Test Your Soil!

by Debbie Lauer, Bell County Master Gardener

Have you been frustrated with the performance of your lawn or garden? The reason for poor results may lay in the soil in which you are planting. Here in Central Texas we have mostly alkaline clay soil. When we do have soil deep enough to plant something in, that is. This is a tough soil to grow things in, even native plants adapted to these conditions could benefit from the knowledge that you will gain by having a soil test done.
Plants need 16 different nutrients in order to produce lush, healthy growth. Carbon, oxygen, and hydrogen are provided to the plant from air and water. The rest of the needed nutrients must come from the soil. Of the remaining required elements; nitrogen, potassium, phosphorus, calcium, and magnesium usually do not exist in the soil in sufficient quantities to meet most plants. needs. To make matters worse, the alkalinity of our soils frequently causes some required nutrients already in the soils to be unavailable to plants. In other words, the alkaline property of our soils binds up these nutrients by changing them into chemical compounds that can not be used by plants.

The Bell County Extension Office has the two items that you need in order to get your soil tested. Those items are a Soil Sample Bag and the Soil Sample Information Form. The Extension Office is located at 1605 N. Main Street in Belton. If you have more than one area you want to test or more than one type of "crop" you may need to pick up more than one Soil Sample Bag. Now the only other things you need are a CLEAN, PLASTIC bucket and a spade or soil probe.

The process of collection for lawns is slightly different than for a vegetable garden or flower beds. The first step is to take multiple samples of dirt from different parts of the lawn. Use a spade to cut a V shaped hole about 4 inches deep. Now take a slice of soil from one side of the V. Remove the top one half inch of soil to prevent contamination from any fertilizers you may have used on your grass. Remove any grass roots, twigs and rocks from the spade full of dirt and then put that soil into the plastic bucket. Repeat several times sampling all parts of your yard. Now use your hands to mix the dirt from all the samples thoroughly. To get the best results possible AIR DRY the soil, do not use heat. Do not store soil in any glass, or metal container. Once the soil is dry fill the Soil Sample Bag to the required fill line, this is about one pint of soil.

If you want to sample the soil of your flower beds or a vegetable garden area the only change is the depth at which the sample is taken. This time dig your V shaped hole down to a depth of 6-8 inches. Again remove any foreign objects and put sample into a plastic bucket. Mix samples and after AIR drying soil fill another Soil Sample Bag to the fill line. You should send in a Soil Sample Bag for every type of crop (flowers, grass, vegetables) that you are interested in improving. Put a sample number and your name on each bag.

Now fill out your Soil Sample Information Form. After filling in your address, County, and phone numbers, you have several choices that are critical to your results. First if you send in more than one Soil Sample Bag be sure to label each bag and to fill in a separate line on the Soil Sample Information Form. For each bag, required information is the sample number (such a 1 of 3, 2 of 3 etc). Now fill in the column asking what are you growing? I.e. turf grass, vegetable garden or flowers. The last major decision you must make is what type test you want to run on the soil. For most purposes homeowners should select the Routine Analysis or test number 1.

Box up your sample bags and the Soil Sample Information Form and mail them to the address on the back of the form. Be sure to include a check (NO CASH) paying the fee for the test(s). For routine soil sample (test 1) the fee is $10 PER Soil Sample Bag. In 5 to 7 days after receiving the sample bags the laboratory will mail the results to both you and to the County Extension Agent. You will get a printout for each sample bag sent in. It will show the amount of nutrients currently in the soil sample you sent in AND will give you a fertilization program geared specifically to the condition of your soil based on what you want to grow! Imagine that. Now you know exactly what you need to do for your plants and you do not have to guess or figure it out by trial and error.

Now, before the growing season begins is a great time to take your soil samples. When it is time to

plant you will already know how to fertilize and how often to fertilize. If you need clarification on what your printout is telling you, email (Bell-tx@tamu.edu) or call the Extension Office.

The Texas A&M University Turfgrass website has a Soil Testing page and a soil sample form with detailed instructions. The Soil Sample Bag and the Soil Sample Information Form also have instructions on them.