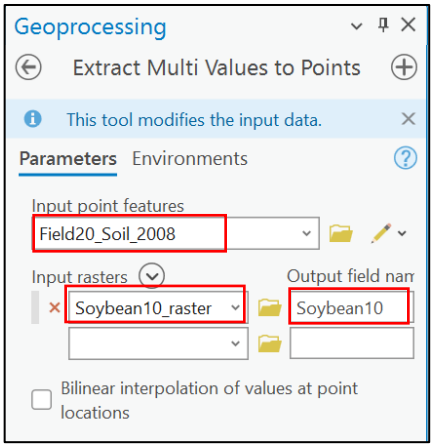
Lesson 2.4: Extracting Values Based on Points

Data Source: *dataset2.zip*

Part 1: Extracting yield value from interpolated yield map

1. Open previously save project (from Lesson 2.3) in ArcGIS Pro
2. Make sure the layers *Field20_Soil_2008.shp* (vector data) and *soybean10* (raster data) are listed in the **Contents** tab.
3. Search **Extract Multi Values to Points** in the search bar. A tab like the one to the right should open, set parameters as following:

   Input point features: ***Field20_Soil_2008***
   Input rasters: ***soybean10***



4. Once done, right click on the layer ***Field20_Soil_2008*** and choose **Open Attribute Table.**
5. In the opened attribute table, a new column ***soybean10***, containing soybean yield of 2010, is added.

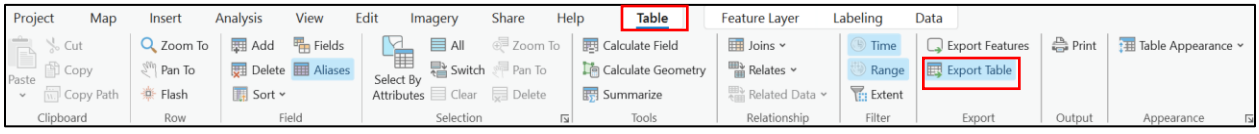
Field20_Soil_2008

Field: Add Calculate | Selection: Select By Attributes Zoom To Switch Clear Delete Copy

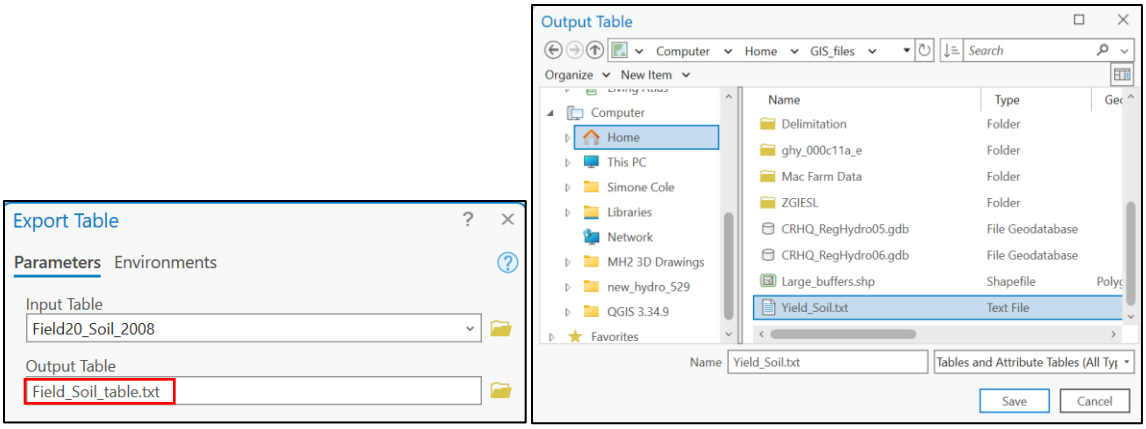
	FID	Shape	Longitude	Latitude	ID	pH	Ind_pH	OM	P_ppm	Al_ppm	K_ppm	Ca_ppm	Mg_ppm	Sat_K	Sat_Ca	Sat_Mg	CEC	P_Al_ratio	Soybean10
1	0	Point	-72.624796	45.698294	1	6.3	70	3.1	367	626	207	3290	222	1.9	57.7	6.5	12.7	26.2	7.3059
2	1	Point	-72.624525	45.700735	2	6.6	70	2.4	247	564	111	3100	189	1.1	58.2	5.9	11.9	19.5	8.04529
3	2	Point	-72.624792	45.702488	3	6.4	70	3	216	554	201	3030	347	1.8	54.1	10.3	12.5	17.4	6.93593
4	3	Point	-72.625583	45.701304	4	6.3	70	2.4	170	570	164	3140	342	1.5	55.2	10	12.7	13.3	7.60064
5	4	Point	-72.625721	45.699246	5	6.1	69	3.2	296	698	273	3200	255	2.3	53.1	7.1	13.4	19	7.62444
6	5	Point	-72.626631	45.699325	6	7	74	3.5	247	631	229	4180	197	2.2	79.9	6.3	11.7	17.5	5.90634
7	6	Point	-72.626513	45.702077	7	6.5	70	3	179	570	254	3880	318	2	60.3	8.2	14.4	14	5.84022
8	7	Point	-72.627608	45.701286	8	6.6	70	2.7	227	595	181	3710	350	1.4	57.6	9.1	14.4	17	7.46326
9	8	Point	-72.627178	45.700182	9	6.3	69	3.3	204	747	212	2960	258	1.9	51.5	7.5	12.9	12.2	7.37097

Part 2: Exporting attribute table to EXCEL file.

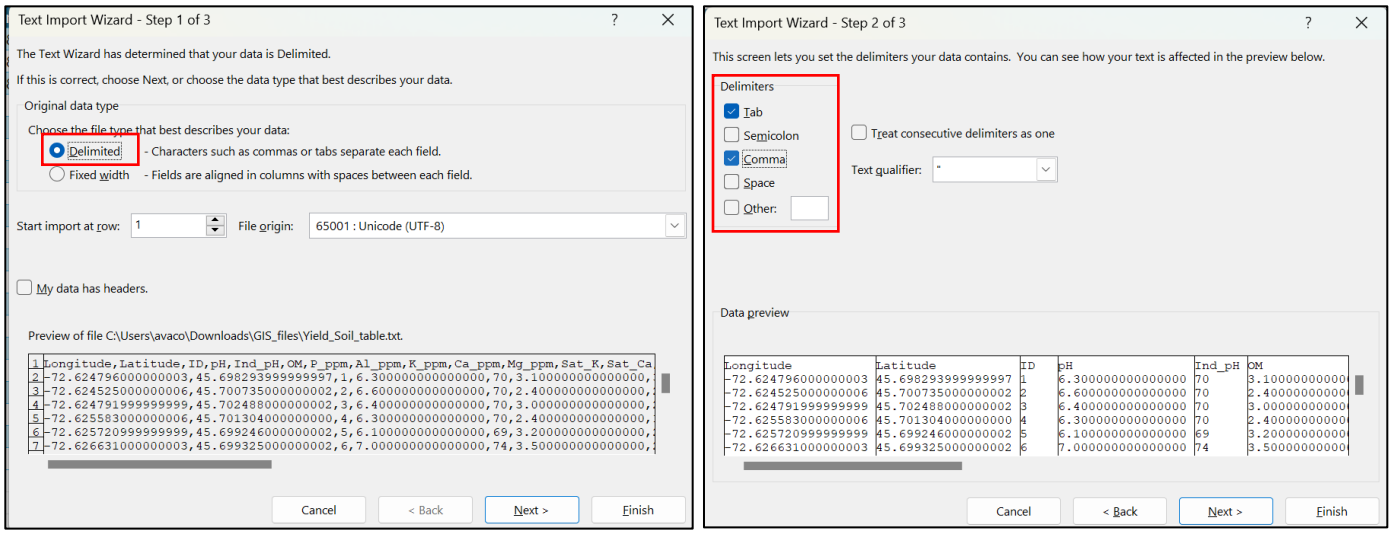
1. Export this table to EXCEL by clicking on **Table** in the tabs at the top. Select **Export Table**



2. Save as ***Yield_Soil_Table.txt*** (Text File). Make sure to type **.txt** at the end of the name. Choose a file on you computer to save the table to that you can access later.

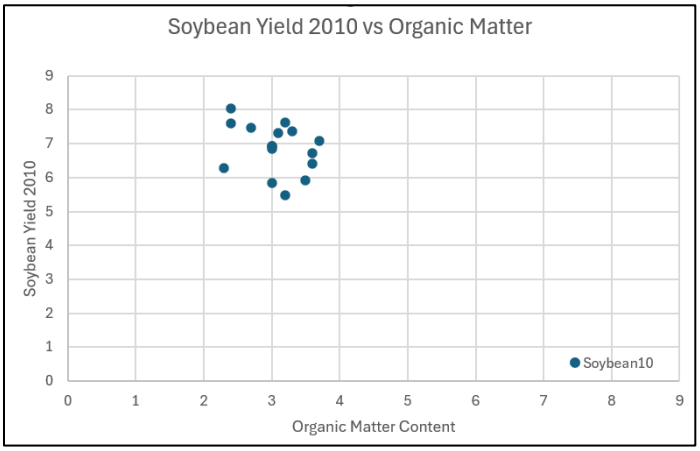


3. Launch EXCEL. Select **Open.** Select the ***Yield_Soil_table.txt*** file that you saved before.



Longitude	Latitude	ID	pH	Ind_pH	OM	P_ppm	Al_ppm	K_ppm	Ca_ppm	Mg_ppm	Sat_K	Sat_Ca	Sat_Mg	CEC	P_Al_ratio	Soybean10
-72.624796	45.69829	1	6.30(	70	3.100(	367	626	207	3290	222	1.9000(	57.7000	6.500000	12.6999	26.199999	7.3059
-72.624525	45.70073	2	6.60(	70	2.400(	247	564	111	3100	189	1.1000(	58.2000	5.900000	11.9000(	19.500000	8.04529
-72.624792	45.70248	3	6.40(	70	3.000(	216	554	201	3030	347	1.8000(	54.1000	10.30000	12.5000(	17.399999	6.93593
-72.625583	45.70130	4	6.30(	70	2.400(	170	570	164	3140	342	1.5000(	55.2000	10.00000	12.6999	13.300000	7.60064
-72.625721	45.69924	5	6.10(	69	3.200(	296	698	273	3200	255	2.3000(	53.1000	7.100000	13.4000(	19.000000	7.62444
-72.626631	45.69932	6	7.00(	74	3.500(	247	631	229	4180	197	2.2000(	79.9000	6.300000	11.6999	17.500000	5.90634
-72.626513	45.70207	7	6.50(	70	3.000(	179	570	254	3880	318	2.0000(	60.2999	8.199999	14.4000(	14.000000	5.84022
-72.627608	45.70128	8	6.60(	70	2.700(	227	595	181	3710	350	1.4000(	57.6000	9.100000	14.4000(	17.000000	7.46326
-72.627178	45.70018	9	6.30(	69	3.300(	204	747	212	2960	258	1.9000(	51.5000	7.500000	12.9000(	12.199999	7.37097
-72.627584	45.69863	10	6.60(	70	3.600(	470	915	281	3480	222	2.3000(	56.0000	5.900000	13.9000(	22.899999	6.70744
-72.629332	45.69890	11	7.20(	75	3.200(	258	955	612	3970	788	5.6000(	70.9000	23.50000	12.5000(	12.100000	5.47354
-72.628634	45.69979	12	6.10(	69	3.600(	388	896	124	2810	145	1.1000(	49.0000	4.200000	12.8000(	19.399999	6.40631
-72.628555	45.70039	13	5.90(	68	3.700(	327	832	123	2580	177	1.1000(	43.2999	5.000000	13.3000(	17.600000	7.07227
-72.629253	45.70059	14	5.90(	66	3.000(	523	818	167	2660	209	1.3000(	39.1000	5.100000	15.1999	28.500000	6.91545
-72.629198	45.70203	15	6.20(	68	2.300(	245	1030	282	4550	874	1.6000(	50.5000	16.19999	20.1000(	10.600000	6.27793
-72.628302	45.70194	16	6.30(	69	3.000(	245	679	233	3250	363	1.9000(	52.1000	9.699999	13.9000(	16.100000	6.86099

4. Now that you have the above table opened in Excel, make a scatterplot using the *Soybean 10* column and a sensor measured column, like OM (organic matter).



5. Save your graph.