

Conservation Plan

Westridge Dairy
2114 Ames Rd.
Red Bud, IL 62278

FSA Farm #3699

Field #11

Conservation Crop Rotation – Corn Grain/ Soybeans -- is the planned rotation.

Tillage Practice – In preparation for the corn crop, the corn will be planted in 30 inch rows using a no-till planter. Following corn harvest the field will be planted to wheat to provide a cover crop for the winter. The surface residue prediction following harvest is 77%. The wheat will be no-tilled in the standing corn stalks in 7 inch rows. The following spring the field will be planted to soybeans. The soybeans will be planted in 15 inch rows using a no-till drill. After the harvest of the soybeans the field will have manure applied to it using a slurry box spreader. Following manure application wheat will be planted to wheat again in 7 inch rows. The wheat will be used as a cover crop for the winter between the soybean and corn crop rotation. The field will then lay idle until the next spring. The surface residue prediction following the soybean harvest is 88%. In years of no manure application, anhydrous ammonia will be applied.

Manure Applications – will be planned for this field in accordance with the Waste Utilization Plan – applications will occur via slurry box spreader, and then incorporated into soil.

Manure Application Limitations – There is a residence, non-farm business, and a common place of assembly within ¼ mile of this application field which under LMFA regulations requires soil incorporation within 24 hours of application. Also there is a drainage ditch near the field which requires a 150 foot setback in these areas. There is a waterway located in or near this field that should not have manure applied in it. Additionally areas of this field contain slopes of more than 5% which may not have manure applied on them when the ground is snow covered or frozen.

Soil Loss Calculation

Net C Factor RUSLE 2 – 0.033, 0.036

Soil Conditioning Index – 0.4, 0.8

STIR Value – 7.479

Soil Type 860 D 3 Calculated T Losses – 5.0

Soil Type 515C3 Calculated T Loss – 1.1

Soil Type 517B Calculated T Loss – 1.0

Acceptable T Loss – 5.00

Acceptable T Loss – 4.00

Acceptable T Loss – 3.00

Targeted crop nutrient needs will be achieved by means of manure applications in years designated in the Waste Utilization Plan and by means of commercial fertilizer in years of no manure applications. Refer to Nutrient Budget located behind each years Waste Application Tab.

RUSLE2 Profile Erosion Calculation Record

Info: Field #11

File: Plan: Profile (Temp. scenario[1]) of Westridge Dairy*
Access Group: R2_NRCS_Fld_Office

Inputs:

Location: Illinois\Monroe County
 Soil: 860D3 Homen-Atlas silty clay loams, 10 to 18 percent slopes, severely eroded\Homen silty clay loam 50%
 Slope length (horiz): 150 ft
 Avg. slope steepness: 14 %

Management	Vegetation	Yield units	Yield (# of units)
CMZ 16\c.Other Local Mgt Records\Westridge no-till cg-sb w-cover	Corn, grain	bushels	129.00
CMZ 16\c.Other Local Mgt Records\Westridge no-till cg-sb w-cover	Wheat, winter cover	pounds	4000.0
CMZ 16\c.Other Local Mgt Records\Westridge no-till cg-sb w-cover	Soybean, mw 15 - 20 in rows	bu	42.000
CMZ 16\c.Other Local Mgt Records\Westridge no-till cg-sb w-cover	Wheat, winter cover	pounds	4000.0

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: 5.0 t/ac/yr
 Soil loss erod. portion: 5.0 t/ac/yr
 Detachment on slope: 5.0 t/ac/yr
 Soil loss for cons. plan: 5.0 t/ac/yr
 Sediment delivery: 5.0 t/ac/yr
 Net C factor: 0.033
 Net K factor: 0.34

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

Date	Operation	Vegetation	Surf. res. cov. after op, %
4/6/0	Planter, double disk opnr w/fluted coulter	Corn, grain	73
9/28/0	Harvest, killing crop 60pct standing stubble		77
9/29/0	Planter, double disk opnr w/fluted coulter	Wheat, winter cover	81
5/15/1	Planter, double disk opnr w/fluted coulter	Soybean, mw 15 - 20 in rows	84
10/1/1	Harvest, killing crop 50pct standing stubble		88
10/2/1	Manure spreader, solid and semi-solid		91

10/3/1	Drill or airseeder, double disk, w/ fluted coulters	Wheat, winter cover	88
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Soil conditioning index (SCI): 0.4

STIR value: 7.479

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.

RUSLE2 Profile Erosion Calculation Record

Info: Field #11

File: Plan: Profile (Temp. scenario[1]) of Westridge Dairy*
Access Group: R2_NRCS_Fld_Office

Inputs:

Location: Illinois\Monroe County
 Soil: 515C3 Bunkum silty clay loam, 5 to 10 percent slopes, severely eroded\Bunkum silty clay loam 90%
 Slope length (horiz): 150 ft
 Avg. slope steepness: 7.0 %

Management	Vegetation	Yield units	Yield (# of units)
CMZ 16\c.Other Local Mgt Records\Westridge no-till cg-sb w-cover	Corn, grain	bushels	129.00
CMZ 16\c.Other Local Mgt Records\Westridge no-till cg-sb w-cover	Wheat, winter cover	pounds	4000.0
CMZ 16\c.Other Local Mgt Records\Westridge no-till cg-sb w-cover	Soybean, mw 15 - 20 in rows	bu	42.000
CMZ 16\c.Other Local Mgt Records\Westridge no-till cg-sb w-cover	Wheat, winter cover	pounds	4000.0

Contouring: c. perfect contouring no row grade
 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: 4.0 t/ac/yr
 Soil loss erod. portion: 1.1 t/ac/yr
 Detachment on slope: 1.1 t/ac/yr
 Soil loss for cons. plan: 1.1 t/ac/yr
 Sediment delivery: 1.1 t/ac/yr
 Net C factor: 0.036
 Net K factor: 0.34

Crit. slope length: 150 ft
 Surf. cover after planting: --

Date	Operation	Vegetation	Surf. res. cov. after op, %
4/6/0	Planter, double disk opnr w/fluted coulter	Corn, grain	73
9/28/0	Harvest, killing crop 60pct standing stubble		77
9/29/0	Planter, double disk opnr w/fluted coulter	Wheat, winter cover	81
5/15/1	Planter, double disk opnr w/fluted coulter	Soybean, mw 15 - 20 in rows	84
10/1/1	Harvest, killing crop 50pct standing stubble		88
10/2/1	Manure spreader, solid and semi-solid		91

'0/3/1	Drill or airseeder, double disk, w/ fluted coulters	Wheat, winter cover	88
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Soil conditioning index (SCI): 0.8

STIR value: 7.479

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.

RUSLE2 Profile Erosion Calculation Record

Info: Field #11

File: Plan: Profile (Temp. scenario[1]) of Westridge Dairy*

Access Group: R2_NRCS_Fld_Office

Inputs:

Location: Illinois\Monroe County

Soil: 517B Marine silt loam, 2 to 5 percent slopes\Marine silt loam 90%

Slope length (horiz): 150 ft

Avg. slope steepness: 3.5 %

Management	Vegetation	Yield units	Yield (# of units)
CMZ 16\c.Other Local Mgt Records\Westridge no-till cg-sb w-cover	Corn, grain	bushels	129.00
CMZ 16\c.Other Local Mgt Records\Westridge no-till cg-sb w-cover	Wheat, winter cover	pounds	4000.0
CMZ 16\c.Other Local Mgt Records\Westridge no-till cg-sb w-cover	Soybean, mw 15 - 20 in rows	bu	42.000
CMZ 16\c.Other Local Mgt Records\Westridge no-till cg-sb w-cover	Wheat, winter cover	pounds	4000.0

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: 1.0 t/ac/yr

Detachment on slope: 1.0 t/ac/yr

Soil loss for cons. plan: 1.0 t/ac/yr

Sediment delivery: 1.0 t/ac/yr

Net C factor: 0.034

Net K factor: 0.34

Crit. slope length: --

Surf. cover after planting: --

Date	Operation	Vegetation	Surf. res. cov. after op, %
4/6/0	Planter, double disk opnr w/fluted coulter	Corn, grain	73
9/28/0	Harvest, killing crop 60pct standing stubble		77
9/29/0	Planter, double disk opnr w/fluted coulter	Wheat, winter cover	81
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