RUSLE2 Profile Erosion Calculation Record

Info: FourthGen 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\TtB Thorndike-Bangor silt loams, 0 to 8 percent slopes\Thorndike Silt loam 56%	100	2.0

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, %*
b. absolute row grade 1 percent	(none)	(none)	(none)	Normal res. burial	Base yield	15

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, %*
1.0	1.0	1.0	1.0	1.0	0.15	0.35	100	

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*
0.0982	0.043	-0.092	0.59	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.