

Virginia NRCS Erosion Resources Index (v. 2020)

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List and description of Virginia NRCS guidance documents on erosion and its prediction found in the electronic Field Office Technical Guide, Section I.
Connect directly to these documents using the hyperlinks below.

EROSION INFORMATION

Item	eFOTG Document Title & Link	Date	Detailed Description
1	ER0 VA Erosion Resources Index 2020	09/28/2020	List of all Virginia NRCS FOTG Erosion Resources including brief descriptions and direct web links (i.e., this document!)

1. GENERAL EROSION

Item	eFOTG Document Title & Link	Date	Detailed Description
2	ER1 Erosion Quick Introduction	6/18/2013	25-page overview of erosion extracted from excellent USDA sustainable soil management textbook. Introduces key erosion terms, including soil loss tolerance. Emphasizes effect of erosion on soil health and soil organic matter.

a. Erosion History

3	ER1a H H Bennett Biography	8/13/2015	Excerpts from on-line biography of Hugh Hammond Bennett, a leading figure in the history of soil conservation and crusader against the menace of soil erosion (8 pages).
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b. Erosion Categories & Characteristics

4	ER1b VA Cropland Erosion Categories and Characteristics Charts	09/28/2020	Two charts comparing and contrasting general characteristics of wind, tillage, sheet, rill, ephemeral gully, classic gully erosion in Virginia. Emphasis on cropland context.
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2. WATER EROSION

Item	eFOTG Document Title & Link	Date	Detailed Description
5	ER2 Water Erosion Excerpt from NRCS Agronomy Manual	6/18/2013	Statement of national NRCS policy on water erosion prediction. Good overview of RUSLE2 and its applicability.

a. Gully Erosion

6	ER2a VAGully Gully Erosion Calculator	6/18/2013	Excel spreadsheet that automatically calculates soil loss from gullies based on input from user about gully dimensions.
7	ER2a VAGully Soil Loss Based on Missing Volume	6/18/2013	One-page cheat-sheet showing how to calculate soil loss based on volume of soil "missing" from gully or surface of eroded field.

b. Sheet & Rill Erosion / RUSLE2			
i. RUSLE2 Instructions – Setup			
8	ER2bi1 VAR2Setup RUSLE2 Installation and Basic Moses Database Setup on Any Virginia Computer 2019B	7/03/2019	Instructions for installing RUSLE2 and the latest (2019) VA RUSLE2 moses database on any computer (USDA or non-USDA).
9	ER2bi2 VAR2Setup Advanced RUSLE2 Moses Database Setup for Virginia 2019B	7/03/2019	Overview and pros/cons of different RUSLE2 moses database setup strategies, including options for sharing a single database among multiple users.
10	ER2bi3 VAR2Setup Updating Your Virginia RUSLE2 Database with SSURGO Soils 2019B	7/03/2019	Guidance on updating your individual moses database by downloading from the national SSURGO soils database.
11	ER2bi4 VAR2Setup RUSLE2 User Template Selection & Advanced Management File Analysis 2019B	7/03/2019	Guidance on hiding/showing different levels of detail in RUSLE2 with user templates and using newer templates for in-depth analysis of management files.
ii. RUSLE2 Virginia Data Downloads			
12	ER2bii1 VAR2Data Moses.AllVA.AllSoils.wR2GZ 2019B	7/03/2019	RUSLE2 moses database current as of 7 May 2019, customized with climate, soils, and management template data for running RUSLE2 across all of VA. For both USDA and non-USDA users. Includes new forages for R2 Graze. Link to zipped file at VACDE website due to difficulty loading large file to FOTG.
13	ER2bii2 VAR2Data VABasicUserTemplate 2019B	7/03/2019	RUSLE2 user template updated in 2019. Hides unnecessary detail from view while allowing more in-depth management file analysis. In zipped format – save to Users subfolder and unzip!
iii. RUSLE2 Instructions – Get Results / Run Calculations			
14	ER2biii1 VAR2Run Get Results w Plans 2019B	7/03/2019	Instructions for running a basic RUSLE2 plan calculation in Virginia.
15	ER2biii2 VAR2Run Get Results w Virginia Pastures 2019B	7/03/2019	Instructions for streamlined procedure for running RUSLE2 on pasture in Virginia.
16a	ER2biii3 VAR2Run Optional RUSLE2 Data Collection Sheet (Excel fillable)	2/2/2016	Optional sheets for collecting RUSLE2 data in the field; this Excel version can be filled/modified on the computer.
16b	ER2biii4 VAR2Run Optional RUSLE2 Data Collection Sheet (pdf printable)	2/2/2016	Optional sheets for collecting RUSLE2 data in the field; this version is non-fillable pdf for printing and recording by hand.
iv. RUSLE2 Instructions – Build Crop Management Files			
17	ER2biv1 VAR2Mgmt Build Mgmt Files	6/18/2013	Instructions for building crop management files using RUSLE2 rotation builder and templates in VA moses database.
18	ER2biv2 VAR2Mgmt CMZ Map	5/31/2013	National map of NRCS RUSLE2 Crop Management Zones (CMZs), use to determine which CMZs are pertinent to your location.
19a	ER2biv3 VAR2Mgmt CMZ64 Calendar for Single Crop Templates	6/11/2013	CMZ64 (Ridge & Valley Region) calendar showing start and end dates for single-year/single-crop management components. Helpful when building crop management files with rotation builder.

19b	ER2biv4 VAR2Mgmt CMZ66 Calendar for Single Crop Templates	6/11/2013	CMZ66 (Piedmont Region) calendar showing start and end dates for single-year/single-crop management components. Helpful when building crop management files with rotation builder.
19c	ER2biv5 VAR2Mgmt CMZ67N Calendar for Single Crop Templates	6/11/2013	CMZ67 North (VA Coastal Plain Region) calendar showing start and end dates for single-year/single-crop management components. Helpful when building crop management files with rotation builder.
v. RUSLE2 Instructions – Selecting Inputs			
20	ER2bv VAR2Inputs LS Determination Instructions	6/20/2013	Instructions for making LS (slope length and steepness) determinations in the field in Virginia for input into RUSLE2.
vi. RUSLE2 Instructions – Assessing Outputs			
21	ER2bvi VAR2Outputs Assessing Soil Organic Matter (SOM) Trends in VA with SCI (Tech Note 11)	12/12/2016	Guidance on using Soil Conditioning Index (SCI) to assess soil organic matter (SOM) trends and resource concerns, including VA-specific “stair-step” approach to interpreting SCI results.
vii. RUSLE2 Instructions – Examples of Printouts			
22	ER2bvii VAR2Examples VA Plan Printout with Details	6/18/2013	Example of RUSLE2 plan printout comparing two managements on three slopes created using VA plan print template with details.
23	ER2bvii VAR2Examples Results Matrix and 2020 Webinar Case Studies	09/28/2020	Displays on two pages RUSLE2 results from 66 different scenarios. Serves two purposes: (a) shows examples of matrices that users can proactively create to become familiar with outcomes for their local cropping systems and landscapes; (b) conveys case studies for September 2020 VA Basic RUSLE2 instructional webinar.
viii. Other RUSLE2 Resources & Links			
24	ER2bviii VAR2Info National Training Slide Set	6/18/2013	143-slide technical overview of RUSLE2 science and applicability. National product, best single source of technical info on RUSLE2.
25	ER2bviii VAR2Info NRCS RUSLE2 Website	6/20/2013	Official NRCS RUSLE2 website. Source for software, all moses database data (except soils), templates, and other technical info. VA moses files are populated with data downloaded from this site.
26	ER2bviii VAR2Info USDA-ARS RUSLE2 Website	6/20/2013	Official USDA ARS (Ag Research Service) website on RUSLE/RUSLE2. Links to in-depth historical / technical info on RUSLE2 and previous versions of the model.

3. WIND EROSION

Item	eFOTG Document Title & Link	Date	Detailed Description
27	ER3 Wind Erosion Excerpt from NRCS Agronomy Manual.	6/20/2013	Statement of national NRCS policy on wind erosion prediction. Good overview of WEPS and its applicability.
28	ER3 Wind Erosion Prediction System WEPS Site NRCS	7/03/2019	Official NRCS WEPS website. Source for downloading software, data, and other technical info.

29	ER3 Wind Erosion Research Unit USDA-ARS (includes movies)	7/03/2019	USDA ARS (Ag Research Service) website on wind erosion. Links to excellent historical / technical wind erosion info, including good movies.
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