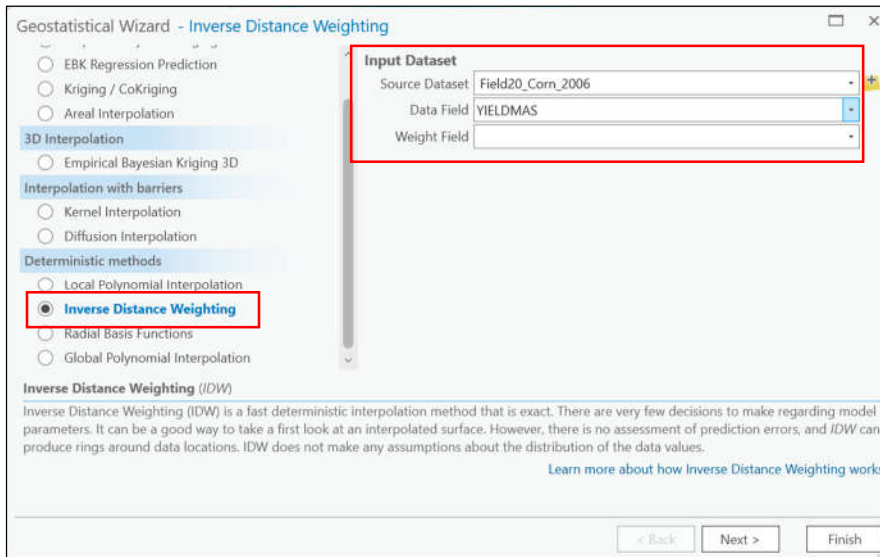# Lesson 2.2: Interpolating Crop Yield Data

**Data Source:** *dataset2.zip*

**Part 1:** Generating crop yield maps using the Geostatistical Method – Inverse Distance Weight

1. Open previously saved project.

2. In **Geostatistical Wizard**, select **Inverse Distance Weighting** from **Deterministic methods**.



3. Source Dataset: *Field20_Corn_2006*.

4. Data Field: *YieldMAS*.

5. Click **Next**.

6. In **Handling Coincidental Samples**, choose **Use Mean**, click **Next**.

7. Set **Neighbourhood type** to "**Smooth**". Click on **Finish**.

8. A temporal interpolated 2006 Corn Yield map is added to Table of Contents, like the one seen to the right. This is a geoprocessing layer, so we need to convert it to a raster to be able to use raster functions.
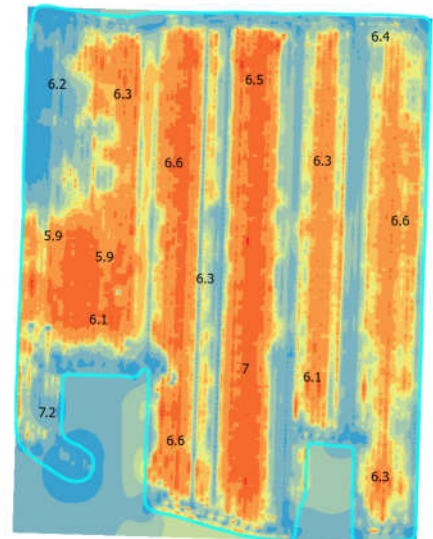
9.  Right click on **Inverse Distance Weighing** in **Contents** and select **Export Layer** and **To Raster.**
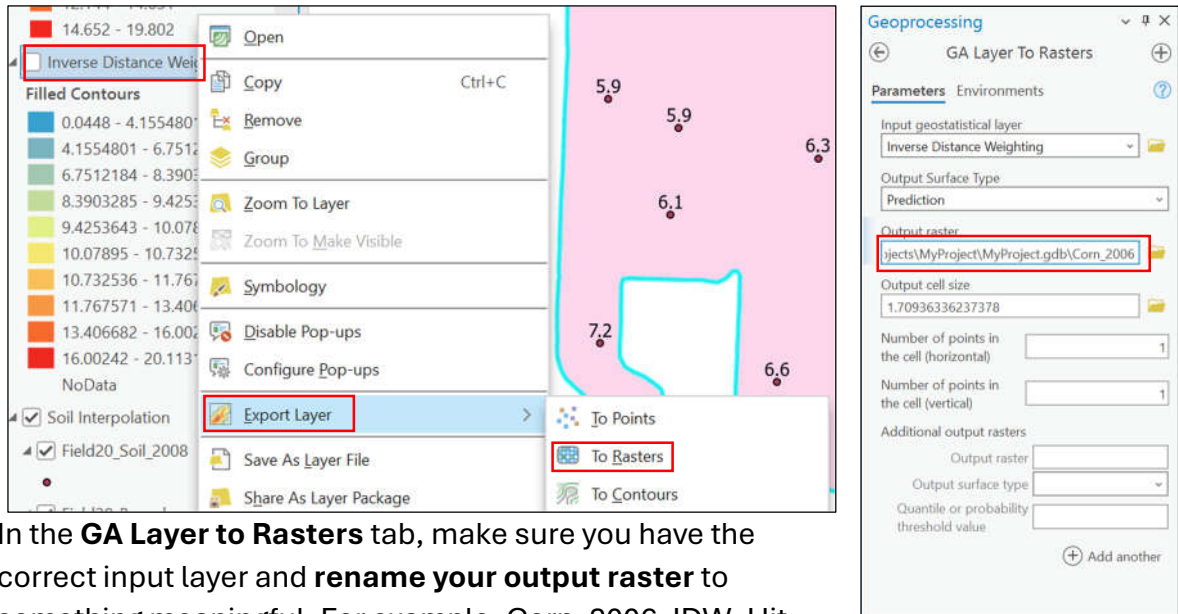


10. In the **GA Layer to Rasters** tab, make sure you have the correct input layer and **rename your output raster** to something meaningful. For example, Corn_2006_IDW. Hit **Run**.

11. The layer should appear in your **Contents** tab. If not, go to **Catalog > Databases > MyProject.gdb** and you should find your layer there. You can then drag it to your contents page.
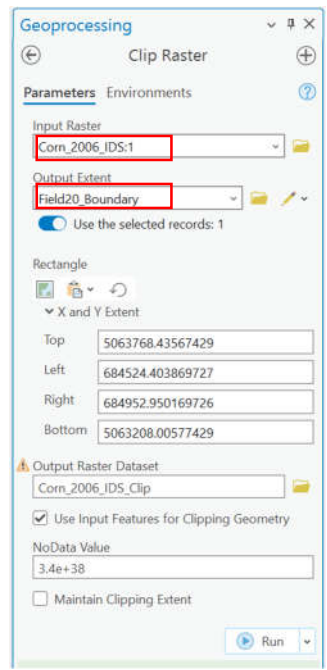
12. Next, search **Clip Raster** in the search bar at the top. A window at the side should open like the one below.

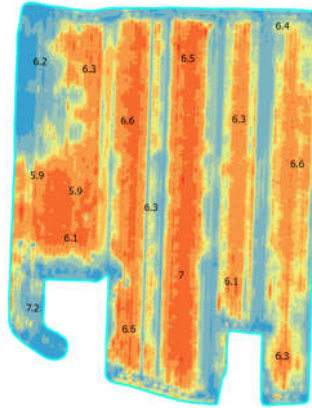13. Input Raster: *Corn_2006_IDW*

    Output Extent: *Field20_Boundary*

    Output Raster Dataset: *Corn_2006_IDW_clip*
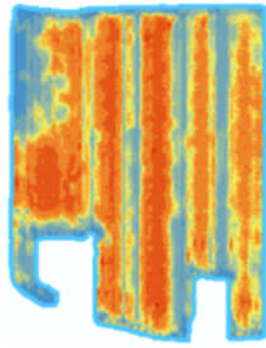
    Check **Use Input Features for Clipping Geometry**.

Hit **Run.**

14. The result should be clipped to the Field 20 Boundaries. (remove the layers you no longer need)
15. Repeat steps 1 to 14 to generate other yield maps using datasets *Field20_Corn_2009,* *Field20_Soybean_2007,* *Field20_Soybean_2010,* and *Field20_Wheat_2008.*
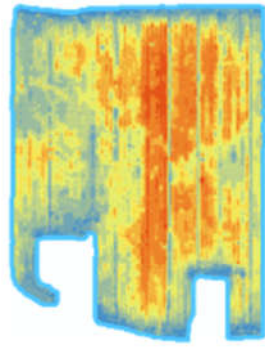16. The final yield maps should look like the ones below.
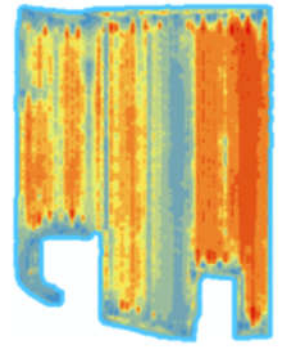
Corn Yield 2006
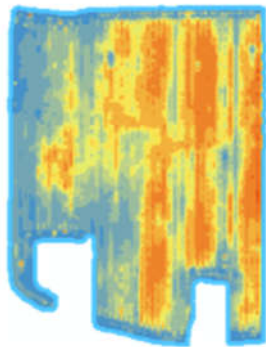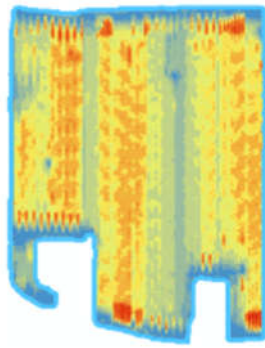
Corn Yield 2009

Soybean Yield 2007

Soybean Yield 2010

Wheat 2008

17. Save your project.