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Limpograss Fertilization Trial Results

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Limpograss (*Hemarthria*) production has gained popularity in Florida as an alternative to bahiagrass. When managed correctly, limpograss can be a good quality and high yielding forage for cattle production. It also has good cool season growth. Until recently, there was no specific fertilizer recommendations for this grass and producers were forced to use fertilizer recommendations for other grasses.

The research committee for the Florida Cattlemen's Association developed a list of research priorities for the University of Florida to follow. A top priority was to re-evaluate the fertilizer requirements for forage grasses such as limpograss. This led us to conduct a number of trials at the Range Cattle Research and Education Center and on various ranches in South Florida to evaluate the fertilizer requirements for limpograss.

This article will present the results of a field trial conducted at the Kempfer Ranch in St. Cloud, FL, to evaluate the effects of macro- and micronutrients on limpograss production and crude protein under grazing conditions. A concern with past fertilizer recommendations was that the effect of nutrient recycling from both manure and urine was not accounted for since earlier studies were not conducted under grazing conditions. In our study, we found that adding phosphorus (25 Ib/A P_2O_5), potassium (50 Ib/A K_2O) or 40 Ib/A of a micronutrient mix (copper, manganese, boron, zinc and molybdenum oxides) did not increase limpograss yields over two years. There also was no effect of fertilizer treatments on the crude protein levels.

This lack of fertilizer response is most likely due to the recycling of nutrients occurring on the pasture and a reflection of Kempfer's history of fertilization. The results of this study agree with our limpograss fertilizer studies conducted in south Florida. More studies are being conducted to evaluate the fertilizer requirements of limpograss on different soil types to insure that the results are similar.

Until IFAS completes all these studies and reviews and revises the fertilizer requirements of limpograss, it is advisable to apply a maintenance level of phosphorus and potassium to limpograss. Approximately 20 pounds of phosphate and 40 pounds of potash should be applied per acre annually in early spring. Nitrogen should be applied in split applications at about 50 lb/acre two or three times a year.

Limestone is also important for limpograss production. Our studies have shown that the soil pH needs to be 5.0 or higher. Our results indicated that when the soil pH was increased from 4.5 to 5.0 with the addition of one ton per acre of limestone, yields increased 0.8 tons per acre. When considering lime application, one should strongly consider dolomitic limestone since it not only raises soil pH and provides calcium but also supplies needed magnesium for the plant.