UNIVERSITY OF MARYLAND EXTENSION | AgFS Agriculture & Food Systems

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Soil and Manure Testing in Fall

Fall is an excellent time to take soil tests, since the summer crops are off and the cover crops are small enough to still walk through the fields. Soil tests have an important role in determining your soil fertility program. In fact, I'd argued that it is the most important soil fertility tool that we have. Knowing the pH and nutrient levels in your soil gives you a starting point for how much manure, fertilizer, and/or lime should be applied in order to ensure a healthy crop and optimal yield. Soil tests should be taken every three years.

The first step is to determine how many soil samples you will need. One soil sample should have no more than 15-20 acres in it. Fields smaller than 20 acres can be grouped together if they are under similar management practices or crop rotations. For example, fields that have a corn-wheat-soybeans rotation can be sampled together, while pastures and hay fields should be sampled separately. Soil in high tunnels should be sampled separately from "outdoor" vegetable fields.

Once you have determined the number of soil samples, you will need a soil probe and buckets. For each soil sample, collect 15-20 soil cores. To do this, walk across the whole field(s) in a zig-zag pattern, which allows for a random but representative sample. Avoid unusual areas such as wet spots, old fence rows, and the area where you had the manure pile last spring, as these will skew the results of your sample. If the unusual area is large enough, take a separate sample in that area. Push the probe down into the ground 8 inches for cropland and pasture. If you are sampling no-till fields, a separate sample can be taken from the top two inches for pH monitoring. Once you have all 15-20 cores in your bucket, break up the clumps of soil and remove any stones and plant material

Don't forget about manure tests, too! The best time to grab a sample is when you are loading the spreader. Just like soil sampling, the goal is to take a representative sample. Liquid pits should be agitated before sampling. If bedding is used, ensure that the sample you take includes a similar amount of bedding that is in the barn. You should have one manure sample for each different manure type that you have. Each sample should have 10-15 collection points. For example, if you're collecting liquid dairy manure, grab 10-15 samples from different loads as the tanks are filled. Then, when you clean out the heifer barn, grab 10-15 samples of the solid manure. Make sure you are putting the manure samples in a clean container!

When submitting any sample to the lab, make sure you fill out the submission form completely so the lab has all the information needed. If you have any questions about how to fill out the submission form, or what to do with the results, give us a call here at the Extension Office! We also have lists of area labs that do soil and manure testing.

The above article was originally written by Kelly Nichols, who is the Ag Agent in Montgomery County

Nutrient Management Voucher Training

December 8th Maryland Nutrient Management Voucher Training 6-8pm, Burkittsville Ruritan 500 East Main St; Burkittsville, MD 21718

If you have any questions or if I can be of any assistance please give me a call at 301-600-3577 or email jjhurry@umd.edu. For more information about the University of Maryland Extension Frederick County Office check out our website http://extension.umd.edu/locations/frederick-county

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