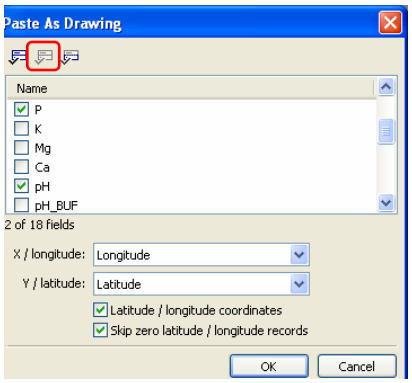
Lesson 5 – Creating a Map Layout

Exercise 5-5

Objective: Compare yield goal with soil pH and phosphorus content.

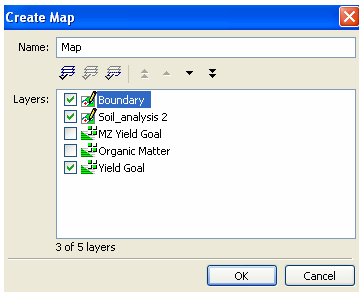
1. **File-Open *Project_5-0.map***.

2. Right click the ***Soil_Analysis*** component in the **Project** pane and click **Copy**. Right click an empty location in the **Project** pane and choose **Paste As-Drawing**. In the popup **Paste As Drawing** dialog box, click the ***Select None*** icon and then check the checkboxes next to ***P*** and ***pH***. Click **OK**.

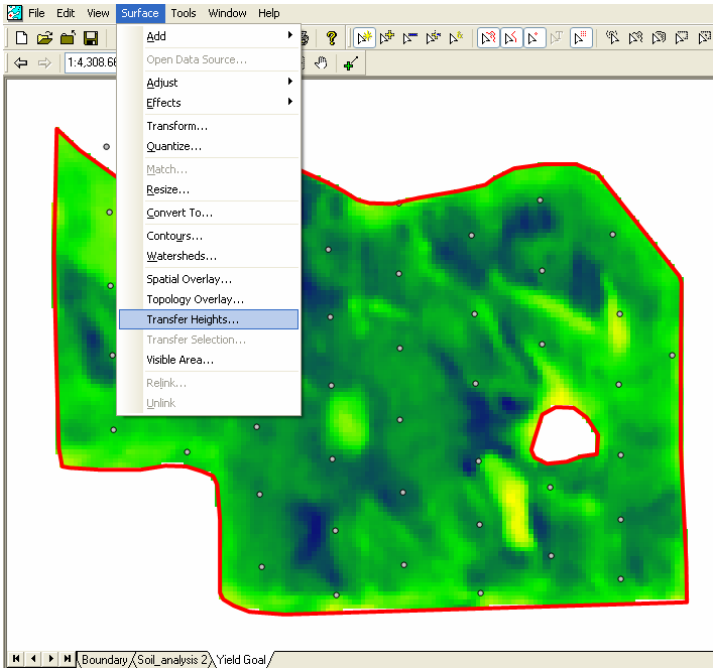


3. Right Click the ***Soil_Analysis 2*** drawing component in the **Project** pane and select **Assign Projection.** In the popup **Assign projection** dialog box, press **OK**. Right click the ***Soil_Analysis 2*** drawing component and select **Change Projection**. In the popup **Change Projection** dialog box, navigate to ***Universal Transverse Mercator - Zone 14 (N)***. Click **OK**.

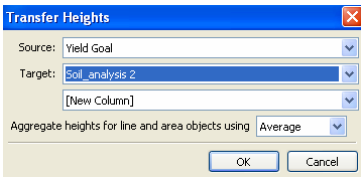
4. Right click an empty location in the **Project** pane and choose **Create-Map**. In the popup **Create Map** dialog box check the checkboxes next to the ***Boundary***, ***Soil_analysis 2*** and ***Yield Goal*** components. Click **OK**.



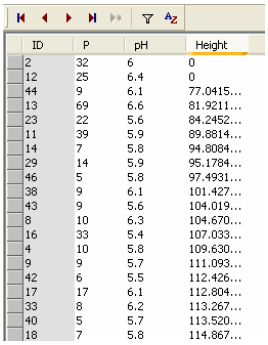
5. Double-click the ***Map*** component in the **Project** pane. Click the **Maximize** button and the **Zoom To Fit** icon. Click the ***Yield Goal*** tab to make it active. From the **Surface** menu select **Transfer Heights**.



6. In the popup **Transfer Heights** dialog box, select **Yield Goal** in the **Source** pull-down menu and **Soil_analysis 2** in the **Target** pull-down menu. Click **OK**.



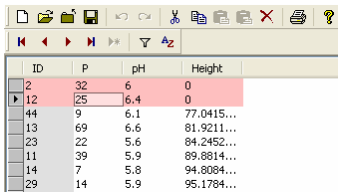
7. Double-click the ***Soil_Analysis 2*** table component in the **Project** pane. Click the **Heights** column to sort it in ascending order.



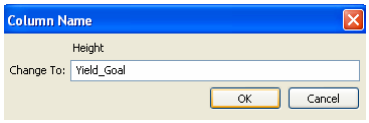
ID	P	pH	Height
2	32	6	0
12	25	6.4	0
44	9	6.1	77.0415...
13	69	6.6	81.9211...
23	22	5.6	84.2452...
11	39	5.9	89.8814...
14	7	5.8	94.8084...
29	14	5.9	95.1784...
46	5	5.8	97.4931...
38	9	6.1	101.427...
43	9	5.6	104.019...
8	10	6.3	104.670...
16	33	5.4	107.033...
4	10	5.8	109.630...
9	9	5.7	111.093...
42	6	5.5	112.426...
17	17	6.1	112.804...
33	8	6.2	113.267...
40	5	5.7	113.520...
18	7	5.8	114.867...

8. While holding down the **Shift** key, select both rows that contain ***0 Height*** values (no yield data corresponding to the two samples located outside the field

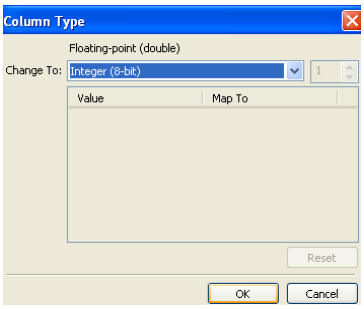
boundary) by clicking gray squares on the left. Right click one of them and select **Delete**.



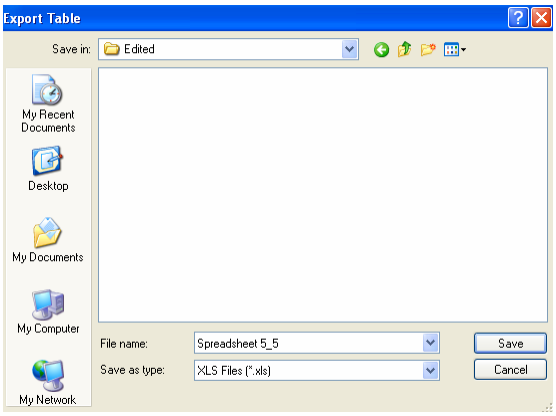
9. Right click the ***Heights*** column header and select **Rename**. In the popup **Column Name** dialog box, type ***Yield_Goal*** in the **Change To** box and click **OK**.



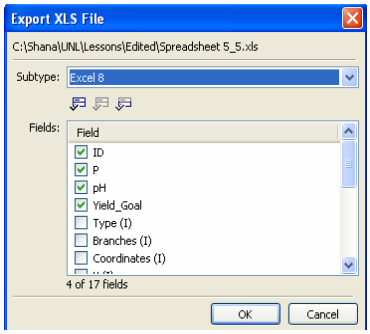
10. Right Click the ***Yield_Goal*** column header and select **Change Type**. In the popup **Column Type** dialog box, select ***Integer (8-bit)*** in the **Change To** box. Click **OK**.



11. Right click on the ***Soil_Analysis 2*** table component in the **Project** pane and select **Export**. In the **Export Table** dialog box, select ***XLS Files (*.xls)*** in the **Save as type** box and type ***Spreadsheet 5_5*** in the **File name** box. Click **Save**.



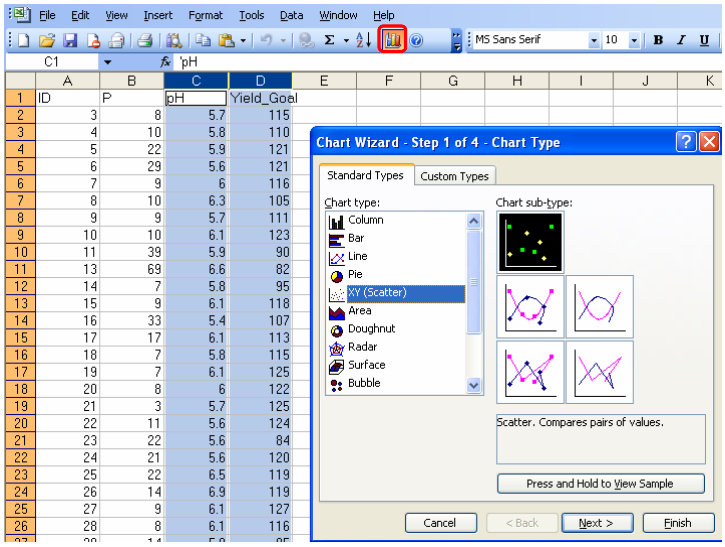
12. In the popup **Export XLS File**, click **OK.**



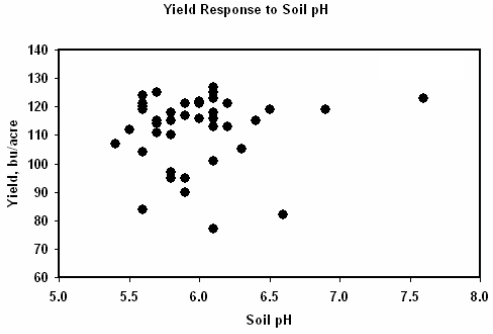
13. **File-Save As *Project_5-5.map***.

14. In Microsoft EXCEL, **File-Open *Spreadsheet 5_5.xls***.

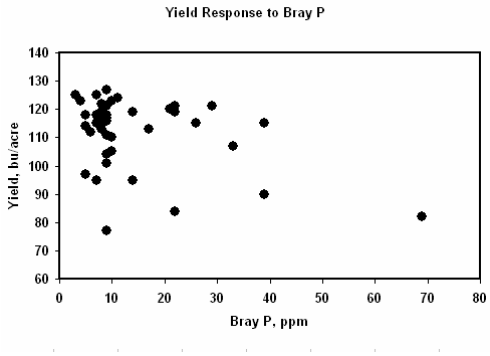
15. While holding down the **Shift** key, click the ***C*** and ***D*** column labels (***pH*** and ***Yield_Goal*** columns). Click the **Chart Wizard** icon to create an ***XY scatter plot***.



After modifying the graph, the relationship between soil pH and historic corn yield is shown below:



16. Repeat the same process for the ***P*** and ***Yield Goal*** columns. *The resulting relationship between the soil phosphorous content and corn yield is shown below:*



17. **File-Save**.