

TECHNICAL NOTES

NATURAL RESOURCES CONSERVATION SERVICE – WYOMING

AGRONOMY NO. 26

June 21, 2007

SUBJECT: RUSLE2 User Guide

Although a 2004 User Guide has been available on the official RUSLE2 website: http://fargo.nserl.purdue.edu/rusle2_dataweb/RUSLE2_Index.htm a WY guide was developed for more localized operating procedures. Crop Management Zones for WY are cmz 7 and cmz 9. Both contain the same data and are managed by the WY NRCS State Agronomist. To attain the most current databases, the cmz, soils and climate should be downloaded from this website to your S or C drive/Program Files/USDA/Rusle2/Import folder annually. This guide gives detailed procedures on downloading and importing of databases. If difficulties still arise, contact your Area Agronomist or NRCS State Agronomist.

RUSLE2 is a water erosion program that has an added capacity of calculating the Soil Conditioning Index (SCI) and a STIR value (Soil Tillage Intensity Rating). RUSLE2 is an upgrade of the text-based RUSLE DOS version 1. It is a computer model containing both empirical and process-based science in a Windows environment that predicts rill and interrill erosion by rainfall and runoff.

The Soil Conditioning Index (SCI) estimates the trend in soil organic matter. $SCI = OM + FO + ER$ Organic Matter (OM) is the crop biomass factor of the equation while Field Operations (FO) show the intensity that farm equipment breaks down the OM. Added to this environment the Erosive Factors (ER) or the effect of removal and sorting of soil OM by sheet and rill erosion. A positive SCI rating (zero and above) suggest that soil organic matter levels are predicted to increase under that cropping system. However, a near zero or a negative rating suggests the need for an alternative combination of crop rotations and/or a change in the farm equipment or date of implementation. Soil organic matter levels are predicted to decline under that cropping system.

The Soil Tillage Intensity Rating (STIR) utilizes the speed, depth, surface disturbance percent, and tillage type parameters to calculate a rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation detailed in the crop management section.

Alternatives:

- *Substituting a high residue crop in the place of a low residue crop.
- *Delaying the tillage from the fall to late spring reduces the potential for erosion in the critical erosion period. (Commonly wind events occur October through March)
- *Replace the moldboard plow operation as a moldboard plow disturbs 100% of surface residue.
- *Harvesting corn grain instead of corn silage does increase the residue left on the surface.

RUSLE2

User Manual

March 2007

Revised Universal Soil Loss Equation, Version 2



WATER EROSION

SOIL CONDITIONING INDEX (SCI)

SOIL TILLAGE INTENSITY RATING (STIR)

RUSLE2 ** Water Erosion Calculation ** Soil Quality Rating (SCI)
**** Soil Tillage Intensity Rating (STIR) **Fuel Use**

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RUSLE2 101

A different science and technology was used for USLE, RUSLE, and RUSLE2. Data corresponds like apples and oranges. You cannot compare a RUSLE 1.06 calculation with a RUSLE2 calculation. RUSLE2 is now the only NRCS approved program for water erosion technology. This model is the most accurate reflection of what is actually happening on the landscape. RUSLE should not be used after August 2004. Each fall a new version of RUSLE2 will be deployed. Every year the RUSLE2 program will be updated with a new version. So setup process will need to be completed to be acceptable with NRCS policy of a current erosion prediction.

SETUP IF YOU ARE SETUP , GO THE PROFILE on page 18

After the program has been DOWNLOADED, three data fields in the program are needed to be filled. Those without an S drive will need to complete the following through #1 and #4 (skip #2). These files are located on the website

http://fargo.nserl.purdue.edu/rusle2_dataweb/RUSLE2_Index.htm. right click to “Copy to folder” to your C Drive: Program files/ USDA/ RUSLE2/ Import.

1. **Climate Data:** WYclimate030105.gdb
2. **Crop Management Templates:** CMZ 07.gdb or CMZ 09.gdb (See Map on page 14)
3. **Soils Data:** WYsoils020503 zip for the whole state; or one soil survey area
Fremont County, Wyoming, East Part & Dubois Area.gdb (No more than 6 survey areas)

- #1-- Open RUSLE2, Select #2 template to use in middle of screen or at bottom right-hand corner just **left** of moses, right click (default) and **load** template NRCS simple SCI 110606.xml or NRCS simple SCI and Fuel use 1102006.xml. The current version 1.26.6.4 (Nov 13 2006) will be stated top of the screen.

If you work off of a *SHARED NETWORK*, have IT put a folder on the shared drive called Rusle2. Save your Rusle2 folders (Binaries, Export, Import, Printing, Session, Text Users) from your C Drive: Program Files/USDA/Rusle2). ***For NRCS field offices, this has been completed.***

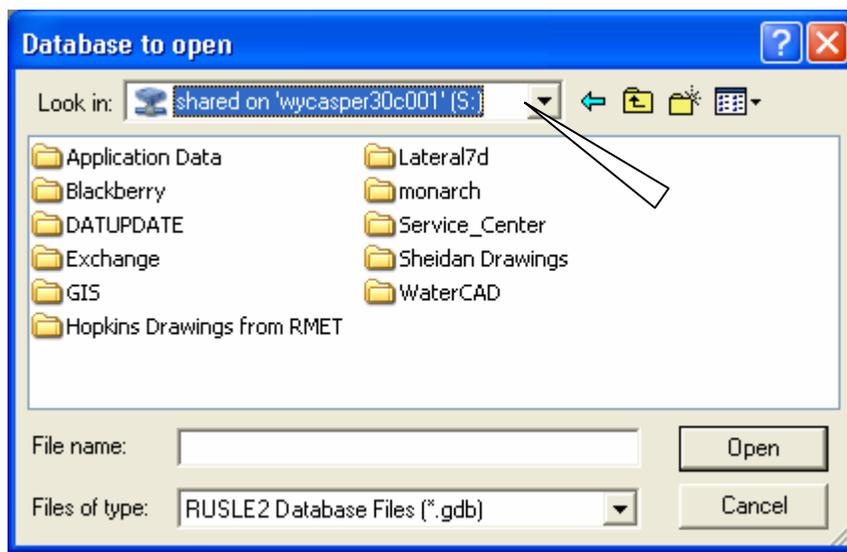
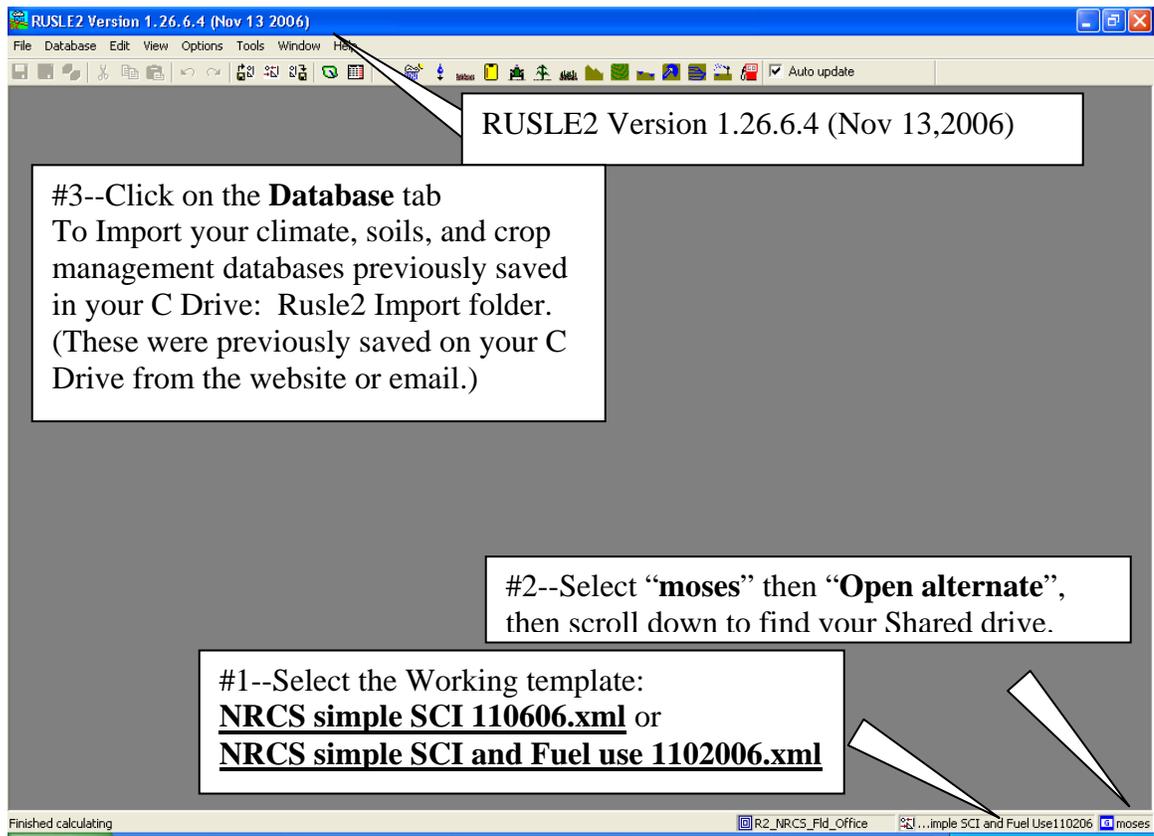
- #2--Open RUSLE2 and right click on “moses”, bottom right corner, select “open alternate”. Look in: find your shared drive Rusle2 folder. Click to open it. Select the “moses.gdb” in the Rusle2 folder. Right click on “moses” again and click Start up Database. Now the climate, crop management templates, and some profiles developed will be saved and available to all in the field office. If your soil survey is not there, you will need to import it in. Click on the **Database tab** at the top. **Import** soils database (see page 4) from your C or S drive folder. **Open**. Select the Soils database by **clicking in the square box** left of the Soil’s yellow folder. Click **NONE** and **IMPORT**. OK. OK.

You may get errors that profiles are missing soils. OK. Change to local climate and soils.

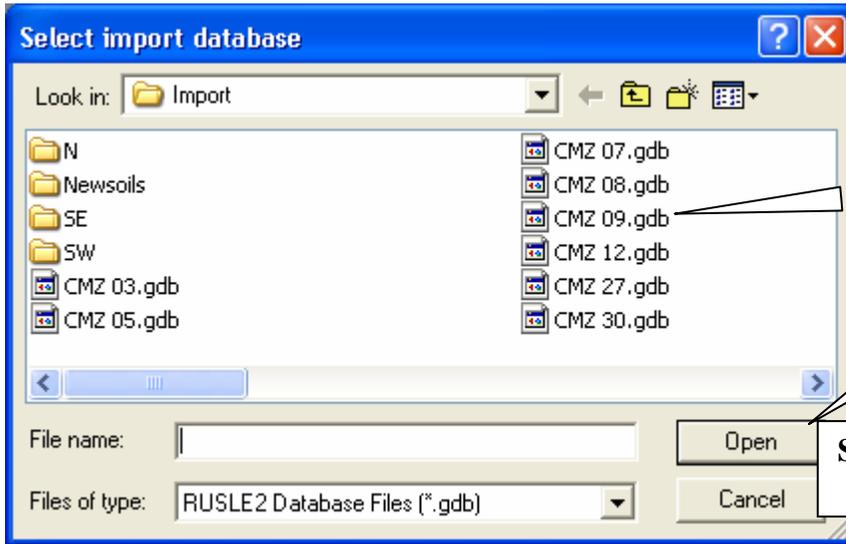
- #3 The new version RUSLE2 opens under the PLAN view. Simply, close this screen with the x in that screen’s top right corner. Select the green slash-profile tab at the top of the screen, the PROFILE. Next time you open RUSLE2 you will get the profile

screen and not the plan view. We always working in profile. Change information in the profile folders to local climate and soils.

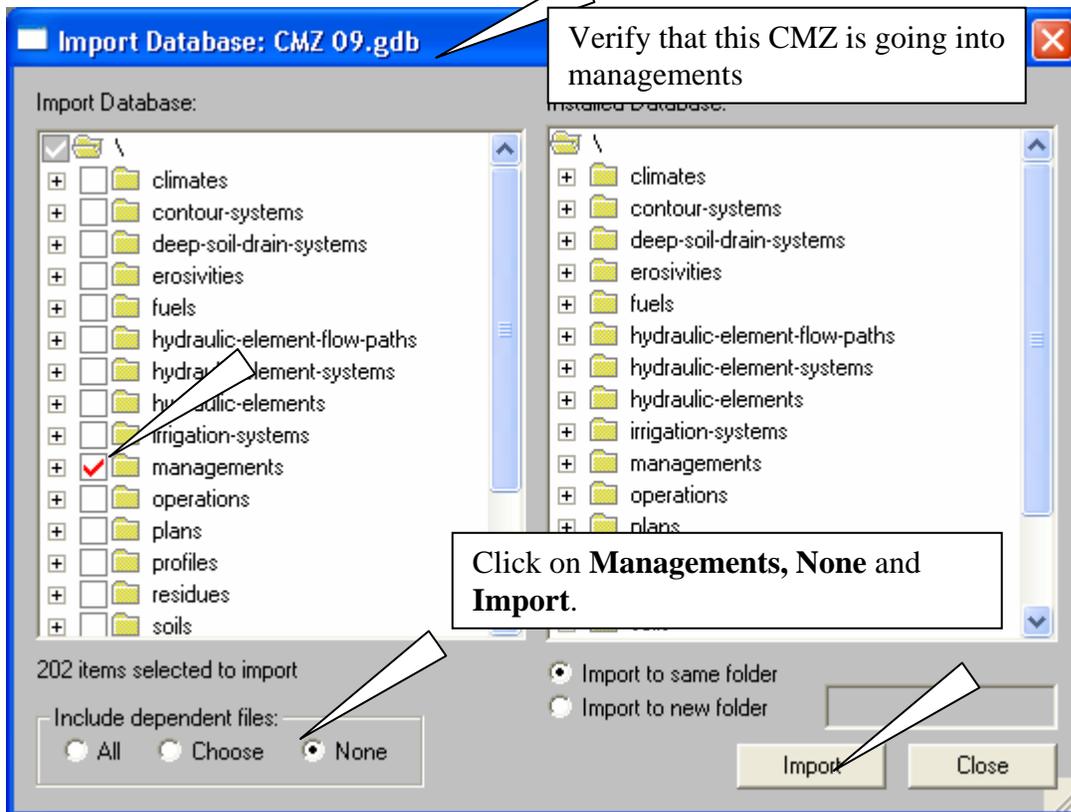
- #4 If not there, add **WY-ECS-40B.pro.dot** to your C drive/Program Files/USDA/Rusle2/Printing folder from the S drive/Rusle2 Data folder. This is the NRCS product.



- **#3.** Click on the **Database tab** at the top. Click on the folder and select with **Open**. Select the folder this database will go in by **clicking in the square box** left of the yellow folder. Verify in the title at the top that you are selecting the correct folder for that database! Click **NONE** and **IMPORT**. A warning screen will come up, that's **OK**. The program will run a consistency check and then Import is complete. Click **OK**. Continue with your Database imports until you have cmz 7 and/or cmz 9, climate, and soil survey areas imported.

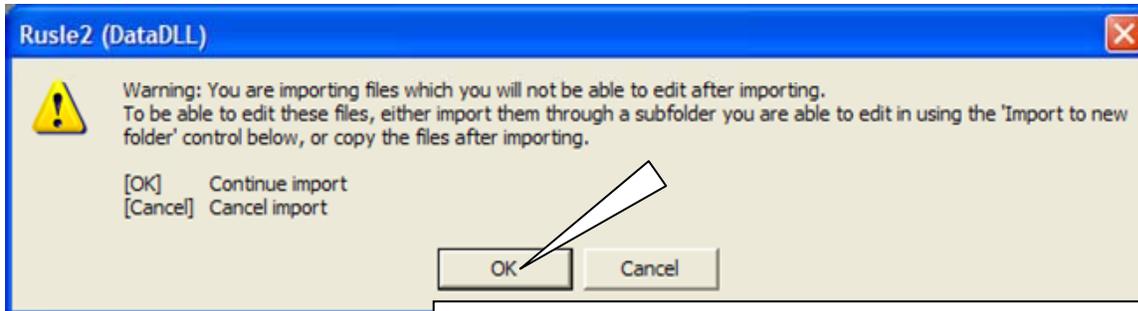


SELECT folder above and **OPEN**

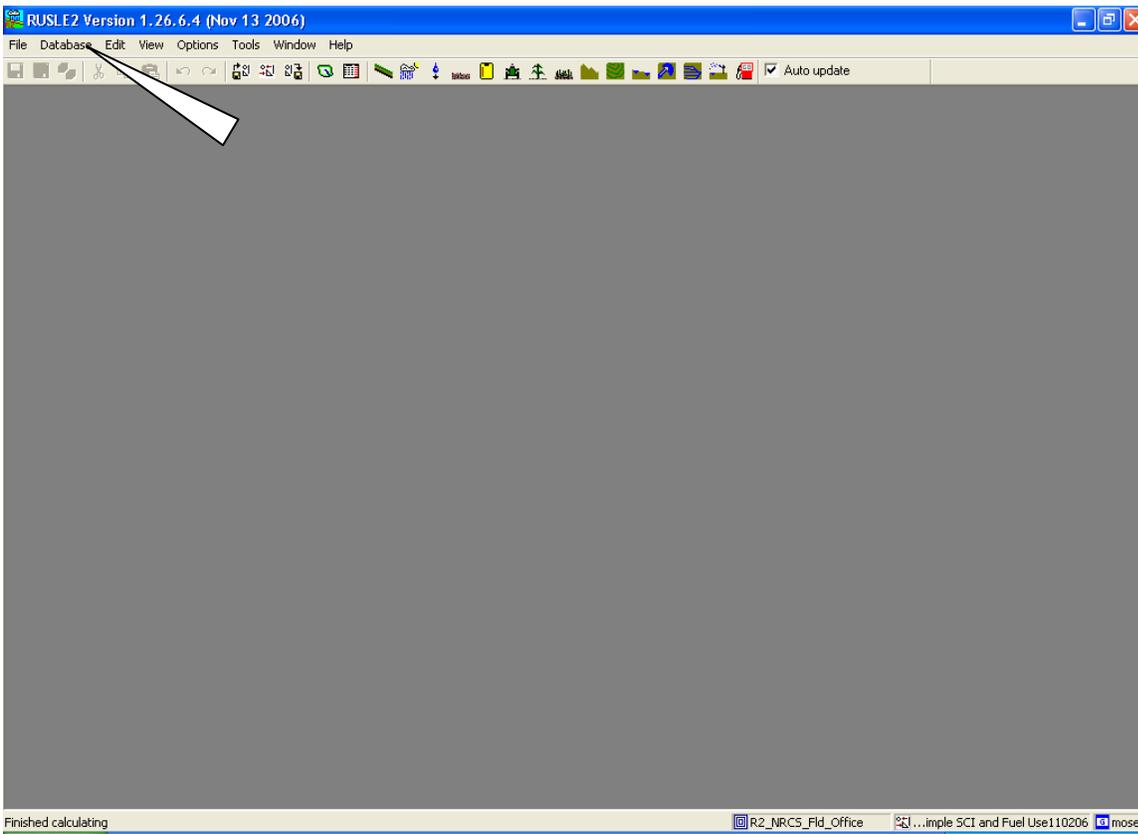


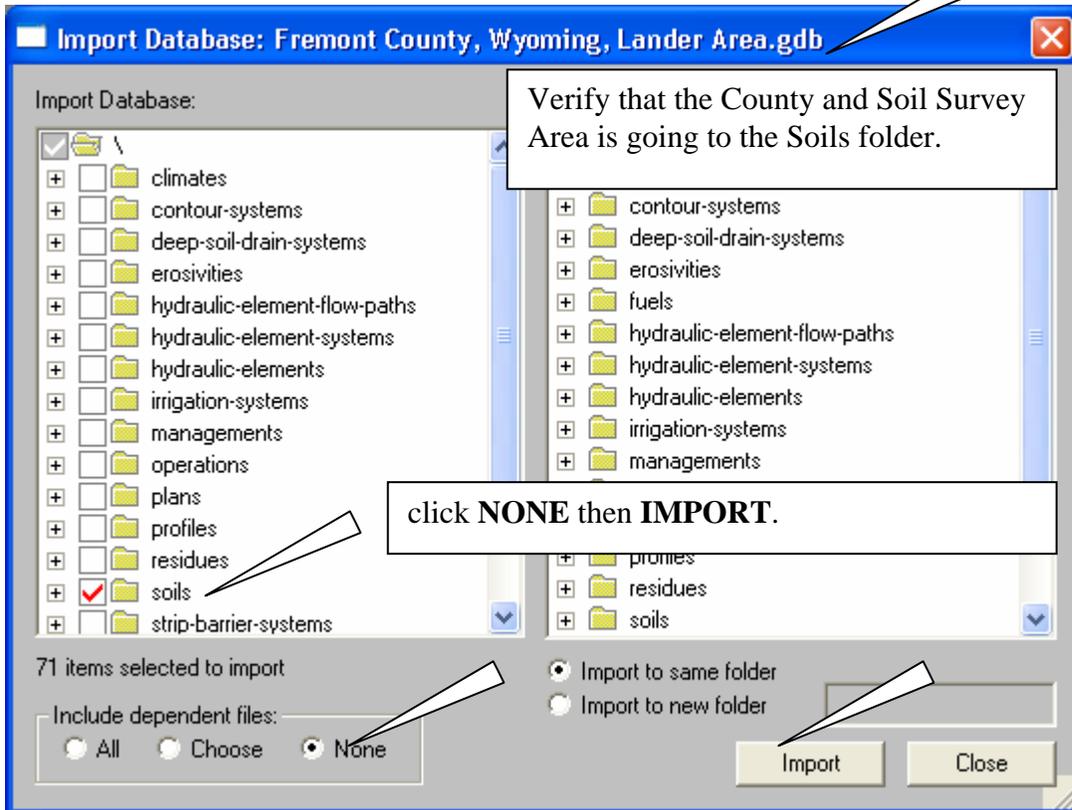
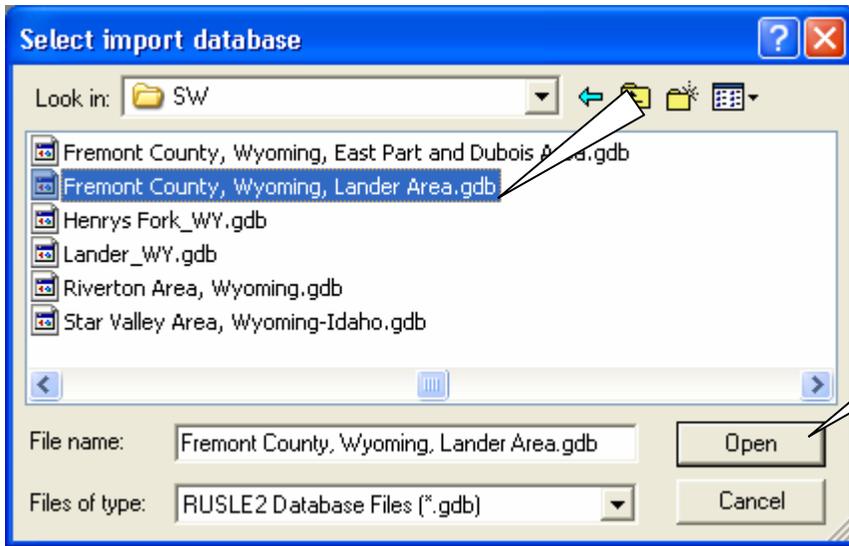
Verify that this CMZ is going into managements

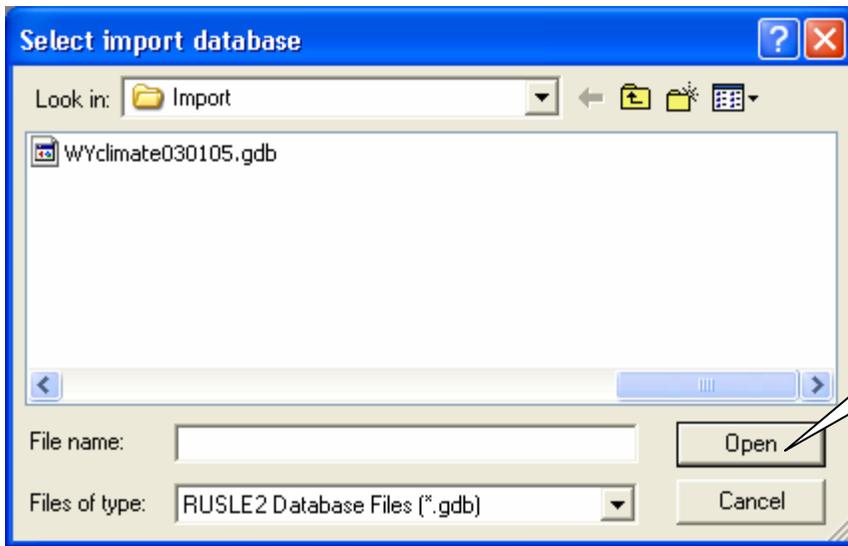
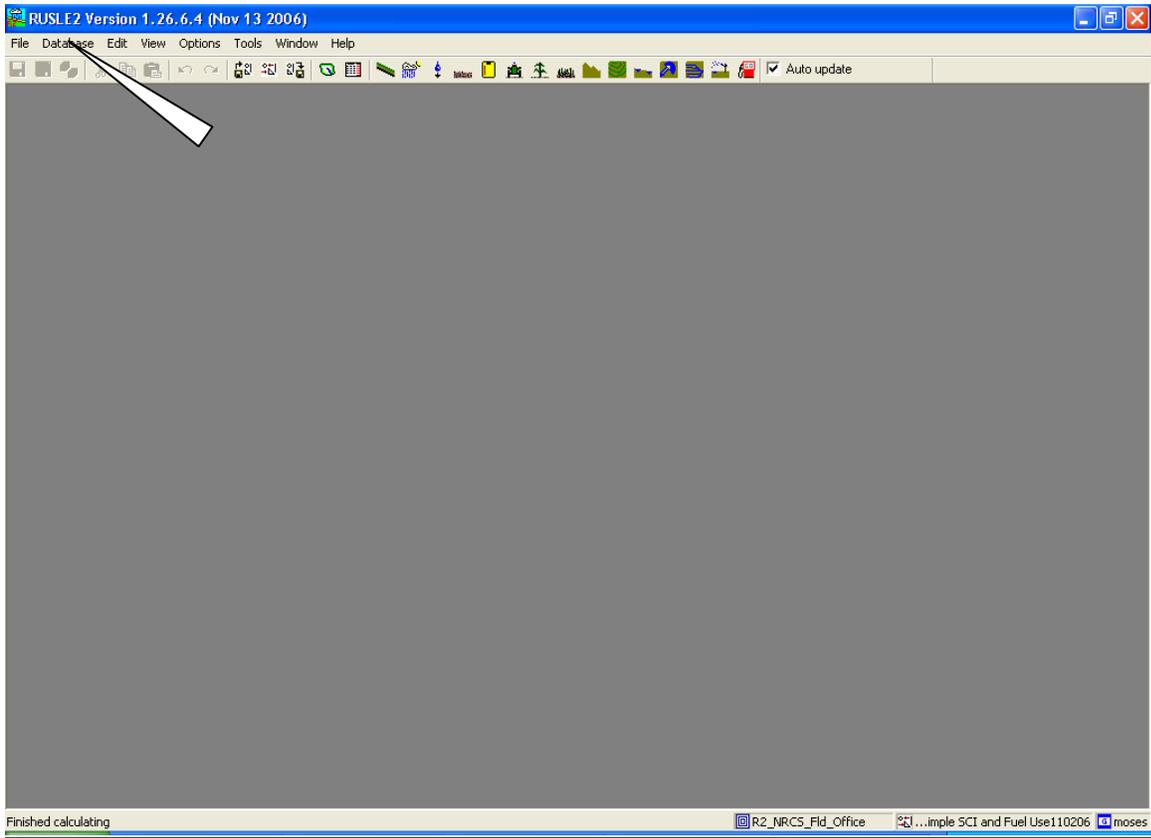
Click on **Managements, None** and **Import**.

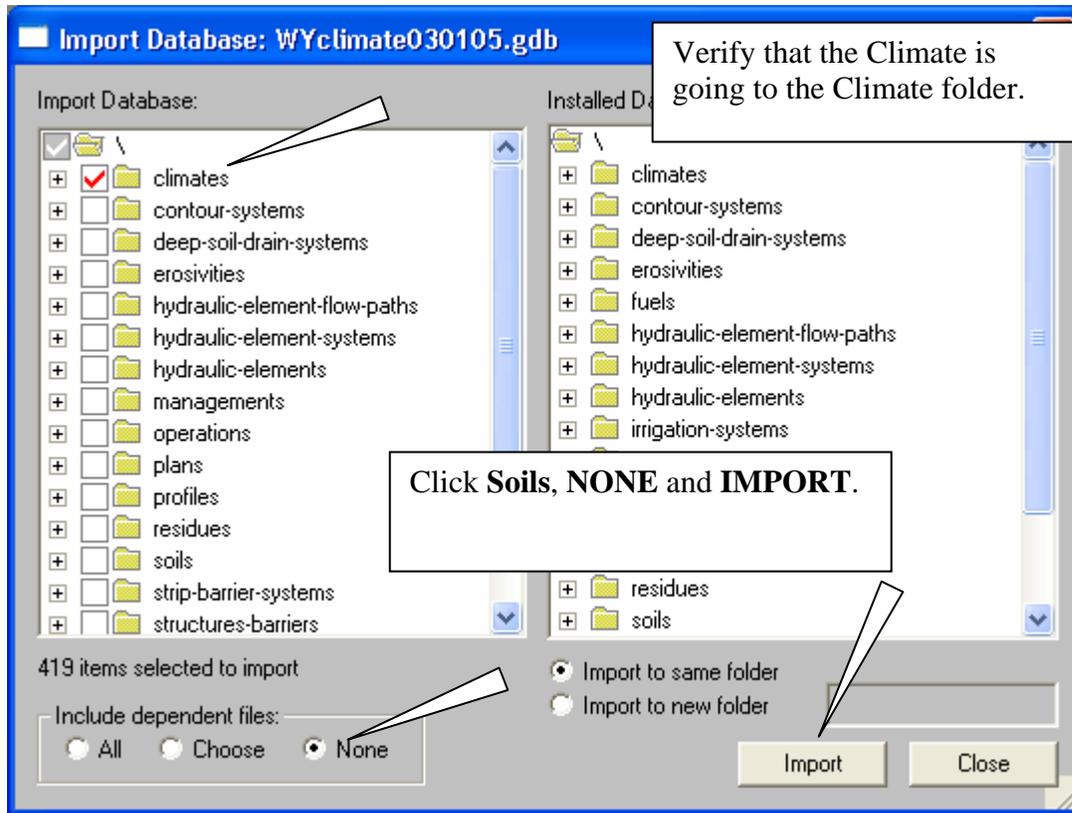


This warning should come up each time. That is okay. Select OK to proceed. A data consistency check will be done and the check's two numbers should be close.









Pages 10 – 17 contain a detailed look into the RUSLE2 operational databases

Page 10 Climate database

Page 11 has the location of the precipitation map to be used with RUSLE2

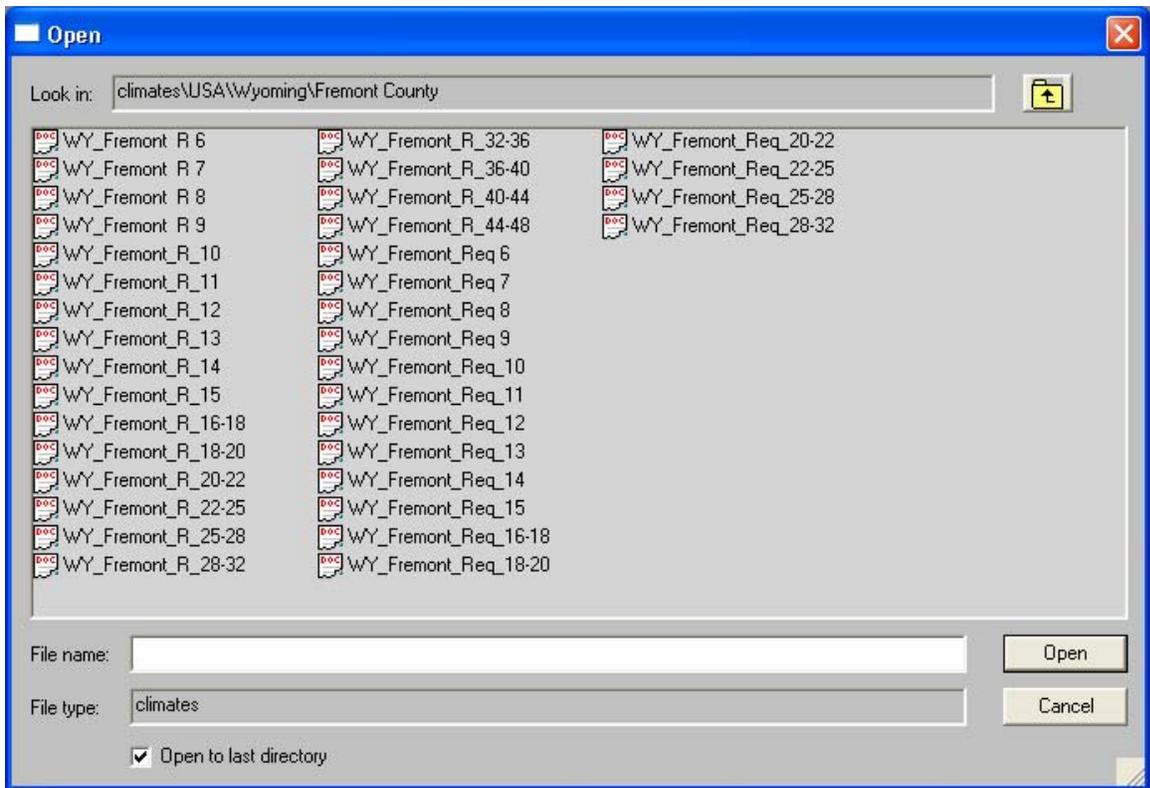
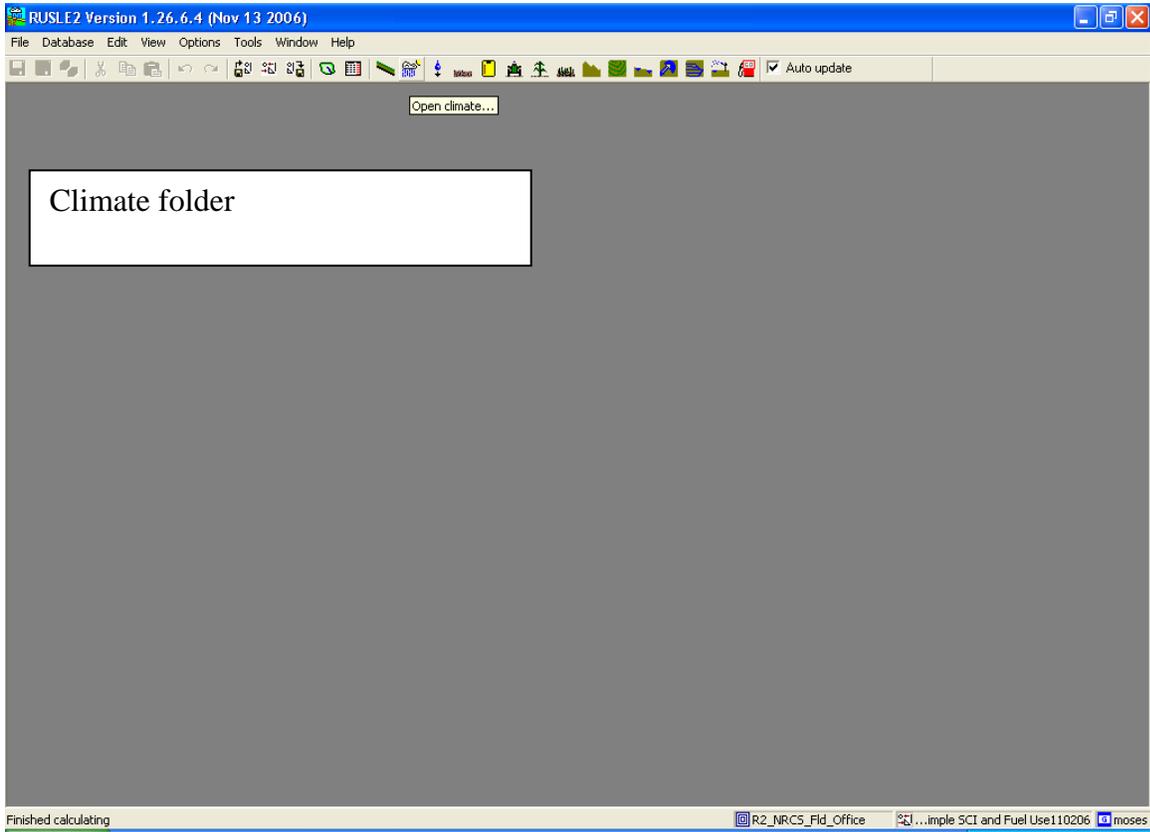
Page 11-12 Soils database

Page 13 generic soils database

Page 14 Crop Management Zone map-- a guide to the closest -- cmz 7 or cmz9

Page 15-17 Crop Management database

To begin using RUSLE2 start with the PROFILE screen on page 18



RAINFALL-RUNOFF EROSION FACTOR (R) The numerical values used for R quantifies the effect of raindrop impact and also reflects the amount and rate of runoff associated with the rain. The erosion index (R) was developed to address intensity of rainfall events. Additionally, a separate procedure for evaluating R for locations where there are significant forces causing runoff from snowmelt, rain on frozen soil, or irrigation was incorporated. For locations where this type of erosion is significant, a **Req value** is used for cropland and rangeland.

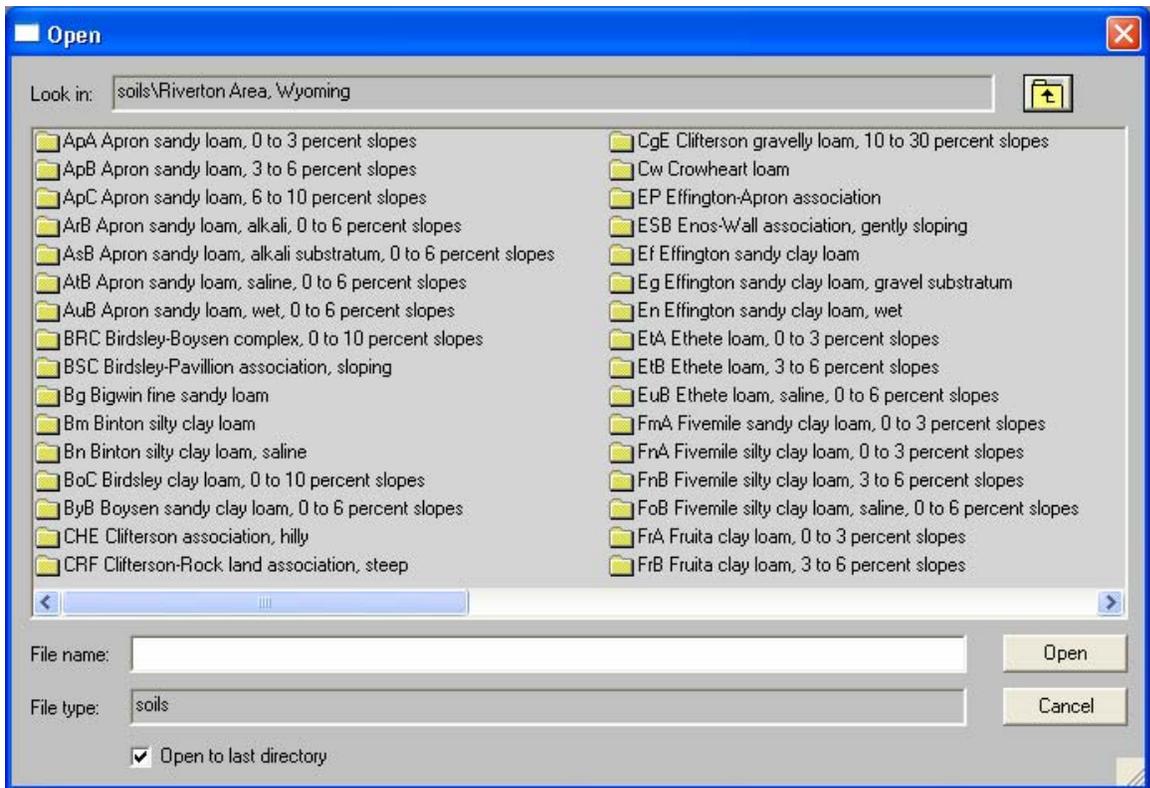
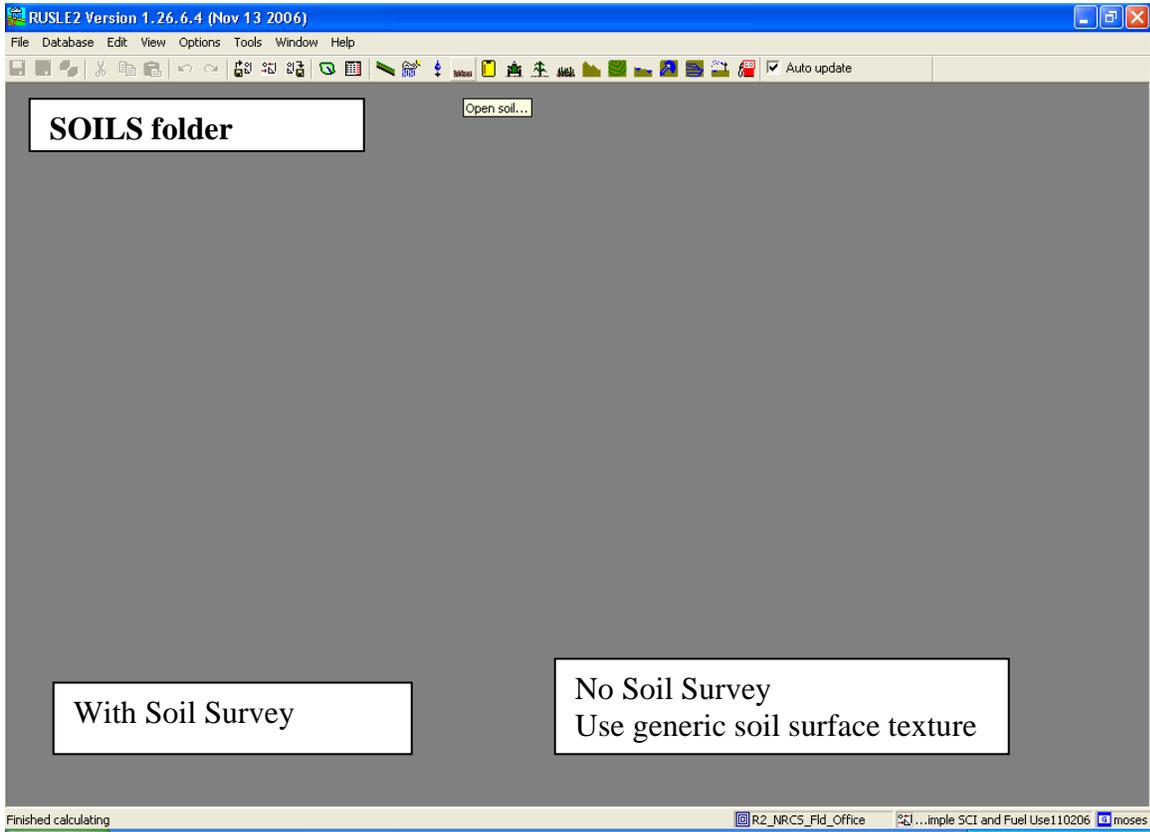
Select your area of work from the RUSLE2 climate maps and print them in color. RUSLE2 climate has two selections. R is for water erosion from rainfall precipitation and Req (Rainfall equivalent) is water erosion from melting snow. You need to consider the location of your site and select the **appropriate R or Req**: average precipitation (7.5”) map or a number from the Precipitation Range (10-11”) map.

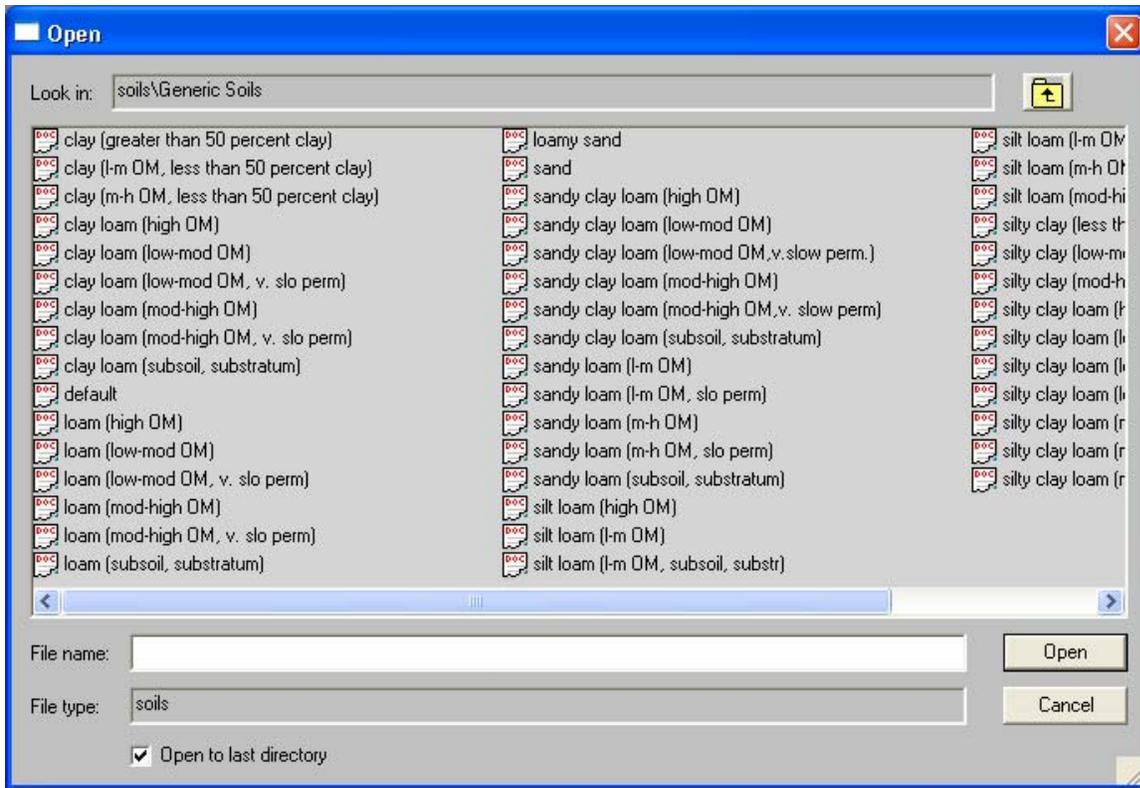
RUSLE2 WY Climate Maps:

http://efotg.nrcs.usda.gov/efotg_locator.aspx?map=WY

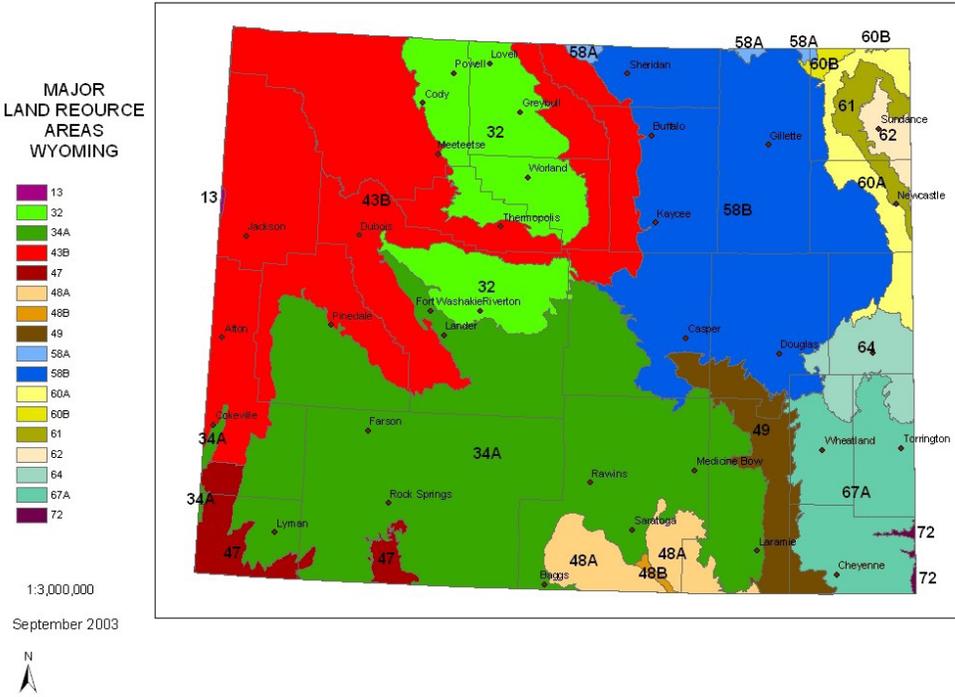
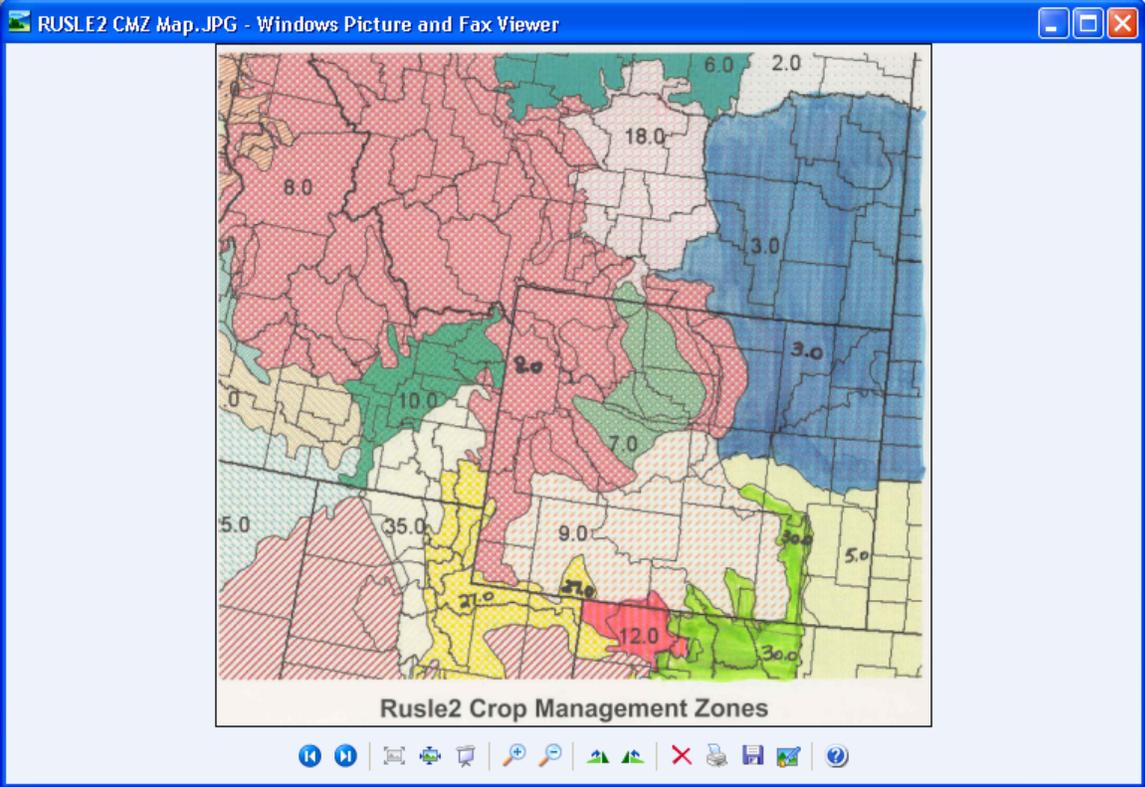
eFOTG/Section I/Erosion Prediction/Water Erosion/RUSLE2 Precip Maps/ Average Precip Map (7.5”)

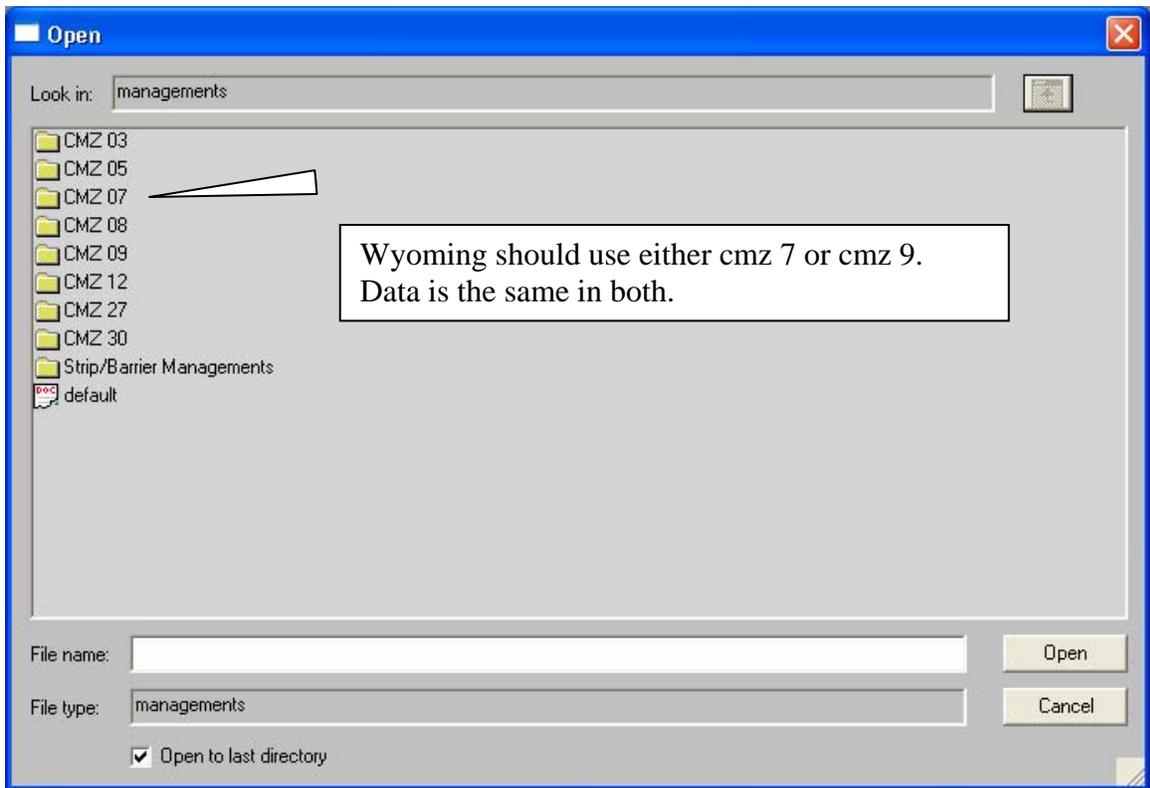
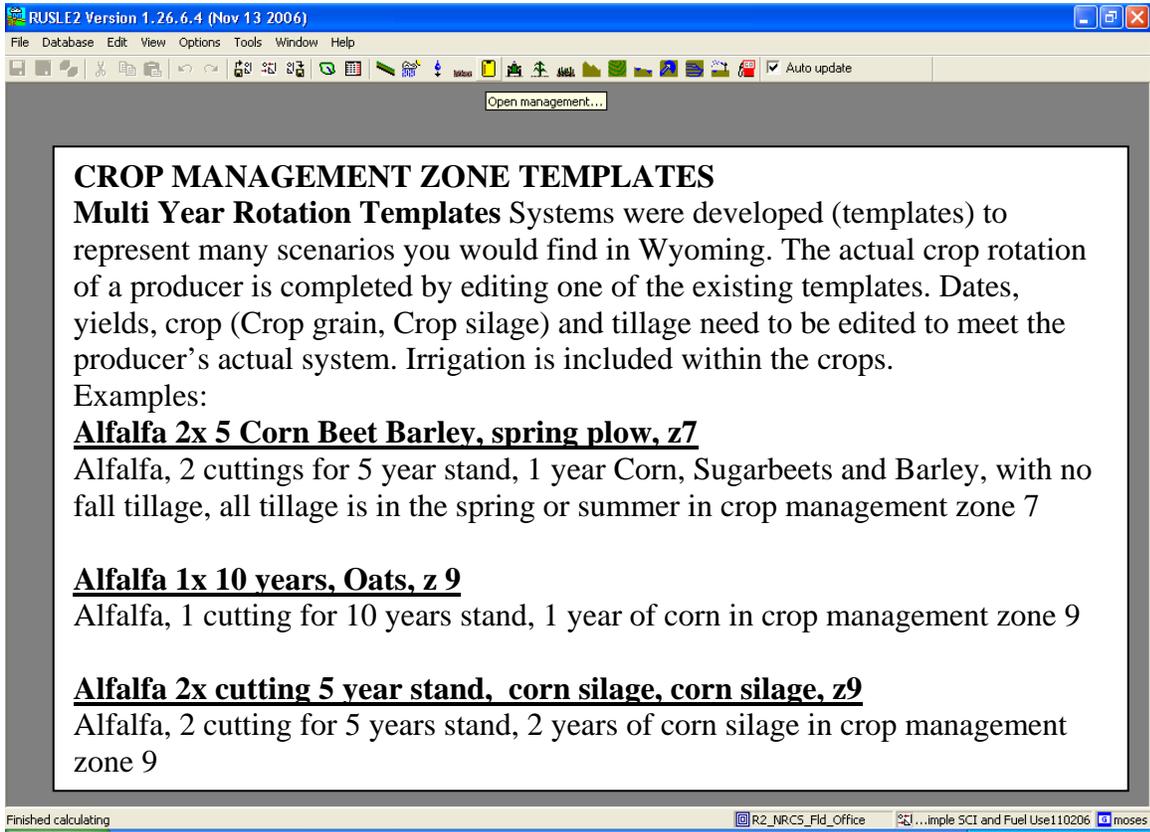
eFOTG/Sec I/Erosion Prediction/Water Erosion/RUSLE2 Precip Maps/Precipitation Ranges Map (10-11”)

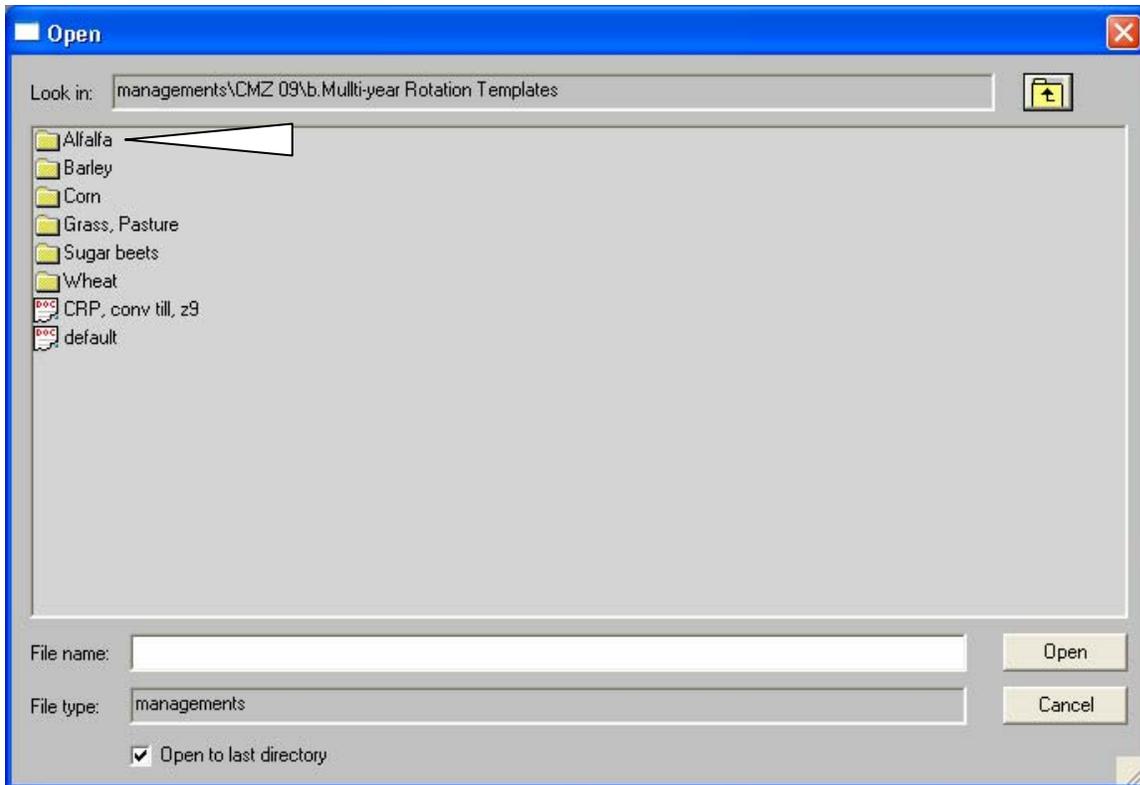
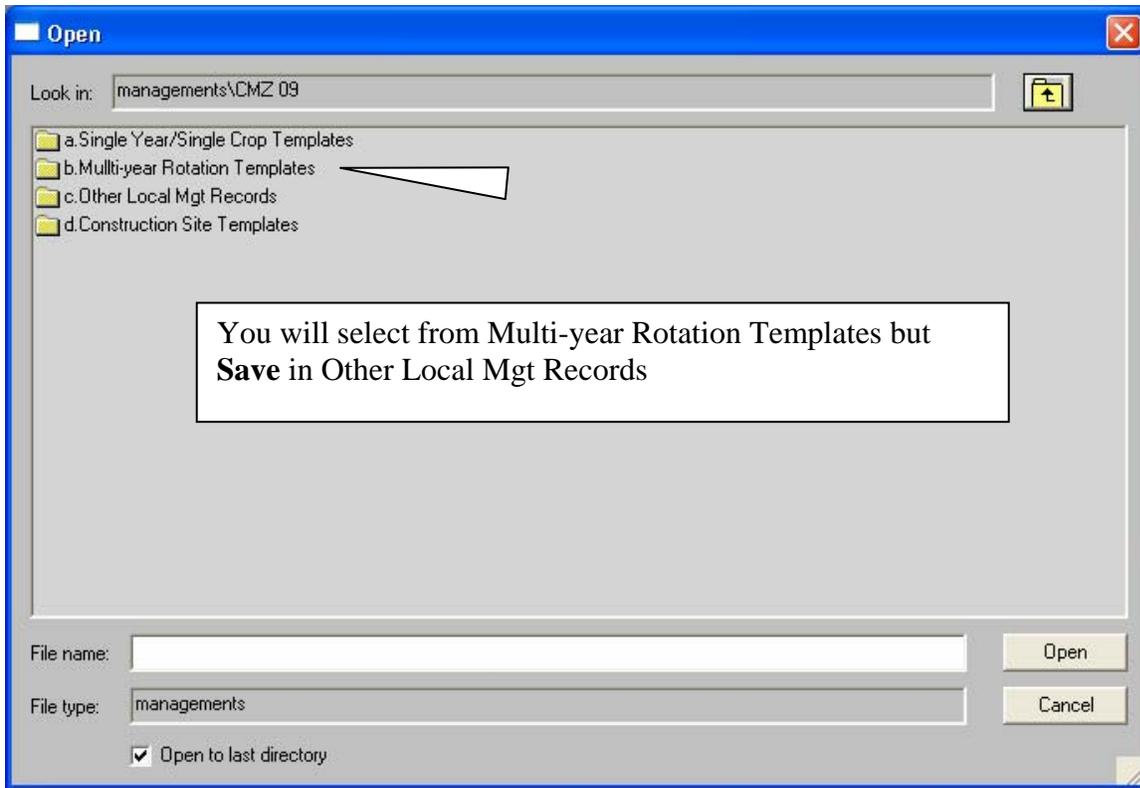


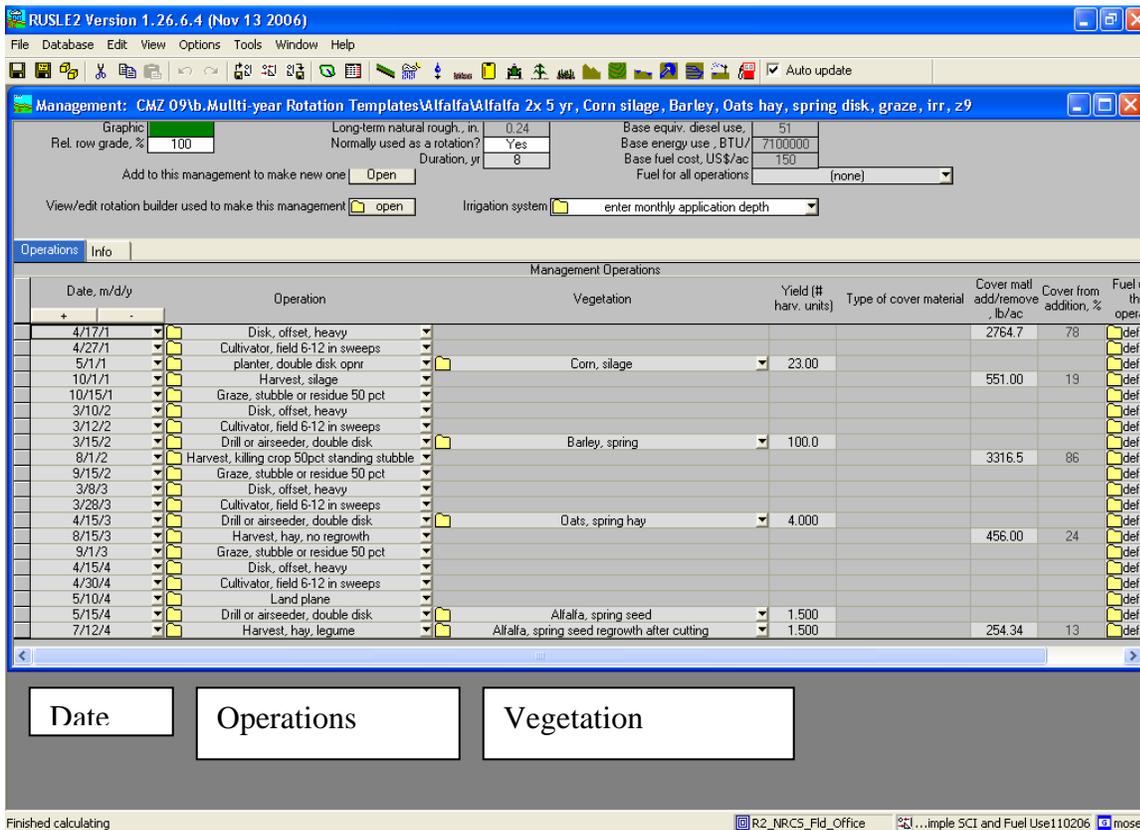
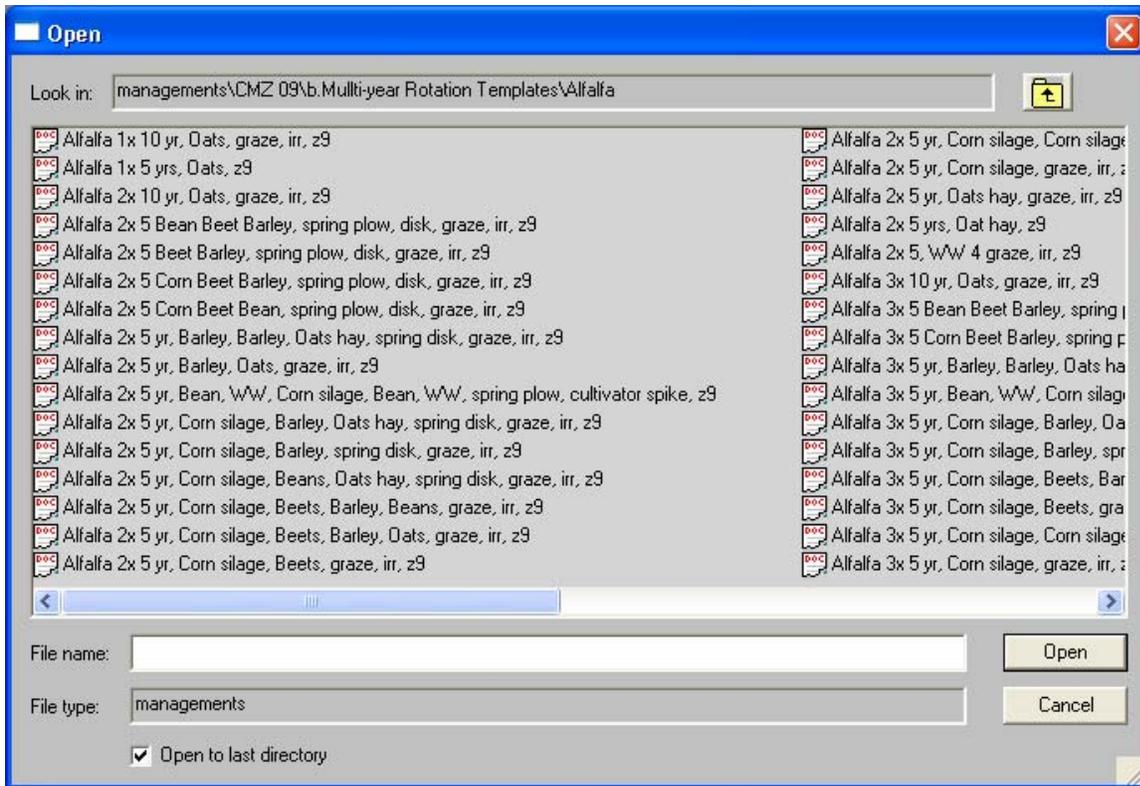


I recommend using CMZ 7 or CMZ 9 for all Wyoming profiles. However, you may choose to use crop management zones aligned with other states. The data in CMZ 7 is the same as CMZ 9.











Use the PopDown arrows to the Right to Complete. For visual, see text boxes below.

Step 1. Select Climate. See RUSLE2 precip maps.

Step 2. Select Soil survey map unit or Generic surface texture

Step 3. Enter slope and slope length. Slope should not exceed soil map unit description.

Step 4a. Select b. Multiyear Rotation template or c. Other Local Mgt Record template, make edits to dates, operations, crops, irrigation and fuel usage (optional).

Save the edits in “**Save temp management as permanent**” renaming file name and ending with a z7 or z9 in the c. Other Local Mgt Records folder.

Step 4b. Should default to the naming as Step 4a. after saving management

Step 4c. Adjust yields. Verify correct units are used --bushels versus tons.

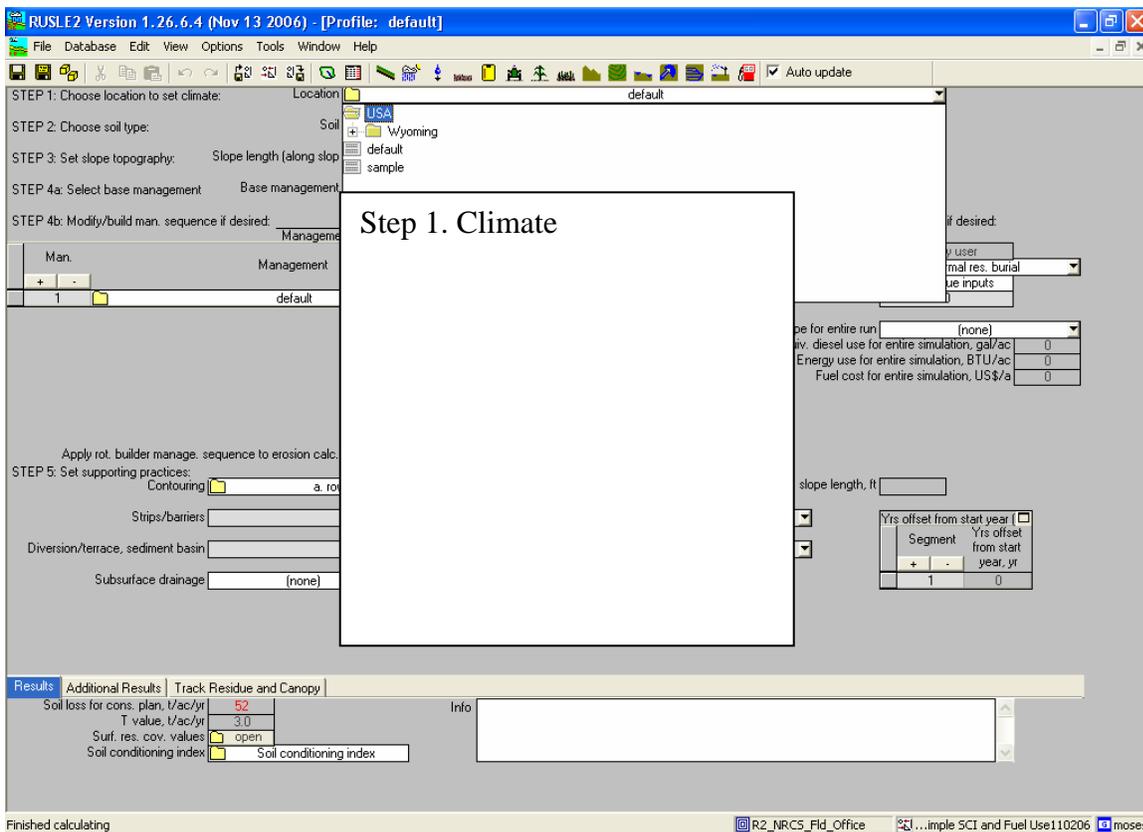
Click on yellow folder left of **Soil Conditioning Index** at bottom left of screen. Enter WEQ –wind erosion calculation.

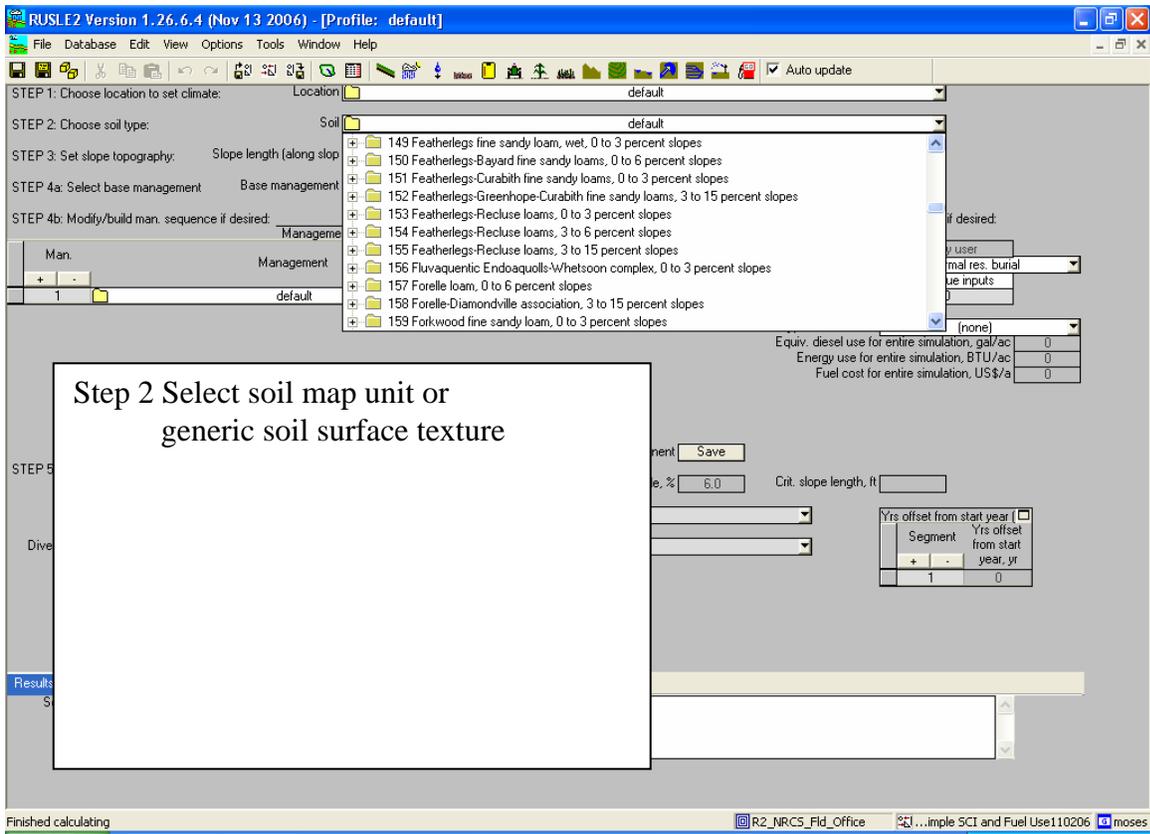
Save profile with new name, not ending with a z7 or z9.

Print report and Save word document after putting producer name and info at top.

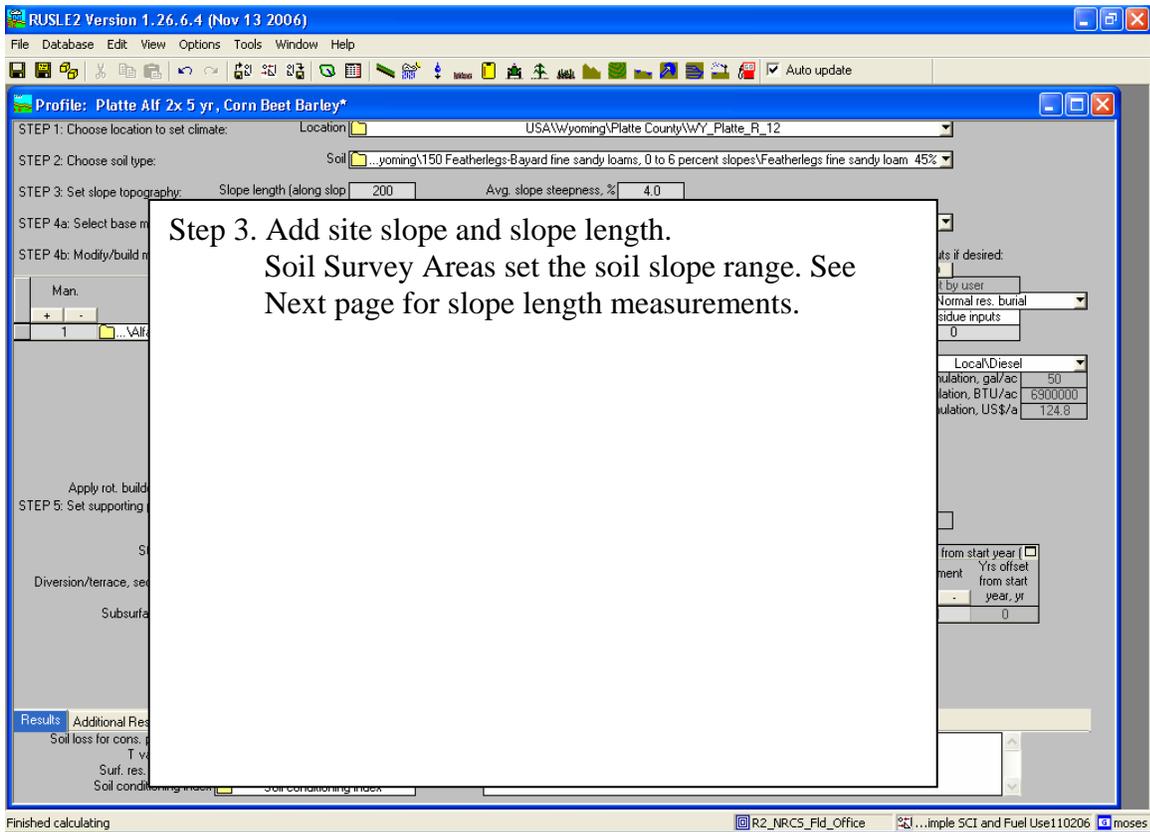
Save in Customer Toolkit folder: Determinations..

Finished calculating R2_NRCS_Fld_Office ...imple SCI and Fuel Use110206 moses





Step 2 Select soil map unit or generic soil surface texture



Step 3. Add site slope and slope length.
Soil Survey Areas set the soil slope range. See
Next page for slope length measurements.

Do not include deposition area in slope length measurements.

DEFINITIONS

Simple Uniform Slope

SOIL LOSS

RUSLE2 ESTIMATES TO HERE

SEDIMENT YIELD

Slope	Length
0-6%	250 ft
6-10%	200 ft
11%	175 ft
12-13%	150 ft
14-15%	125 ft
16%	110 ft
17-18%	100 ft
19%	90 ft
20%	80 ft

Step 4a Use Right popdown to Select a template that is representative to your site either in **b. Multiyear Rotation templates** or ones previously developed in **c. Other Local Mgt Records**. Click yellow folder on left to edit this template to emulate the producer's management.

RUSLE2 Version 1.26.6.4 (Nov 13 2006) - [Management: CMZ 07\B.Multli-year Rotation Templates\Alfalpa\Alfalpa 2x 5 Corn Beet Barley, spring plo...]

File Database Edit View Options Tools Window Help

Graphic: Rel. row grade, % 100

Long-term natural rough, in: 0.24
Normally used as a rotation? Yes
Duration, yr: 8

Base equiv. diesel use, 55
Base energy use, BTU/ 7700000
Base fuel cost, US\$/ac 170
Fuel for all operations (none)

Add to this management to make new one: Open

View/edit rotation builder used to make this management: open

Irrigation system: enter monthly application depth

Date, m/d/y	Operation	Vegetation	Yield (# harv. units)	Type of cover material	Cover mat add/remove, lb/ac	Cover from addition, %	Fuel use this operation
4/9/1	Plow, moldboard				2202.6	71	default
4/10/1	Cultivator, field 6-12 in sweeps						default
4/15/1	Cultipacker, roller						default
5/1/1	planter, double disk opnr	Corn, grain	112.0				default
6/1/1	Cultivator, row 3 in ridge						default
7/1/1	Cultivator, row 3 in ridge						default
10/1/1	Harvest, killing crop 50pct standing stubble				3136.0	70	default
10/15/1	Graze, stubble or residue 50 pct						default
4/1/2	Plow, moldboard						default
4/2/2	Cultivator, field 6-12 in sweeps						default
4/3/2	Cultipacker, roller						default
4/4/2	Land plane						default
4/5/2	planter, double disk opnr	Sugarbeet, sugar	20.00				default
6/1/2	Cultivator, row 3 in ridge						default
7/1/2	Cultivator, row 3 in ridge						default
10/1/2	Harvest, dig root crops res. on surf				4000.0	90	default
10/15/2	Plow, moldboard						default
4/15/3	Cultipacker, roller						default
4/16/3	Drill or airseeder, double disk	Barley, spring	100.0				default
8/1/3	Harvest, killing crop 50pct standing stubble				3316.5	86	default

Edit Irrigation, Crop (Vegetation), Operations, Dates and Fuel use with PopDown arrows. Use + or - to add or subtract operations. The + symbol copies the operation above it. Change data in the new line. Watch dates. If you put an older date before a new date it adds one year to all and you start over or edit your dates! Learn to save often so you don't have to start from scratch. Starting year dates and harvest are the critical points. Dates can vary by 2 weeks. Check **Duration, yr** at top of screen to verify it matches years in your crop rotation. If not, check the dates.

Management Operations

Date, m/d/y	Operation	Vegetation	Yield (# harv. units)	Type of cover material	Cover mat add/remove, lb/ac	Cover from addition, %	Fuel used this operation
4/9/1	Plow, moldboard				2202.6	71	default
10/1/1	Cultivator, field 6-12 in sweeps						default
15/1/1	Cultipacker, roller						default
1/1/1	planter, double disk opnr	Corn, grain	112.0				default
1/1/1	Cultivator, row 3 in ridge						default
1/1/1	Cultivator, row 3 in ridge						default
1/1/1	Harvest, killing crop 50pct standing stubble				3136.0	70	default
1/15/1	Graze, stubble or residue 50 pct						default
1/1/2	Plow, moldboard						default
1/2/2	Cultivator, field 6-12 in sweeps						default
1/3/2	Cultipacker, roller						default
1/4/2	Land plane						default
1/5/2	planter, double disk opnr	Sugarbeet, sugar	20.00				default
1/1/2	Cultivator, row 3 in ridge	Barley, winter, hay					default
1/1/2	Cultivator, row 3 in ridge	Bean, field 30in rows					default
1/1/2	Cultivator, row 3 in ridge	Bean, field 7in rows					default
1/1/2	Harvest, dig root crops res. on surf	Bean, green snap hand pick			4000.0	90	default
1/15/2	Plow, moldboard	Bean, green snap mech harv					default
1/15/3	Cultipacker, roller	Bean, green snap mech harv HI PRDD	100.0				default
1/16/3	Drill or airseeder, double disk	Bean, lima					default
1/1/3	Harvest, killing crop 50pct standing stubble	Bean, pinto					default
		Beans, garbanzo					default
		Beet, red garden var					default

RUSLE2 Version 1.26.6.4 (Nov 13 2006)

File Database Edit View Options Tools Window Help

Profile: Platte Alf 3x 5 yr, Corn silage, corn silage, corn silage

STEP 1: Choose location to set climate: Location USA\Wyoming\Platte County\WY_Platte_R_12

STEP 2: Choose soil type: Soil ...yoming\150 Featherlegs-Bayard fine sandy loams, 0 to 6 percent slopes\Featherlegs fine sandy loam 45%

STEP 3: Set slope topography: Slope length (along slop) 200 Avg. slope steepness, % 4.0

Management: CMZ 09\lb.Multi-year Rotation Templates\Alfalfa\Alfalfa 3x 5 yr, Corn silage, Corn silage, Corn silage, spring plow, disk, graze, irr, ...

Graphic: [] Long-term natural rough, in. 0.24 Base equiv. diesel use, 65
 Rel. row grade, % 100 Normally used as a rotation? Yes Base energy use, BTU/ 91000000
 Duration, yr 8 Base fuel cost, US\$/ac 200
 Add to this management to make new one [] Open Fuel for all operations (none)
 View/edit rotation builder used to make this management [] open Irrigation system enter monthly application depth

Operations Info

Date, m/d/y	Operation	Vegetation	Yield (# harv. units)	Type of cover material	Cover matl add/remove, lb/ac	Cover from addition, %	Fuel t the oper
4/15/1	Cultivator, field 6-12 in sweeps						
4/15/1	Cultipacker, roller						
5/1/1	planter, double disk opnr	Corn, grain	112.0				
10/1/1	Harvest, killing crop 50pct standing stubble					70	
10/15/1	Harvest, killing crop 20pct standing stubble						
4/1/2	Harvest, killing crop 30pct standing stubble						
4/15/2	Harvest, killing crop 60pct standing stubble						
4/15/2	Harvest, killing crop 60pct standing stubble	Corn, grain	112.0				
5/1/2	Harvest, killing crop 70pct standing stubble				3136.0	70	
10/1/2	Harvest, lavender bundles						
10/15/2	Harvest, leafy veg.						
4/10/3	Harvest, legume seed, remove forage						
4/15/3	Harvest, orchard and nut crops						
5/1/3	Harvest, peanut digger	Corn, silage	23.00				
10/1/3					551.00	19	
4/25/4	Cultivator, field 6-12 in sweeps						
4/30/4	Cultipacker, roller						
5/1/4	Drill or airseeder, double disk	Alfalfa, spring seed	1.500				

Finished calculating

RUSLE2 Version 1.26.6.4 (Nov 13 2006) - [Fuel: LocalDiesel]

File Database Edit View Options Tools Window Help

Diesel equivalents for this fuel 1.0
 Cost, US\$/gal. 2.50

Info Diesel

Enter local fuel prices by clicking on yellow folder left of the Fuel default on the far right of the management screen.

Finished calculating

RUSLE2 Version 1.26.6.4 (Nov 13 2006) - [Management: enter monthly application depth of CMZ 07kb,Multi-year Rotation Templates\Alfalfa\Alfalf...]

File Database Edit View Options Tools Window Help

Net irig. by month

Month/Year	Veg/s. during month	Day of change/s	Net irig. depth, in.
4/1	...yr4 series to yr5 regrowth => None	9	0
5/1	None => Corn, grain	1	0
6/1	Corn, grain		3.0
7/1	Corn, grain		7.0
8/1	Corn, grain		7.0
9/1	Corn, grain		1.0
10/1	Corn, grain => None	1	0
11/1	None		0
12/1	None		0

Apply Apply/Close Cancel

Finished calculating

R2_NRCS_Fld_Office ...imple SCI and Fuel Use110206 moses

Edit irrigation inches applied by month. Start and end dates are the critical points to the system. If existing is close, you can use the default data.

RUSLE2 Version 1.26.6.4 (Nov 13 2006) - [Profile: Yields (Adjust yields[1]) of Platte Alf 2x 5 yr, Corn Beet Barley*]

File Database Edit View Options Tools Window Help

Yield values

Management	Date	Operation	Vegetation	Yield units	Yield (# of units)
...rley, spring plow, disk, graze, irr, 27	5/1/1	operations\planter, double disk oprn	vegetations\Corn, grain	bushels	112.00
...rley, spring plow, disk, graze, irr, 27	4/5/2	operations\planter, double disk oprn	vegetations\Sugarbeet, sugar	tons	20.000
...rley, spring plow, disk, graze, irr, 27	4/16/3	...ions\Drill or airseeder, double disk	vegetations\Barley, spring	Bushels	100.00
...rley, spring plow, disk, graze, irr, 27	5/1/4	...ions\Drill or airseeder, double disk	vegetations\Alfalfa, spring seed	Tons	1.5000
...rley, spring plow, disk, graze, irr, 27	7/1/4	operations\Harvest, hay, legume	vegetations\Alfalfa, spring seed regrowth after cutting	tons	1.5000
...rley, spring plow, disk, graze, irr, 27	9/1/4	operations\Harvest, hay, legume	vegetations\Alfalfa, spring seed series to y2 regrowth	tons	1.5000
...rley, spring plow, disk, graze, irr, 27	7/1/5	operations\Harvest, hay, legume	vegetations\Alfalfa, yr2 regrowth after cutting	tons	1.5000
...rley, spring plow, disk, graze, irr, 27	9/1/5	operations\Harvest, hay, legume	vegetations\Alfalfa, yr2 series to yr3 regrowth	tons	2.2500
...rley, spring plow, disk, graze, irr, 27	7/1/6	operations\Harvest, hay, legume	vegetations\Alfalfa, yr3 regrowth after cutting	tons	1.7000
...rley, spring plow, disk, graze, irr, 27	9/1/6	operations\Harvest, hay, legume	vegetations\Alfalfa, yr3 series to yr4 regrowth	tons	2.5000

Finished calculating

R2_NRCS_Fld_Office ...imple SCI and Fuel Use110206 moses

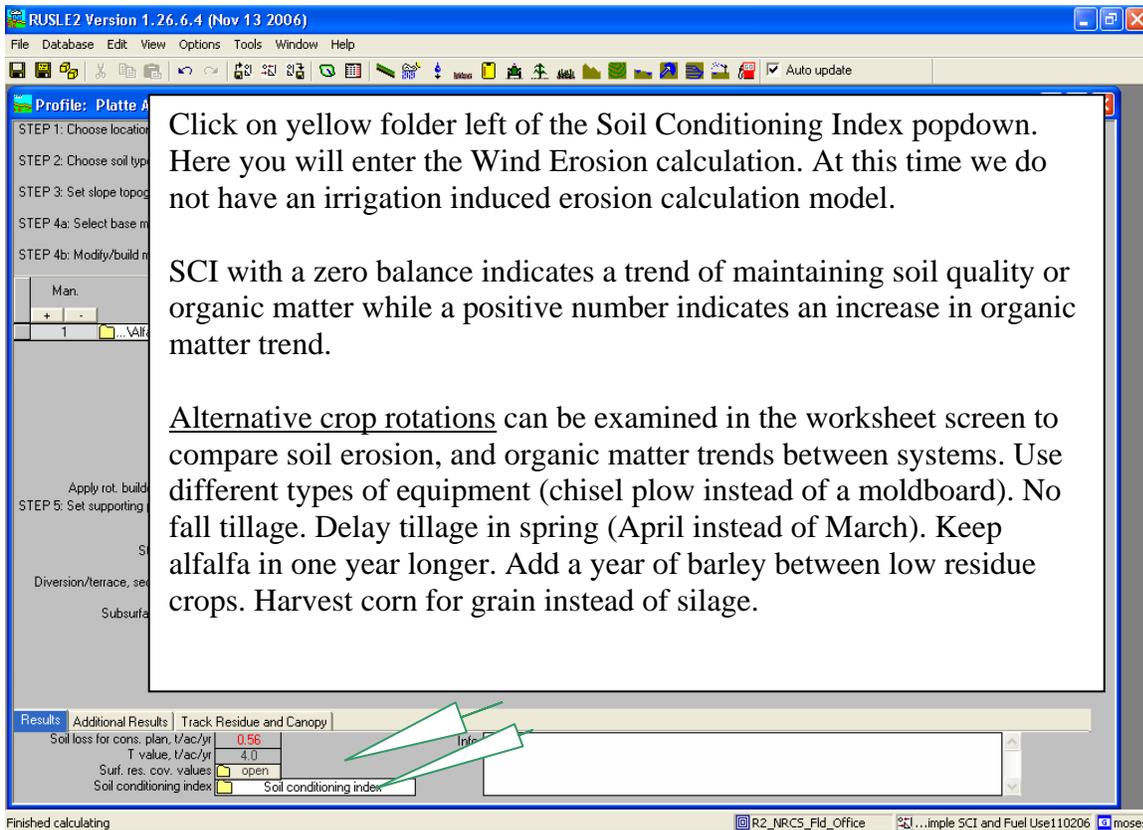
Step 4c. Click Yellow folder. Adjust yields.

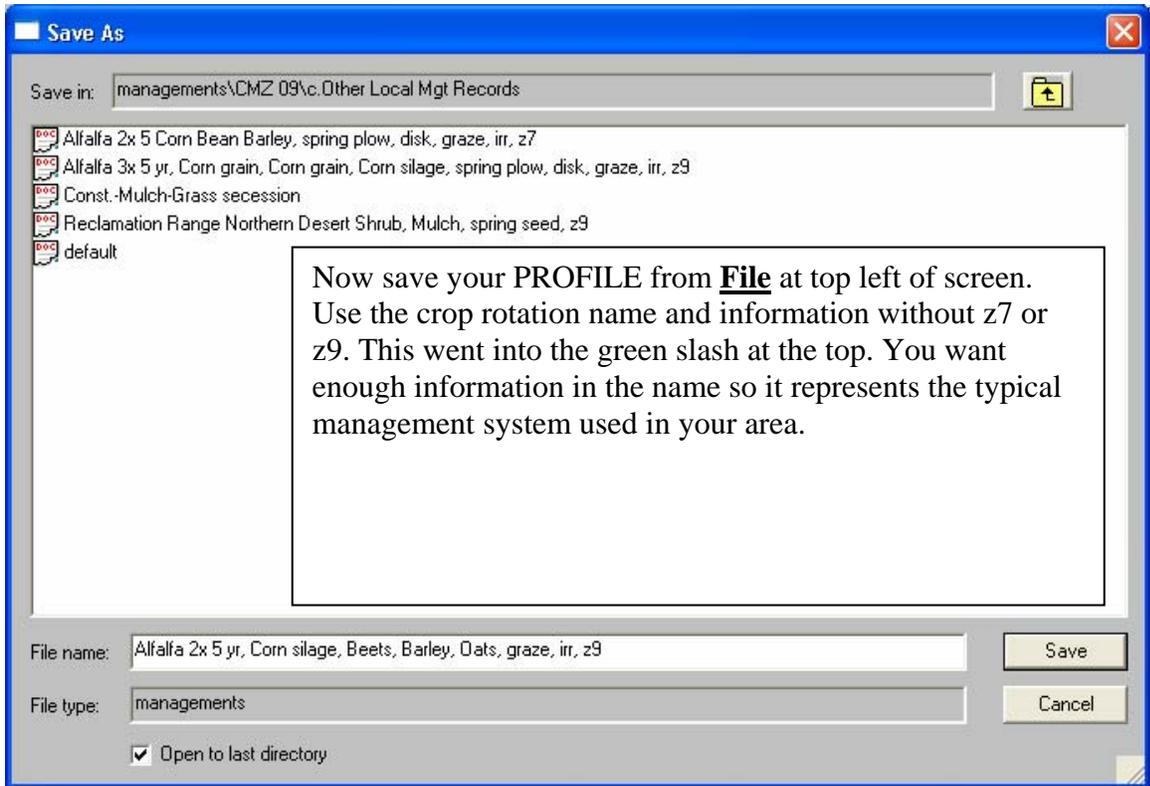
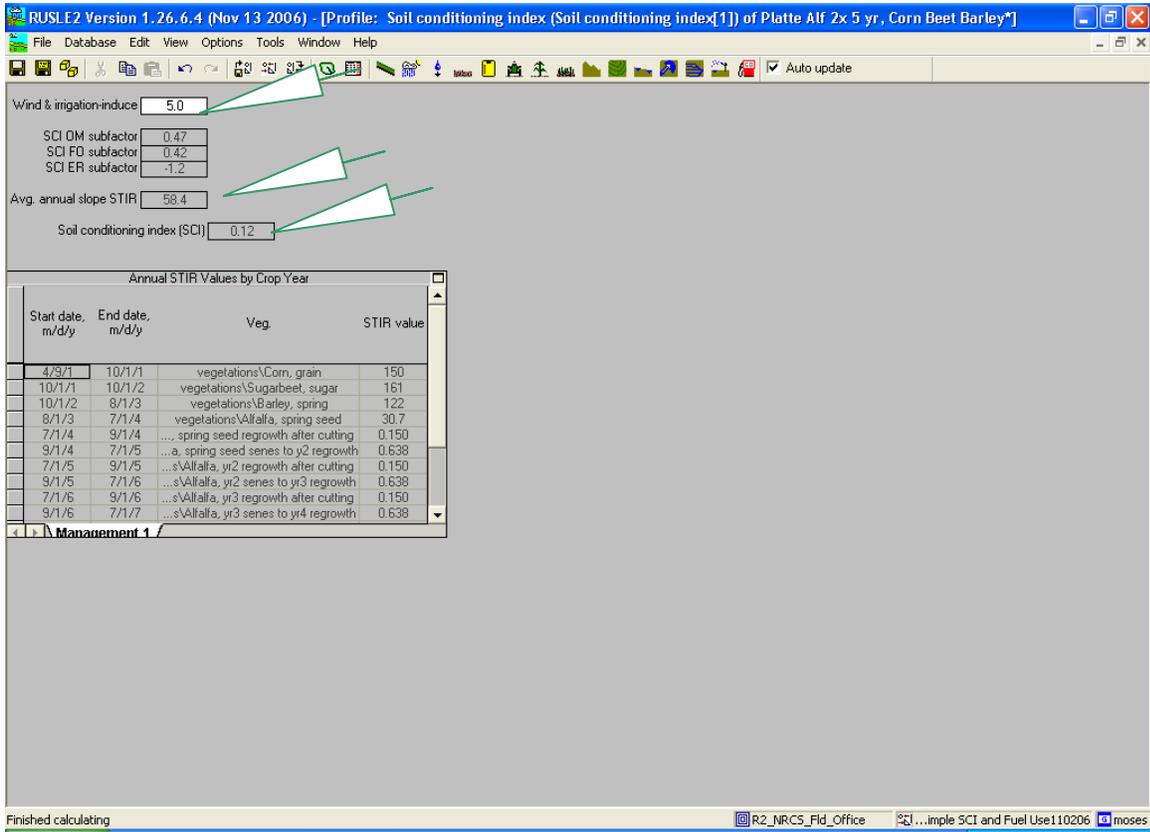
For new grass or alfalfa seedings, there are two dates needed for that first year. Together they should match the first year's yield. Alfalfa and grass should have a .25/ton added to the last or only cutting to account for regrowth in the fall and some growth in the spring. Also, watch your yield units so you don't produce 23 bushels of corn silage rather than 23 ton of corn silage.

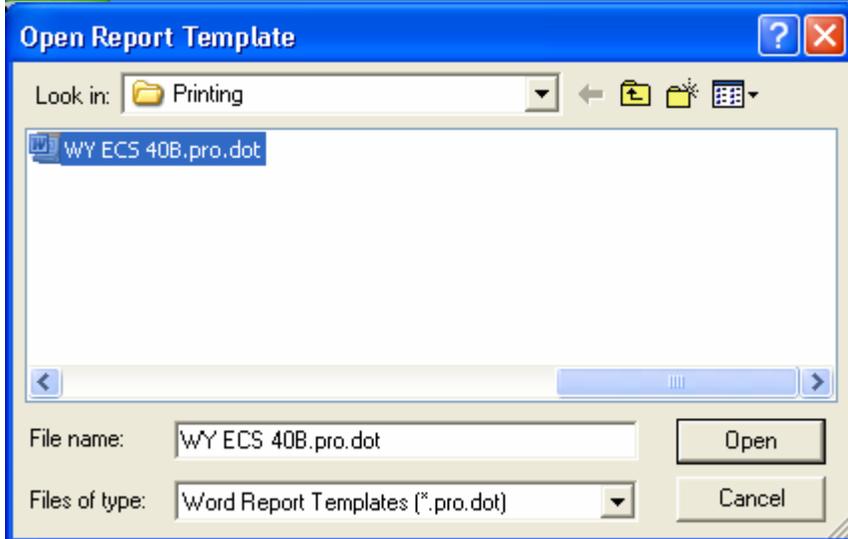
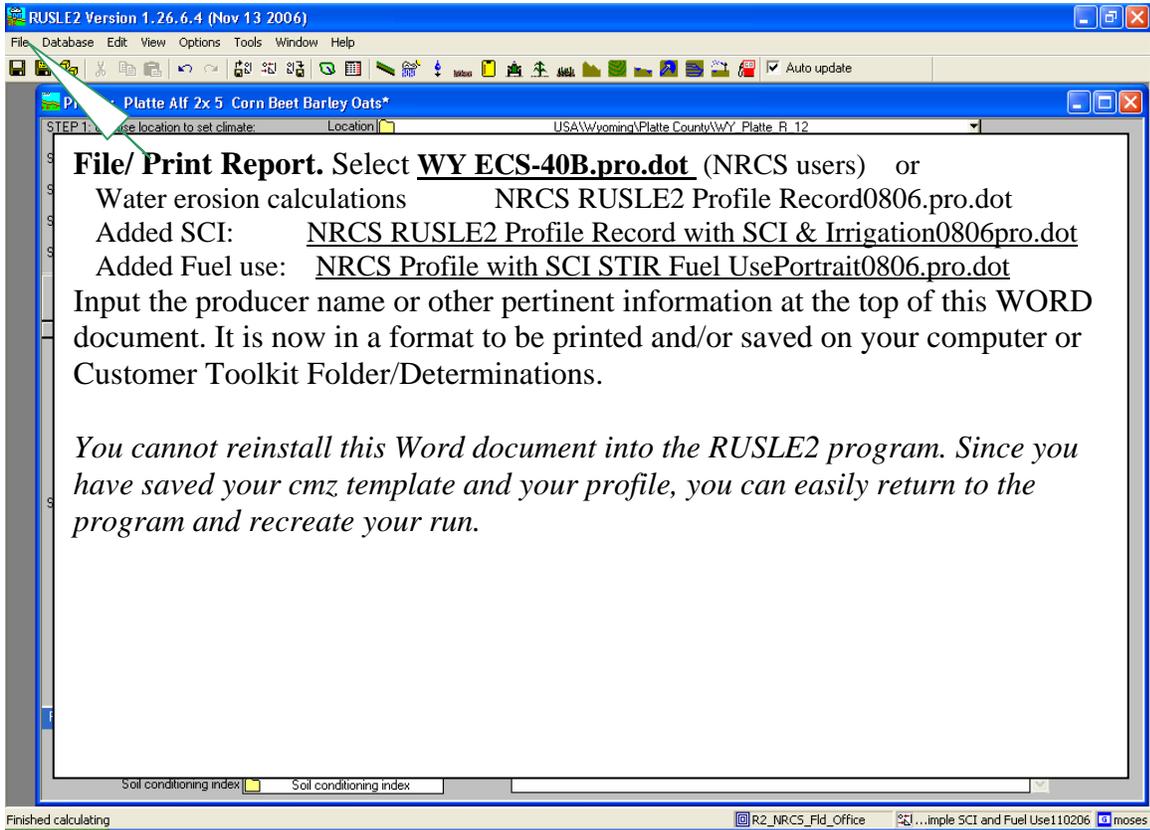


- Save your edits by clicking **Save** after “**Save temp management as permanent**” (middle of screen). **Rename** file name, ending with a z7 or z9. At the top of the screen click the **yellow arrow until you find c.Other Local Mgt Records**. (You cannot save in the management/b.Multiyear Rotation) Click on **Save** at the bottom right of the screen. **Minimize**. Be consistent in using only one crop management-- z7 or z9, with ever is closest to your area. This is saved in the yellow clipboard icon (Management). Verify Step 4b. is named the same as 4a.
- **Save your profile** from **File** at top left of screen and **Save As**. Type a new **File Name** by management or project. (Don't end with a z7 or z9) Click on **Save** in the bottom right corner. This is saved in the Profile--green slash icon. (The Profile evaluates the climate, soils with crop managements.) If you don't save in this order, you will have no management template for the profile to link back to. You will have to delete your profile and start over. See Rearrange to delete or edit files.

Finished calculating R2_NRCS_Fld_Office SCI...imple SCI and Fuel Use110206 moses







RUSLE2 New Profile STIR SCI Fuel.doc - Microsoft Word

File Edit View Insert Format Tools Table Window Help Adobe PDF Acrobat Comments Type a question for help

RUSLE2 Profile Erosion Calculation Record

Info:

File: profiles\Platte Alf 2x 5_Corn Beet Barley Oats
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	Soil	Slope length (horiz)	Avg. slope steepness, %
Wyoming\Platte County\WY_Platte_R_12	150 Featherlegs-Bayard fine sandy loams, 0 to 6 percent slopes\Featherlegs fine sandy loam .45%	200	4.0

FUEL USE EVALUATION:

Fuel type for entire run (none)	Equiv. diesel use for entire simulation	Energy use for entire simulation	Fuel cost for entire simulation, US\$/ac
	56	7800000	169.2

SCI and STIR Output

Soil conditioning index (SCI)	Avg. annual slope STIR	Wind & irrigation-induced erosion for SCI, t/ac/yr
-0.019	69.8	5.0

Outputs:

T value	Soil loss erod. portion	Detachment on slope	Soil loss for cons. plan	Sediment delivery	Net C factor	Net K factor	Crit. slope length	Surf. cover after planting, %
4.0	0.77	0.77	0.77	0.77	0.11	0.48		

Management	Vegetation	Yield units	Yield (# of units)
CMZ 09\b.Multi-year Rotation Templates\Alfalfa\Alfalfa 2x 5 yr, Corn silage, Beets, Barley, Oats, graze, irr, z9	Corn, silage	tons	23.000
CMZ 09\b.Multi-year Rotation Templates\Alfalfa\Alfalfa 2x 5 yr, Corn silage, Beets, Barley, Oats, graze, irr, z9	Sugarbeet, sugar	tons	20.000

Page 1 Sec. 1 1/3 At 5.2" Ln 28 Col 1 REC TRK EXT OVR English (U.S.)

RUSLE2 Version 1.26.6.4 (Nov 13 2006)

File Database Edit View Options Tools Window Help

Open worksheet...

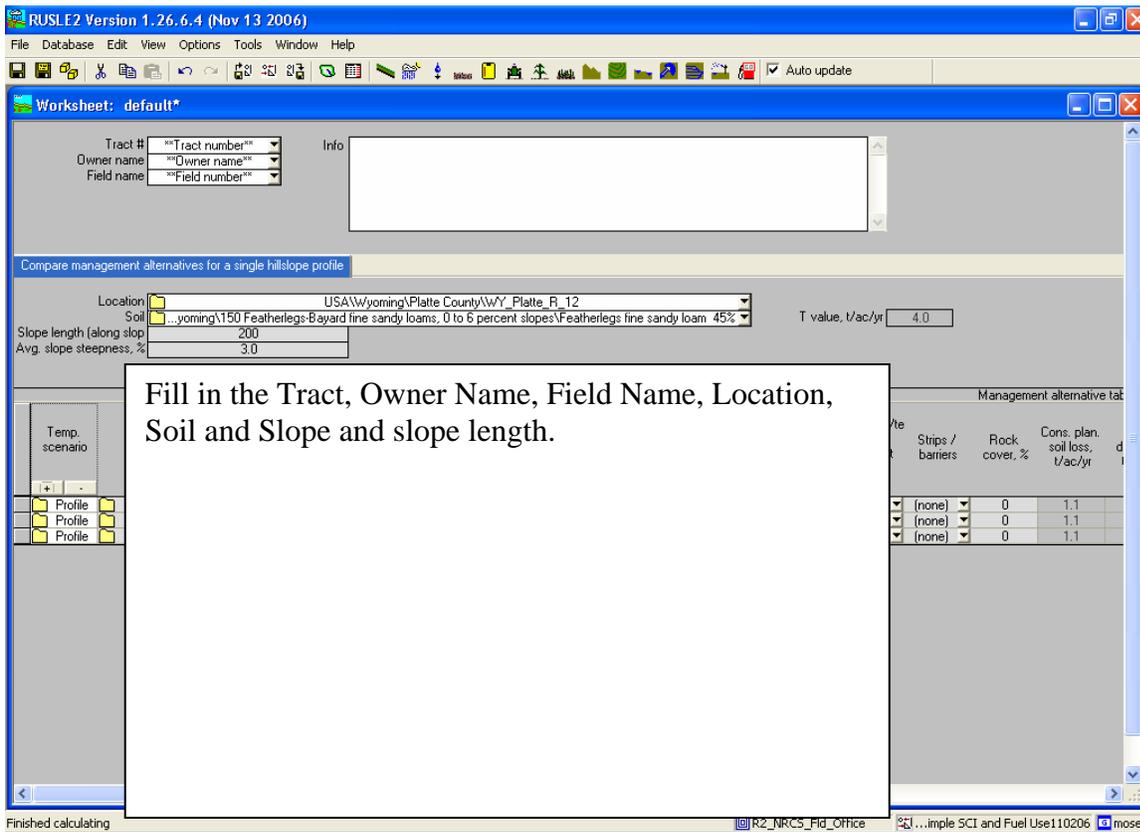
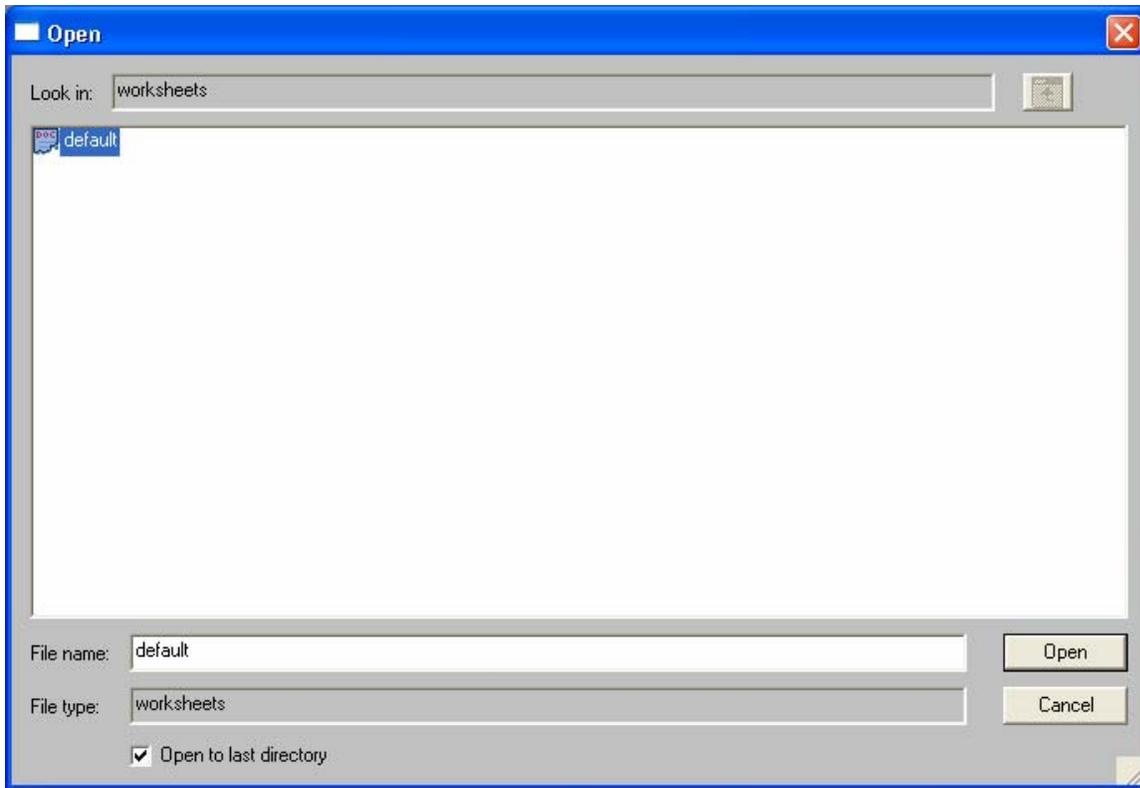
WORKSHEET

A worksheet is comprised of one or more profiles. The outputs of each profiles's soil erosion, soil quail (SCI) can be evaluated. These comparisons are alternatives to present to the producer. The worksheet visibly shows the benefits of one cropping system of crop rotation, tillage operations, over another.

The worksheet is commonly named with the producer's name.

Click on the icon to open the worksheet and then click default to enter a new worksheet.

Finished calculating R2_NRCS_Fld_Office SCI...mple SCI and Fuel Use110206 moses



RUSLE2 Version 1.26.6.4 (Nov 13 2006)

File Database Edit View Options Tools Window Help

Worksheet: Platte crop alternatives*

Tract # "Tract number"
 Owner name "Owner name"
 Field name "Field number"

Compare management alternatives for a single hillslope profile

Location USA\Wyoming\Platte County\WY_Platte_R_12
 Soil ...yoming\150 Featherlegs-Bayard fine sandy loams, 0 to 6 percent slopes\Featherlegs fine sandy loam 45%
 Slope length (along slop 200
 Avg. slope steepness, % 3.0
 T value, t/ac/yr 4.0

Temp. scenario	Management	Yield values	Residue values	Contouring	Diversion/terraces, sediment basin	Strips / barriers	Rock cover, %	Cons. plan. soil loss, t/ac/yr
Profile	...n Templates\Alfalfa\Alfalfa 2x 5 Corn Beet Barley, spring plow, disk, graze, irr, z9	Yields	... inputs	... up-and-down hill	(none)	(none)	0	0.42
Profile	default	Yields	... inputs	... up-and-down hill	(none)	(none)	0	1.1
Profile	default	Yields	... inputs	... up-and-down hill	(none)	(none)	0	1.1

Right click on the yellow folder left of "Profile".
 Load from file one of the Profiles you want to compare.
 Continue loading the profiles until you have the alternatives you want to compare.

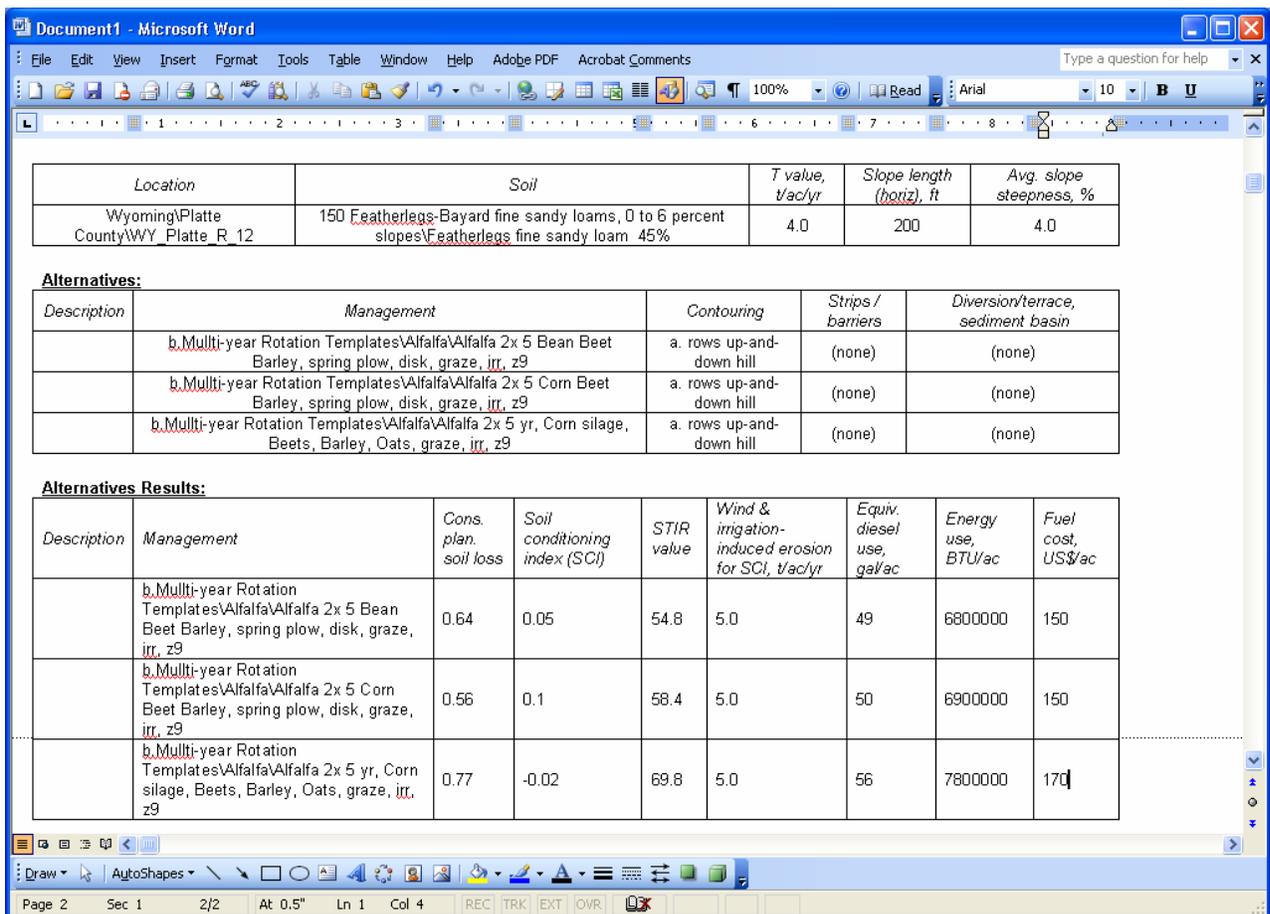
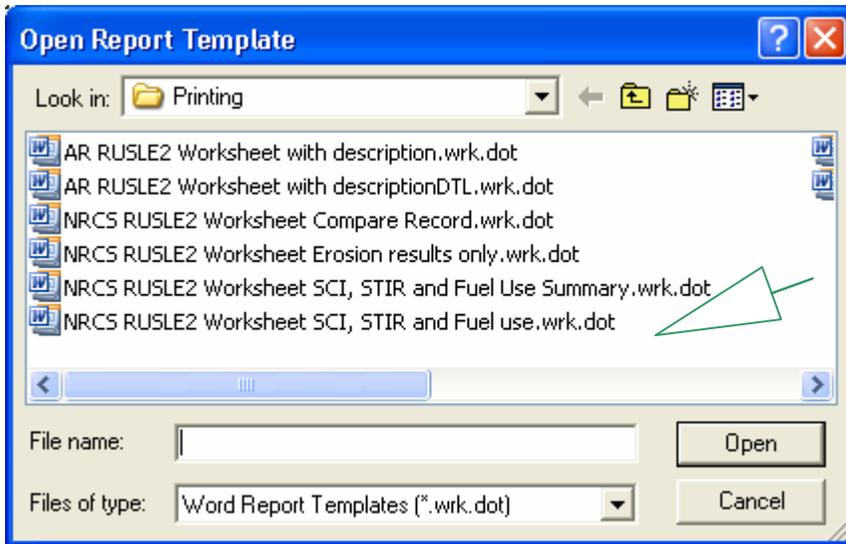
Now you will see why naming of the profile is critical so the title contains the differences in each profile. You may use the + icon to add more profiles if necessary. Or the - icon to delete the bottom line if you have only two profiles to compare.

Compare management alternatives for a single hillslope profile

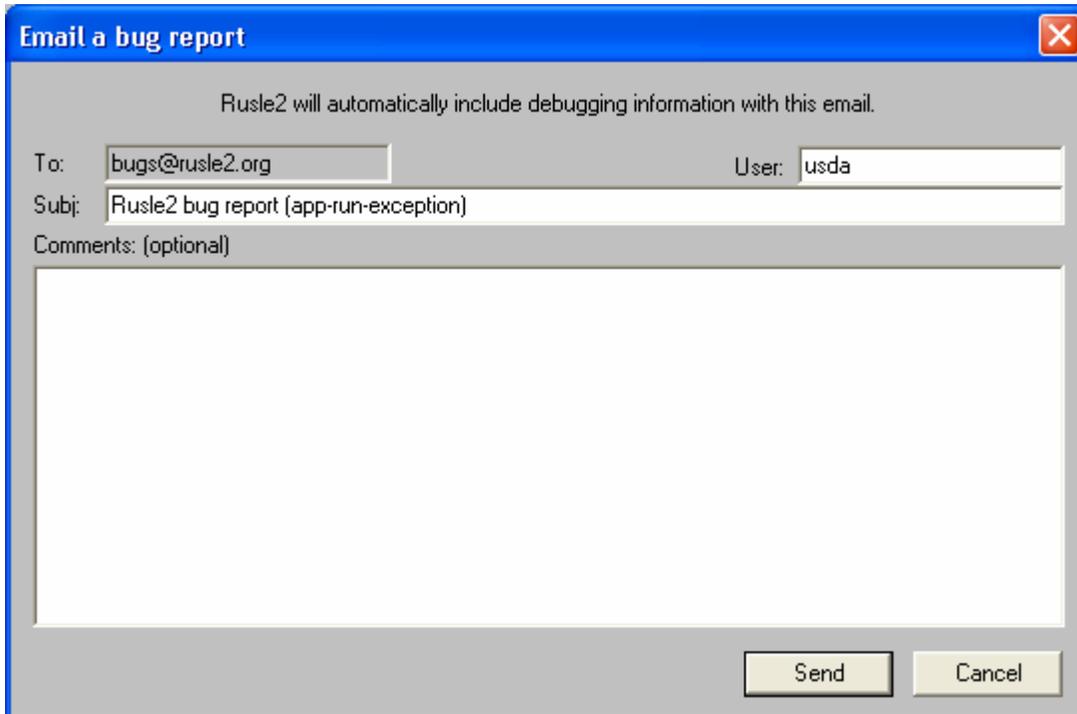
Location USA\Wyoming\Platte County\WY_Platte_R_12
 Soil ...yoming\150 Featherlegs-Bayard fine sandy loams, 0 to 6 percent slopes\Featherlegs fine sandy loam 45%
 Slope length (along slop 200
 Avg. slope steepness, % 4.0
 T value, t/ac/yr 4.0

Temp. scenario	Management	Yield values	Residue values	Contouring	Diversion/terraces, sediment basin	Strips / barriers	Rock cover, %	Cons. plan. soil loss, t/ac/yr
Profile	...n Templates\Alfalfa\Alfalfa 2x 5 Bean Beet Barley, spring plow, disk, graze, irr, z9	Yields	... inputs	... up-and-down hill	(none)	(none)	0	0.64
Profile	...n Templates\Alfalfa\Alfalfa 2x 5 Corn Beet Barley, spring plow, disk, graze, irr, z9	Yields	... inputs	... up-and-down hill	(none)	(none)	0	0.56
Profile	...n Templates\Alfalfa\Alfalfa 2x 5 yr, Corn silage, Beets, Barley, Oats, graze, irr, z9	Yields	... inputs	... up-and-down hill	(none)	(none)	0	0.77

Cons. Plan soil loss by water, SCI, STIR and Fuel Use, Wind Erosion, can all be compared in the printed word document.
File/ Print Report. Select **NRCS RUSLE2Worksheet SCI, STIR, Fuel use.wrk.dot** even if you aren't using Fuel Use. Input the producer or project name or other pertinent information at the top of this WORD document. It is now in a format to be printed and/or saved on your computer or Customer Toolkit Folder/Determinations.



Now save your WORKSHEET from **File** at top left of screen. Use the producer or project name and information without z7 or z9. This went into the worksheet icon at the top of the screen.

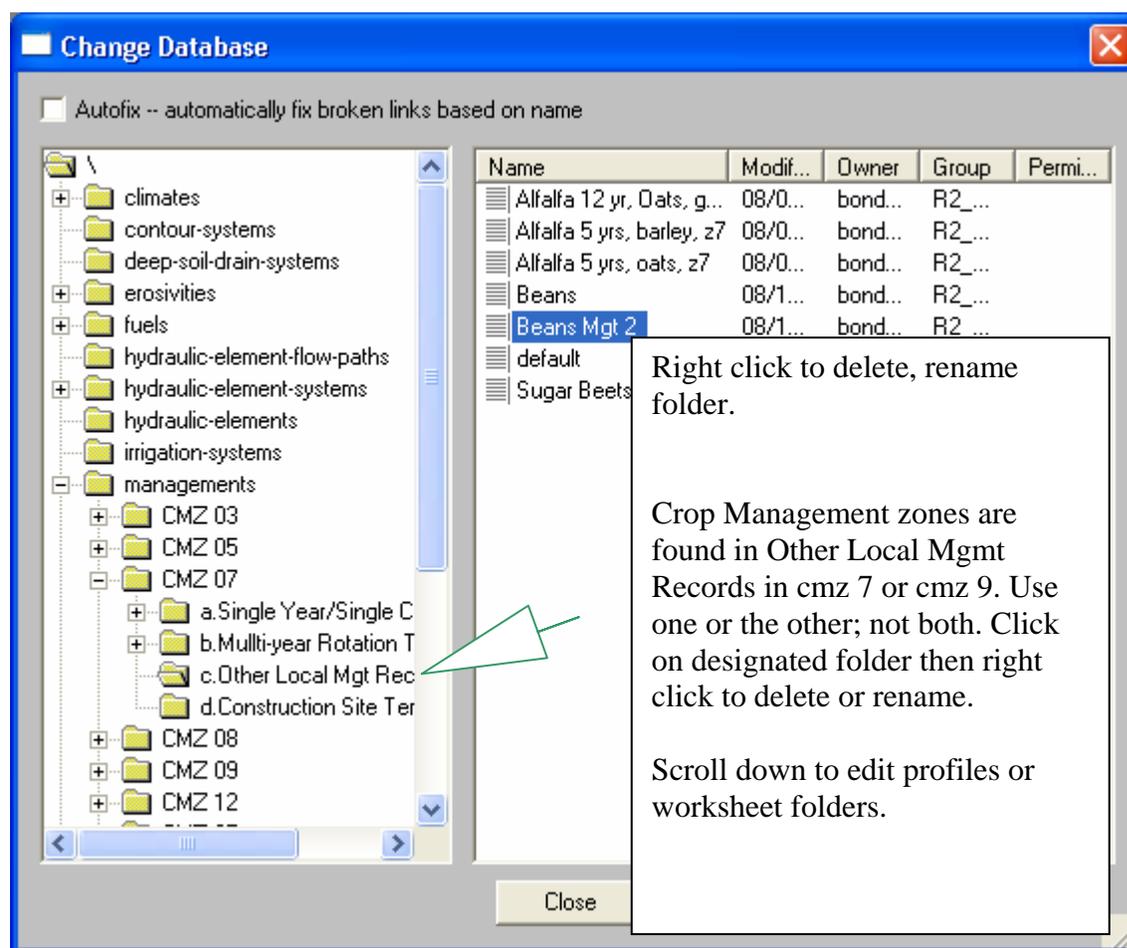


There will be errors!!!! Don't send a bug report ever...
Just close the program, open it again.

RENAME, DELETE folders you have developed in cmz7 or cmz9, profiles and worksheets.

Select Database tab at top left, Rearrange. This will allow you to select the database and folder you wish to highlight file, right click to delete or rename file. For Crop management files see Other Local Records, CMZ 07 or CMZ 09.

Be careful. If you are renaming a crop management template, and it was used in Profile or Worksheet, you will cause that Profile or Worksheet 's crop management template to go back to default, as it lost the path to the crop management zone it was developed under. This is an easy fix, just select yes to go to default. Then select popdown on 4A and select a crop management zone.



Read your manual first but if questions and concerns still arise, contact:

Bonda Habets
NRCS WY State Agronomist
(307) 233-6767
Casper State Office
Bonda.Habets@wy.usda.gov