Preparing your georeferenced data for a Quick Look or Free Account

FILE TYPE: The Portal will not accept pdf or txt files of soil test lab results. Data must be in a spreadsheet-style format such as Excel (.xlsx) or Comma Separated Value (csv.). Unfortunately, the Portal will disconnect from the server if an inappropriate file type is submitted.

COORDINATE SYSTEM: Please use WGS 1984 or a geographic coordinate system that displays coordinates in latitude and longitude, for example:

X_long	Y_lat
-95.156	42.858

SAMPLE ID: it is a good idea to have a column labeled Sample ID so you can identify SHAPE results for each location. Using this specific label will help ensure that the data is correctly associated.

TREATMENT: Sometimes farmers perform experiments in their fields to test different management practices meaning that it may not be uniform across all sample areas. The Portal ignores all Treatment data unless it relates to Manure, Tillage, or Cover Crops. If you plan to donate data with differences in these treatments, please use the categories below. If you wish to preserve your original treatment categories, simply name that column heading anything other than TREATMENT.

- Cover Crop / No Cover Crop
- Manure / No Manure
- Conventional till / Strip or Vertical till / No till

BENCHMARK DATA TYPES: Although the Portal uses heuristic criteria to search for the data it pulls from your upload, there are always exceptions that can confuse the code. If you have followed the specifications described above and your data is still crashing the Portal, you may wish to match your column headings to the Portal default column headings to see if that solves the issue.

Soil Health Value Column Headings:

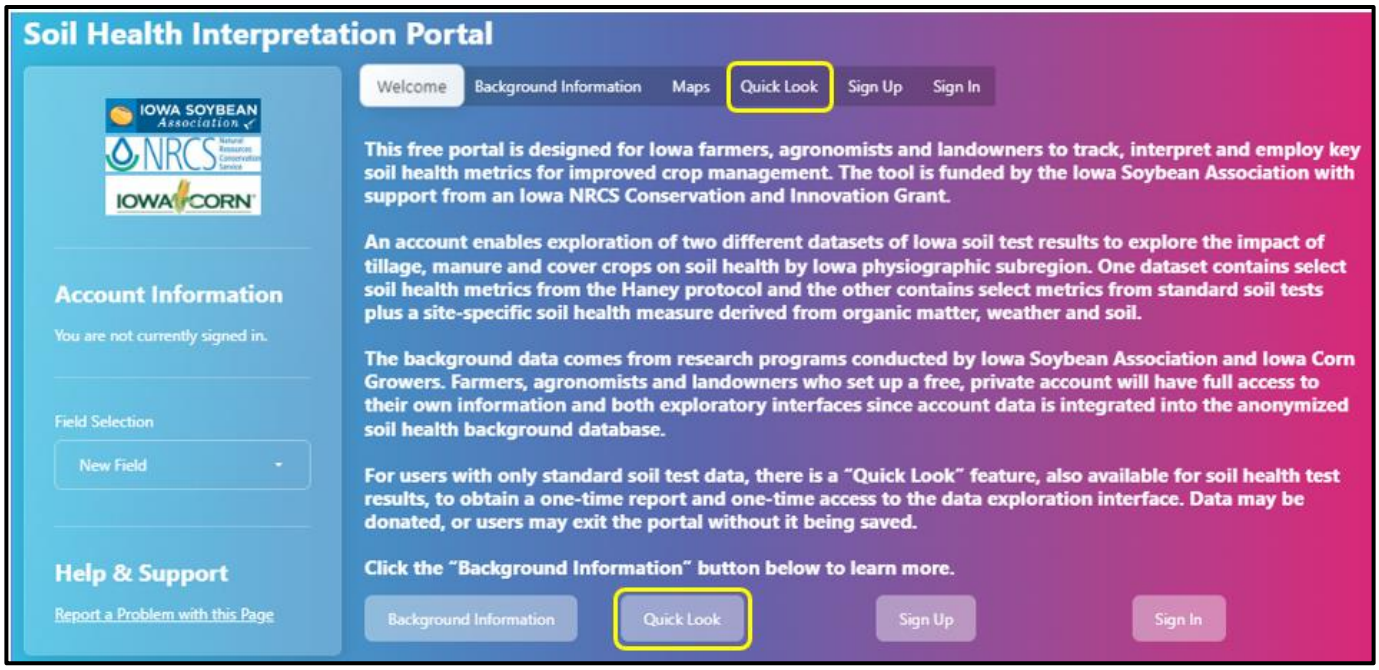
SoilOM Organic_C Organic_N Organic_CN C02C_Burst SH_Calc MAC% SOC

Standard Soil Fertility Column Headings:

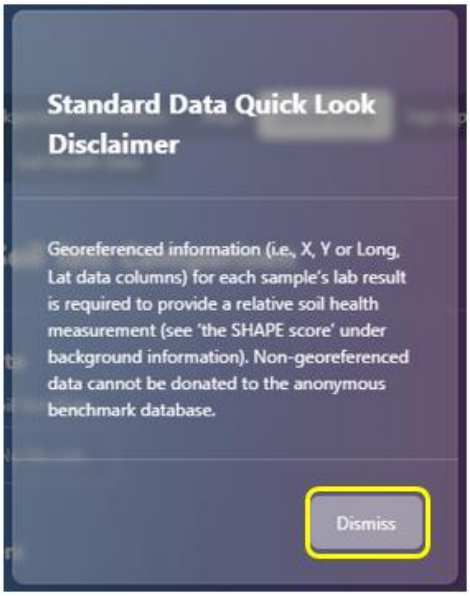
SoilOM SoilP1 SoilP2 SoilK SoilS SoilpH Buffer_Index SOC

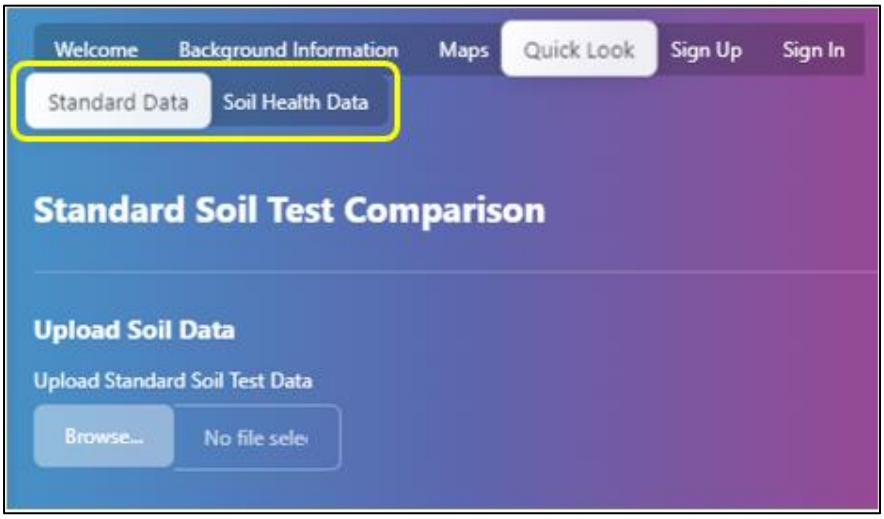
QUICK LOOK

Anyone can use the Quick Look feature, with or without uploading soil test data. From the Welcome Page of the Portal, Click on either the Quick Look Tab in the top menu bar or on the Quick Look Button at the bottom of the Welcome Page.

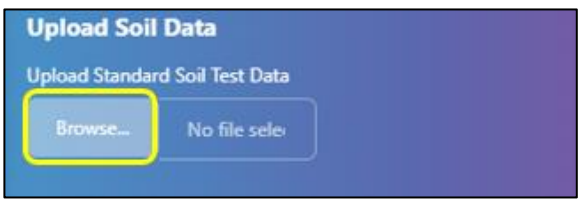


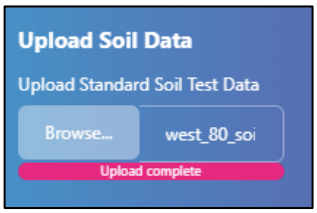
This will open a Standard Data Quick Look Disclaimer box and beneath it a second menu bar. Read the Disclaimer and click the "Dismiss" button. This will enable you to select the type of soil test data you wish to upload from the second menu bar – standard soil test data, aka soil fertility test data, or soil health test data, which as you can see from the column headings on the previous page, are different than standard fertility soil test measures.



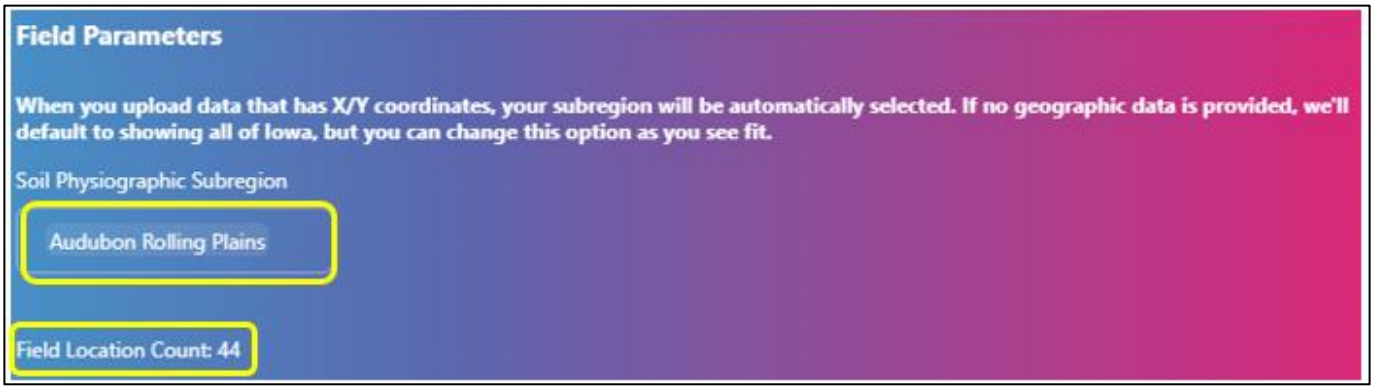


Now you may browse to your file of lab results for the Portal to temporarily upload. The Portal will notify you when the data is uploaded and partially show the file name.

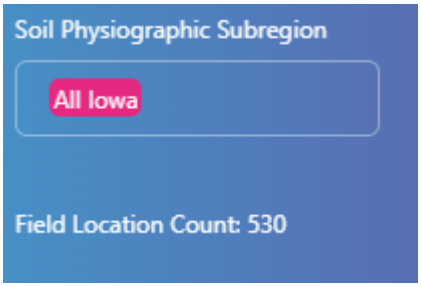


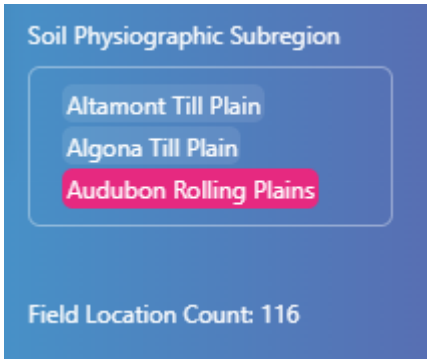


Spatially referenced data will automatically identify the associated Physiographic Subregion and will summarize and present data for that subset of the background including the count of fields in the dataset.

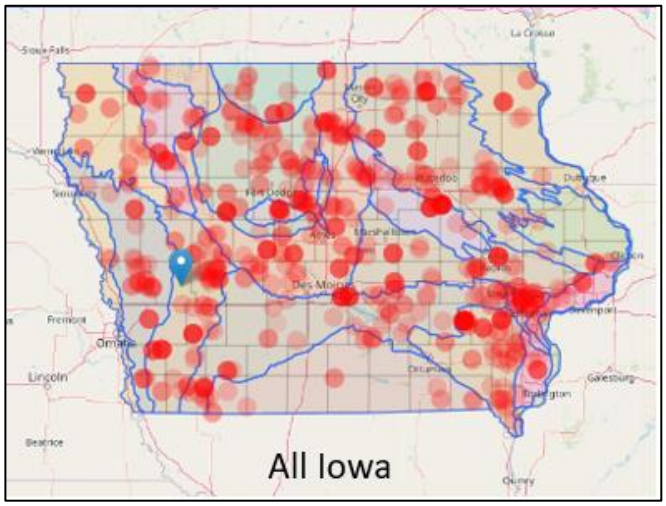


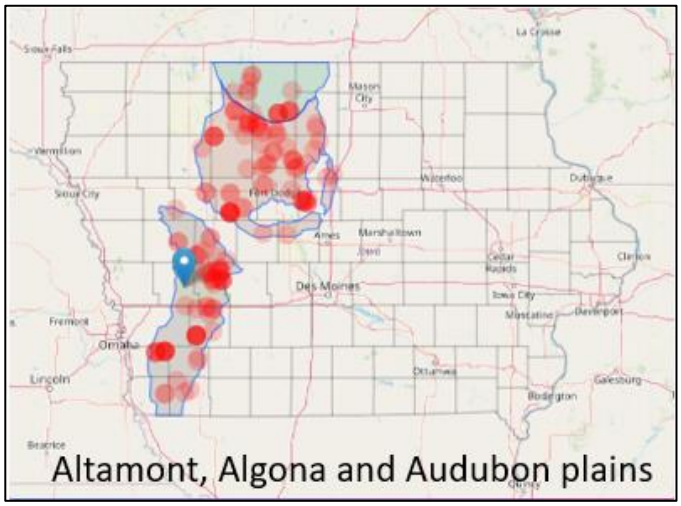
Non-spatially referenced data or no data upload will default to “All Iowa”. All Iowa or any other individual subregion may be added to the selection of data to be visualized on the map and in the summarizations. Click on the box listing the subregion currently selected and add to it or delete from it.



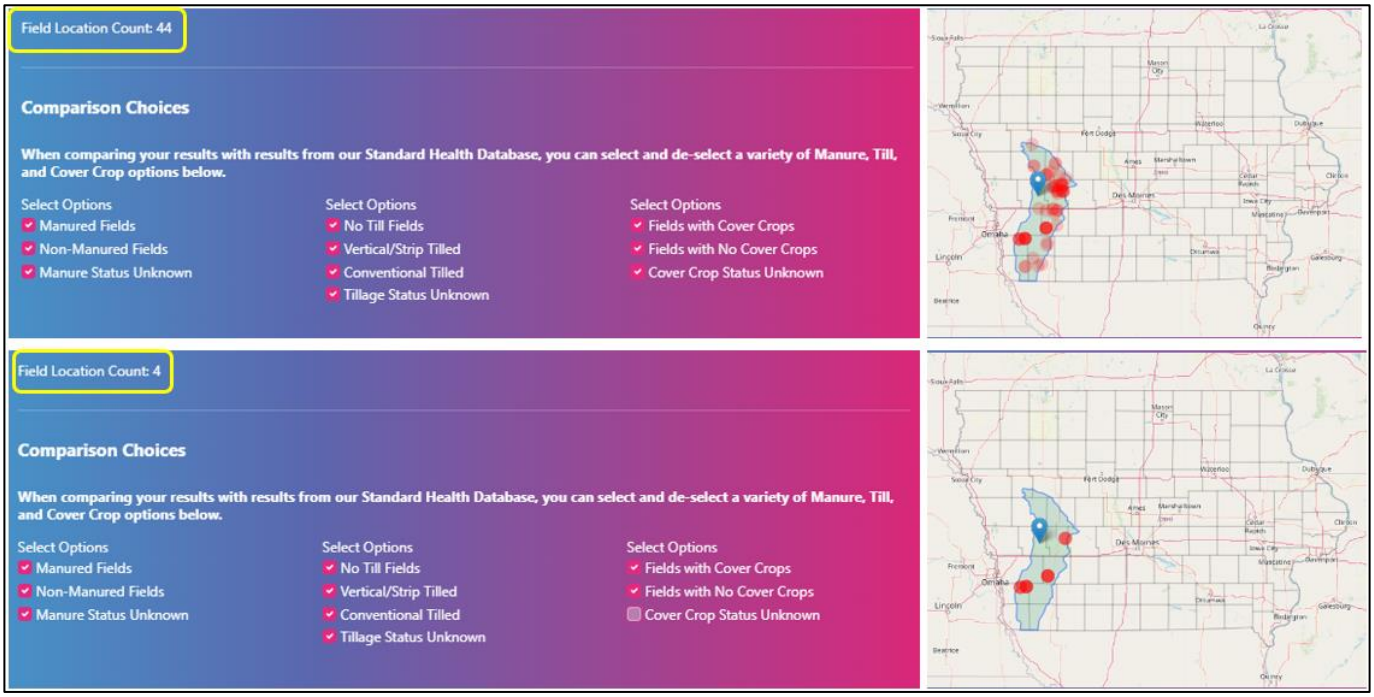


Below the **Field Parameters** are **Comparison Choices** related to three management categories that can affect soil health, Manure Status, Tillage Type and Use of Cover Crops. The Portal defaults to showing all the available options, but viewers may deselect categories to observe changes in results. **The Comparison** Map below the **Comparison Choices** also reflects field locations with the selected management categories within the subregions chosen.





The Standard Benchmark database includes a large dataset from 2011 where farmers were asked to soil sample in both a good area and a poor area of their field so results could be compared. We have no cover crop information for these fields, so to exclude them from your query results, simply uncheck “Cover Crop Status Unknown”



Below the Comparison Map any uploaded test results will appear. If geographic coordinates and Organic Matter values were present in the data, The SOC and SHAPE scores will appear.

Your Soil Health Test Results

When you upload your Soil Health Test Data, your results will display below.

ID	Organic C	Organic N	Organic CN	CO2C_Burst	MAC%	SH_Calc	SOC	SHAPE SOC
1	247.37	17.83	13.87	71.03	28.72	13.83	2.62	0.56%
2	91.49	9.28	9.86	211.14	230.78	17.84	2.73	0.61%
3	106.82	9.47	11.28	91.35	85.52	12.22	2.38	0.47%
4	190.02	13.69	13.88	60.45	31.81	11.21	2.09	0.34%
5	141.19	11.75	12.02	44.49	31.51	8.45	2.03	0.32%
6	152.22	12.17	12.51	57.73	37.93	10.03	2.27	0.42%
7	130.72	12.60	10.37	61.31	46.90	10.01	2.33	0.44%
8	168.68	16.53	10.20	39.80	23.59	9.01	2.27	0.42%

Below the data that was read in to the Portal will appear Averages for the benchmark background and averages by subregion(s).

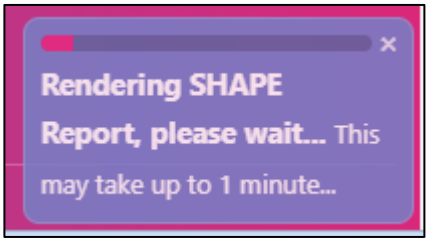
Averages for Benchmark Background

Organic C	Organic N	Organic CN	CO2C_Burst	MAC%	SH_Calc	SOC	SHAPE SOC
210.45	16.34	12.81	77.02	36.74	11.39	2.1	0.40%

Subregion SOC Scores

Subregion	SOC	SHAPE SOC
Audubon Rolling Plains	1.88	0.32%
Bemis Till Plain	1.88	0.59%
Glacial Lake Wright	2.78	0.55%
Grundy Center Rolling Plains	2.1	0.41%
Illinoian Till Plain	2.41	0.46%
Iowa-Cedar River Lowland	2.49	0.71%
Iowan Erosion Surface	2.7	0.57%
Orange City Plains	2.81	0.62%
Paleozoic Plateau	1.73	0.33%
Tama Rolling Plains	2.2	0.50%

At the bottom of the Quick Look page is a button enabling those who uploaded georeferenced data the opportunity to generate a report. A progress bar will appear when the generate report button is clicked.



Sample reports are available to view under the Background Information Tab in the second menu bar from the Tab labeled “Sample Reports”.