## Activity 6: Mapping Seed Sources Creating Column Graphs in Excel Teacher Notes

Slide	Notes
1	This presentation briefly describes how to use Microsoft Excel® to create column graphs. The instructions are based on Microsoft Excel® 2010. To help students follow along, the slides and notes are available as a student handout on the Activity 6 webpage.
2	You can use Excel to create both single column and clustered column graphs. Open a new Excel workbook and enter the data from a data table. Select the data that you want to graph.
3	Next, click on the <b>Insert</b> tab and then choose the <b>Column icon</b> .
4	From the <b>Column</b> pull-down menu, select <b>Clustered Column</b> . Once your graph has appeared, you can customize it by selecting the <b>Layout</b> tab. You can change the graph's title, the legend or key, axes, and other features of the graph.
5	To make 2 y-axes for your data, you will first want to insert two blank columns between your two data columns. Without this important step, your graph will have stacked columns rather than columns that are side by side.
6	Next, you will create your clustered column graph using the Insert tab, as described earlier. When your resulting graph appears, you'll notice that the two blank columns appear in the legend. Click on the words "blank" in the legend and press delete.
7	Click one of the columns that contains the data you want shown on the second y-axis. In this case, we will click the minute column for Callie, and you'll see that a pull-down menu appears. In this menu, click <b>Format Data Series</b> .
8	In the <b>Format Data Series</b> box, first click <b>Secondary Axis</b> . Next, adjust the <b>Series Overlap</b> and the <b>Gap Width</b> until you are satisfied with the appearance of your columns in the graph. In this example, we set the <b>Series Overlap</b> to -100% and the <b>Gap Width</b> to 500%.
9	Now you are ready to label both axes. You'll find the options for creating <b>Axis Titles</b> under the <b>Layout</b> tab. Make sure to include the measurement units for each set of data. Once you enter the titles, you can click on titles and axis numbers and change the font color to match the data series. This will make your graph easier to read. To change the color, highlight the text and use the font color option on the <b>Home</b> tab.

Your graph is almost ready. The final step is to customize your graph by using the options under the **Layout** tab. You can create a chart title, and you can move your legend or key to the bottom of the graph if wish.

There are several online tutorials to learn how to use Excel, and you can also check out the Help function within the program if you have specific questions.