Appendix B

Information About RUSLE2 Soil Loss

Field:	North 60 Pivot
Operation:	
Plan File:	P:\Hugo, Danny - Greenville Livestock\Nutrient Management\Hugo.mwprj\Hugo.mwprj.mmp
RUSLE2 Database:	P:\Hugo, Danny - Greenville Livestock\Nutrient Management\Hugo.mwprj\Hugo.mwprj.gdb
Calculated Profile:	mmp_calc\Hugo.mwprj.mmp\North 60 Pivot
Calculated Mgmt:	CMZ 16\c.Other Local Mgt Records\mmp_calc\Hugo.mwprj.mmp\North 60 Pivot

Last Saved: 8/12/2009*

Field's RUSLE2 Profile

Climate Location:	USA\Illinois\Clinton County
Soil Survey:	Clinton County, Illinois
Soil Type:	934B2 Blair-Grantfork complex, 2 to 5 percent slopes, eroded\Blair silt loam 45%
Slope:	3.5%
Slope Length:	65 feet
Rock Cover:	(Not entered -- 0% assumed)
Subsurface Drainage:	(No patterned drainage -- none used)
Contouring:	(Not selected -- rows up-and-down hill assumed)
Strips/Barriers:	(Not selected -- none assumed)
Diversion/Terrace:	(Not selected -- none assumed)
Residue Burial:	(Not selected -- normal burial assumed)
Notes:	

Field's RUSLE2 Management

Date mm/dd/yyyy	*Operation*	*Vegetation*	*Yield or Cover Material*	*Cover Material Added/Removed*
05/01/2008	*Harvest, silage*			*201 lbs*
05/05/2008	*Planter, double disk opnr*	*Corn, silage*	*15.6 tons*	
06/20/2008	*Fert. applic. anhyd knife 30 in*			
09/11/2008	*Harvest, silage*			*547 lbs*
09/15/2008	Drill or airseeder, double disk, w/ fluted coulters	Wheat, winter silage	6.4 tons	
05/01/2009	Harvest, silage			201 lbs
05/05/2009	Planter, double disk opnr	Corn, silage	15.6 tons	
06/15/2009	Manure, liquid irrigation		default	129 lbs
06/20/2009	Fert. applic. anhyd knife 30 in			
09/11/2009	Harvest, silage			547 lbs
09/15/2009	Drill or airseeder, double disk, w/ fluted coulters	Wheat, winter silage	6.4 tons	

Note: Operations for the field's assumed previous crop (in italics) were included to initialize RUSLE2.

Field:	North 60 Pivot
Operation:	
Plan File:	P:\Hugo, Danny - Greenville Livestock\Nutrient Management\Hugo.mwprj\Hugo.mwprj.mmp
RUSLE2 Database:	P:\Hugo, Danny - Greenville Livestock\Nutrient Management\Hugo.mwprj\Hugo.mwprj.gdb
Calculated Profile:	mmp_calc\Hugo.mwprj.mmp\North 60 Pivot
Calculated Mgmt:	CMZ 16\c.Other Local Mgt Records\mmp_calc\Hugo.mwprj.mmp\North 60 Pivot

Last Saved: 8/12/2009*

Field's RUSLE2 Soil Loss Estimates

Crop Year	*Starting Date mm/dd/yyyy*	*Ending Date mm/dd/yyyy*	*Soil Loss Tons/Acre*	*Crop(s)*
2009	09/16/2008	09/15/2009	5.6	Corn silage

Information About RUSLE2 Soil Loss

Field:	North 60 VG
Operation:	
Plan File:	P:\Hugo, Danny - Greenville Livestock\Nutrient Management\Hugo.mwprj\Hugo.mwprj.mmp
RUSLE2 Database:	P:\Hugo, Danny - Greenville Livestock\Nutrient Management\Hugo.mwprj\Hugo.mwprj.gdb
Calculated Profile:	mmp_calc\Hugo.mwprj.mmp\North 60 VG
Calculated Mgmt:	CMZ 16\c.Other Local Mgt Records\mmp_calc\Hugo.mwprj.mmp\North 60 VG

Last Saved: 8/12/2009*

Field's RUSLE2 Profile

Climate Location:	USA\Illinois\Clinton County
Soil Survey:	Clinton County, Illinois
Soil Type:	934B2 Blair-Grantfork complex, 2 to 5 percent slopes, eroded\Blair silt loam 45%
Slope:	3.5%
Slope Length:	65 feet
Rock Cover:	(Not entered -- 0% assumed)
Subsurface Drainage:	(No patterned drainage -- none used)
Contouring:	(Not selected -- rows up-and-down hill assumed)
Strips/Barriers:	(Not selected -- none assumed)
Diversion/Terrace:	(Not selected -- none assumed)
Residue Burial:	(Not selected -- normal burial assumed)
Notes:	

Field's RUSLE2 Management

Date mm/dd/yyyy	*Operation*	*Vegetation*	*Yield or Cover Material*	*Cover Material Added/Removed*
05/01/2008	*Harvest, silage*			*201 lbs*
05/05/2008	*Planter, double disk opnr*	*Corn, silage*	*15.6 tons*	
06/20/2008	*Fert. applic. anhyd knife 30 in*			
09/11/2008	*Harvest, silage*			*547 lbs*
09/15/2008	Drill or airseeder, double disk, w/ fluted coulters	Wheat, winter silage	6.4 tons	
05/01/2009	Harvest, silage			201 lbs
05/05/2009	Planter, double disk opnr	Corn, silage	15.6 tons	
06/15/2009	Manure, liquid irrigation		default	129 lbs
06/20/2009	Fert. applic. anhyd knife 30 in			
09/11/2009	Harvest, silage			547 lbs
09/15/2009	Drill or airseeder, double disk, w/ fluted coulters	Wheat, winter silage	6.4 tons	

Note: Operations for the field's assumed previous crop (in italics) were included to initialize RUSLE2.

Field:	North 60 VG
Operation:	
Plan File:	P:\Hugo, Danny - Greenville Livestock\Nutrient Management\Hugo.mwprj\Hugo.mwprj.mmp
RUSLE2 Database:	P:\Hugo, Danny - Greenville Livestock\Nutrient Management\Hugo.mwprj\Hugo.mwprj.gdb
Calculated Profile:	mmp_calc\Hugo.mwprj.mmp\North 60 VG
Calculated Mgmt:	CMZ 16\c.Other Local Mgt Records\mmp_calc\Hugo.mwprj.mmp\North 60 VG

Last Saved: 8/12/2009*

Field's RUSLE2 Soil Loss Estimates

Crop Year	*Starting Date mm/dd/yyyy*	*Ending Date mm/dd/yyyy*	*Soil Loss Tons/Acre*	*Crop(s)*
2009	09/16/2008	09/15/2009	5.6	Corn silage

USDA NRCS

RUSLE2 Profile Erosion Calculation Record

Info: Greenville Livestock, Field KC 80 West

File: profiles\Clinton Co
Access Group: R2_NRCS_Fld_Office

Inputs:
Location: Illinois\Clinton County
Soil: 991 CISNE-HUEY COMPLEX\Cisne silt loam 45%
Slope length (horiz): 50 ft
Avg. slope steepness: 1.5 %

Management	*Vegetation*	*Yield units*	*Yield (# of units)*
CMZ 16\c.Other Local Mgt Records\Cn Wh Silage	Corn, silage	tons	22.000
CMZ 16\c.Other Local Mgt Records\ Cn Wh Silage	Wheat, winter silage	tons	9.0000

Contouring: default
Strips/barriers: (none)
Diversion/terrace, sediment basin: (none)
Subsurface drainage: (none)
Adjust res. burial level: Normal res. burial
General yield level: Set by user
:ock cover: 0 %

Outputs:
T value: 3.0 t/ac/yr
Soil loss erod. portion: 3.4 t/ac/yr
Detachment on slope: 3.4 t/ac/yr
Soil loss for cons. plan: 3.4 t/ac/yr
Sediment delivery: 3.4 t/ac/yr
Net C factor: 0.28
Net K factor: 0.35

Crit. slope length: --
Surf. cover after planting: --

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
5/1/0	Harvest, silage		20
5/3/0	Disk, offset, heavy 12 in depth		2.1
5/4/0	Cultivator, field 6-12 in shovels C		2.4
5/5/0	Planter, double disk opnr	Corn, silage	2.5
6/20/0	Fert. applic. anhyd knife 30 in		1.8
9/11/0	Harvest, silage		19
9/13/0	Subsoiler		16
9/14/0	Cultivator, field 6-12 in shovels C		11
9/15/0	Drill or airseeder, double disk, w/ fluted coulters	Wheat, winter silage	12
4/30/1	Harvest, silage		20

Soil conditioning index (SCI): -0.59
vg. annual slope STIR: 186
Wind & irrigation-induced erosion for SCI: 0 t/ac/yr

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.

USDA NRCS

RUSLE2 Profile Erosion Calculation Record

Info: Greenville Livestock, Field KC 80 East

File: profiles\Clinton Co
Access Group: R2_NRCS_Fld_Office

Inputs:
Location: Illinois\Clinton County
Soil: 991 CISNE-HUEY COMPLEX\Cisne silt loam 45%
Slope length (horiz): 50 ft
Avg. slope steepness: 1.5 %

Management	*Vegetation*	*Yield units*	*Yield (# of units)*
CMZ 16\c.Other Local Mgt Records\Cn Wh Silage	Corn, silage	tons	22.000
CMZ 16\c.Other Local Mgt Records\Cn Wh Silage	Wheat, winter silage	tons	9.0000

Contouring: default
Strips/barriers: (none)
Diversion/terrace, sediment basin: (none)
Subsurface drainage: (none)
Adjust res. burial level: Normal res. burial
General yield level: Set by user
Rock cover: 0 %

Outputs:
T value: 3.0 t/ac/yr
Soil loss erod. portion: 3.4 t/ac/yr
Detachment on slope: 3.4 t/ac/yr
Soil loss for cons. plan: 3.4 t/ac/yr
Sediment delivery: 3.4 t/ac/yr
Net C factor: 0.28
Net K factor: 0.35

Crit. slope length: --
Surf. cover after planting: --

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
5/1/0	Harvest, silage		20
5/3/0	Disk, offset, heavy 12 in depth		2.1
5/4/0	Cultivator, field 6-12 in shovels C		2.4
5/5/0	Planter, double disk opnr	Corn, silage	2.5
6/20/0	Fert. applic. anhyd knife 30 in		1.8
9/11/0	Harvest, silage		19
9/13/0	Subsoiler		16
9/14/0	Cultivator, field 6-12 in shovels C		11
9/15/0	Drill or airseeder, double disk, w/ fluted coulters	Wheat, winter silage	12
4/30/1	Harvest, silage		20

Soil conditioning index (SCI): -0.59
Avg. annual slope STIR: 186
Wind & irrigation-induced erosion for SCI: 0 t/ac/yr

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.

USDA NRCS

RUSLE2 Profile Erosion Calculation Record

Info: Greenville Livestock, Field Northwest 20

File: profiles\Clinton Co
Access Group: R2_NRCS_Fld_Office

Inputs:
Location: Illinois\Clinton County
Soil: 912A HOYLETON-DARMSTADT COMPLEX, 0 TO 2 PERCENT SLOPES\Hoyleton silt loam 45%
Slope length (horiz): 55 ft
Avg. slope steepness: 2.0 %

Management	*Vegetation*	*Yield units*	*Yield (# of units)*
CMZ 16\c.Other Local Mgt Records\Manure CnSb 2	Corn, silage	tons	22.000
CMZ 16\c.Other Local Mgt Records\Manure CnSb 2	Wheat, winter silage	tons	9.0000

Contouring: default
Strips/barriers: (none)
Diversion/terrace, sediment basin: (none)
Subsurface drainage: (none)
Adjust res. burial level: Normal res. burial
General yield level: Set by user
ock cover: 0 %

Outputs:
T value: 3.0 t/ac/yr
Soil loss erod. portion: 3.7 t/ac/yr
Detachment on slope: 3.7 t/ac/yr
Soil loss for cons. plan: 3.7 t/ac/yr
Sediment delivery: 3.7 t/ac/yr
Net C factor: 0.28
Net K factor: 0.30

Crit. slope length: --
Surf. cover after planting: --

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
5/1/0	Harvest, silage		20
5/3/0	Disk, offset, heavy 12 in depth		2.1
5/4/0	Cultivator, field 6-12 in shovels C		2.4
5/5/0	Planter, double disk opnr	Corn, silage	2.5
6/20/0	Fert. applic. anhyd knife 30 in		1.8
9/11/0	Harvest, silage		19
9/13/0	Subsoiler		16
9/14/0	Cultivator, field 6-12 in shovels C		11
9/15/0	Drill or airseeder, double disk, w/ fluted coulters	Wheat, winter silage	12
4/30/1	Harvest, silage		20

Soil conditioning index (SCI): -0.62
vg. annual slope STIR: 186
Wind & irrigation-induced erosion for SCI: 0 t/ac/yr

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.