass should be either grazed or clipped short and the winter cereal seed planted during late September. This provides some winter cereal pasture during late winter and particularly early spring.

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