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Soil Sampling

If you are considering planting a winter food plot, knowing the nutrient levels of the soil before planting will help you determine if you need to add nutrients to the soil or not. Soil tests provide a scientific base for evaluating the available plant nutrients in a field, garden, lawn, pasture, or food plot. Knowing the nutrient levels in the soil can determine if any additional nutrients need to be added to the soil. If nutrients need to be added, a soil test can help determine the amount of nutrients that need to be added to the soil, depending on what type of plants you are planning on growing. Having this information and knowing the correct amount of nutrients to add will increase the likelihood of growing a successful food plot, and can save both time and money. To find out the nutrient levels of soil, and if additional nutrients need to be added, can be determined by taking a soil sample and having it tested. Correct soil sampling is essential for an accurate and repeatable soil test, and consequently for an optimum nutrient management program. To obtain a proper collection, there are a few guidelines to follow.

- **Start with the right equipment:** You will need a soil sampling probe, auger, spade and a clean bucket. In addition, a few plastic bags will be needed to put the collected soil in.
- **Map it out:** Draw a map of the sample area and divide it into uniform areas. Each area should have the same soil texture, color, slope and fertilization and cropping history.
- **Start sampling:** For the standard pH, buffer pH, P and K test, sample 6 inches deep and take 10 to 15 cores or slices from each area. Moving in a zig-zag across the area will help to get a more representative sample. Mix thoroughly in the clean bucket. Fill your soil collection bags from this mixture making sure that there are about 2 cups of soil. For available nitrogen, chloride or sulfur tests, take the same number of cores, but a subsoil sample to a depth 24 inches is necessary. It is also important to note that if a zinc test is requested; use a plastic bucket for soil collection as bucket made out of galvanized or rubber materials may contaminate the results.

- **Places to avoid:** Avoid taking samples from old fencerows, dead furrows, low spots, feeding areas or other areas that might give unusual results. If information is desired from these unusual areas, obtain a separate sample from that area.
- **Label:** Be sure to label the soil container clearly. Record the sample identification on the container and the information sheet. Keep records as to where the soil samples were taken and the name that was given for each sample.
- **Send samples:** Once all the soil is collected from the desired areas, take the samples to your local K-State Research and Extension office. They will send the samples to the K-State Soil Testing Laboratory to be analyzed. Generally, expect results and fertilizer recommendations back within two weeks.

If you are wondering how many soil cores will work for a sample, taking several cores of soil in a smaller sampling area will give a more accurate assessment as opposed to taking a few soil samples in a large area. Also, if taking soil samples on a regular basis, be sure to collect samples during the same time of year. Since nutrient levels vary in different times of the year, this will allow you to compare results from year to year.

To gain a better understanding of the soil health in your fields, garden, pasture, or food plot, and know if additional nutrients need to be added to the soil, a properly collected soil sample is essential.

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