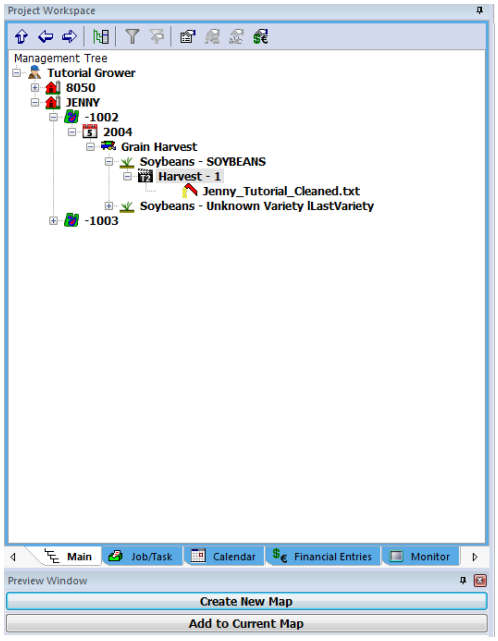
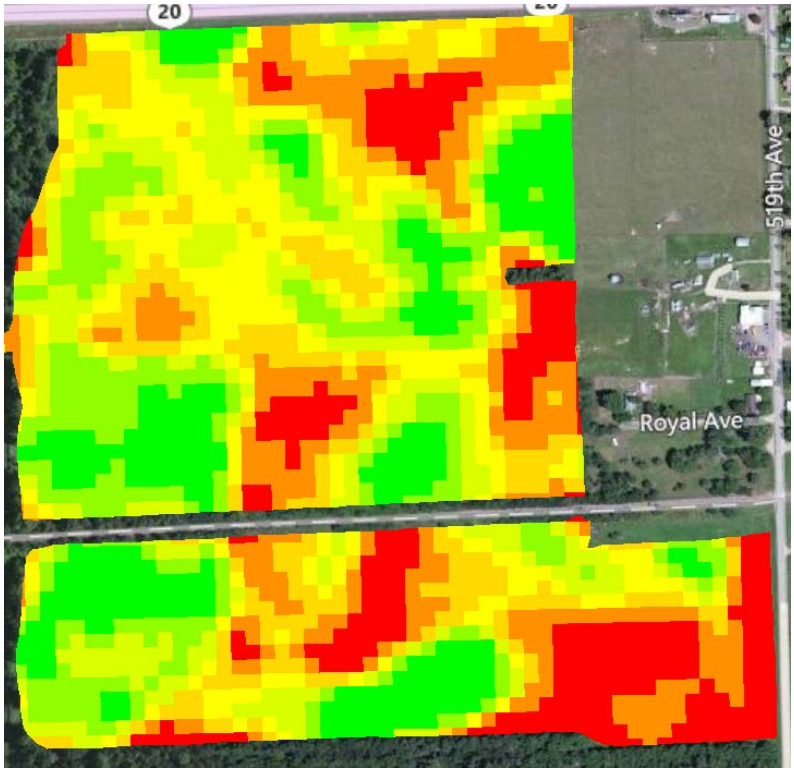
1. Generating Grid or Contour Maps

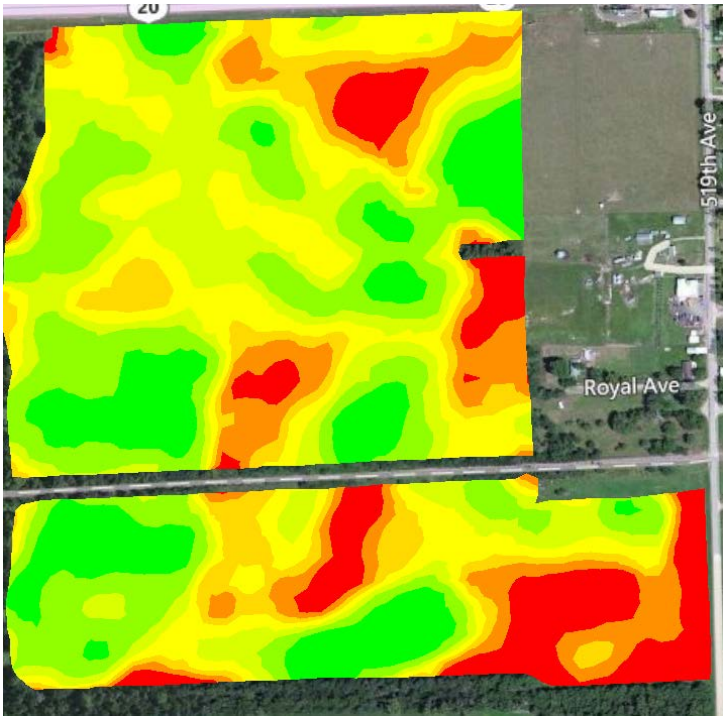
a. Begin by locating the attribute of the field map to be used for grid or contour creation under the project workspace and then select Create New Map.



b. Once the map is created, it is very simple to either generate a grid or contour map. To generate a Gird map, Under the Map Layers section on the right of SMS, find the grid map button ( ) and click on that button. This will generate a very rough grid map.

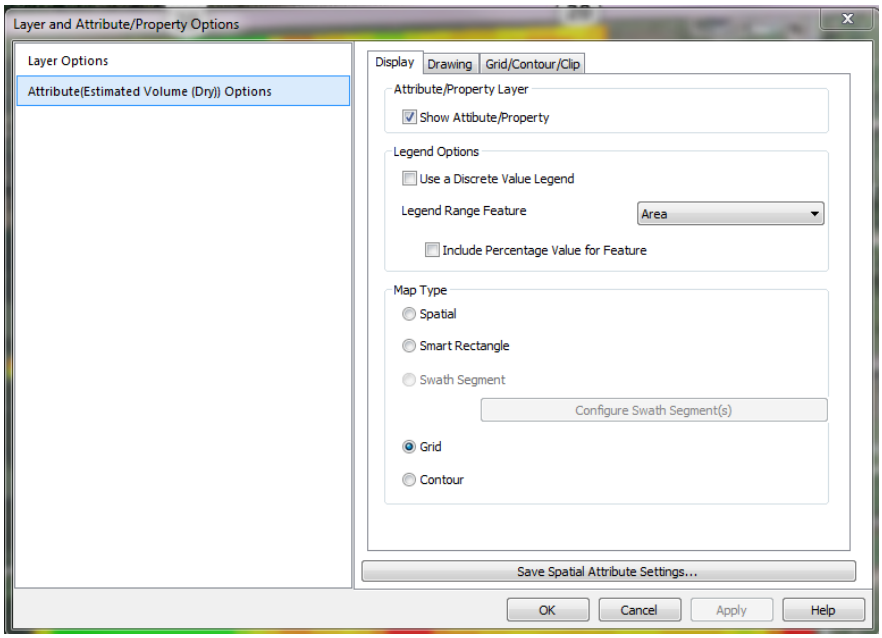


c. To create a contour map, locate the contour map button ( ) to the right of the grid map button and click on it. Again this will generate a very rough contour map.

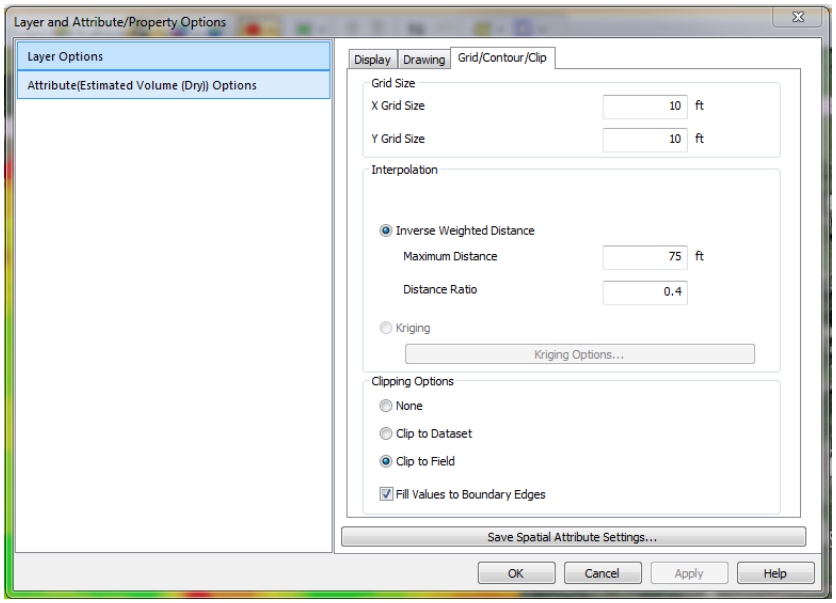


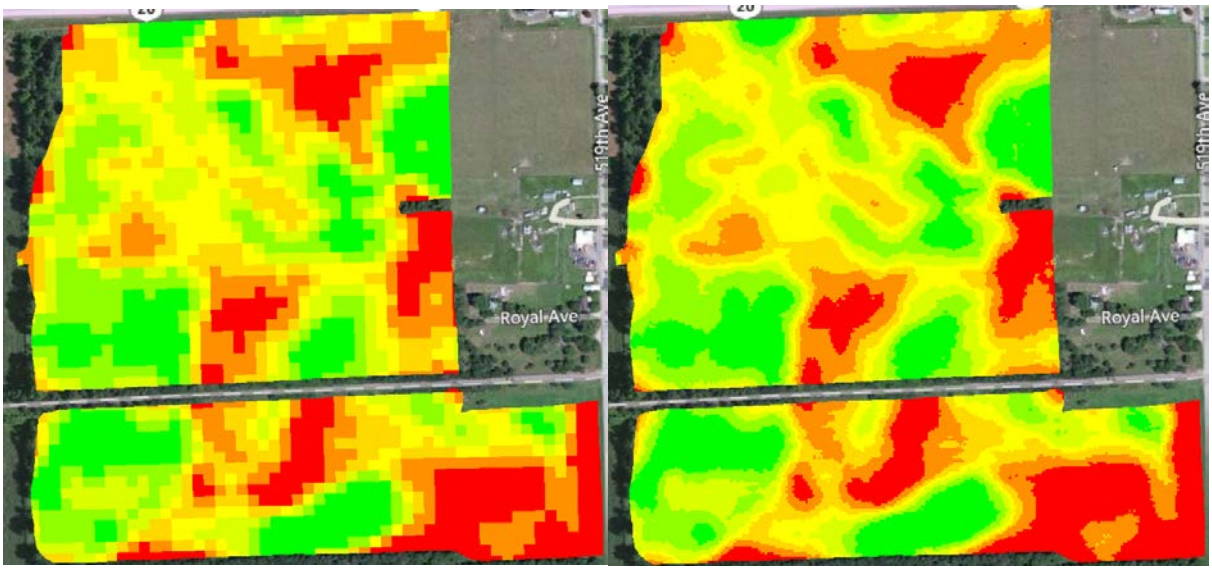
d. If we want to change the characteristics of the grid or contour map, we can do so by selecting the Edit Layer Options button ( ). This will allow us to choose how we want to view the maps.

e. In the window that comes up, Select Attribute Options on the left. Depending on whether we want to change the characteristics of the grid or contour map, we can choose here either grid or contour.



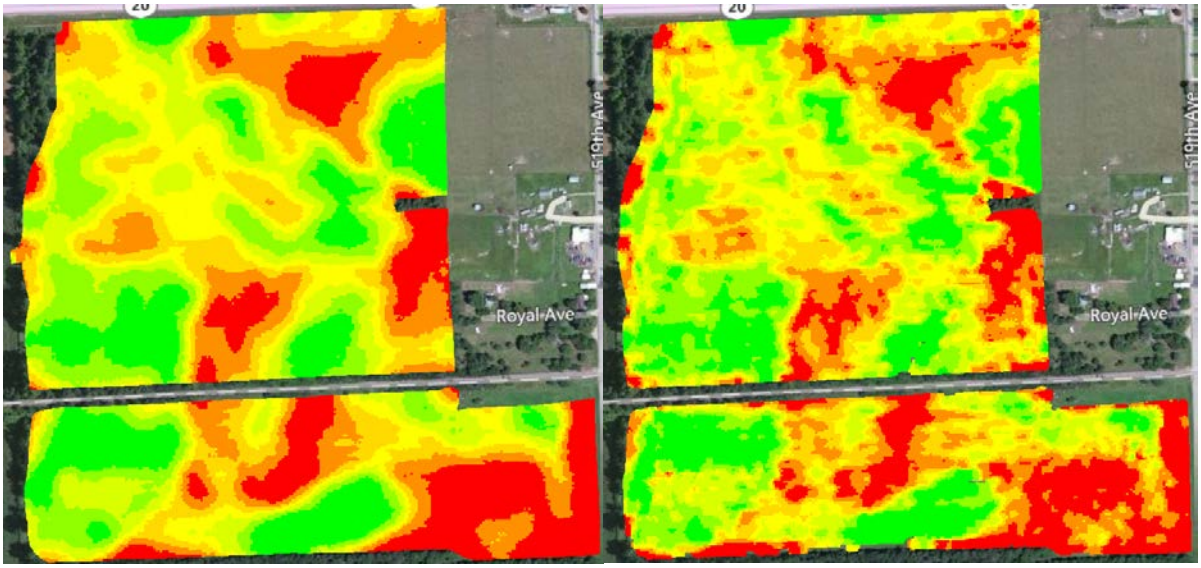
f. Next click on the Grid/Contour/Clip tab on the top of the window. This is where we can begin to narrow down how we specifically want the visible map to look. This will vary based upon your management desires. For this example the X and Y grid sizes are 50 ft. Change these to another value (for this example 10 ft.), then click on apply and see the difference in the map. Notice the difference in the two images below by simply changing the value of the grid size.





g. Now if we want to go even further, we can change the distance that SMS is "reaching" for the data. By changing the value of the Maximum Inverse Weighted Distance, we SMS is allowing a smaller area to be meshed together for the map. For this example the original distance was 75 ft. If that value is changed to 30 ft. the map begins to look very different (as the images below show). This is likely too short of a distance as the field image begins to have too many breaks in the zones and management decisions would

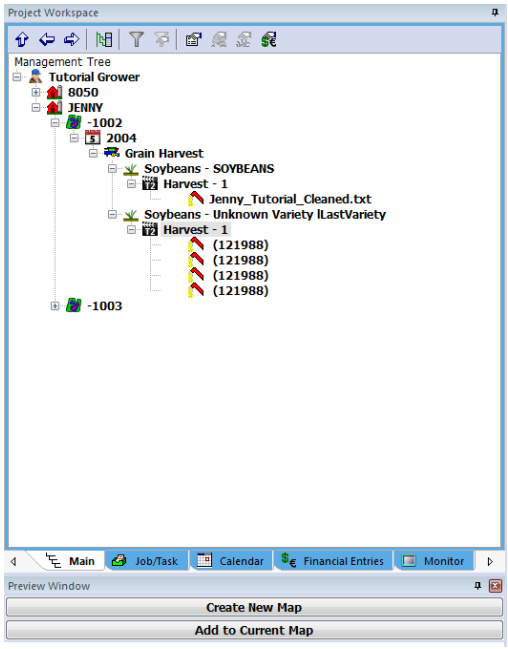
become difficult based on a map like this. These are numbers that could be changed based on the individual grower.



h. The same procedure can be followed for changing the characteristics of the contour map as well.

2. Comparing the Data

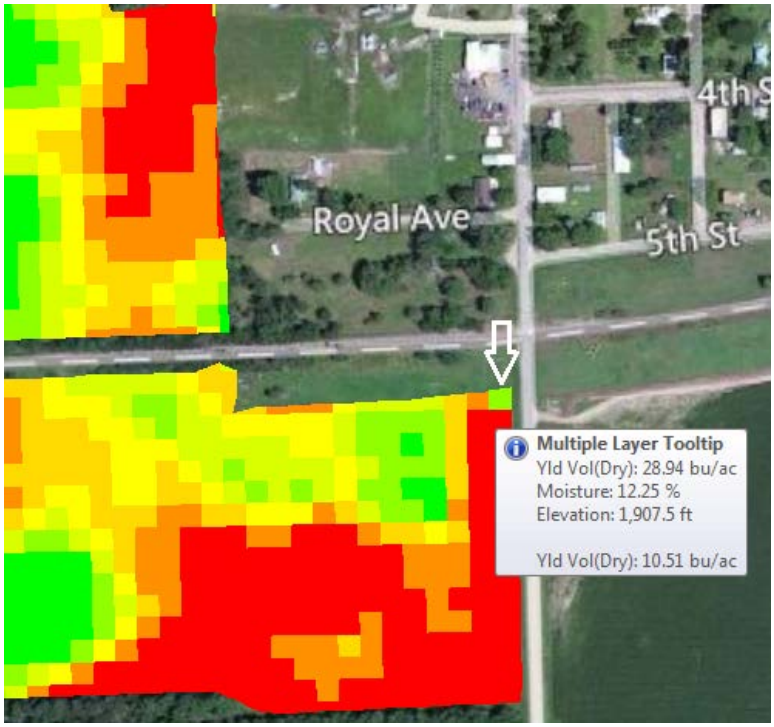
a. While the previous Grid Map is still open, go to the Management Tree and expand the Harvest data for the original harvest data. Then Add to Current Map.



b. On the newly added map, change the map to Grid Map.

c. Now with both maps active as grid maps, as you hold your mouse over different points, you can begin to see the differences in the values from the original data to the cleaned data. The red dot here is an example of holding the mouse over a certain area of the

field. As you can see, the Yield for the raw data shows 28.94 bu/ac whereas the yield for the cleaned data shows only 10.51 bu/ac.



d. Below is the original data showing the point on the field that was deleted in the USDA Yield Editor software that skewed the data by raising the average of the area around it.