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### MAKE THE MOST OF BERMUDAGRASS PRODUCTION WITH GOOD FERTILITY MANAGEMENT

**Bermudagrass (common and hybrid) is the predominate summer perennial grass used for livestock grazing and hay production in the southern U.S.** It has high yielding ability, drought resistance, and tolerates relatively acidic soil conditions. It can be produced for grazing, hay, or a combination of the two. In bermudagrass hay production, two to four cuttings annually are usually harvested at about 30-day intervals.

**One of the most important factors affecting bermudagrass production is nutrition.** In hay production it has the capacity to remove large quantities of nutrients from soils. Fertilization based on soil test and harvest removal can help prevent depletion of nutrients from soils under bermudagrass production.

**Bermudagrass will take-up about 50 pounds of nitrogen per acre for each ton of hay harvested.** Common recommendations call for the application of 100 pounds of nitrogen per acre in the spring, with the remainder applied in split applications just after, or between harvests. Proper nitrogen fertilization is associated with improved shoot and root growth, stress tolerance, resiliency, and higher protein content.

**As much as 100 pounds of phosphate ( $P_2O_5$ ) per acre will be taken-up in the production of top bermudagrass yields.** In a rapidly growing, high-yielding crop, phosphorus uptake can equal 1.2 pounds  $P_2O_5$  per acre per day. Sufficient phosphorus fertility is commonly associated with increased root growth and branching, increased nitrogen use efficiency, and improved drought tolerance and recovery.

**Each ton of bermudagrass production requires approximately 50 pounds of potash ( $K_2O$ ).** Uptake of potassium can reach over 4 pounds  $K_2O$  per acre per day in a rapidly growing crop. Reserves of soil potassium may be reduced rather rapidly under intensive bermudagrass production. The maintenance of adequate potassium levels through the summer months to the onset of dormancy is important in the manufacture of carbohydrates for root growth and carbohydrate storage. Potassium also improves water and nitrogen use efficiency and helps maintain good stand density. In addition, adequate potassium fertility is associated with increased disease resistance and improved winterhardiness.

**Secondary elements and micronutrients should not be neglected in bermudagrass production.** High yields may require more than 20 pounds of magnesium and 40 pounds of sulfur per acre. Liming is important in acid soil environments. Sufficient aglime should be applied to maintain soil pH at 5.5 or higher. Use soil testing to determine the need for aglime, secondary nutrients, and micronutrients.

**With the relatively good spring soil moisture conditions over much of the bermudagrass producing region, make sure that fertility doesn't limit production this season.** Balanced nutrition helps ensure optimum yield and forage quality, improved stand longevity, and maximum profit.

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