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IFAS Revises Bahiagrass Pasture Fertilizer Recommendations

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It has been speculated that increased phosphorus levels in Lake Okeechobee are resulting in major algal blooms which reduce oxygen levels in the lake and cause major fish kills. Part of the increased phosphorus levels in the lake are believed to result from heavy phosphorus fertilization of pastures. Many scientists have thought that the phosphorus fertilization rates currently being recommended could be reduced substantially without production losses.

A three year study was undertaken at the Williamson Cattle Company in Okeechobee to evaluate phosphorus inputs into the lake and to reevaluate the current IFAS phosphorus recommendations for bahiagrass pastures. Reductions in phosphorus fertilization would result in cost savings to ranchers and also help to eliminate the possibility that phosphorus may be getting into surface waters-such as Lake Okeechobee, and ground water. Recent results indicate that phosphorus recommendations can be reduced substantially without reducing yields or quality of bahiagrass pastures. In addition, water quality was improved with lower fertilization rates.

A recent IFAS nine county study, which is also reevaluating the current IFAS fertilizer recommendations for pastures, also has shown yields and quality of bahiagrass not to be reduced from lower fertilization rates.

As a result of these and other studies, IFAS has recently revised the fertilizer recommendations for forages. For new plantings of bahiagrass, apply 100 pounds N per acre and split as follows: 30 pounds N, all of the P_2O_5 (40 pounds of P_2O_5 if soil tests low in P or 20 pounds P_2O_5 if soil tests medium in P), and 50 percent of the K_2O (40 pounds K_2O per acre if soil tests low or 20 pounds K_2O per acre if soil tests medium in K) as soon as plants have emerged. Apply the remaining K_2O and 70 pounds N per acre 30 to

50 days later. For established stands of bahiagrass there are three production options to choose from based on ones fertilizer budget, management objectives and land capability.

A summary of these options follows. Fertilizer for the options listed below should be applied in early spring to maximize the much needed spring forage.

High N option--Apply 160 pounds N and 40 pounds P_2O_5 per acre if your soil tests low in P or 20 pounds P_2O_5 per acre if it tested medium. Also apply 80 pounds of K_2O per acre if soil tests low in K or 40 pounds of K_2O per acre if soil tests medium in K.

Medium N option--Apply 100 pounds N per acre. Also apply 25 pounds P_2O_5 per acre if soil tested low in P and none if it tested medium. Apply 50 pounds K_2O per acre if soil tested low in K or none if it tested medium. If you plan to make a late season cutting of hay, apply 80 pounds N per acre between August first and the fifteenth (about six weeks before the growing season ends.)

Low N option (for grazed pastures only)-Apply 50 pounds N per acre and no P or K. However if you follow this option apply P and K as recommended by a soil test every three or four years to avoid excessive depletion of those nutrients. Do not use this option if you cut for hay since nutrient removal by hay is much greater than by grazing animals.