

Indian River County
1028 20th Place, Suite D, Vero Beach, Florida 32960
(772) 770-5030 Fax: (772) 770-5148 <http://indian.ifas.ufl.edu>

Understanding your Soil

By: Janet Bargar, Water Quality Agent

A beautiful lawn requires maintenance such as proper watering, controlling pests, and fertilizing. But have you ever considered having your soil tested as part of your maintenance routine? Soil testing can be used as a tool in keeping your lawn healthy. By knowing what nutrients are present in the soil, you can apply the right amount of fertilizer to the grass and plants. This saves you both time and money.

The University of Florida/IFAS Extension Soil Testing Laboratory (ESTL) is a service offered to Florida citizens to test soil samples at a nominal cost. Collecting and submitting samples is a simple process. Instructions and shipping materials are available at your local county extension service. The ESTL analyzes the soil sample and sends you a report, which details the basics about pH and lime requirements or goes more in depth about nutrient concentrations. The report also includes recommendations to help you use the results to your advantage, such as developing a fertilization program.

An optimum fertilization program is important because too much fertilizer can do more harm than good. Fertilizers contain nitrogen and phosphorus that feed plants and help them grow, but when these nutrients are over applied to lawns not all of them are absorbed by the plants. As soon as the next rainfall or irrigation occurs, excess nutrients can be washed off the lawn either in the water or attached to soil particles. This runoff flows into canals, which runs untreated into local water bodies.

Once these nutrients reach the water body, they provide algae with a food source. The more food, the more the algae grow. This excess algal growth starts a chain of events that harm the plants and wildlife that call that water body home. Algal blooms blanket the water surface and block sunlight from reaching aquatic plants such as seagrasses, which act as nurseries, food, and homes for many aquatic animals. Since seagrasses are photosynthetic, they are starved of the light they need for survival. Marine life may then decline due to loss of this habitat. The algae further negatively impact the water quality by decreasing the water's dissolved oxygen when they die. The microbes that are part of the decaying process use dissolved oxygen to break down the algae. This may result in dissolved oxygen being reduced to levels that may not be able to sustain healthy fish populations. This process in turn negatively affects recreational and commercial fisheries by reducing the number of fish caught.

A little knowledge can go a long way when it comes to your soil and its fertilization needs. I encourage you to take advantage of the ESTL at the University of Florida. Knowing more about what is present in the soil can help you apply the right combination of fertilizer, which benefits you and the environment. For more information about soil testing, please contact your local county extension service.