What is RUSLE2 ?

Revised Universal Soil Loss Equation,
Version 2

Estimates soil loss from rill and interrill erosion caused by rainfall and overland flow

RUSLE2

- Major revision of RUSLE1
- New graphical interface
- Most RUSLE1 relationships revised

RUSLE2 Features

- Daily calculation of time-varying factors

  (r, k, ls, c, p)

- Developed & tested by experienced and nationally recognized erosion scientists and conservationists.

RUSLE2 Features

- Intended to describe main effects
- Intended to be used as a guide for conservation planning
- Intended to represent trends demonstrated in field data

Not intended to be a precise estimator

of soil loss or residue cover

Validation of RUSLE2

- 10,000 plot-years of data from natural runoff plots
- 2000 plot-years of rainfall simulator data
- Proven by more than 4 decades of worldwide use by its predecessors, USLE and RUSLE1

RUSLE2 Uses

- ✓Conservation Planning
- ✓Inventories
- ✓Estimating Sediment Production

Applicable Land Uses

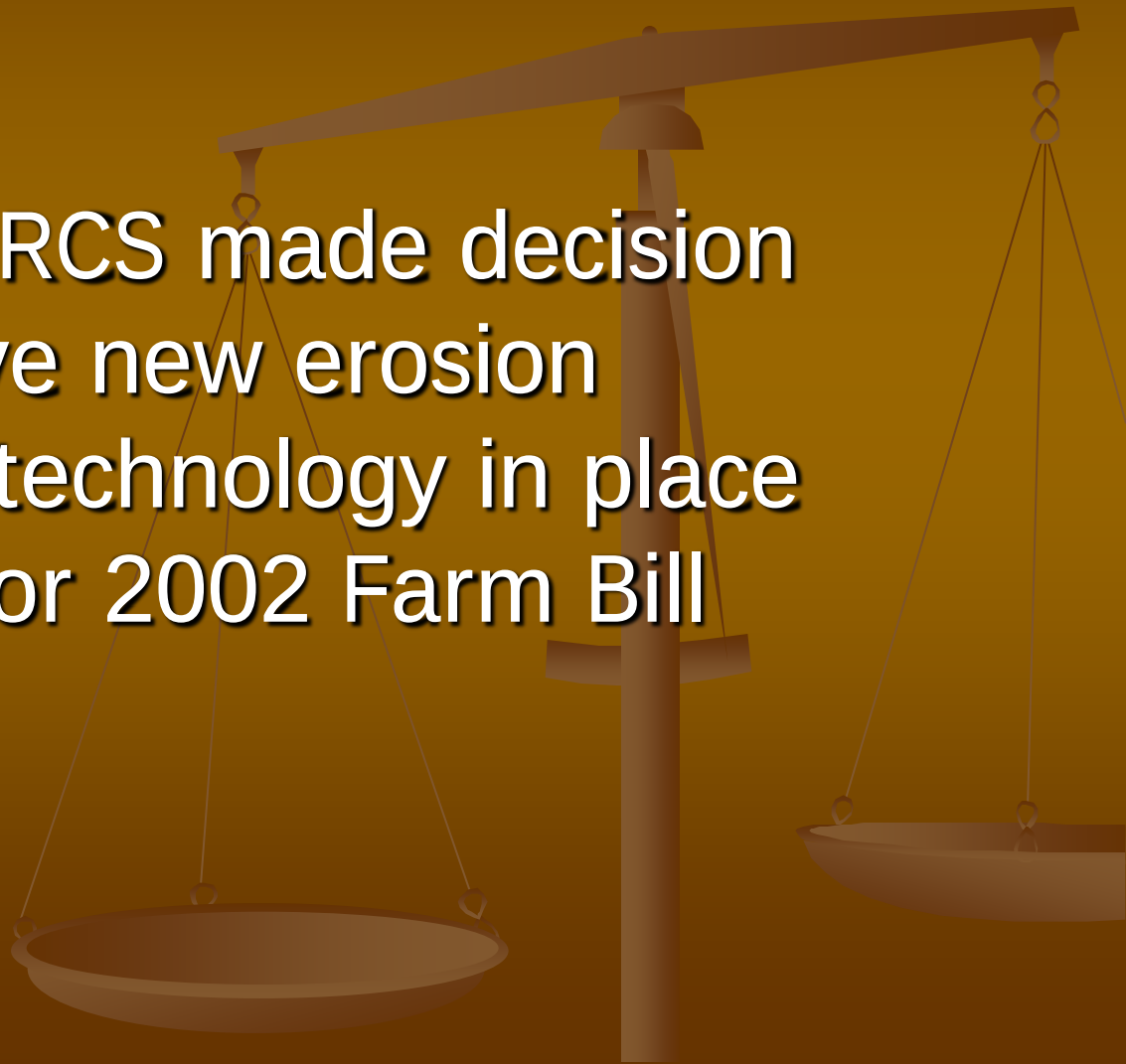
Cropland
Disturbed forestland
Mined land
Landfills
Grazing Land
Construction
Reclaimed land
Military land

Other areas where surface overland flow occurs because rainfall exceeds infiltration

RUSLE2

Most powerful and easy-to-use erosion prediction tool available for use in conservation planning at the field office level

Why implement RUSLE2?



In 1998, NRCS made decision to have new erosion prediction technology in place in time for 2002 Farm Bill

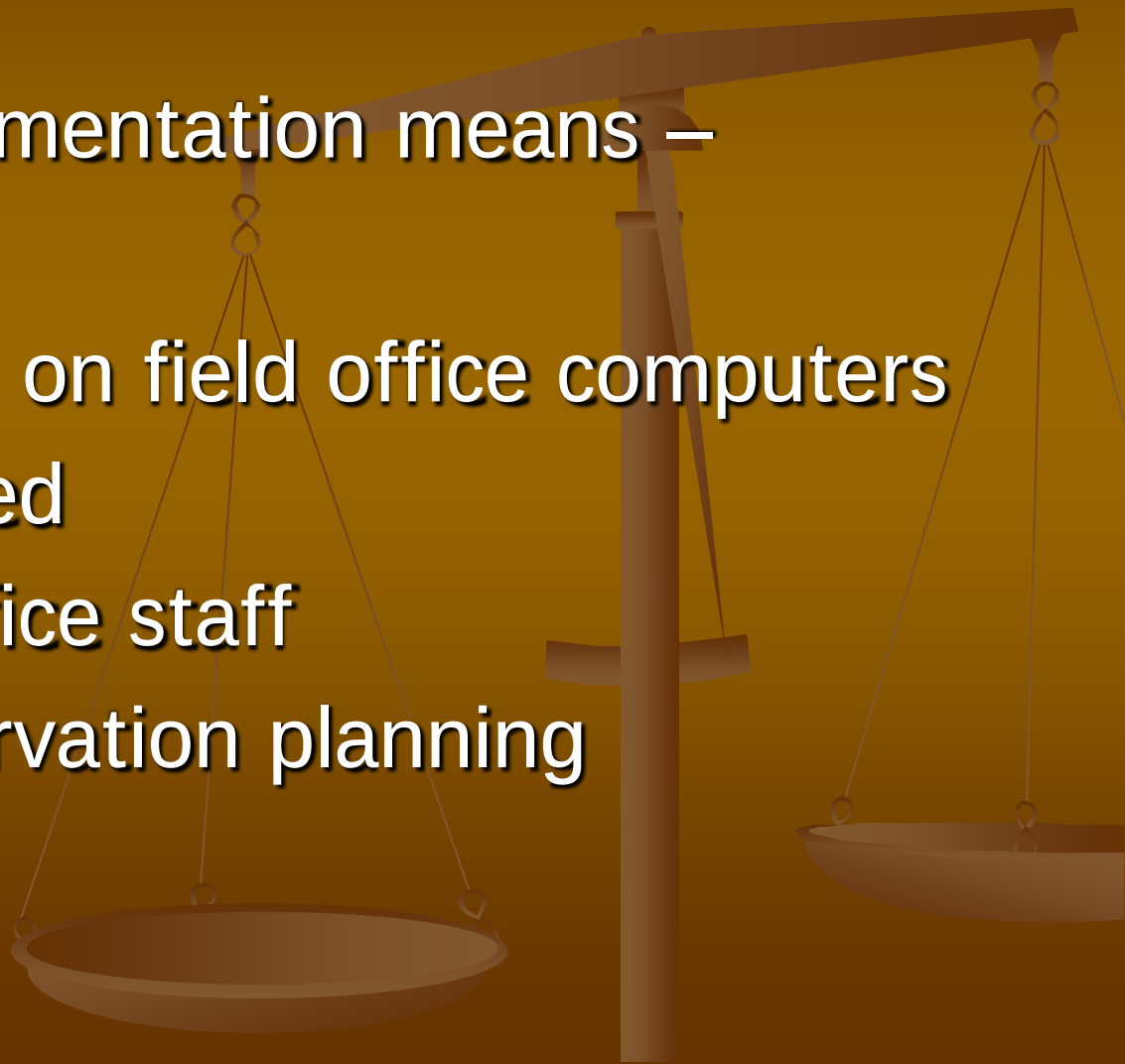
RUSLE2 Implementation

- National Instruction for implementation released in OCT 2002
- Application of RUSLE2 for USDA Farm Programs similar to RUSLE1

RUSLE2 Implementation Defined

Full implementation means –

- ✓ Program loaded on field office computers
- ✓ Databases loaded
- ✓ Trained field office staff
- ✓ Using for conservation planning



Implementation Timeline

- 1998-1999: Develop Technology for testing
- 2000: Testing by NRCS
- 2001: Develop supporting Databases
  Train State erosion specialists
- 2002-2003: Implementation in all field offices where erosion is concern

Supporting Databases

Developed at National Level –

Crops
Field Operations,
Soils
Residues,
Climate
Support Practices

Developed at State Office Level –

Crop Management Scenarios

Developed at Field Office Level -

(None)

Field Office User

Selects –

1. Location (climate)
2. Soil map unit component
3. Slope length and steepness
4. Crop Management
   (Use Rotation Builder to develop rotation)
5. Supporting Practices

Training Field Office Staff

Tools Available -

- Tutorial
- PowerPoint Presentations
- User's Guides

Hands-On Training Time

- One (1) day

The end - implementation overview