

Using the P-Index

2012 edition (May 25, 2012)

Developed by: University of Nebraska – Lincoln
and Nebraska Natural Resource Conservation Service (NRCS)
in cooperation with Nebraska Department of Environmental Quality (NDEQ)

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Open the Program

The P-index is Excel based. You need to have Microsoft Excel to use the P-index. This product has not been tested with open source software.

If you are using Office 2003

You may get this pop-up. Select Enable Macros.

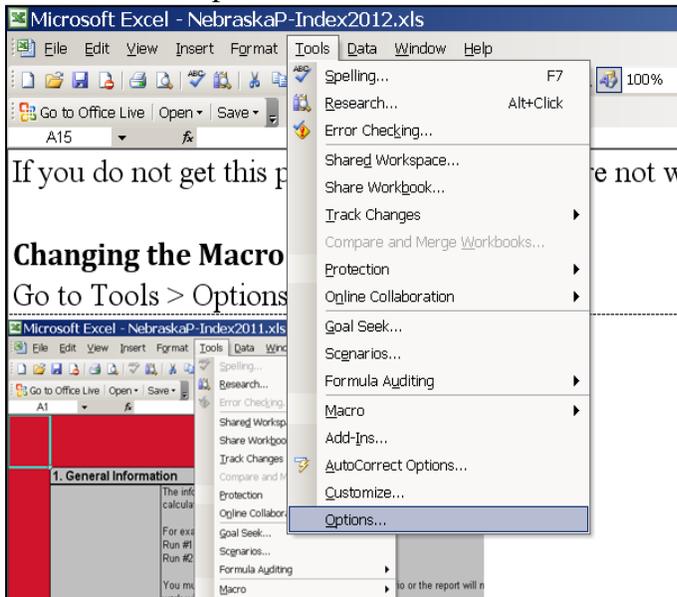


If you do not get this pop-up and the buttons are not working, see the “Changing the Macro Settings in Excel 2003” section of this manual.

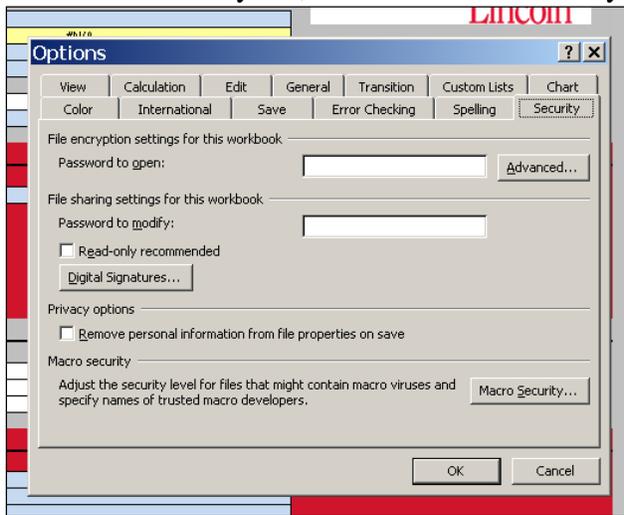
Changing the Macro Settings in Excel 2003

If the program opens, but the buttons do not work:

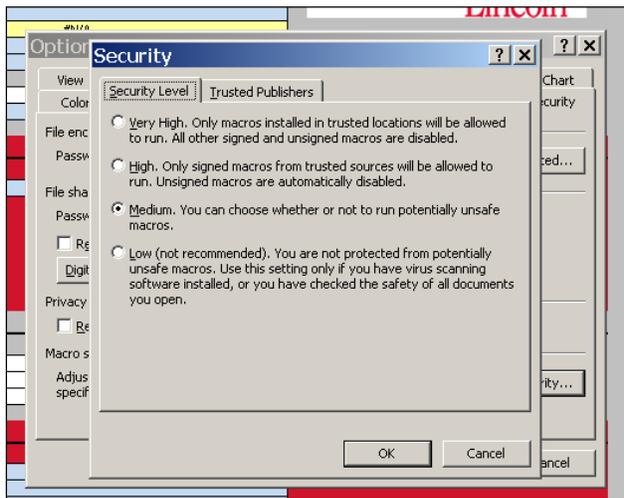
Go to Tools > Options.



Within the Security tab, click on Macro Security.



Select Medium and click OK.



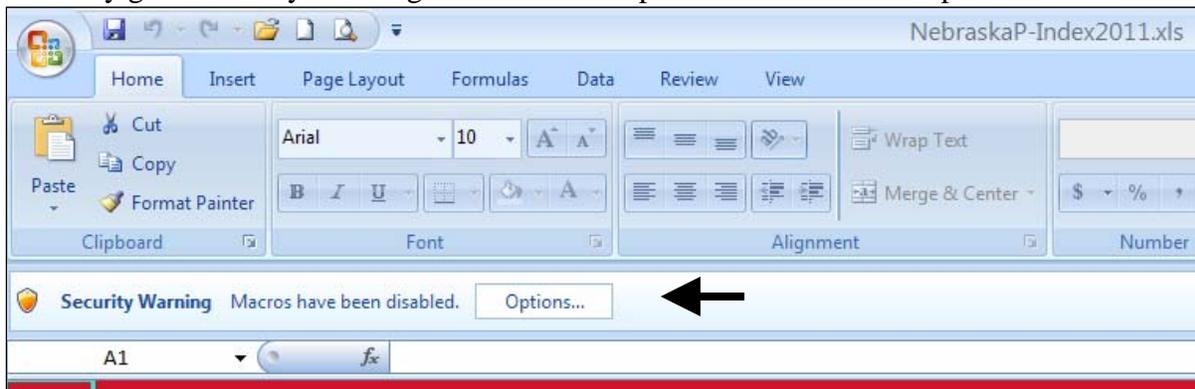
Close the program and reopen it. You will get this pop-up. Select Enable Macros.



In the future you should not have to change the macro settings if you maintain the medium security setting but you will get the "Security Warning" pop-up each time you open the P index.

If you are using Office 2007

You may get a Security Warning bar across the top of the screen. Click Options.



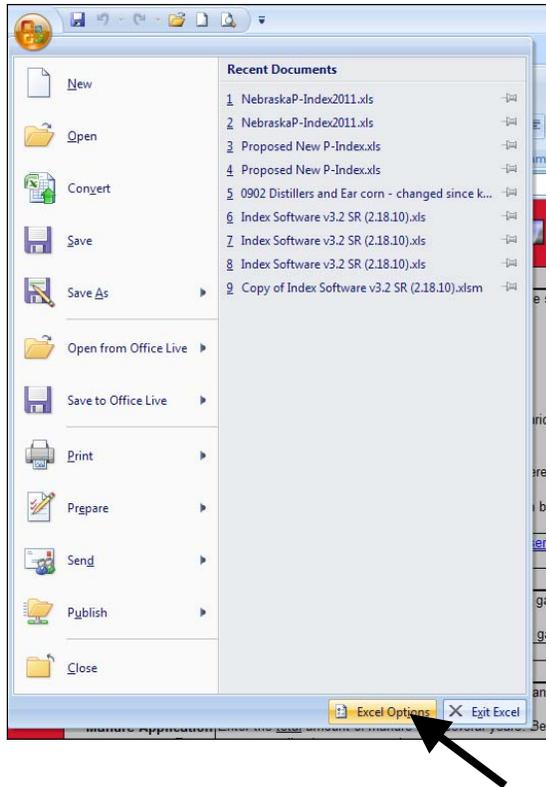
You will get this pop up. Select Enable this content and click OK.



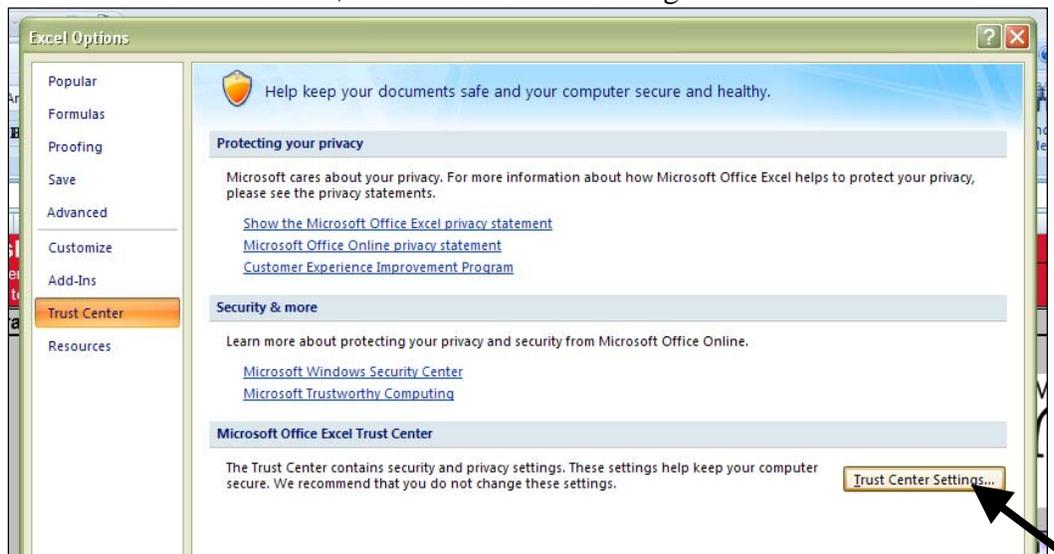
If you do not get the Security Warning bar across the top of the screen, see the “Changing the Macro Settings in Excel 2007” section of this manual.

Changing the Macro Settings in Excel 2007

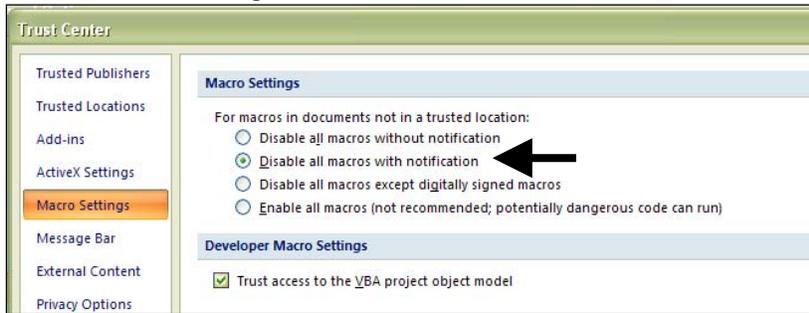
If you do not get the Security Warning bar across the top of the screen and the buttons still do not work, click the Office Button then Excel Options.



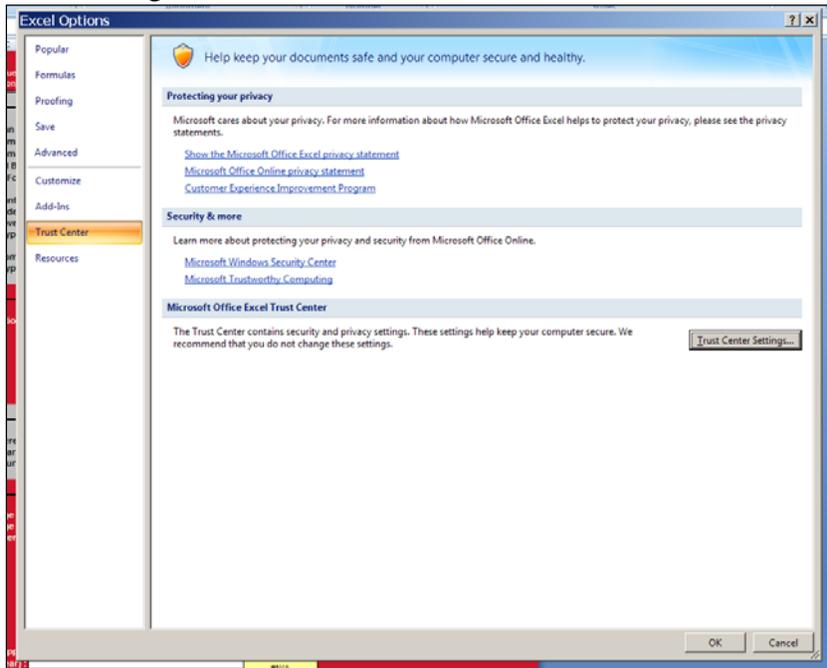
In the Trust Center screen, click Trust Center Settings.



In the Macro Settings screen, select “Disable all macros with notification”. Click OK.

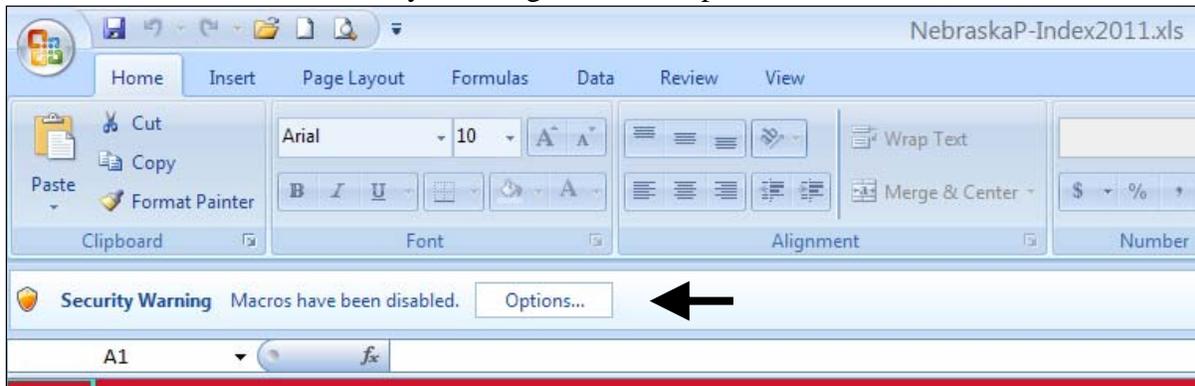


Click OK again.



Close the program and reopen.

You should then see the Security Warning bar at the top of the screen.



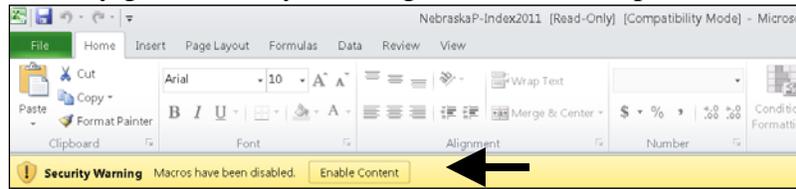
You will get this pop up. Select Enable this content and click OK.



In the future you should not have to change the macro settings. You will get the “Security Warning” bar at the top each time you open the program.

If you are using Office 2010

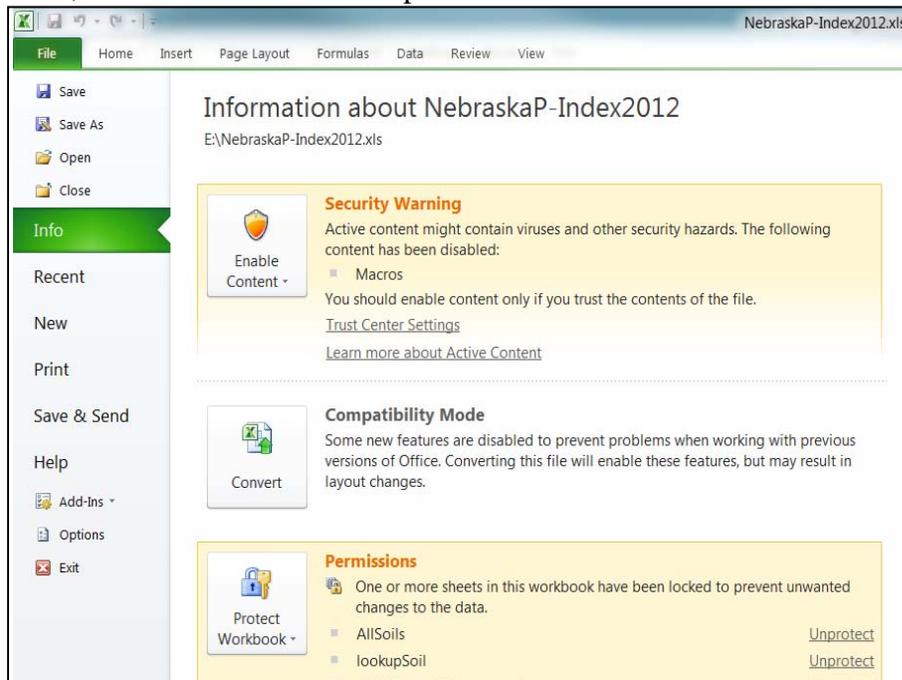
You may get a Security Warning bar across the top of the screen. Click Enable Content.



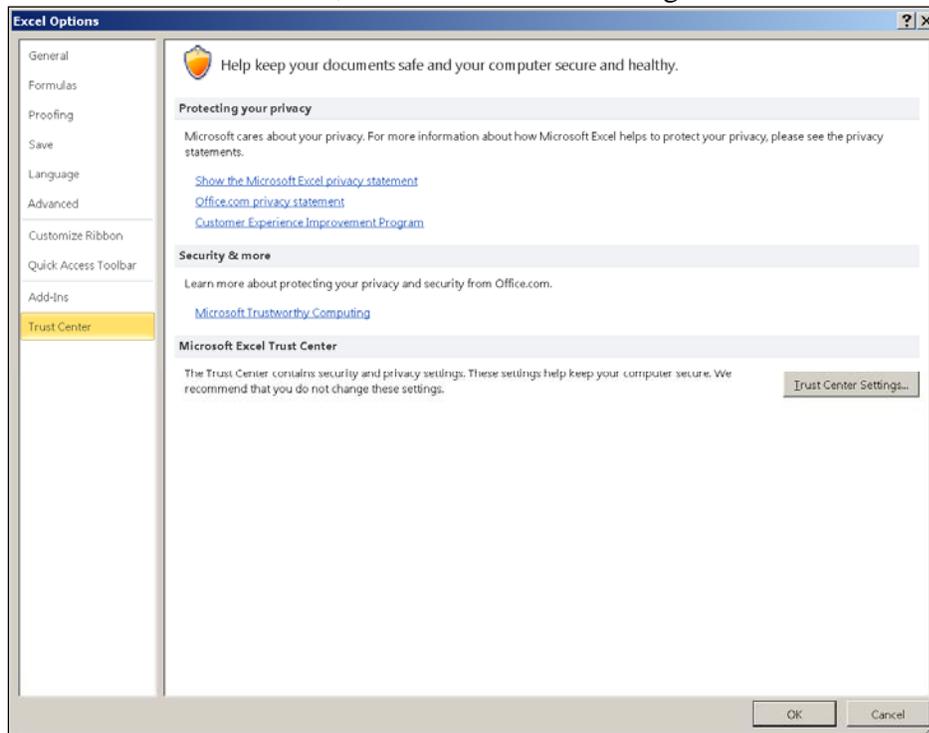
If you do not get the Security Warning bar across the top of the screen, see the “Changing the Macro Settings in Excel 2010” section of this manual.

Changing the Macro Settings in Excel 2010

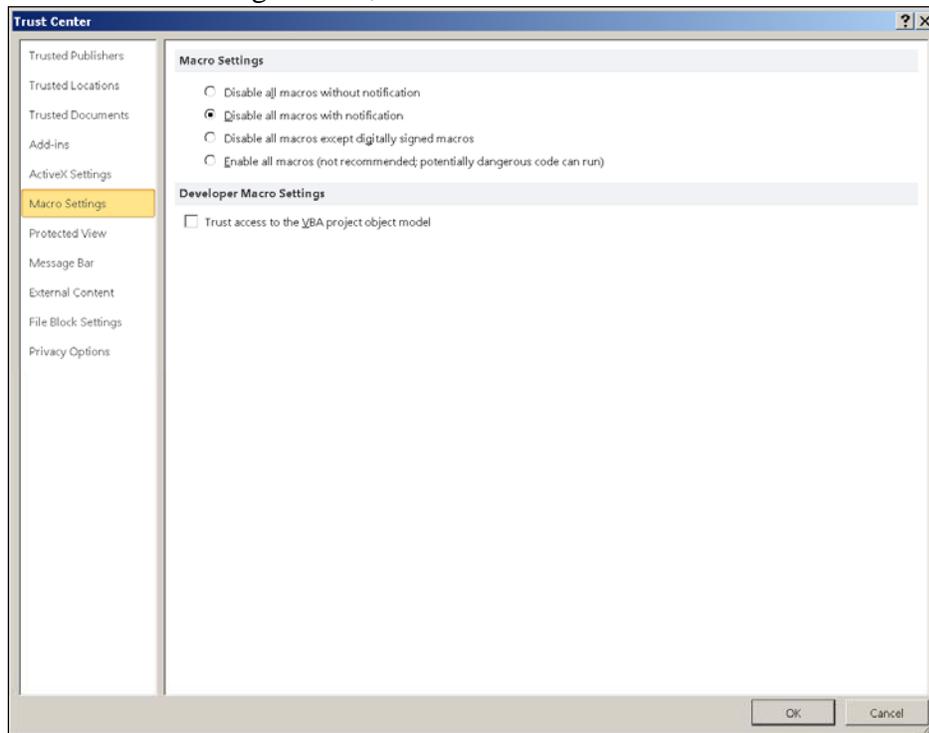
If you do not get the Security Warning bar across the top of the screen and the buttons still do not work, click the File Tab then Options.



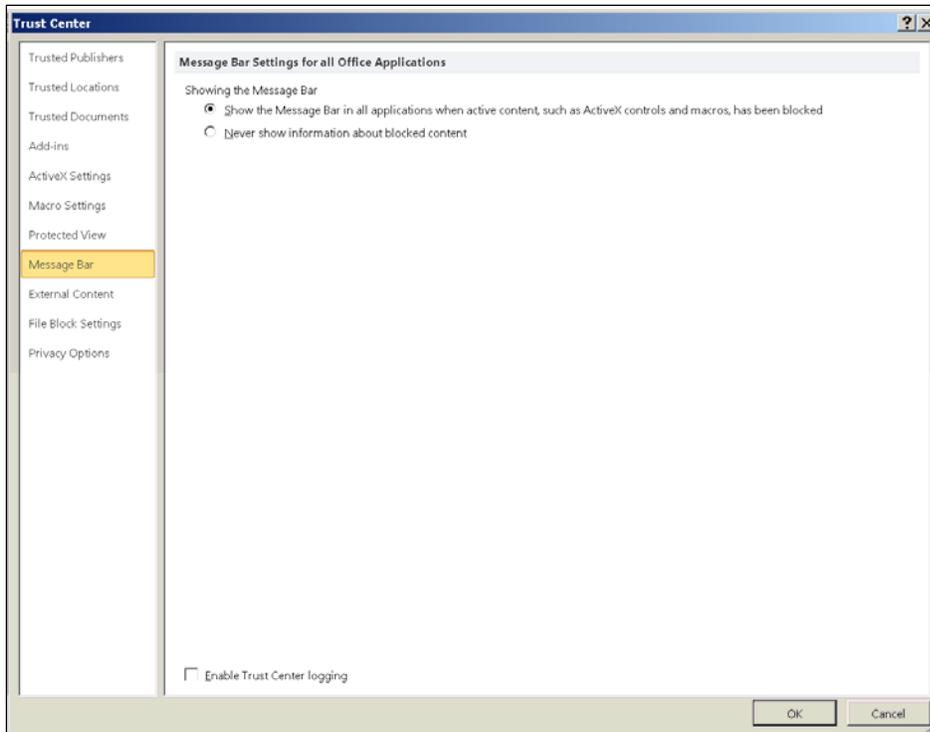
In the Trust Center screen, click Trust Center Settings.



In the Macro Settings screen, select “Disable all macros with notification”.

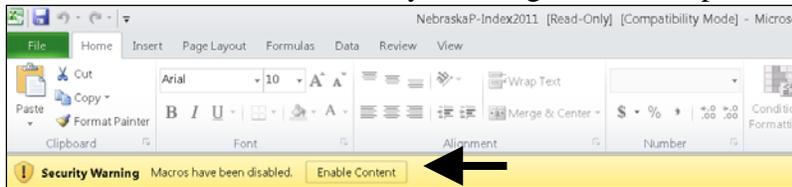


In the Message Bar screen, select “Show the Message Bar in all applications when active content, such as ActiveX controls and macros, has been blocked.” Click OK.



Click OK again. Close the program and reopen.

You should then see the Security Warning bar at the top of the screen.



Click Enable Content.

Calculate Your P-Index

Click on the “Nebraska P-Index” tab at the bottom of your screen to see the worksheet below.

Nebraska Phosphorus Index Help Clear Form

Please enter the required information in the white and blue boxes. The blue boxes have drop down lists.
The yellow text boxes are locked and used for calculations only.

1. General Information

Run #:	<input type="text" value="1"/>
Field name:	<input type="text"/>
Option name:	<input type="text"/>
Prepared By:	<input type="text"/>
Prepared For:	<input type="text"/>
County:	<input type="text"/>
County Number (FIPS Code):	<input type="text" value="#N/A"/>
Landform Region:	<input type="text"/>
Soil Type:	<input type="text"/>
Soil Map Unit Symbol:	<input type="text"/>
Soil Phosphorus Test Result (ppm):	<input type="text"/>
Sample Depth:	<input type="text"/>
Phosphorus Test Type:	<input type="text"/>



Find Landform Region

NOTE²

2. Irrigation Component

Type of Irrigation:

3. Solid Manure Component

Manure Application Rate (Tons / Acre):	<input type="text"/>	<input type="text" value="1.00"/>	NOTE ³
Over how many years:	<input type="text"/>		
% dry matter of manure:	<input type="text"/>		

4. Runoff Component

Factor

TroubleshootingGuide Help and Instructions **Nebraska P-Index** Report Ephemeral Landform Regions

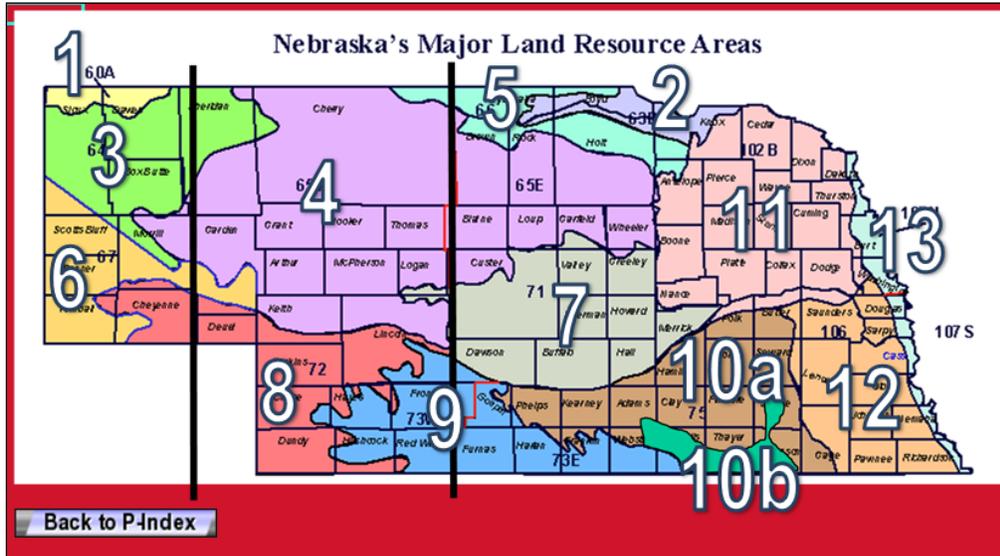


Fill in all white and blue boxes.

Note: Blue boxes contain dropdown lists for your convenience.

General Information Section

Based on the county you entered above, the list of landform regions is developed. If there is more than one landform region for your county, you can choose your landform region from the map by clicking the “Find Landform Region” button. You will be directed to this page. Select the number within your region.



Irrigation Component

Select the type of irrigation on your farm.

If you select furrow irrigation (without polyacrylamide or total recapture), this box will appear. Complete the white boxes. The flow rate is average gallons per minute (gpm) per furrow.

2. Irrigation Component

Type of Irrigation :

FOR FURROW IRRIGATION ONLY

Flow rate (gpm) :

Furrow slope (%) :

Erosion Component

Ephemeral Erosion

If you do not know the amount of ephemeral erosion on your field, click the “Estimate Ephemeral Erosion” button. You will get this screen:

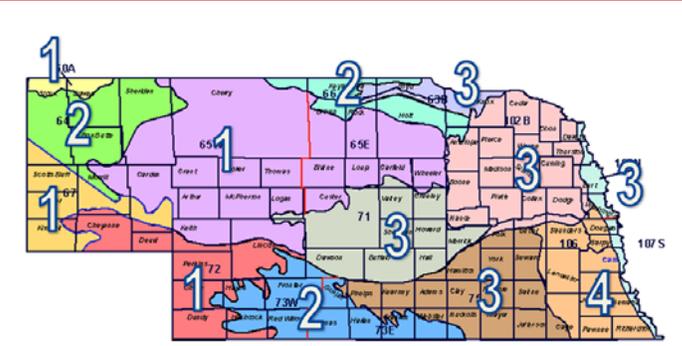
Estimating Ephemeral Erosion

Option # 1
Ephemeral gullies are considered to be gullies that are 3 to 20 inches deep. To estimate soil loss due to ephemeral erosion for the whole field or management unit, enter the following information for a typical

Total gully length for the field (feet) :
Average gully width for the field (feet) :
Average gully depth for the field (feet) :

Total tons for field : **Use This Estimate**

Option # 2



Fill in the white boxes in either of the two options. Click the “Use This Estimate” button within the option you chose to use the value in the yellow box beside the button

Sheet and Rill Erosion

The P index estimates sheet and rill erosion once all other information for a field area is entered. You can over-write this estimate with the RUSLE2 value if you prefer.

5. Erosion Component

Conservation Practices :	<input type="text"/>	#N/A
Landform Region (from above) :	<input type="text" value="0"/>	#N/A
Distance to water bodies (feet) :	<input type="text"/>	#N/A
Grassed Filter Strip Width :	<input type="text"/>	#N/A

NOTE Sheet & Rill (e.g. RUSLE2 value) : **Recalculate Sheet & Rill Erosion**

Ephemeral Erosion :

Field Area (acres) :	<input type="text"/>	#DIV/0!
Tons (total) :	<input type="text"/>	Estimate Ephemeral Erosion

Gully Erosion :

Field Area (acres) :	<input type="text"/>	0.00
Tons (total) :	<input type="text"/>	

Irrigation Factor (erosion) :
Manure Factor (from above) :
Soil Test Factor (erosion) :

Gross Erosion (average tons /acre /year) :

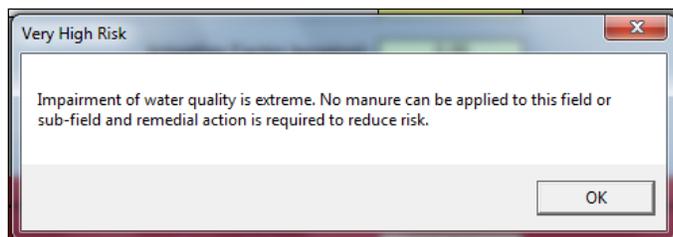
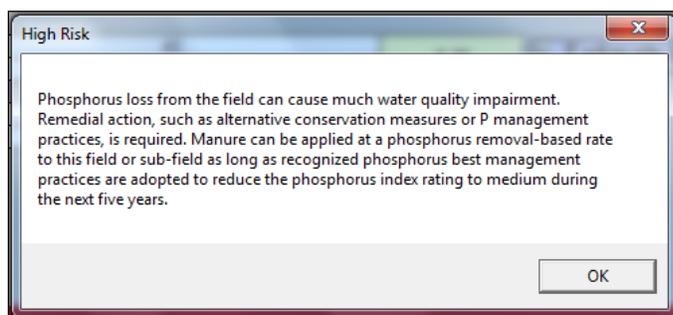
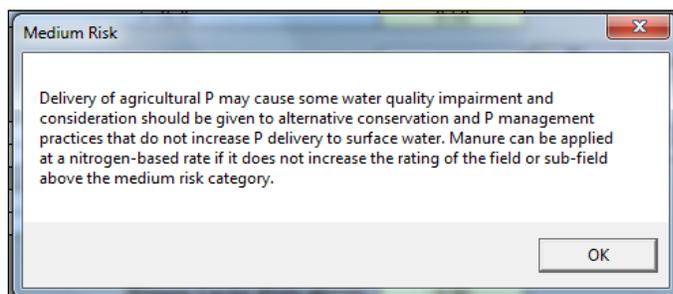
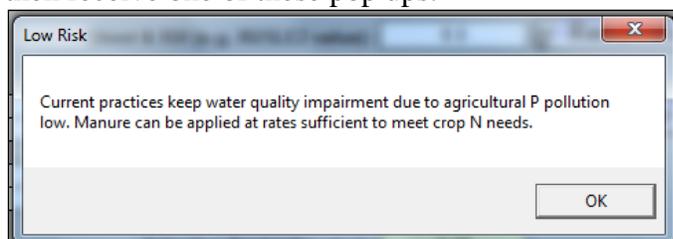
To use the estimated sheet and rill after overwriting it, click the “Recalculate Sheet & Rill Erosion” button.

Phosphorus Index Value

When all boxes have been filled in, the yellow boxes at the bottom of the “Nebraska P-Index” sheet should contain values.

6. Phosphorus Index Value			
 	Runoff P Value :	#N/A	Print This Page
	Erosion P Value :	#N/A	
	P - Index Value :	#N/A	Add Result to Report
	P - Index Text :	#N/A	What does my P-Index mean?

To learn more about your P-Index value, click on “What does my P-Index mean?”. You should then receive one of these pop ups:



Near Limit for Risk Class

If you used the built in Sheet and Rill estimator and your P-index value is close to a break point between two risk classes, for example near the break point between medium and high, you will get this pop up. The pop up will disappear in a few seconds or you can click ok. We suggest that you use the RUSLE2 rather than the P index estimated value for sheet and rill erosion for these borderline cases.



Clearing the P-Index

You can clear the input form by clicking the "Clear Form" button. However, you can continue to another field area without clearing the form but by entering the new Run # and field name and changing only the information where the new field area differs from the previous. If you do not change the run number, the report page will not work.

A screenshot of the "Nebraska Phosphorus Index" web application. The interface has a red header with the title "Nebraska Phosphorus Index" and two buttons: "Help" and "Clear Form". Below the header, there is a section titled "1. General Information" with several input fields: "Run #:" (value: 1), "Field name:", "Option name:", "Prepared By:", "Prepared For:", "County:", "County Number (FIPS Code):" (value: #N/A), "Landform Region:", "Soil Type:", "Soil Map Unit Symbol:", "Soil Phosphorus Test Result (ppm):", "Sample Depth:", and "Phosphorus Test Type:". To the right of these fields is the University of Nebraska Lincoln logo and a "Find Landform Region" button. Below the "General Information" section is a red section titled "2. Irrigation Component" with a "Type of Irrigation:" label and an empty input field. A "NOTE" label is visible on the right side of the form.

Estimate Your Nitrogen Risk

As a convenience to you, in the 2012 version of the Nebraska P-Index, we have added a nitrogen risk assessment to the program. It takes the data you already entered into the P-Index, as well as the timing of application, into account when using Table 1 from the NRCS S-590 to calculate your nitrogen leaching potential. This time-saving addition can be found at the bottom of the “Nebraska P-Index” sheet.

7. Nitrogen Risk Assessment	
Timing of Application :	
Soil Type :	0.0
Soil Map Unit Symbol :	0
Soil Texture :	#N/A
Nitrate Leaching Potential :	
	#N/A

Creating a Report for Your Records

Once you have filled in the data for your field, you can move that data to the report sheet. Do this by clicking the “Add Result to Report” button. You will get a screen like this:

Back to P-Index Reset Report Reset A Run		
Nebraska Phosphorus Index		
Run #	1	2
Prepared by	educator	
Prepared for	example	
County	Colfax	
Field	west 1/4	
Option	base example	
Erosion, S&R	11.94	
Sediment trap	None	
Field radius	600	
Filter width	0-10 ft	
Enrichment	Tillage	
Land use	No-Till and Conservation Till without contouring	
Soil type	High Residue Crop/Low residue Crop	
Soil P	Nora variant silty clay loam, 6 to 11 percent slopes, eroded (6836)	
Applied P lbs	95 ppm (0.8 inches)	
Irrigation	100	
Rate gpm (furrow only)	Surface Application, No Incorporation	
Furrow slope%	None	
Manure	10 tons/acre over 1 years	
P-Index Value	Runoff (1.2) + Erosion (6.4) = 7.6	
P-Index Text	High	
Nitrate Leaching Potential	Fall: Low Spring, Pre-Plant: Low Sidedress / Split: Low	
Run #	4	5
Prepared by		
Help and Instructions Nebraska P-Index Report Ephemeral Landform Regions Moisture Region		
Average: 237.3136361 Count: 25 Numerical Count: 3 Min: 11.9409082 Max: 600 Sum: 711.9409082		

You can do as many as 30 runs or fields in the same program. Click the “Back to P-Index” button to do another run. Clicking the “Back to P-Index” button will automatically change the run number.

For your convenience, you can make a change to the data you’ve already entered and look at the two reports side by side. If you made a mistake in one run and would like to reenter the data for that run, you can clear just that run. Please see the “Clearing the report” section of this manual. Unfortunately, at this time, the P-Index cannot repopulate the data that is in the report back into the Nebraska P-Index sheet. You must reenter the data.

Clearing the report

You can clear the entire report by clicking the “Reset Report” button.



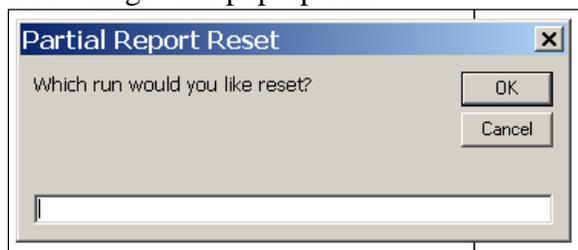
The screenshot shows the top of the Nebraska Phosphorus Index form. At the top, there are three buttons: "Back to P-Index", "Reset Report", and "Reset A Run". An arrow points to the "Reset Report" button. Below the buttons, the form displays "Nebraska Phosphorus Index" and a table with three columns for Run # (1, 2, 3). Under Run # 1, there are fields for "Prepared by" (educator) and "Prepared for" (example).

If you made a mistake or want to change something in just one run, you can clear only that run. To do so, click on the “Reset A Run” button.



The screenshot shows the top of the Nebraska Phosphorus Index form. At the top, there are three buttons: "Back to P-Index", "Reset Report", and "Reset A Run". An arrow points to the "Reset A Run" button. Below the buttons, the form displays "Nebraska Phosphorus Index" and a table with three columns for Run # (1, 2, 3). Under Run # 1, there are fields for "Prepared by" (educator) and "Prepared for" (example).

You will get this pop-up box.



The dialog box is titled "Partial Report Reset" and contains the question "Which run would you like reset?". Below the question is a text input field. To the right of the input field are two buttons: "OK" and "Cancel".

Enter the number of the run you would like reset. You can then go back to the P-Index form and re-enter the data for that run.

Printing in the P-Index Program

The P-Index form may be printed with the entered data to keep for your records. It will print on two (2) pages. All pages include a footer with the date printed and “The Nebraska Phosphorus Index 2012 (May 25, 2012)”.

The report is set to print everything visible in that sheet. It will print on five (5) pages. All pages include a footer with the date printed and “The Nebraska Phosphorus Index 2012 (May 25, 2012)”.

Troubleshooting

The buttons are not working

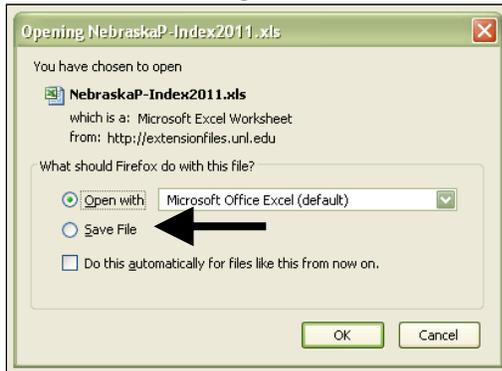
Check to make sure your macros are enabled. See the “Open the Program” section of this manual.

The buttons have disappeared or moved

If you are using Office 2007, try closing the program and opening it again.

I cannot save my data.

When downloading the file from the website, select “Save File” rather than “Open With”.



Then click OK.

More information and corrections

If you have problems with the software or would like to suggest corrections to these instructions or the program, please contact Leslie Johnson at ljohnson13@unl.edu.