
Soil and Forage Fertility

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Now that the summer rains have begun, it is time to apply fertilizer to your pastures. Hopefully you have already taken the time to collect soil samples from your pastures and have sent them to be tested by a reputable lab. The first step to ensure that your pasture will be able to adequately utilize the nutrients you apply is to test your soil. The recommended pH for pasture grasses and legumes is between 5.0 and 6.0. When you receive your soil test results they will indicate if you need to apply a liming material to your soil and how much to apply.

Liming materials come in different forms. Some types of liming materials are lime, calcite, dolomite, and dolomitic lime. The two most common types are lime and dolomite. Depending on the nutrients available in your soil, you may be recommended to apply dolomite rather than lime. Many times dolomite is recommended when magnesium levels are low in the soil. When purchasing your liming material one thing to consider is the effective calcium carbonate equivalence (ECCE) in the material. This is important to know so the proper amount of liming material is applied to the soil to bring your pH to the proper level. The recommendation you receive from the lab is calculated for an ECCE of 100%.

Soil fertility management should be based on how your forages will be used. If you are using your forage for hay, sod or green chop you will be removing nutrients from the soil. In that case more nutrients may need to be applied. When grazing forages, approximately 400-500 pounds of nitrogen and 1,000 pounds of potassium are returned to the soil through urination of the cow. About 80 percent of the phosphorus is returned to the pasture through the cows feces.

Many producers have a good understanding of what type of grass they have in their pastures. This is important for fertilization purposes. Each type of grass has recommendations for both new establishment and established pastures. This is important to note when sending soil samples in for testing so you receive the proper results.

Fertilizer recommendations for bahiagrass at establishment are to apply 30 pounds of nitrogen per acre, phosphorus as recommended and 25 pounds of potassium 7-10 days after planting or at emergence of the seedling. Twenty – 40 days later you should apply another 50 pounds of nitrogen per acre and 25 pounds of potassium per acre. For an established pasture the recommendation is 50-60 pounds of nitrogen per acre along with phosphorus and potassium as recommended from the soil results.

Bermuda and stargrass recommendations are for a newly established pasture to apply 30 pounds of nitrogen per acre, half of the recommended potassium and all of the phosphorus per

your soil sample results at emergence. That application would be followed up 20-40 days later with 70 pounds of nitrogen per acre and the remaining potassium.

Limpogras or hemarthria is recommended to apply at emergence 30 pounds of nitrogen per acre, all of the phosphorus and half of the potassium per the soil sample recommendation. Following that application 20-40 days later apply another 70 pounds of nitrogen per acre and the remaining potassium.

It is important to remember both liming materials and fertilizers need liquid to work through the soil. Time your fertilizer application when moisture is in your area. For more information you can contact your county extension agent or find information online at <http://edis.ifas.ufl.edu>