Lesson 5 - Creating Prescription Maps

Exercise 5-3

Objective: Create a nitrate application map based on University of Nebraska-Lincoln recommendations.

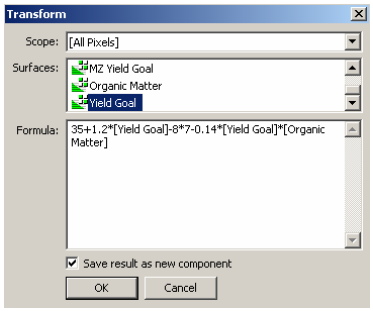
1. **File-Open** ***Project_5-2.map***.

2. Double-click the ***Yield Goal*** surface component in the **Project** pane. Expand the map using the **Maximize** button and click the **Zoom To Fit** icon.

3. From the **Surface** menu select **Transform**. In the popup **Transform** dialog box delete the existing formula in the **Formula** box and type the following equation:

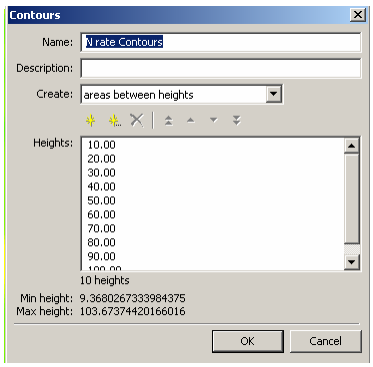
   35 + 1.2 * [Yield Goal] – 8*7 – 0.14 *[Yield Goal] [Organic Matter]

   Check the checkbox next to **Save result as new component** and click **OK**.

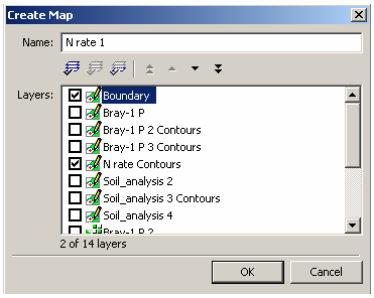


4. Right click the ***Yield Goal 2*** surface component and select **Rename**. In the popup **Rename** dialog box, type ***N rate*** in the **Change to** box. Click **OK**. Double-click the ***N rate*** surface component. Expand the map using the **Maximize** button and click the **Zoom To Fit** icon.

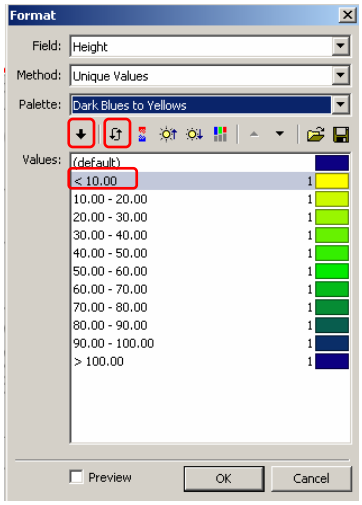
5. From the **Surface** menu select **Contours**. In the popup **Contours** dialog box, click **OK**.



6. Right click an empty location in the **Project** pane and select **Create-Map**. In the popup **Create Map** dialog box type ***N Rate 1*** in the **Name** box and check the checkboxes next to the ***Boundary*** and ***N rate Contours*** components. Click **OK**.

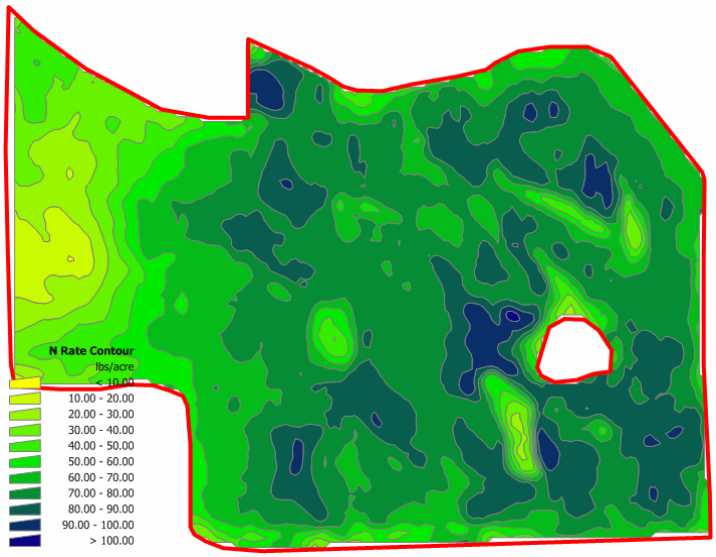


7. Double-click the ***N rate 1*** map component in the **Project** pane. Click the **Maximize** button and the **Zoom To Fit** icon. Click the ***N rate Counters*** tab. Click the **Area Background** icon and select **Theme**. In the popup **Format** dialog box, click ***< 10.00*** line in the **Values** box and repeatedly click the **Move Up** icon to move it to the top (right below the ***default*** line). Select **Dark Blues to Yellows** from the drop-down menu in the **Palette** box. Click the **Apply** and then the **Reverse** icons. Click **OK**.



8. From the **View** menu select **Legend**. In the popup **Legend** dialog box check the checkboxes next to **Show legend** and **Customize legend**. Choose **Transparent** from drop-down menu in the **Style** box. Select **Left Bottom** from the drop-down menu in the **Align** box. Click the **Delete Element** icon to remove the boundary element. Click the **Flatten Element** icon. Click the ***N rate contours*** line and type ***N Application Rate 1*** in the **Text** box. Click ***Areas: Height*** line and type ***lbs/acre*** in the **Text** box. Click **OK**.

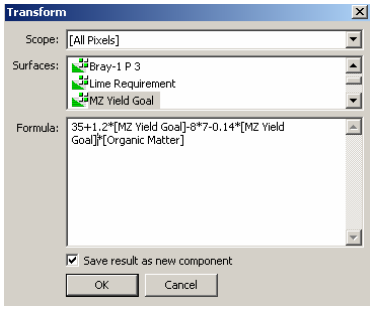
Following is the resulting nitrogen application map that is based on a continuous yield goal estimates and interpolated organic matter map:



9. Double-click the ***MZ Yield Goal*** surface component in the **Project** pane. Click the **Maximize** button and the **Zoom To Fit** icon. From the **Surface** menu, select **Transform**. In the popup **Transform** dialog box, delete the existing formula in the **Formula** box and type the following formula:

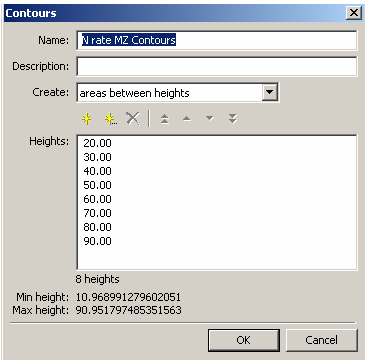
   35 + 1.2 * [MZ Yield Goal] – 8*7 – 0.14 *[MZ Yield Goal] [Organic Matter]

   Check the box next to **Save result as new component** and click **OK**.

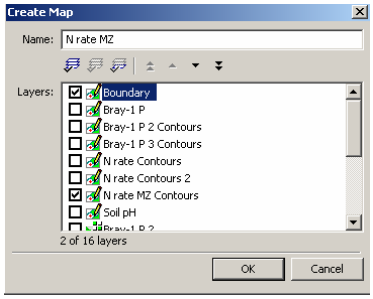


10. Right click the ***MZ Yield Goal 2*** surface component and select **Rename**. In the popup **Rename** dialog box, type ***N rate MZ*** in the **Change to** box and click **OK**. Double-click the ***N rate MZ*** surface component. Click the **Maximize** button and the **Zoom To Fit** icon.

11. From the **Surface** menu select **Contours**. In the popup **Contours** dialog box, click **OK** to confirm the ***10*** lbs/acre increment of N rate prescription.



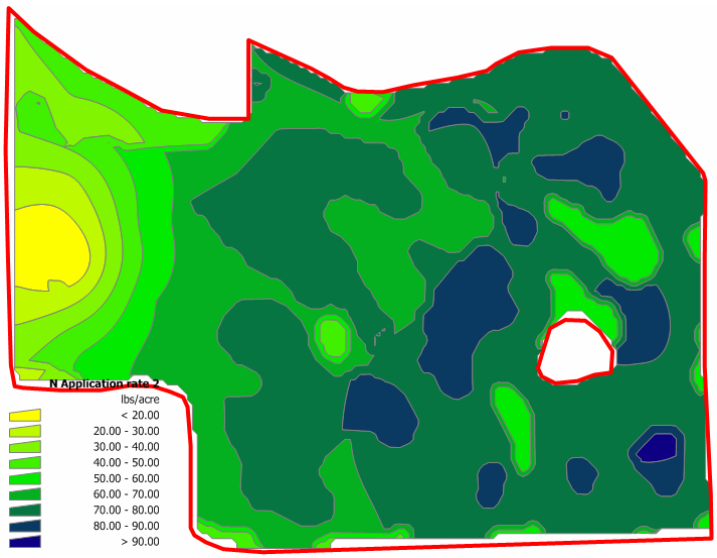
12. Right click any empty location in the **Project** pane and select **Create-Map**. In the popup **Create Map** dialog box, type ***N rate 2*** in the **Name** box and check the checkboxes next to ***Boundary*** and ***N rate MZ Contours***. Click **OK**.



13. Double-click the ***N rate 2*** map component. Click the **Maximize** button and the **Zoom To Fit** icon. Click the **Area Background** icon and select **Theme**. In the popup **Format** dialog box, click ***< 20.00*** line in the **Values** box and repeatedly click the **Move Up** icon to move it to the top (right below ***default*** line). Select **Dark Blues to Yellows** from the drop-down menu in the **Palette** box. Click the **Apply** and then the **Reverse** icons. Click **OK**.

14. From the **View** menu select **Legend**. In the popup **Legend** dialog box check the checkboxes next to **Show legend** and **Customize legend**. Choose **Transparent** from drop-down menu in the **Style** box. Select **Left Bottom** from the drop-down menu in the **Align** box. Click the **Delete Element** icon to remove the boundary element. Click the **Flatten Element** icon. Click the ***N rate contours*** line and type ***N Application Rate 2*** in the **Text** box. Click the ***Areas: Height*** line and type ***lbs/acre*** in the **Text** box. Click **OK**.

    Following is the resulting nitrogen application map that is based on a management zone-based yield goal estimates and interpolated organic matter map.



15. **File-Save As *Project_5-3.map.***