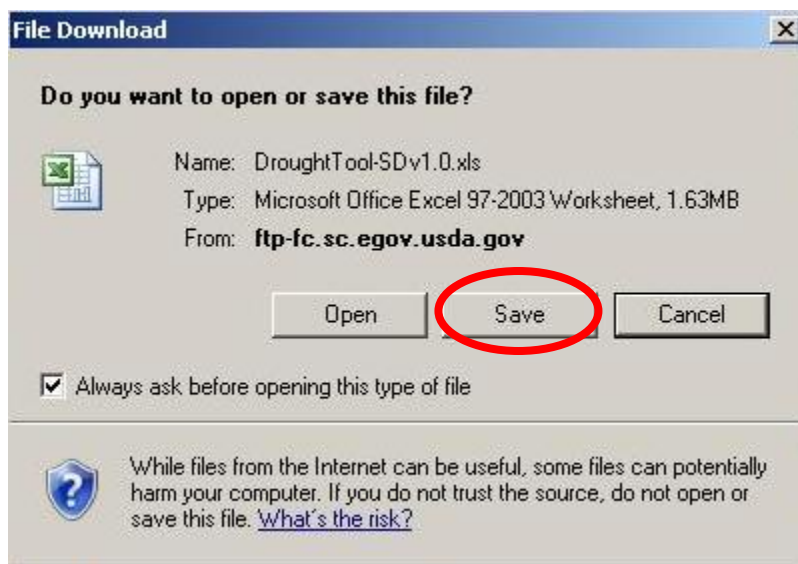


# South Dakota Drought Tool

## User's Quick Guide

The South Dakota Drought Tool can be accessed at the following location:  
<http://www.nrcs.usda.gov/wps/portal/nrcs/main/sd/technical/landuse/pasture/>

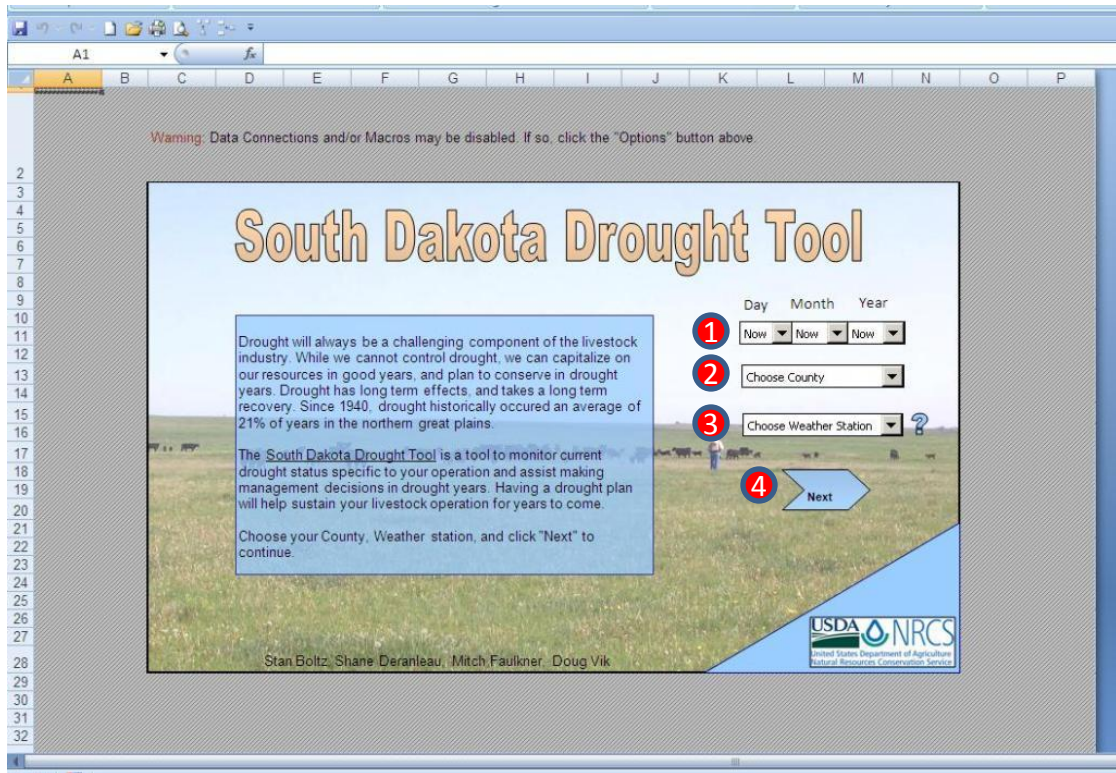
Click on the  icon.



After you click on this icon, a dialog window similar to the one above will appear giving you the options to “Open”, “Save”, or “Cancel”. It is recommended to choose the “Save” button, and save the Excel file to your local computer and then run it from there. However, you can choose the “Open” button as well and run the program through the internet connection.

There are three main screens, plus the summary page. The next three pages show each screen with instructions below. A symbol (1) will appear on the picture of the screen – these numbers correspond to the stepped instructions below the screen.

# Screen 1



Step 1: Select a date from which to run the analysis, or leave as “Now” to run from today’s date. Selecting a date in the past may be helpful to compare today’s conditions to past conditions.

Step 2: Choose the County in which you are interested from the drop-down list.

Step 3: Choose the climate station nearest to the area in which you are interested from the drop-down list. If you do not know the location of the climate stations in the selected County, click on the question mark to the right of the drop-down list, and a map will appear showing the active climate stations. A “Back” button is provided on the map so you can return to Screen 1.

Step 4: When you are satisfied with your selections, click on the “Next” button to proceed to Screen 2.

## Screen 2 – Precipitation assessment/adjustment

Please Verify Local Precipitation data.\* Changes can be entered in the Precipitation Adjustment Table.\*\*

\*\*Values that report as a 0.00 may not be accurate or data may be missing. Consider adjusting in th Precipitation Adjustment Table

Historic and short-term precipitation values for Perkins County *													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
Hist -Ave	0.44	0.49	1.00	1.76	2.67	3.14	2.10	1.64	1.20	1.12	0.52	0.39	16.48
2010/2011	0.11	0.50	0.87	1.91	5.58	2.14	2.90	2.70	2.81	0.77	0.36	0.32	21.01
2011/2012	0.74	1.39	0.93	2.32	4.56	3.31	2.53	4.19	0.00	0.53	0.60	0.46	21.56

Enter alternative or custom precipitation values here. Values entered overwrite automatic precipitation values.

Precipitation Adjustment Table													
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
2010/2011													
2011/2012													

References

<http://wrrac.sdstate.edu/pubs/range/ec91-123.pdf>  
[http://climate.sdstate.edu/climate\\_site/climate.htm](http://climate.sdstate.edu/climate_site/climate.htm)  
<http://www.hprcc.unl.edu/>

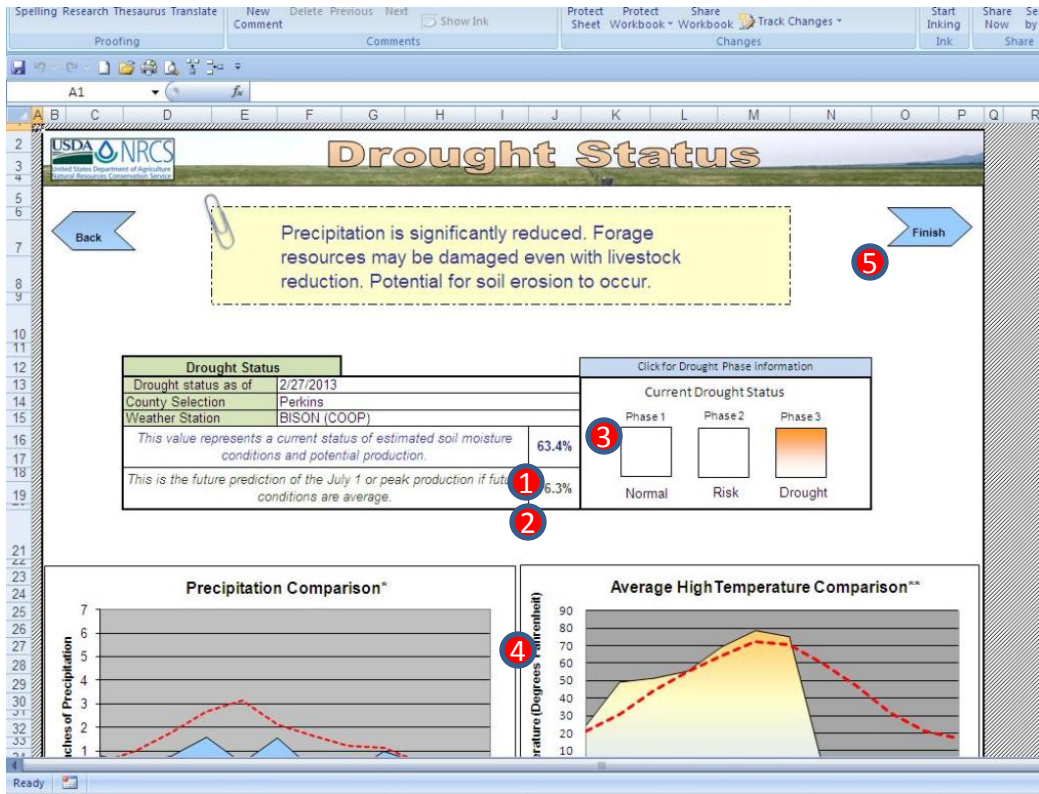
Drought Management on Range and Pastureland  
 South Dakota State Universities Climate Website  
 High Plains Regional Climate Center Website

Step 1: Briefly look at the data to see if it “makes sense” and to see if there are any “0” values that might indicate missing data. The “0” values are in red so they are easy to see, but may not necessarily be a missing value. That month may have had no measurable precipitation.

Step 2: If you collect your own precipitation data (which is recommended), or you have other sources which you feel are more reliable, you can enter that data for each month in the table here corresponding to the months in the table above. As you enter values you will see the values change in the table above.

Step 3: When you are satisfied that the precipitation values represent the conditions for the time and place you are analyzing, click on the “Next” button to see the results.

## Screen 3 – Drought Status



Step 1: This number represents the current drought status. When the tool is run in the winter and early spring, think of this as the current soil moisture conditions which will impact plant growth in the coming spring.

Step 2: When the tool is run from November through May, this number represents the predicted peak forage production as of July 1<sup>st</sup>. It is calculated based on the assumption of normal precipitation in the months leading up to July 1<sup>st</sup>.

Step 3: This graphic represents the current drought status: normal, at risk, or drought. These categories pertain to the development of a drought plan, and will be discussed further on the next page.

Step 4: This is simply a graphical representation of the monthly precipitation in the previous 12 months, and the average monthly high temperature, both compared to the historic average (the red line). The temperature is provided here just for consideration to make further adjustments to the assessment.

Step 5: Click on the "Finish" button to go to the drought planning page.

## Screen 4 – Summary Page

The screenshot shows a Microsoft Excel spreadsheet with a 'Summary Page' for a drought status report. The page includes a header with the USDA NRCS logo, a title 'Summary Page', and a 'Drought' status indicator. It features input fields for 'Name' and 'Location', a 'Print Status and Summary' button, and a table of drought statistics. A precipitation comparison chart is also visible at the bottom.

**Drought Status** Phase 3 Drought

Current Status	63.4%
Projected Peak Production	76.3%
Suggested percent of normal stocking	52.1%

Precipitation is significantly reduced. Forage resources may be damaged even with livestock reduction. Potential for soil erosion to occur. Implement appropriate management decisions immediately.

% Norm. Production	63%	Date	2/27/2013	County	Perkins	Precip station	BISON (COOP)					
Month	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
Hist -Ave	0.49	1.00	1.76	2.67	3.15	2.10	1.64	1.20	1.12	0.52	0.39	0.44
2011/2012	1.39	0.93	2.32	4.56	3.31	2.53	4.19	0.00	0.53	0.60	0.46	0.27
2012/2013	0.81	0.53	0.79	1.61	0.50	1.58	0.22	0.00	1.00	0.50	0.30	0.40

**Precipitation Comparison**

The summary page contains all the pertinent data from the previous screens and is formatted for printing. You can enter a name and location to keep for future reference, and the “Print Status and Summary” button **1** will print the formatted information.

Also included with this page is the “Suggested percent of normal stocking” value **2**. This number provides a recommended percent of normal stocking and can be used to aid in the development of a drought contingency plan.

To continue on with the development of a drought plan, simply page down to the drought planning section on the Drought Tool page.

# Drought Planning Section

The image shows a Microsoft Word document titled "Drought Contingency Plan" with a table of contents on the left side. The document is dated 2/27/2013. The main content includes an introduction, three phases of drought contingency planning, and a table of contents.

**Table of Contents:**

- 66 67
- 68 **Drought Contingency Plan**
- 69
- 70 In the event of Drought Conditions, initiating a plan of action will alleviate stress on
- 71 grazinglands, preventing a loss of production, vigor, and diversity in subsequent
- 72 years. Create a customized drought contingency plan for your operation. The NRCS
- 73 example drought contingency plan recommendations are also provided below.
- 74
- 75 **Phase 1 Normal Status**
- 76 *Observe field conditions, forage growth rates, observable plant stress etc.*
- 77
- 78 Observations:
- 79
- 80
- 81
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- 83
- 84
- 85
- 86 **Phase 2 Risk Status**
- 87 *Take risk management actions to relieve plant stress*
- 88
- 89 Early culling/weaning of livestock:
- 90
- 91
- 92
- 93 Alternative feed/forages:
- 94
- 95
- 96
- 97 Herd consolidation
- 98
- 99
- 100 Other:
- 101
- 102
- 103
- 104
- 105 **Phase 3 Drought Status**

**Main Content:**

**Drought Contingency Plan**

In the event of Drought Conditions, initiating a plan of action will alleviate stress on grazinglands, preventing a loss of production, vigor, and diversity in subsequent years. Create a customized drought contingency plan for your operation. The NRCS example drought contingency plan recommendations are also provided below.

**Phase 1 Normal Status**  
*Observe field conditions, forage growth rates, observable plant stress etc.*

Observations:

**Phase 2 Risk Status**  
*Take risk management actions to relieve plant stress*

Early culling/weaning of livestock:

Alternative feed/forages:

Herd consolidation

Other:

**Phase 3 Drought Status**