

SnapPlus

Wisconsin's Nutrient Management Software

Basic Concepts

Soil sampling for SnapPlus

Soil sampling for SnapPlus is no different than routine soil sampling with two exceptions: (1) you don't need to fill-out the entire soil submission sheet, and (2) you must use a WDATCP-certified lab. Otherwise, a routine analysis of soil that includes plant-available phosphorus (P) and potassium (K) levels, organic matter content (%) and soil pH is used in SnapPlus (along with other information about your farm) to make crop-specific fertilizer and lime recommendations.

When should you take soil samples?

Fall sampling is ideal, as you will get the results back in time to plan for the next cropping season. Whether you complete sampling in the spring or fall, be sure when you resample (see the next page for what interval is appropriate) to do so during the same season (if you sample in the fall, resample in the fall, etc).

Do I submit my soil samples differently if I am using SnapPlus?

When sampling soils for testing with the intention of creating a nutrient management plan in SnapPlus, **you do not have to complete the entire Soil Submission sheet for the soil testing lab**. Only minimal information is needed—**all contact information** (including email so you receive results in a format that can be uploaded into SnapPlus), **field name** and **soil sample number**. You will enter the rest of the information needed to get your recommendations directly into SnapPlus.

Note: If you want recommendations as soon as you receive your soil sample results prior to uploading into SnapPlus, then you should fill out the entire submission form.

Check out the video, **Basic Soil Sampling for Wisconsin Soils**

Available at <http://ipcm.wisc.edu/video/>

Rock River Laboratory
710 Commerce Dr.
Watertown, WI 53094
(920) 261-0446
office@rockriverlab.com
<https://rockriverlab.com>

You must use a WDATCP Certified Lab!

A Wisconsin nutrient management plan must be based on soil tests conducted at the soil testing laboratory certified by the Department of Agriculture, Trade and Consumer Protection. This requirement ensures soil test results and recommendations will be generated through analytical procedures approved by the University of Wisconsin with consistent results. Laboratories must perform with a certain level of success to remain certified.

All **Wisconsin Certified Soil Testing Laboratories** listed below except Waypoint Analytical Illinois are participating in the Manure Analysis Proficiency Program.

Waypoint Analytical Illinois 2902 Farber Dr. Champaign, IL 61822 (217)359-7680 supportil@waypointanalytical.com https://waypointanalytical.com/	UW Soil & Forage Analysis Lab 4702 University Avenue Madison, WI 53705 (715) 387-2523 soil-lab@mailplus.wisc.edu https://uwlab.soils.wisc.edu/
Farmers Edge 200 SE 37th St. Suite 200 Grimes, IA 50111 (515) 348-8639 fe.labs@farmersedge.ca https://www.farmersedge.ca/	AgSource Laboratories 106 North Cecil St. Bonduel, WI 54107 (715) 758-2178 bonduel@vas.com https://vas.com/agronomic-consulting/
Midwest Laboratories Inc. 13611 B St. Omaha, NE 68144 (402) 334-7770 contactus@midwestlabs.com https://midwestlabs.com/	Minnesota Valley Testing Labs 1126 N Front St. New Ulm, MN 56073 (800) 782-3557 mnsoil@mvtl.com http://mvtl.com/
A&L Great Lakes Laboratories, Inc 3505 Conestoga Dr. Fort Wayne, IN 46808 (260) 483-4759 lab@algreatlakes.com https://algreatlakes.com/	Dairyland Laboratories 117609 Forward St. Stratford, WI 54484 (715) 687-9997 https://dairylandlabs.com/contact-us https://www.dairylandlabs.com/



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What is the right number of soil samples for each field?

University of Wisconsin-Extension (UWEX) guidelines recommend **1 sample per every 5 acres for responsive fields**. The field is considered to be in the responsive range if either soil test phosphorus (P) or potassium (K) levels are in the high (H) category or lower. A **nonresponsive field** is one where both soil test P and K levels are in the very high (VH) or excessively high (EH) categories.

For more information and guidance on soil testing procedures, See UWEX publication, [A2100 Sampling Soils for Testing](http://learningstore.uwex.edu/Assets/pdfs/A2100.pdf)
<http://learningstore.uwex.edu/Assets/pdfs/A2100.pdf>

Responsive Fields

To figure out how many samples you need for a **responsive field**, take the acres in the field and divide by 5, then round to the nearest whole number of samples.

Rounding Note:
 When rounding,
 0-4 rounds down
 5-9 rounds up

Example 1 : Field size = 36 acres

$$36 \text{ acres} \times \frac{1 \text{ sample}}{5 \text{ acres}} = \frac{7.2 \text{ samples}}{\text{acre}}$$

or $36 \div 5 = 7.2$

7.2 rounds to 7

7 samples are required

Example 2: Field size = 58 acres

$$58 \div 5 = 11.6$$

11.6 rounds to 12

12 samples are required

Example 3: Field size = 6 acres

$$6 \div 5 = 1.2$$

1.2 rounds to 1

1 sample is required

For fields that are less than 5 acres, take 1 sample for the entire field. Strips that are smaller than 5 acres can be combined for sampling if they have the same management history.

Nonesponsive Fields

If the field was sampled within the last 4 years and all samples were in the nonresponsive range, fewer samples are required.

Nonresponsive fields tested within the last 4 years

Field size (acres)	Suggested number of samples
15-25	3
26-40	4
41-60	5
61-80	6
81-100	7

Grids

Grid point sampling is used to map variability in soil test levels and guide precision nutrient application. Grid point sampling should always have fewer than 5 acres per sample. Ideal grid sizes have no more than 1 to 2 acres per sample. **Note for contour strips:** Verify that there is 1 sample per strip or 1 sample per five acres depending on the size of the strip size.

For more information and soil test results and interpretation,

See Chapter 7 of UWEX publication:

[A2809 Nutrient Application Guidelines for Wisconsin Field and Vegetable Crops](http://learningstore.uwex.edu/Assets/pdfs/A2809.pdf)

<http://learningstore.uwex.edu/Assets/pdfs/A2809.pdf>

How To Generate Soil Sample Bag Labels From SnapPlus

Check out the video,

SnapPlus: Generating Soil Sample Bag Labels

<http://snapplus.wisc.edu/news-help/how-to-videos>

Generating soil test labels from SnapPlus V2 and getting your soil test bags together prior to sampling will make it easier once you're out in the field. You will need to have both Microsoft Word and Excel installed on your computer and adhesive labels (Avery 5960 mailing label, 30 per sheet, work well) for your printer. This will only work for farms that have already been entered into SnapPlus.

1. The first thing you will need to do is generate the Soil Test-Sample Log in the Reports section of SnapPlus.

Open your farm and go to the reports Tab. The report is located in the Farm Management section. You must have all your fields and acreages already entered on the Field screen in order to get the right number of samples per field to print out.

When you click on the report, a SnapPlus report setup dialog box will open, prompting you to choose what fields to include: you can choose All or select specific sub-farms or groups. You should check the box to include previous sample number and plow depth, and include date and time in report filename.

If you have any overdue soil tests and want to run labels for just those fields, check the report overdue soil tests checkbox.

2. Once you have run the report, it will open in excel.

Before you can make the labels, a few adjustments need to be made to the Excel file. If you have multiple soil test dates for the same fields, you will need to sort the data so the fields you want to make labels for appear at the top of the spreadsheet. Select the all of the active cells in the spreadsheet. **If you do not have soil sample ID's entered yet, do this first.** Otherwise, skip to the next step.

Sample IDs can be added under the Sample ID column. To add Sample ID's, type the number 1 in the first Sample ID cell. Select the completed cell along with all uncompleted Sample ID cells below. Click on "Fill" and choose "series". Choose series in "Columns", type "Linear", and be sure that the step value is "1" with no stop value assigned. Click "OK."

To sort data, click on the sort button and select Custom Sort, select Sample Date as the Column, by Values and Sort Z to A since we want the older soil test date to be at the top. (keep the My Data has headers checked). If a Sort Warning box appears, just select it to sort anything that looks like a number as a number.

Now that your data is sorted, select the first header cell and then drag the mouse to include all of the data cells you would like to make labels for. Click on the Page Layout tab and select the Print Area button and scroll to Set Print Area. Save and close the file.

3. The next step involves making Microsoft Word open the Excel file correctly.

Start by opening Microsoft Word. Under the File menu, select Options.

In the Options window, select Advanced and scroll down to General and check the box next to Confirm file format conversion on open. Click OK.

4. Now, you can start on the labels.

Under File, click on New and select Blank document.

On the Mailing tab, select Start Mail Merge and then select Labels.

The Mail Merge dialog box will open. Here you can select how your printer will handle the labels and select the type of label you will be using. When you are finished select OK. The page will now appear with the labels framed out.

Click on the Select Recipients and select Use Existing List. The Select Data Source window will open.

Navigate to the Excel file you created in the MySnapPlus/Reports folder and select the Excel file.

The Confirm Data Source window will open, select MS Excel Worksheets via DDE. If another box appears that asks for the named or cell range, choose 'print area'. If the Excel file opens and blocks your screen, just click back to the Word document in the tools tray.

5. At this point, you are going to select what information we would like to appear on each label. The most common information on the label is explained, but you can customize according to your needs.

With the cursor placed at the top left corner of the first label, select the Insert Merge Field and scroll to Farm_Name. Then hit enter to go to the next line.

Go to the Merge Field and scroll down to Field_Number. Then hit enter to go to the next line.

Go to the Merge Field and scroll down to Sample_ID.

To view what your label will look like, click on Preview Results. If you are satisfied, then click Update Labels to complete the sheet.

6. You are now ready to print.

Under file, select Print. If you are going to manually feed the labels into your printer, go to the page set-up and select paper and MFP setting.

Once your labels have printed, put them on the bags. Add a strip of clear tape to protect the label if it gets wet. You are now ready for the field.

7. And don't forget to also submit the Soil Submission sheet to the test lab with the minimal information needed to generate data ready for uploading into SnapPlus.