RUSLE2 Profile Erosion Calculation Record

Info: Tim Hewett A with winter cover

File: profiles\Somerset
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\Maine\Somerset County	SSURGO\Somerset County, Maine, Southern Part\BaC2 Bangor silt loam, 8 to 15 percent slopes, eroded\Bangor Silt loam 87%	150	4.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 60\a.Single Year/ Single Crop Templates\Corn Silage\Corn,silage; SP, winter cover, manure, Z60	vegetations\Corn, silage	tons	20.000
managements\CMZ 60\a.Single Year/ Single Crop Templates\Corn Silage\Corn,silage; SP, winter cover, manure, Z60	vegetations\default	Bushels	2000.0

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	7.0

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, %*
5.0	2.7	2.7	2.7	2.7	0.18	0.30	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
5/8/0	Manure spreader, solid and semi-solid		31
5/11/0	Plow, moldboard		1.6
5/16/0	Disk, tandem light finishing		1.9
5/16/0	Fert applic. shank low disturbance, 12 in		1.9
5/16/0	Planter, double disk opnr	Corn, silage	1.9
6/16/0	Sprayer, post emergence		7.0
9/22/0	Harvest, silage		24
9/25/0	Disk, tandem light finishing		17
9/25/0	Planting, broadcast seeder	default	17

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	6.5	890000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
-0.0302	0.043	-0.092	-0.052	110	0

The **SCI** is the **Soil Conditioning Index** rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity 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 as shown in the management description.