

Changes and Benefits to the VT/VCE Soil Testing Lab's new LIMS, Laboratory Information Management System

1. Customer/Grower will need to go online and create an account using an email address to enter sample information. VCE personnel can enter soil samples for a customer and if the customer does not have an email address.
2. Customer can control who has access to their sample test results, such as a nutrient management plan writer. Extension Agents can look up any grower's results without the customer having to give permission.
3. Only once will the client have to enter their contact information: name, mailing address (though the lab does not mail reports), email address (eliminates someone else entering the email), phone number, select the VCE office that they work with.
4. Also only once, designate sample areas such as Home or Farm or Golf Course as the *Property*, and front lawn or garden or north pasture or #9 putting green as a *Section* of that property being sampled. There is still a Sample Container (Box) ID which should be the same as the 5 characters that are on the lab's sample box containing the soil. New for all sample types is a Sample Name that can be up to 20 characters long to help the customer identify their sample. For farms there's also field soil map unit information that can be added and will be stored for use in following years. Also stored are additional options to describe the sampling site's location including latitude and longitude, Farm Service Agency (FSA) farm number along with Tract and Field numbers.
5. Have the option to pay soil testing fees online with a credit card. Will still be able to pay with a check, money order, cash, voucher/coupon or for internal clients an ISR.
6. No paper forms to fill out. Just print one page to be included with each shipment of samples as a packing slip. Expiring paper forms will still be accepted in the short term but will not be updated and should be phased out as quickly as possible.
7. Customer can select multiple plants/crops to get lime and fertilizer recommendations for and later change what is selected themselves.
8. Customer can search for their past samples and results from previous years for as far back as the database is old. (The current database is limited to the past 3 years.)
9. Content of comments on reports can now be bold or italic or contain hyperlinks that, for example, open a referenced Soil Test Note in a new tab.

10. When testing of a sample is completed, the customer will be sent an email with an attachment of new report(s) for that day. The corresponding Agent for that sample's unit office will get an email informing them that there's new reports for their unit office, **if** the Agent selects to "Opt In" to receive such emails.

11. **New report format** has some color; however, it's not necessary to understand the report. New to a report is it showing payment information, Target pH of selected plant(s)/crop(s), any lime credit amount being subtracted from the initial lime recommendation, expected yield, any nitrogen credit being subtracted from the initial N recommendation, and a link to all the local VCE offices.

12. There is a new Sample Type (form) called Landowner Non-commercial Forage to be used for clients growing forages and not selling it (for feed, etc.) nor is it connected to a business (horse therapy, etc.). An example for who is to use it are clients who own a horse(s) to ride and have a pasture for their horse(s). Also, the Wildlife Food Plot and Erosion Control Mixture (crop code 32) has been moved from the Commercial Crop Production sample type (form) to this new type of Landowner Non-commercial Forage. Samples assigned to this new type will be charged for the Routine soil fertility test.

13. The soil sample type (form) for Surfaced-Mined Areas is no longer used. Instead select either the Commercial Crop Production or Landowner Non-commercial Forage or Industrial Lawns sample type. Examples, instead of former crop code of 440 for Tall Grass – Clover Pasture, select Tall Grass without or with Clover – Pasture (40), and instead of the former crop code of 420 for Erosion Control Mixtures, select Wildlife Food Plot / Erosion Control Mixture (32).

14. The soil sample type (form) for Commercial Greenhouse and Nursery Production is no longer used. For Field Grown Nursery Crops, Acid-Loving Plants (351) and Non-Acid-Loving Plants (352), select the Commercial Crop Production sample type to get recommendations for these two crops.

Since greenhouse plants are now primarily grown in artificial media (potting soil), those samples along with any sample containing greater than 50% organic matter should be tested by a lab that offers a *Soilless Media Test*.

Along with potting soil, another laboratory should still be used for the testing of compost, solutions, ash, sludge, biosolids and manure samples.

15. In the future, the plan is for this system to be able to generate simple Nutrient Management Plans.