

Trenton Farms RE, LLC

771.7 ac.



Overview Map Grundy County

Farm Name: Trenton Farms RE, LLC
Location: Grundy County,
 Missouri, United States
Client Name: Overview Map
Number of Fields: 20
Total Acres: 771.7



Trenton Farms RE LLC; 15
 Nitrogen Rate Ap (769.8 ac. - 99.2%)
 Phosphorus Rate (1.9 ac. - 0.2%)

Graham Agency Real Estate

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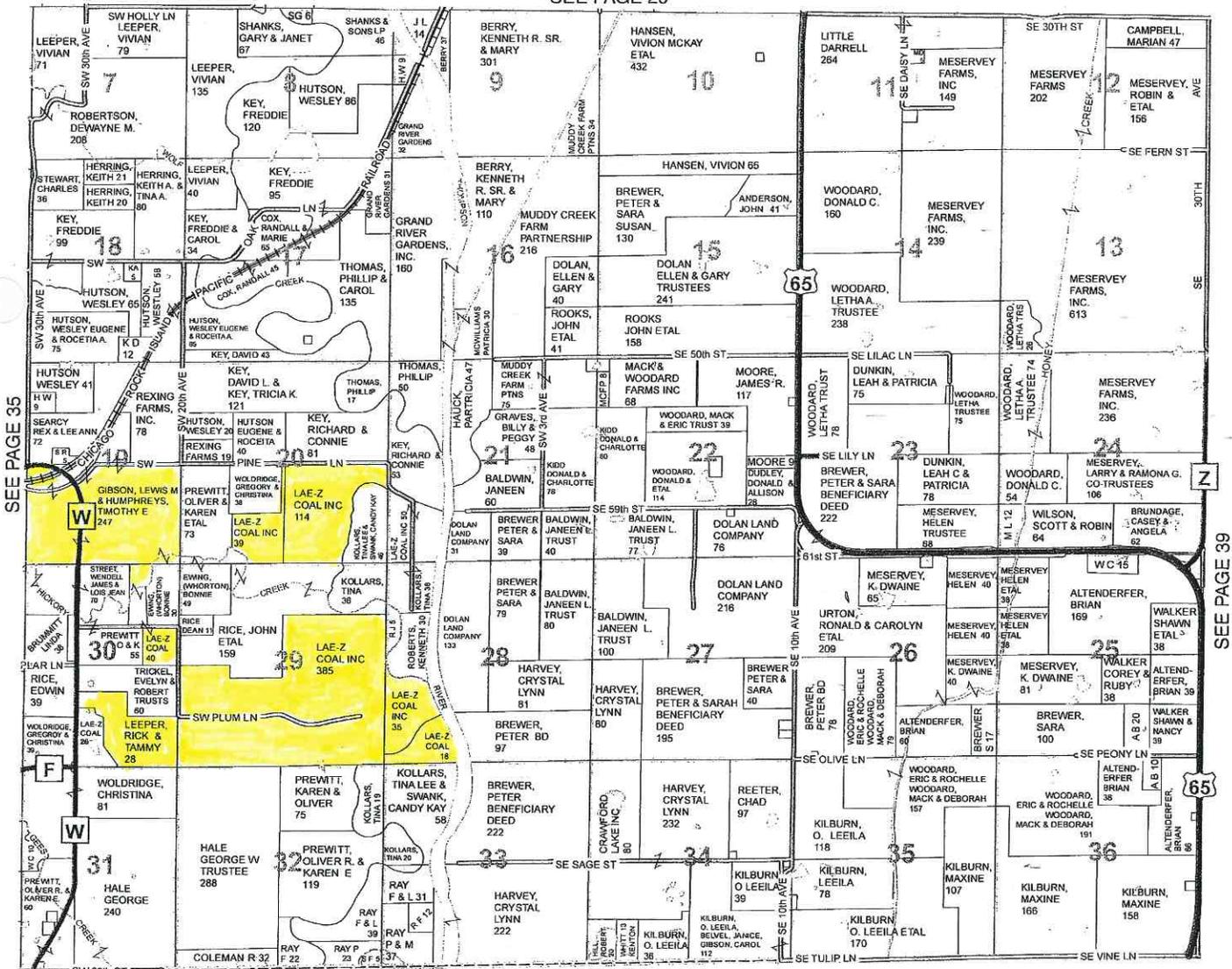
Township 60N - Range 24W

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← SEE PAGE 27

SEE PAGE 29



JEFFERSON (E) | JACKSON (W) LIVINGSTON COUNTY



Date: Jun 2, 2015
Field Name: MO602419P3000B; 15
Location: Grundy Co., Missouri, U.S.
Farm Name: Trenton Farms RE LLC
Client Name: P-Index
Total Acres: 34.04
Field Boundary Start Location:
Latitude: 39.99473320
Longitude: -93.64783230



-  (31.7ac.) Field Boundary
-  100 ft Water Buffer
-  50 ft Property Line Road Buffer

MO602419P3000C; 15 (3.85 ac.)



Date: Jun 3, 2015
Field Name: MO602419P3000C; 15
Location: Grundy Co., Missouri, U.S.
Farm Name: Trenton Farms RE LLC
Client Name: P-Index
Total Acres: 3.85
Field Boundary Start Location:
Latitude: 39.99751968
Longitude: -93.64705688



-  (0.7ac.) Field Boundary
-  1000 ft Residence Buffer
-  100 ft Water Buffer
-  50 ft Property Line/Road Buffer

MO602419P3000D; 15 (3.70 ac.)

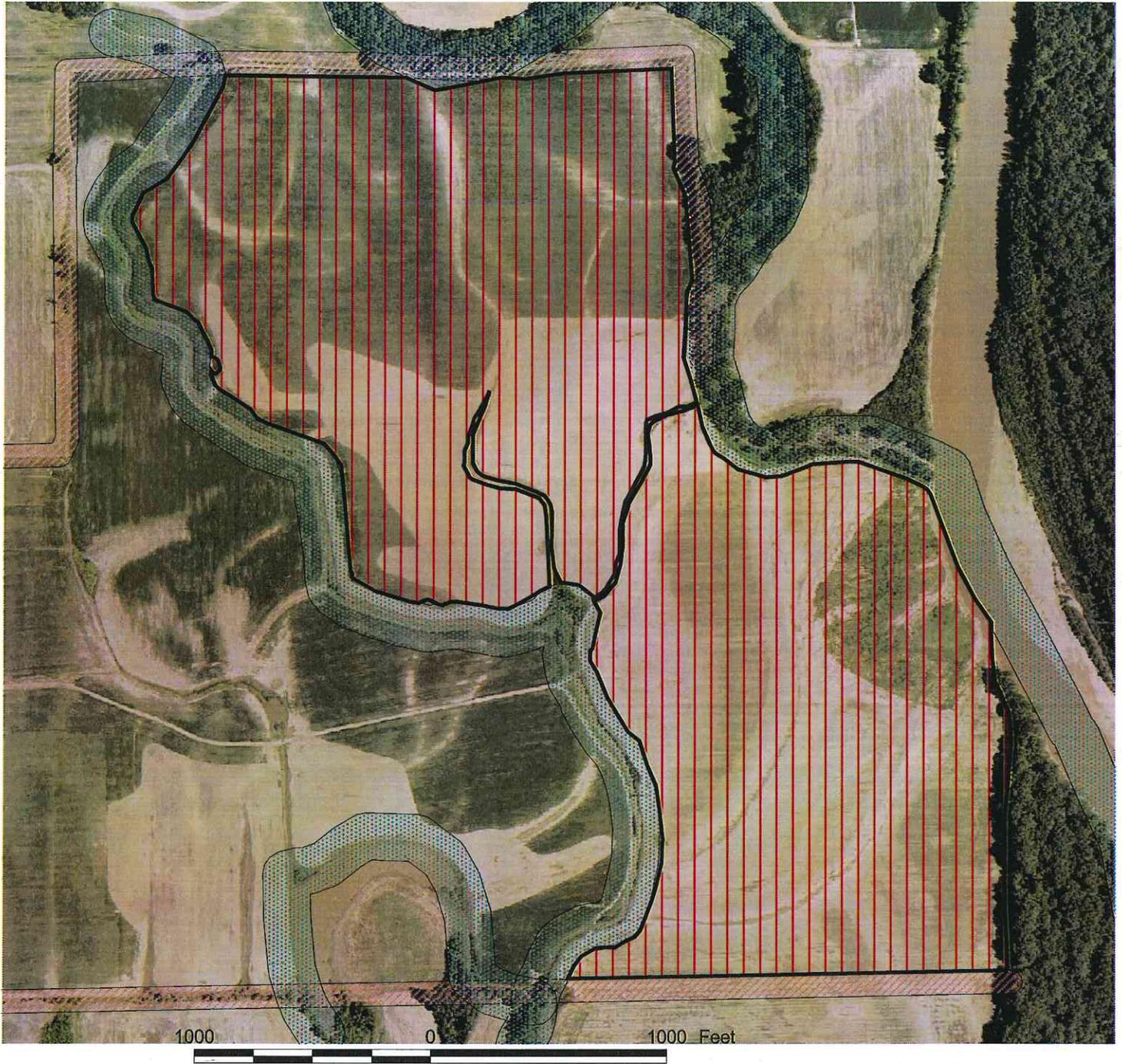


Date: Jun 3, 2015
Field Name: MO602419P3000D; 15
Location: Grundy Co., Missouri, U.S.
Farm Name: Trenton Farms RE LLC
Client Name: P-Index
Total Acres: 3.70
Field Boundary Start Location:
Latitude: 39.99745562
Longitude: -93.65179010



-  (1.9ac.) Field Boundary
-  50 ft Road Buffer
-  100 ft Water Buffer
-  1000 ft Residence Buffer

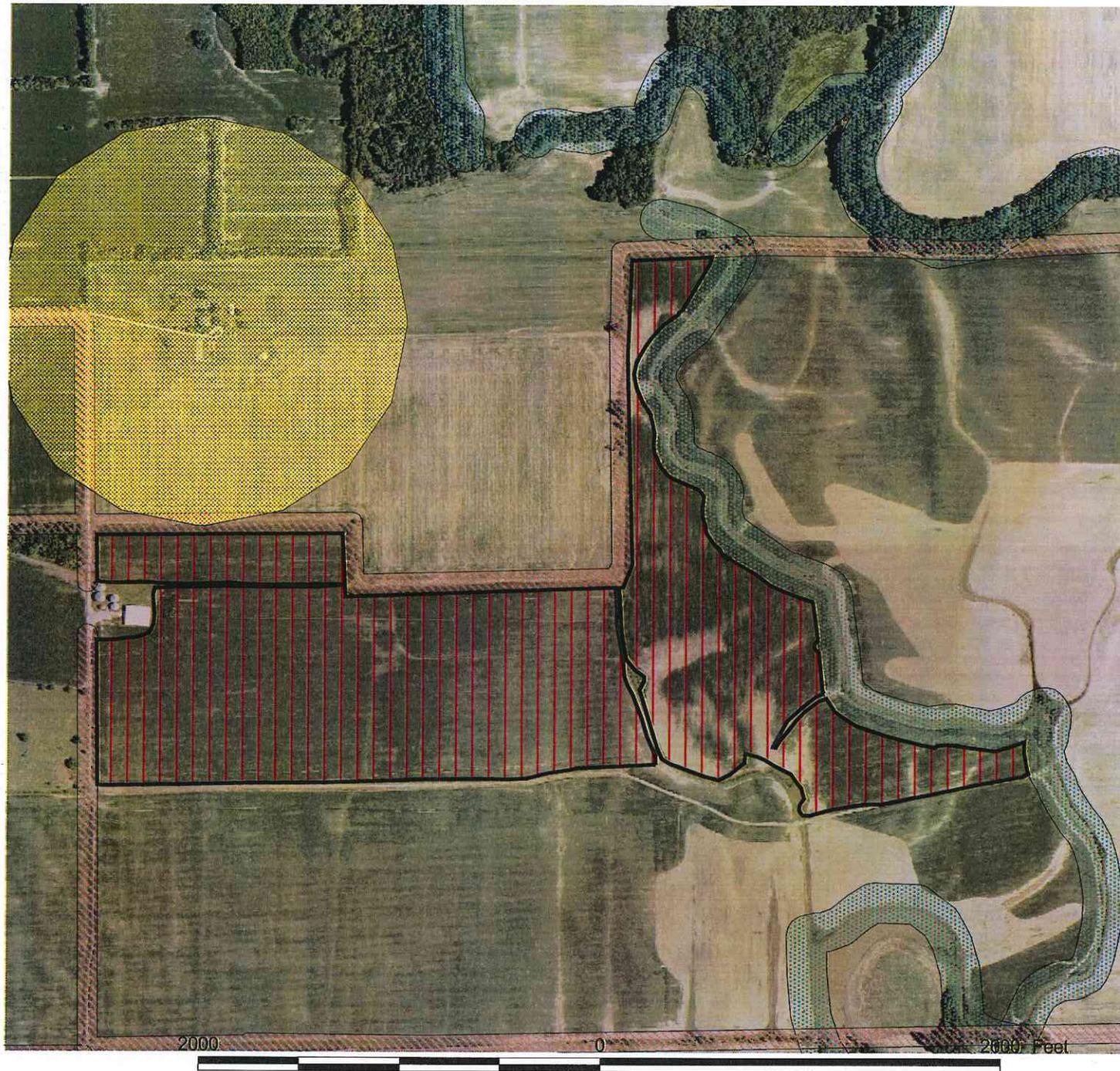
MO602429P8000D; 15 (186.07 ac.)



Date: Jun 3, 2015
Field Name: MO602429P8000D; 15
Location: Grundy Co., Missouri, U.S.
Farm Name: Trenton Farms RE LLC
Client Name: P-Index
Total Acres: 186.07
Field Boundary Start Location:
Latitude: 39.98454375
Longitude: -93.62518915



-  (168.2ac.) Field Boundary
-  100 ft Water Buffer
-  50 ft Property Line/Road Buffer

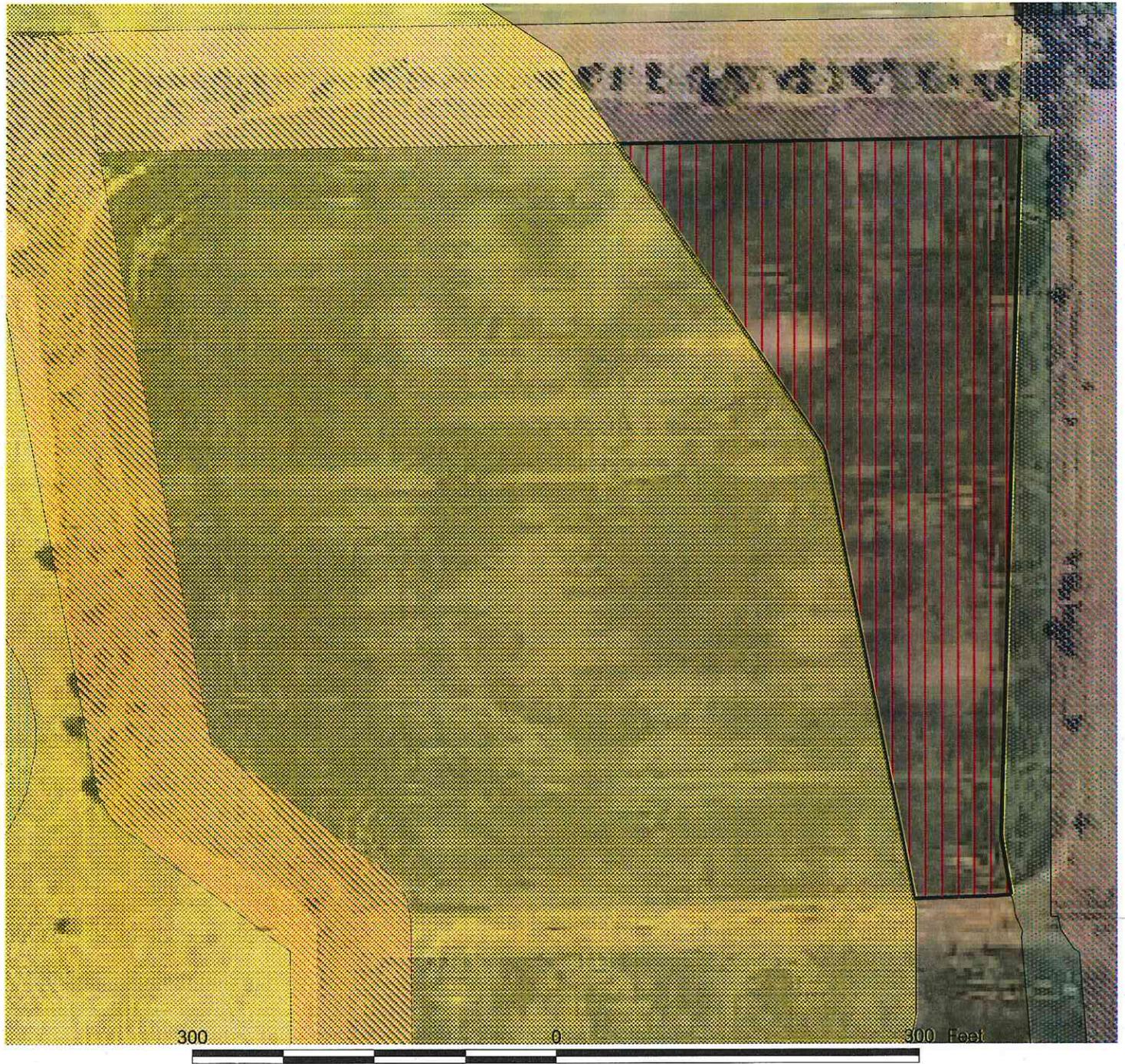


Date: Jun 3, 2015
 Field Name: MO602429P8000E; 15
 Location: Grundy Co., Missouri, U.S.
 Farm Name: Trenton Farms RE LLC
 Client Name: P-Index
 Total Acres: 111.42
 Field Boundary Start Location:
 Latitude: 39.98346514
 Longitude: -93.63180642



-  (98.9ac.) Field Boundary
-  1000 ft Residence Buffer
-  50 ft Property Line and Road Buffer
-  100 ft Water Buffer
-  100 ft Water Buffer

MO602430P4200; 15 (11.30 ac.)



Date: Jun 3, 2015
Field Name: MO602430P4200; 15
Location: Grundy Co., Missouri, U.S.
Farm Name: Trenton Farms RE LLC
Client Name: P-Index
Total Acres: 11.30
Field Boundary Start Location:
Latitude: 39.98227690
Longitude: -93.64349101



-  1000 ft Residence Buffer
-  (2.4ac.) Field Boundary
-  50 ft Property Line and Road Buffer
-  100 ft Water Buffer

MO602430P4300; 15 (17.01 ac.)



Date: Jun 3, 2015
Field Name: MO602430P4300; 15
Location: Grundy Co., Missouri, U.S.
Farm Name: Trenton Farms RE LLC
Client Name: P-Index
Total Acres: 17.01
Field Boundary Start Location:
Latitude: 39.97714198
Longitude: -93.64070069



- (7.2ac.) Field Boundary
- 1000 ft Residence Buffer
- 50 ft Property Line and Road Buffer
- 100 ft Water Buffer

MO602430P4400; 15 (35.57 ac.)

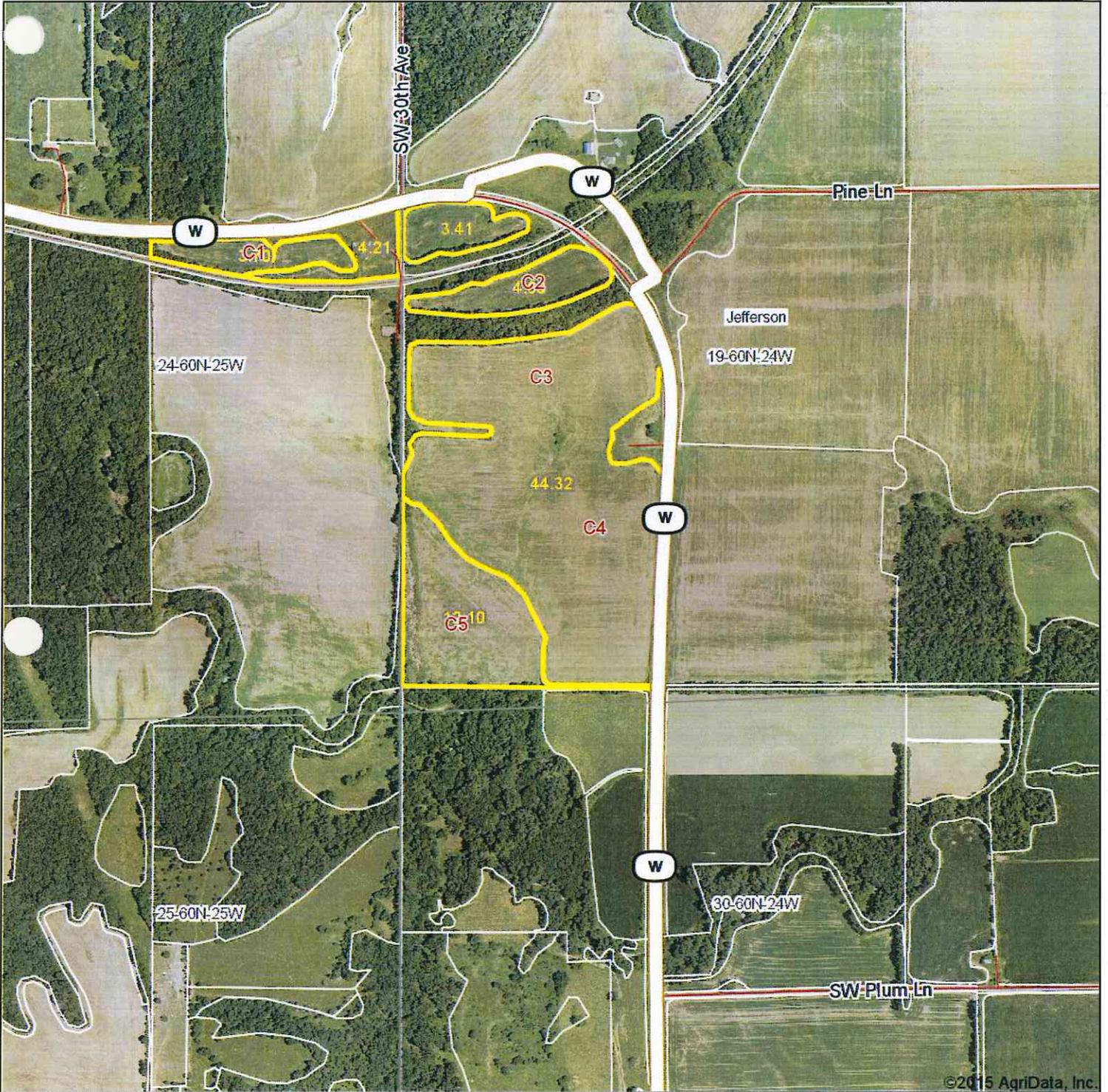


Date: Jun 3, 2015
Field Name: MO602430P4400; 15
Location: Grundy Co., Missouri, U.S.
Farm Name: Trenton Farms RE LLC
Client Name: P-Index
Total Acres: 35.57
Field Boundary Start Location:
Latitude: 39.97721737
Longitude: -93.63645133



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19-60N-24W
Grundy County
Missouri

P3000B = 12.3
P3000C = 11
P3000D = 11

map center: 39.993536, -93.648094

scale: 9577



6/1/2015

REPORT NUMBER

15-146-0084

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May 28, 2015

SOIL ANALYSIS REPORT

INFO SHEET: 719257

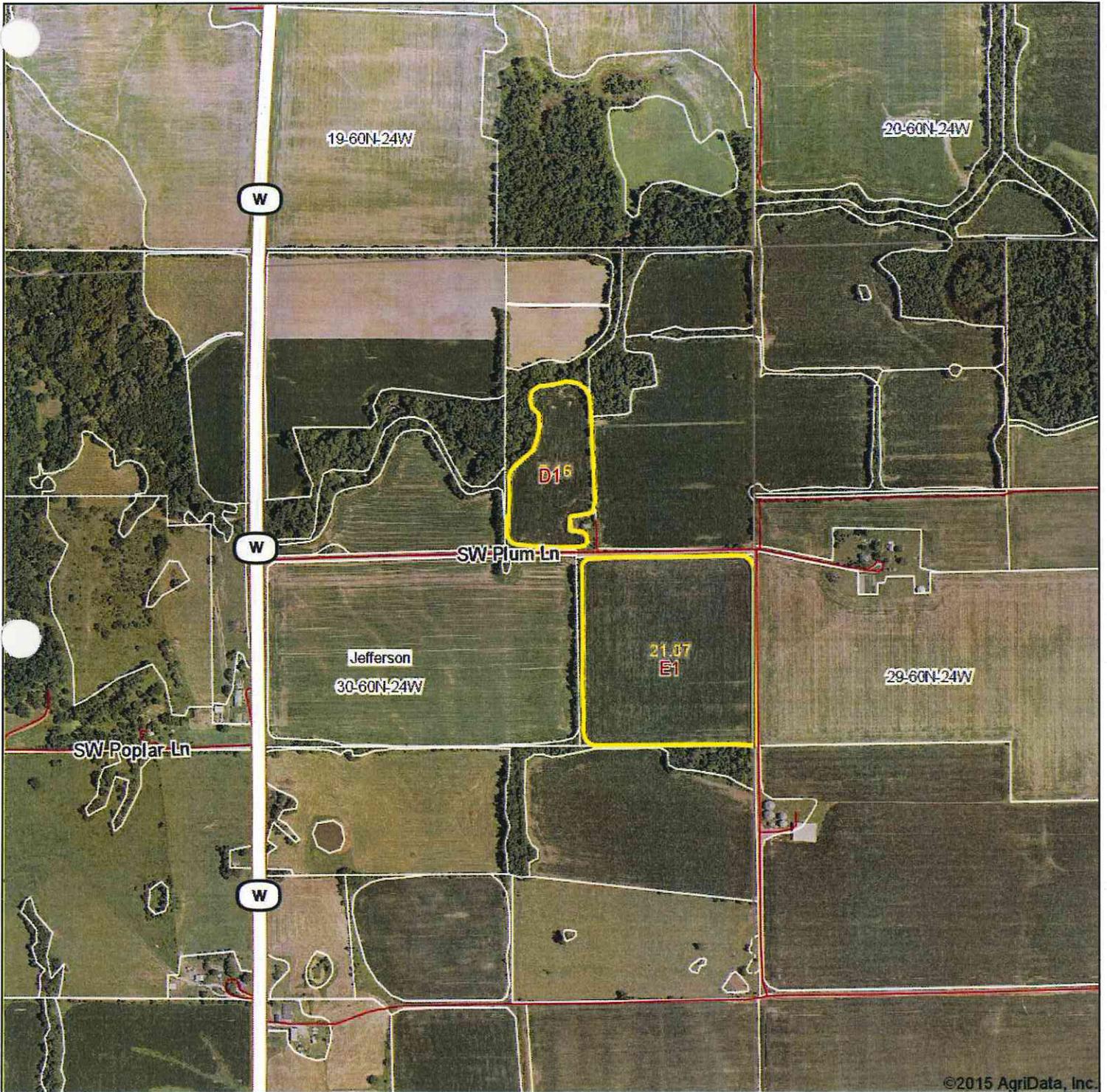
LAB NUMBER	SAMPLE IDENTIFICATION	ORGANIC MATTER L.O.I. percent RATE	PHOSPHORUS		POTASSIUM		MAGNESIUM		CALCIUM		SODIUM		pH	BUFFER INDEX	CATION EXCHANGE CAPACITY CEC meq/100g	PERCENT BASE SATURATION (COMPUTED)			
			P (VIEW) 1:7 ppm RATE	P (STRONG BRAY) 1:7 ppm RATE	P (OLSEN) BICARBONATE ppm RATE	K ppm RATE	Mg ppm RATE	Ca ppm RATE	Na ppm RATE	% K	% Mg	% Ca				% H	% Na		
60561	C1	2.9 M	11 L	21 M	11 M	196 M	685 VH	2943 M				5.5	6.3	28.3	1.8	20.2	52.0	26.0	
60562	C2	3.3 M	11 L	17 L	5 VL	245 M	787 VH	3358 M				5.6	6.3	31.4	2.0	20.9	53.5	23.6	
60563	C3	3.0 M	12 L	21 M	11 M	238 M	823 VH	3449 M				6.0	6.5	29.1	2.1	23.6	59.3	15.0	
60564	C4	3.0 M	13 L	21 M	9 L	187 M	697 VH	2957 M				5.7	6.4	26.7	1.8	21.8	55.4	21.0	
60565	C5	2.8 M	12 L	21 M	8 L	205 M	733 VH	3043 M				5.6	6.4	28.5	1.8	21.4	53.4	23.4	

LAB NUMBER	SURFACE		NITRATE-N (FIA)				SULFUR		ZINC		MANGANESE		IRON		COPPER		BORON		EXCESS LIME		SOLUBLE SALTS		
	ppm	lbz/A	depth (in)	lbz/A	depth (in)	ppm	depth (in)	ppm	depth (in)	ppm	depth (in)												
281																							
60561			0-6																				
60562			0-6																				
60563			0-6																				
60564			0-6																				
60565			0-6																				

REV. 12/03

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30-60N-24W
Grundy County
Missouri

map center: 39.987148, -93.640446

scale: 9577



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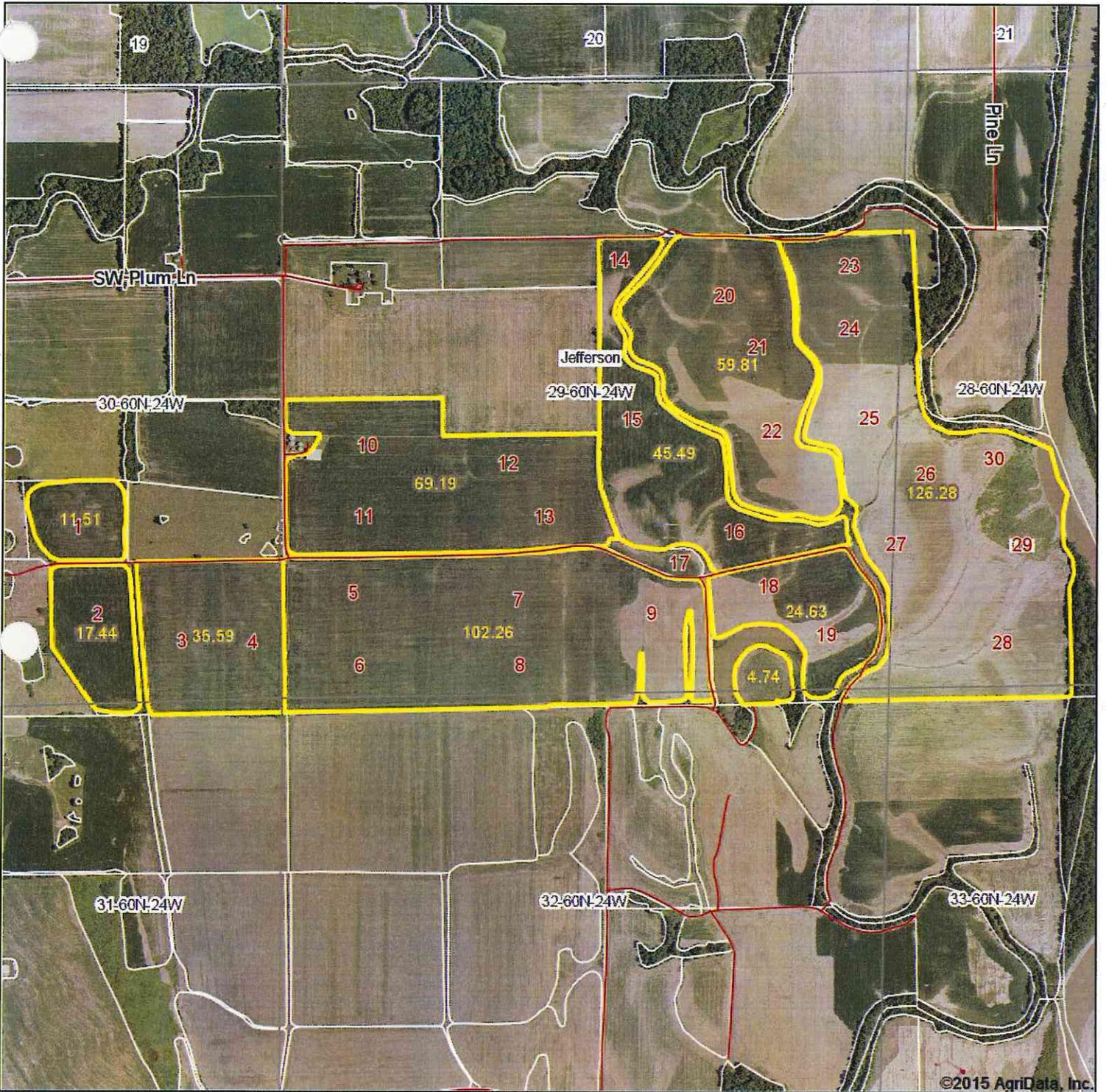
SOIL ANALYSIS REPORT

LAB NUMBER	SAMPLE IDENTIFICATION	ORGANIC MATTER L.O.I. percent RATE	PHOSPHORUS			POTASSIUM			CALCIUM			SODIUM			SOIL pH 1:1	BUFFER INDEX	CATION EXCHANGE CAPACITY C.E.C. meq/100g	PERCENT BASE SATURATION (COMPUTED)			
			P (WEAK BRAY) 1:7 ppm RATE	P ₂ (STRONG BRAY) 1:7 ppm RATE	P ₃ (VERY STRONG BRAY) 1:7 ppm RATE	OLSEN BICARBONATE P ppm RATE	K ppm RATE	Mg ppm RATE	Ca ppm RATE	Na ppm RATE	% K	% Mg	% Ca	% H				% Na			
60568 E1		3.0 M	11 L	20 M	10 L	194 M	632 VH	2852 M						5.8	6.5	24.7	2.0	21.3	57.7	19.0	
LAB NUMBER	NITRATE-N (FIA)												SOLUBLE SALTS 1:1 mmol/kg cm RATE								
	SURFACE			SUBSOIL 1			SUBSOIL 2			TOTAL											
281	depth (in)	lbs/A	depth (in)	lbs/A	depth (in)	lbs/A	depth (in)	lbs/A	depth (in)	lbs/A	depth (in)	lbs/A	EXCESS LIME RATE <td>BORON B SCORB. DTPA ppm RATE <td>COPPER CU DTPA ppm RATE <td>IRON Fe DTPA ppm RATE <td>MANGANESE Mn DTPA ppm RATE <td>ZINC Zn DTPA ppm RATE <td>SULFUR S I.C.A.P. ppm RATE </td></td></td></td></td></td>	BORON B SCORB. DTPA ppm RATE <td>COPPER CU DTPA ppm RATE <td>IRON Fe DTPA ppm RATE <td>MANGANESE Mn DTPA ppm RATE <td>ZINC Zn DTPA ppm RATE <td>SULFUR S I.C.A.P. ppm RATE </td></td></td></td></td>	COPPER CU DTPA ppm RATE <td>IRON Fe DTPA ppm RATE <td>MANGANESE Mn DTPA ppm RATE <td>ZINC Zn DTPA ppm RATE <td>SULFUR S I.C.A.P. ppm RATE </td></td></td></td>	IRON Fe DTPA ppm RATE <td>MANGANESE Mn DTPA ppm RATE <td>ZINC Zn DTPA ppm RATE <td>SULFUR S I.C.A.P. ppm RATE </td></td></td>	MANGANESE Mn DTPA ppm RATE <td>ZINC Zn DTPA ppm RATE <td>SULFUR S I.C.A.P. ppm RATE </td></td>	ZINC Zn DTPA ppm RATE <td>SULFUR S I.C.A.P. ppm RATE </td>	SULFUR S I.C.A.P. ppm RATE		
60568	0-6																				

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Aerial Map



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PA200 = 14
PA300 = 15
PA400 = 25
29-60N-24W
Grundy County
Missouri

map center: 39.980877, -93.628422

scale: 15151



6/1/2015

P8000B = 2.4
P8000C = 7.5
P8000D = 21.9
P8000E = 4.8

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15-141-0115

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TODAY'S DATE

May 26, 2015

SOIL ANALYSIS REPORT

LAB NUMBER	SAMPLE IDENTIFICATION	ORGANIC MATTER L.O.I. percent	PHOSPHORUS		POTASSIUM		MAGNESIUM		CALCIUM		SODIUM		pH	CATION EXCHANGE CAPACITY C.E.C. meq/100g	PERCENT BASE SATURATION (COMPUTED)				
			P (MEG) 1:7 RATE ppm	P (STRONG BRAY) 1:7 RATE ppm	P (OLSEN BICARBONATE) ppm	K ppm	Mg ppm	Ca ppm	Na ppm	SOIL pH 1:1	Fe DTPA ppm	Cu DTPA ppm			BORON B ppm	% K	% Mg	% Ca	% H
51471	DAVIS11	2.5 L	2 VL	31 M	4 VL	180 M	732 VH	2690 M	6.1	6.6	2.0	26.2	57.7	23.3	2.0	26.2	57.7	14.1	
51472	DAVIS12	3.0 M	4 VL	5 VL	5 VL	193 M	726 VH	2717 M	6.2	6.7	2.2	26.5	59.6	22.8	2.2	26.5	59.6	11.7	
51473	DAVIS13	2.9 M	2 VL	6 VL	5 VL	208 M	746 VH	2782 M	6.1	6.6	2.2	25.8	57.7	24.1	2.2	25.8	57.7	14.3	
51474	DAVIS14	3.2 M	3 VL	8 L	6 L	201 H	693 VH	2659 M	6.1	6.6	2.3	25.3	58.3	22.8	2.3	25.3	58.3	14.1	
51475	DAVIS15	2.8 M	6 VL	23 M	9 L	221 H	806 VH	2943 M	6.5	6.7	2.4	28.2	61.8	23.8	2.4	28.2	61.8	7.6	
51476	DAVIS16	2.9 M	7 VL	25 M	10 L	198 H	747 VH	2737 M	6.6	6.8	2.3	28.7	63.1	21.7	2.3	28.7	63.1	5.9	
51477	DAVIS17	2.6 M	11 L	30 M	13 M	236 H	818 VH	2992 M	6.5	6.7	2.5	28.2	61.8	24.2	2.5	28.2	61.8	7.5	
51478	DAVIS18	2.9 M	7 VL	20 M	9 L	218 H	776 VH	2828 M	6.3	6.7	2.4	27.3	59.7	23.7	2.4	27.3	59.7	10.6	
51479	DAVIS19	2.9 M	8 L	23 M	7 L	217 H	786 VH	2846 M	6.4	6.7	2.4	28.0	60.8	23.4	2.4	28.0	60.8	8.8	
51481	DAVIS20	3.8 H	9 L	20 M	5 VL	306 VH	704 VH	2873 M	6.6	6.8	3.5	26.3	64.4	22.3	3.5	26.3	64.4	5.8	
LAB NUMBER	SURFACE		SUBSOIL 1		SUBSOIL 2		SULFUR 5 ICAP ppm	ZINC Zn DTPA ppm	MANGANESE Mn DTPA ppm	IRON Fe DTPA ppm	COPPER Cu DTPA ppm	BORON B ppm	EXCESS LIME RATE	SOLUBLE SALTS 1:1 mmol/cv					
	ppm	depth (in)	lbs/A	depth (in)	lbs/A	depth (in)													
281																			
51471	0-6																		
51472	0-6																		
51473	0-6																		
51474	0-6																		
51475	0-6																		
51476	0-6																		
51477	0-6																		
51478	0-6																		
51479	0-6																		
51481	0-6																		

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TODAY'S DATE
May 26, 2015

SOIL ANALYSIS REPORT

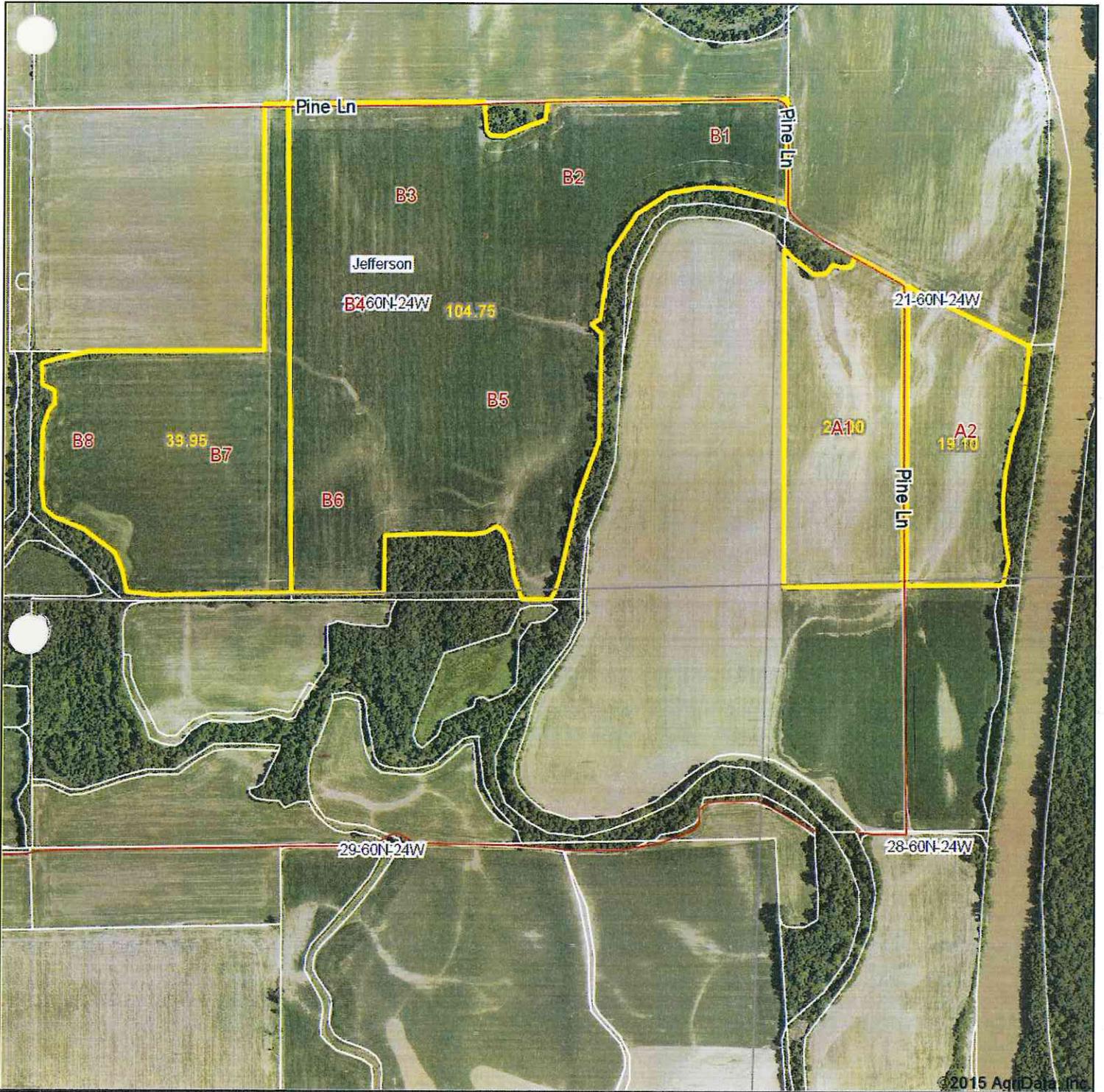
LAB NUMBER	SAMPLE IDENTIFICATION	ORGANIC MATTER L.O.I. percent RATE	PHOSPHORUS			POTASSIUM			CALCIUM			SODIUM			pH	SOIL pH 1:1	BUFFER INDEX	CATION EXCHANGE CAPACITY meq/100g	PERCENT BASE SATURATION (COMPUTED)				
			P ₁ (MEAR) 1:7 ppm RATE	P ₁ (STRONG BRAY) 1:7 ppm RATE	P ₁ (OLSEN) BICARBONATE P ppm RATE	K ppm RATE	Mg ppm RATE	Ca ppm RATE	Na ppm RATE	% K	% Mg	% Ca	% H	% Na									
51482	DAVIS21	3.7 H	11 L	29 M	11 M	297 VH	791 VH	3025 M					6.7	22.5	3.4	29.3	67.3	0.0					
51483	DAVIS22	3.3 M	6 VL	21 M	7 L	253 VH	694 VH	2644 M					6.3	22.0	2.9	26.3	60.1	10.7					
51484	DAVIS23	2.9 M	8 L	27 M	9 L	234 H	734 VH	2718 M					6.3	22.7	2.6	26.9	59.9	10.6					
51485	DAVIS24	2.5 L	14 L	49 H	16 H	222 H	782 VH	2770 M					6.7	20.9	2.7	31.2	66.1	0.0					
51486	DAVIS25	3.2 M	44 VH	84 VH	47 VH	308 VH	548 VH	2741 M					6.5	20.6	3.8	22.2	66.5	7.5					
51487	DAVIS26	3.4 M	45 VH	76 VH	37 VH	357 VH	544 VH	3095 H					6.5	22.6	4.1	20.1	68.5	7.3					
51488	DAVIS27	2.0 L	23 H	58 H	26 VH	251 VH	641 VH	2805 M					6.4	22.0	2.9	24.3	63.8	9.0					
51489	DAVIS28	2.6 M	26 H	43 H	25 VH	303 VH	519 VH	2984 M					6.3	22.3	3.5	19.4	66.9	10.2					
51490	DAVIS29	2.8 M	23 H	33 M	20 H	306 VH	567 VH	3173 H					6.4	23.5	3.3	20.1	67.5	9.1					
51491	DAVIS30	2.8 M	32 VH	56 H	30 VH	319 VH	567 VH	3088 M					6.3	23.5	3.5	20.1	65.7	10.7					

LAB NUMBER	SURFACE		SUBSOIL 1		SUBSOIL 2		Total lbs/A
	ppm	depth (in)	lbs/A	depth (in)	lbs/A	depth (in)	
281							
51482		0-6					
51483		0-6					
51484		0-6					
51485		0-6					
51486		0-6					
51487		0-6					
51488		0-6					
51489		0-6					
51490		0-6					
51491		0-6					

REV. 1/203

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Aerial Map



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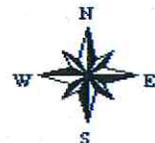


20-60N-24W
Grundy County
Missouri

P 3500B = 12
P 3500C = 42
P 4000 = 9.8
P 3400 = 16

map center: 39.992568, -93.622009

scale: 9590



6/1/2015

Field borders provided by Farm Service Agency as of 5/21/2008.

RUSLE2 Profile Erosion Calculation Record

Info: MO602419P1300

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\30214 Vigar loam, 2 to 5 percent slopes, rarely flooded\Vigar loam 95%

Slope length (horiz): 130 ft

Avg. slope steepness: 4.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i># yield units, #/ac</i>
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Just res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 3.6 t/ac/yr

Detachment on slope: 3.6 t/ac/yr

Soil loss for cons. plan: 3.6 t/ac/yr

Sediment delivery: 3.6 t/ac/yr

Crit. slope length: 130 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73

RUSLE2 Profile Erosion Calculation Record

Info: MO602419P4000

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\36042 Vesser silt loam, 0 to 2 percent slopes, occasionally flooded\Vesser silt loam 90%

Slope length (horiz): 120 ft

Avg. slope steepness: 1.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i># yield units, #/ac</i>
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Just res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 1.3 t/ac/yr

Detachment on slope: 1.3 t/ac/yr

Soil loss for cons. plan: 1.3 t/ac/yr

Sediment delivery: 1.3 t/ac/yr

Crit. slope length: 120 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73

County	MO602419P1300	MO602419P4000	MO602419P4000	MO602419P4000
Soil test P level Units	13 ppm	10.1 ppm	12.8 ppm	12.8 ppm
Extraction Procedure Sampling depth	Bray-I 6 to 8 inches			
Tillage	Tilled	Tilled	Tilled	Tilled
RUSLE value - average annual (tons/ac)	3.6	1.3	4.3	4.3
Land cover	Row crop - straight row			
Hydrologic soil group Hydrologic condition	C Good	C Good	C Good	C Good
Distance from center of field to water feature	2370	1330.6	558.6	558.6
Particulate P value	2.0	0.9	2.0	2.0
Soluble P value	0.2	0.2	0.2	0.2
Total P value	2.2	1.1	2.2	2.2
P index rating	LOW	LOW	LOW	LOW
Agronomic P rating (Opt. = 45 lbs/a)	MEDIUM	LOW	LOW	LOW
Sensitivity value	2.6	2.2	2.2	2.2

RUSLE2 Profile Erosion Calculation Record

Info: MO602419P3000B

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\30175 Pershing silty clay loam, 2 to 5 percent slopes, eroded\Pershing silty clay loam 100%

Slope length (horiz): 210 ft

Avg. slope steepness: 4.0 %

Management	Vegetation	Yield units	# yield units, #/ac
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Surface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 5.5 t/ac/yr

Detachment on slope: 5.5 t/ac/yr

Soil loss for cons. plan: 5.5 t/ac/yr

Sediment delivery: 5.5 t/ac/yr

Crit. slope length: 210 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

Date	Operation	Vegetation	Surf. res. cov. after op, %
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73

RUSLE2 Profile Erosion Calculation Record

Info: MO602419P3000C

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\30167 Pershing silt loam, 2 to 5 percent slopes\Pershing silt loam 90%

Slope length (horiz): 210 ft

Avg. slope steepness: 4.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i># yield units, #/ac</i>
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

just res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 9.1 t/ac/yr

Detachment on slope: 9.1 t/ac/yr

Soil loss for cons. plan: 9.1 t/ac/yr

Sediment delivery: 9.1 t/ac/yr

Crit. slope length: 210 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73

RUSLE2 Profile Erosion Calculation Record

Info: MO602419P3000D

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\30036 Armstrong loam, 5 to 9 percent slopes\Armstrong loam 95%

Slope length (horiz): 150 ft

Avg. slope steepness: 7.0 %

Management	Vegetation	Yield units	# yield units, #/ac
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

just res. burial level: Normal res. burial

Outputs:

T value: 3.0 t/ac/yr

Soil loss erod. portion: 10 t/ac/yr

Detachment on slope: 10 t/ac/yr

Soil loss for cons. plan: 10 t/ac/yr

Sediment delivery: 10 t/ac/yr

Crit. slope length: 150 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

Date	Operation	Vegetation	Surf. res. cov. after op, %
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73

County	MO602419P3000B	MO602419P3000C	MO602419P3000D
Soil test P level Units	Grundy 12.3 ppm	Grundy 11 ppm	Grundy 11 ppm
Extraction Procedure	Bray-I	Bray-I	Bray-I
Sampling depth	6 to 8 inches	6 to 8 inches	6 to 8 inches
Tillage	Tilled	Tilled	Tilled
RUSLE value - average annual (tons/ac)	5.5	9.1	10
Land cover	Row crop - straight row	Row crop - straight row	Row crop - straight row
Hydrologic soil group	D	D	C
Hydrologic condition	Good	Good	Good
Distance from center of field to water feature	682.8	1256.7	109.9
Particulate P value	4.4	6.6	8.9
Soluble P value	0.3	0.2	0.2
Total P value	4.7	6.9	9.1
P index rating	MEDIUM	MEDIUM	HIGH
Agronomic P rating (Opt. = 45 lbs/a)	MEDIUM	LOW	LOW
Sensitivity value	3.7	4.5	5.0
			LOW
			LOW
			1.6



RUSLE2 Profile Erosion Calculation Record

Info: MO602420P3400

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\36042 Vesser silt loam, 0 to 2 percent slopes, occasionally flooded\Vesser silt loam 90%

Slope length (horiz): 120 ft

Avg. slope steepness: 1.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i># yield units, #/ac</i>
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

just res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 1.3 t/ac/yr

Detachment on slope: 1.3 t/ac/yr

Soil loss for cons. plan: 1.3 t/ac/yr

Sediment delivery: 1.3 t/ac/yr

Crit. slope length: 120 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73

RUSLE2 Profile Erosion Calculation Record

Info: MO602420P4000

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\36042 Vesser silt loam, 0 to 2 percent slopes, occasionally flooded\Vesser silt loam 90%

Slope length (horiz): 120 ft

Avg. slope steepness: 1.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i># yield units, #/ac</i>
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Just res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 1.3 t/ac/yr

Detachment on slope: 1.3 t/ac/yr

Soil loss for cons. plan: 1.3 t/ac/yr

Sediment delivery: 1.3 t/ac/yr

Crit. slope length: 120 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73

RUSLE2 Profile Erosion Calculation Record

Info: MO602421P3500B

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\66004 Dockery silt loam, 0 to 2 percent slopes, frequently flooded\Dockery silt loam 90%

Slope length (horiz): 98 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	# yield units, #/ac
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Just res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 1.9 t/ac/yr

Detachment on slope: 1.9 t/ac/yr

Soil loss for cons. plan: 1.9 t/ac/yr

Sediment delivery: 1.9 t/ac/yr

Crit. slope length: 98 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

Date	Operation	Vegetation	Surf. res. cov. after op, %
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73



RUSLE2 Profile Erosion Calculation Record

Info: MO602421P3500C

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\66004 Dockery silt loam, 0 to 2 percent slopes, frequently flooded\Dockery silt loam 90%

Slope length (horiz): 98 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	# yield units, #/ac
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Just res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 1.9 t/ac/yr

Detachment on slope: 1.9 t/ac/yr

Soil loss for cons. plan: 1.9 t/ac/yr

Sediment delivery: 1.9 t/ac/yr

Crit. slope length: 98 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

Date	Operation	Vegetation	Surf. res. cov. after op, %
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73

	MO602420P3400 Grundy	MO602420P4000 Grundy	MO602421P3500B Grundy	MO602421P3500C Grundy
County	Grundy	Grundy	Grundy	Grundy
Soil test P level Units	16 ppm	9.8 ppm	12 ppm	4.2 ppm
Extraction Procedure	Bray-I	Bray-I	Bray-I	Bray-I
Sampling depth	6 to 8 inches	6 to 8 inches	6 to 8 inches	6 to 8 inches
Tillage	Tilled	Tilled	Tilled	Tilled
RUSLE value - average annual (tons/ac)	1.3	1.3	1.9	1.9
Land cover	Row crop - straight row	Row crop - straight row	Row crop - straight row	Row crop - contoured with residue
Hydrologic soil group	D	D	C	C
Hydrologic condition	Good	Good	Good	Good
Distance from center of field to water feature	558.6	959.9	918	457.8
Particulate P value	1.1	0.9	1.4	1.5
Soluble P value	0.3	0.2	0.2	0.1
Total P value	1.4	1.2	1.6	1.6
P index rating	LOW	LOW	LOW	LOW
Agronomic P rating (Opt. = 45 lbs/a)	MEDIUM	LOW	MEDIUM	LOW
Sensitivity value	2.5	2.5	2.4	2.1

RUSLE2 Profile Erosion Calculation Record

Info: MO602429P8000B

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\36046 Wabash silty clay, 0 to 2 percent slopes, occasionally flooded\Wabash silty clay 85%

Slope length (horiz): 160 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	# yield units, #/ac
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Just res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 0.60 t/ac/yr

Detachment on slope: 0.60 t/ac/yr

Soil loss for cons. plan: 0.60 t/ac/yr

Sediment delivery: 0.60 t/ac/yr

Crit. slope length: 160 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

Date	Operation	Vegetation	Surf. res. cov. after op, %
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73



RUSLE2 Profile Erosion Calculation Record

Info: MO602429P8000C

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\66004 Dockery silt loam, 0 to 2 percent slopes, frequently flooded\Dockery silt loam 90%

Slope length (horiz): 98 ft

Avg. slope steepness: 1.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i># yield units, #/ac</i>
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Just res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 1.9 t/ac/yr

Detachment on slope: 1.9 t/ac/yr

Soil loss for cons. plan: 1.9 t/ac/yr

Sediment delivery: 1.9 t/ac/yr

Crit. slope length: 98 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73

RUSLE2 Profile Erosion Calculation Record

Info: MO602429P8000D

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\66004 Dockery silt loam, 0 to 2 percent slopes, frequently flooded\Dockery silt loam 90%

Slope length (horiz): 98 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	# yield units, #/ac
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

just res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 1.9 t/ac/yr

Detachment on slope: 1.9 t/ac/yr

Soil loss for cons. plan: 1.9 t/ac/yr

Sediment delivery: 1.9 t/ac/yr

Crit. slope length: 98 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

Date	Operation	Vegetation	Surf. res. cov. after op, %
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73



RUSLE2 Profile Erosion Calculation Record

Info: MO602429P8000E

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\36042 Vesser silt loam, 0 to 2 percent slopes, occasionally flooded\Vesser silt loam 90%

Slope length (horiz): 120 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	# yield units, #/ac
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Just res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 1.3 t/ac/yr

Detachment on slope: 1.3 t/ac/yr

Soil loss for cons. plan: 1.3 t/ac/yr

Sediment delivery: 1.3 t/ac/yr

Crit. slope length: 120 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

Date	Operation	Vegetation	Surf. res. cov. after op, %
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73

	MO602429P8000B Grundy	MO602429P8000C Grundy	MO602429P8000D Grundy	MO602429P8000E Grundy
County	Grundy	Grundy	Grundy	Grundy
Soil test P level Units	2.4 ppm	7.5 ppm	21.9 ppm	4.8 ppm
Extraction Procedure	Bray-I	Bray-I	Bray-I	Bray-I
Sampling depth	6 to 8 inches			
Tillage	Tilled	Tilled	Tilled	Tilled
RUSLE value - average annual (tons/ac)	0.6	1.9	1.9	1.3
Land cover	Row crop - straight row	Row crop - straight row	Row crop - straight row	Row crop - contoured with residue
Hydrologic soil group	D	C	C	C
Hydrologic condition	Good	Good	Good	Good
Distance from center of field to water feature	1790.3	285.1	384.2	1676.5
Particulate P value	0.4	1.7	1.7	0.8
Soluble P value	0.1	0.1	0.4	0.1
Total P value	0.4	1.8	2.1	0.9
P index rating	LOW	LOW	LOW	LOW
Agronomic P rating (Opt.= 45 lbs/a)	LOW	LOW	MEDIUM	LOW
Sensitivity value	2.3	2.5	2.4	1.9



RUSLE2 Profile Erosion Calculation Record

Info: MO602430P1150B

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\36013 Fatima silt loam, 0 to 2 percent slopes, occasionally flooded\Fatima silt loam 90%

Slope length (horiz): 160 ft

Avg. slope steepness: 1.0 %

<i>Management</i>	<i>Vegetation</i>	<i>Yield units</i>	<i># yield units, #/ac</i>
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Just res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 1.4 t/ac/yr

Detachment on slope: 1.4 t/ac/yr

Soil loss for cons. plan: 1.4 t/ac/yr

Sediment delivery: 1.4 t/ac/yr

Crit. slope length: 160 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

<i>Date</i>	<i>Operation</i>	<i>Vegetation</i>	<i>Surf. res. cov. after op, %</i>
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73

MO602430P1150B

County	Grundy	Grundy	Grundy	Grundy
Soil test P level Units	13 ppm	0 ppm	0 ppm	0 ppm
Extraction Procedure Sampling depth	Bray-I 6 to 8 inches			
Tillage	Tilled	Tilled	Tilled	Tilled
RUSLE value - average annual (tons/ac)	1.4	0	0	0
Land cover	Row crop - straight row	Row crop - straight row	Row crop - straight row	Row crop - contoured with residue
Hydrologic soil group	B	C	C	C
Hydrologic condition	Good	Good	Good	Good
Distance from center of field to water feature	311.2	0	0	0
Particulate P value	0.9	0.0	0.0	0.0
Soluble P value	0.2	0.0	0.0	0.0
Total P value	1.0	0.0	0.0	0.0
P index rating	LOW	LOW	LOW	LOW
Agronomic P rating (Opt. = 45 lbs/a)	MEDIUM	LOW	LOW	LOW
Sensitivity value	1.7	1.9	1.9	1.6



RUSLE2 Profile Erosion Calculation Record

Info: MO602430P1150C

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\36050 Zook silty clay loam, 0 to 2 percent slopes, occasionally flooded\Zook silty clay loam 90%

Slope length (horiz): 120 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	# yield units, #/ac
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

T value: 5.0 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

Crit. slope length: 120 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

Date	Operation	Vegetation	Surf. res. cov. after op, %
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73



RUSLE2 Profile Erosion Calculation Record

Info: MO602430P1400

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\36042 Vesser silt loam, 0 to 2 percent slopes, occasionally flooded\Vesser silt loam 90%

Slope length (horiz): 120 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	# yield units, #/ac
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

just res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 1.3 t/ac/yr

Detachment on slope: 1.3 t/ac/yr

Soil loss for cons. plan: 1.3 t/ac/yr

Sediment delivery: 1.3 t/ac/yr

Crit. slope length: 120 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

Date	Operation	Vegetation	Surf. res. cov. after op, %
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73

	MO602430P1150C	MO602430P1400	Grundy	Grundy
County	Grundy	Grundy	Grundy	Grundy
Soil test P level Units	14 ppm	11 ppm	0 ppm	0 ppm
Extraction Procedure	Bray-1	Bray-1	Bray-1	Bray-1
Sampling depth	6 to 8 inches			
Tillage	Tilled	Tilled	Tilled	Tilled
RUSLE value - average annual (tons/ac)	1.1	1.3	0	0
Land cover	Row crop - straight row	Row crop - straight row	Row crop - straight row	Row crop - contoured with residue
Hydrologic soil group	C	C	C	C
Hydrologic condition	Good	Good	Good	Good
Distance from center of field to water feature	182.9	1286.5	0	0
Particulate P value	1.0	0.9	0.0	0.0
Soluble P value	0.3	0.2	0.0	0.0
Total P value	1.2	1.2	0.0	0.0
P index rating	LOW	LOW	LOW	LOW
Agronomic P rating (Opt. = 45 lbs/a)	MEDIUM	LOW	LOW	LOW
Sensitivity value	2.2	2.2	1.9	1.6

RUSLE2 Profile Erosion Calculation Record

Info: MO602430P4200

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\36046 Wabash silty clay, 0 to 2 percent slopes, occasionally flooded\Wabash silty clay 85%

Slope length (horiz): 160 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	# yield units, #/ac
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 0.60 t/ac/yr

Detachment on slope: 0.60 t/ac/yr

Soil loss for cons. plan: 0.60 t/ac/yr

Sediment delivery: 0.60 t/ac/yr

Crit. slope length: 160 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

Date	Operation	Vegetation	Surf. res. cov. after op, %
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73

RUSLE2 Profile Erosion Calculation Record

Info: MO602430P4300

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\30214 Vigar loam, 2 to 5 percent slopes, rarely flooded\Vigar loam 95%

Slope length (horiz): 130 ft

Avg. slope steepness: 4.0 %

Management	Vegetation	Yield units	# yield units, #/ac
managements\CMZ 04\c.Other Local Mgt Records**CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records**CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

adjust res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 3.6 t/ac/yr

Detachment on slope: 3.6 t/ac/yr

Soil loss for cons. plan: 3.6 t/ac/yr

Sediment delivery: 3.6 t/ac/yr

Crit. slope length: 130 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

Date	Operation	Vegetation	Surf. res. cov. after op, %
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73

RUSLE2 Profile Erosion Calculation Record

Info: MO602430P4400

File: profiles\default

Inputs:

Location: USA\Missouri\Grundy County

Soil: Grundy County, Missouri\36046 Wabash silty clay, 0 to 2 percent slopes, occasionally flooded\Wabash silty clay 85%

Slope length (horiz): 160 ft

Avg. slope steepness: 1.0 %

Management	Vegetation	Yield units	# yield units, #/ac
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Corn, grain	bushels	122.14
managements\CMZ 04\c.Other Local Mgt Records*CB South	vegetations\Soybean, mw 30 in rows	bu	43.800

Contouring: a. rows up-and-down hill

Strips/barriers: (none)

Diversion/terrace, sediment basin: (none)

Subsurface drainage: (none)

Adjust res. burial level: Normal res. burial

Outputs:

T value: 5.0 t/ac/yr

Soil loss erod. portion: 0.60 t/ac/yr

Detachment on slope: 0.60 t/ac/yr

Soil loss for cons. plan: 0.60 t/ac/yr

Sediment delivery: 0.60 t/ac/yr

Crit. slope length: 160 ft

Surf. cover after planting: -- %

Avg. ann. forage harvest: 0 lb/ac

Date	Operation	Vegetation	Surf. res. cov. after op, %
10/25/0	Manure injector, liquid low disturb.30 inch		72
4/10/1	Cultivator, field 6-12 in sweeps		40
4/15/1	Planter, double disk opnr w/fluted coulter	Corn, grain	38
10/25/1	Harvest, killing crop 50pct standing stubble		73
4/28/2	Chisel, st. pt.		43
4/28/2	Cultivator, field 6-12 in sweeps		43
5/1/2	Planter, double disk opnr w/fluted coulter	Soybean, mw 30 in rows	45
10/20/2	Harvest, killing crop 30pct standing stubble		73

County	MO602430P4200	MO602430P4300	MO602430P4400
Soil test P level Units	14 ppm	15 ppm	2.5 ppm
Extraction Procedure	Bray-1	Bray-1	Bray-1
Sampling depth	6 to 8 inches	6 to 8 inches	6 to 8 inches
Tillage	Tilled	Tilled	Tilled
RUSLE value - average annual (tons/ac)	0.6	3.6	0.6
Land cover	Row crop - straight row	Row crop - straight row	Row crop - straight row
Hydrologic soil group	D	C	D
Hydrologic condition	Good	Good	Good
Distance from center of field to water feature	432.2	344.9	344.9
			0

Particulate P value	0.5	3.1	0.5	0.0
Soluble P value	0.3	0.3	0.1	0.0
Total P value	0.8	3.4	0.5	0.0

P index rating	LOW	MEDIUM	LOW	LOW
Agronomic P rating (Opt. = 45 lbs/a)	MEDIUM	MEDIUM	LOW	LOW
Sensitivity value	2.3	2.9	2.3	1.6

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Program	Year	Period	Week Ending	Geo Level	State	State ANSI	Ag District	Ag District Code	County	County ANSI	Zip Code	Region	watershed_code	Watershed	Commodity	Data Item	Domain	Domain Category	Value	CV (%)
SURVEY	2012	YEAR		COUNTY	MISSOURI	29	NORTH CENTRAL	20	GRUNDY	079			00000000		CORN	CORN, GRAIN - YIELD, MEASURED IN BU / ACRE	TOTAL	NOT SPECIFIED	60.5	
SURVEY	2011	YEAR		COUNTY	MISSOURI	29	NORTH CENTRAL	20	GRUNDY	079			00000000		CORN	CORN, GRAIN - YIELD, MEASURED IN BU / ACRE	TOTAL	NOT SPECIFIED	131.6	
SURVEY	2010	YEAR		COUNTY	MISSOURI	29	NORTH CENTRAL	20	GRUNDY	079			00000000		CORN	CORN, GRAIN - YIELD, MEASURED IN BU / ACRE	TOTAL	NOT SPECIFIED	109.1	
SURVEY	2009	YEAR		COUNTY	MISSOURI	29	NORTH CENTRAL	20	GRUNDY	079			00000000		CORN	CORN, GRAIN - YIELD, MEASURED IN BU / ACRE	TOTAL	NOT SPECIFIED	137	
SURVEY	2008	YEAR		COUNTY	MISSOURI	29	NORTH CENTRAL	20	GRUNDY	079			00000000		CORN	CORN, GRAIN - YIELD, MEASURED IN BU / ACRE	TOTAL	NOT SPECIFIED	117	

Avg. = 111

Avg. +10% = 122.14

Quick Stats

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Program	Year	Period	Week Ending	Geo Level	State	State ANSI	Ag District	Ag District Code	County	County ANSI	Zip Code	Region	watershed_code	Watershed	Commodity	Data Item	Domain	Domain Category	Value	CV (%)
SURVEY	2014	YEAR		COUNTY	MISSOURI	29	NORTH CENTRAL	20	GRUNDY	079			00000000		SOYBEANS	SOYBEANS - YIELD, MEASURED IN BU / ACRE	TOTAL	NOT SPECIFIED	44.4	
SURVEY	2012	YEAR		COUNTY	MISSOURI	29	NORTH CENTRAL	20	GRUNDY	079			00000000		SOYBEANS	SOYBEANS - YIELD, MEASURED IN BU / ACRE	TOTAL	NOT SPECIFIED	27.7	
SURVEY	2011	YEAR		COUNTY	MISSOURI	29	NORTH CENTRAL	20	GRUNDY	079			00000000		SOYBEANS	SOYBEANS - YIELD, MEASURED IN BU / ACRE	TOTAL	NOT SPECIFIED	44.3	
SURVEY	2010	YEAR		COUNTY	MISSOURI	29	NORTH CENTRAL	20	GRUNDY	079			00000000		SOYBEANS	SOYBEANS - YIELD, MEASURED IN BU / ACRE	TOTAL	NOT SPECIFIED	40.2	
SURVEY	2009	YEAR		COUNTY	MISSOURI	29	NORTH CENTRAL	20	GRUNDY	079			00000000		SOYBEANS	SOYBEANS - YIELD, MEASURED IN BU / ACRE	TOTAL	NOT SPECIFIED	42.5	

Avg. = 39.8

Avg. +10% = 43.8

Quick Stats

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Program	Year	Period	Week Ending	Geo Level	State	State ANSI	Ag District	Ag District Code	County	County ANSI	Zip Code	Region	watershed_code	Watershed	Commodity	Data Item	Domain	Domain Category	Value	CV (%)
SURVEY	2008	YEAR		COUNTY	MISSOURI	29	NORTH CENTRAL	20	GRUNDY	079			00000000		HAY	HAY - YIELD, MEASURED IN TONS / ACRE	TOTAL	NOT SPECIFIED	1.95	
SURVEY	2007	YEAR		COUNTY	MISSOURI	29	NORTH CENTRAL	20	GRUNDY	079			00000000		HAY	HAY - YIELD, MEASURED IN TONS / ACRE	TOTAL	NOT SPECIFIED	1.68	
SURVEY	2006	YEAR		COUNTY	MISSOURI	29	NORTH CENTRAL	20	GRUNDY	079			00000000		HAY	HAY - YIELD, MEASURED IN TONS / ACRE	TOTAL	NOT SPECIFIED	1.67	
SURVEY	2005	YEAR		COUNTY	MISSOURI	29	NORTH CENTRAL	20	GRUNDY	079			00000000		HAY	HAY - YIELD, MEASURED IN TONS / ACRE	TOTAL	NOT SPECIFIED	1.73	
SURVEY	2004	YEAR		COUNTY	MISSOURI	29	NORTH CENTRAL	20	GRUNDY	079			00000000		HAY	HAY - YIELD, MEASURED IN TONS / ACRE	TOTAL	NOT SPECIFIED	2.04	

Avg. = 1.81
 Avg +10% = ~~1.99~~
 2.00

Missouri

Comprehensive Nutrient Management Plan

FARMER PLAN DOCUMENT

Operation Name: Trenton Farms RE, LLC

This plan is a summary of the key activities for one year of the nutrient management plan. The period of time covered by this plan is:

6/2015 - 5/2016

The objective of this document is to provide a concise list of the nutrient management activities on this operation for the year indicated. Activities covered by this plan include:

- Planned manure transfers and sales.
- Planned manure application dates and rates.
- Planned fertilizer application dates and rates.

Record keeping is an important part of nutrient management. Please use the space in this plan to record what actually occurred on each field.

Farm contact information: Trenton Farms RE, LLC
SW State Highway W
Trenton, MO 64683
507-825-7032 (office)

Whole Plan Period: June 2015 - May 2020

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A. Manure Transfers - 6/2015 - 5/2016

Exports off the Farm: *(blank rows are for recording exports as they occur)*

Export Month	Export Year	Source of Manure	Target Export Amount	Units	Receiving Operation	Notes

Imports onto the Farm: *(blank rows are for recording imports as they occur)*

Import Month	Import Year	Source of Manure	Animal Type	Target Import Amount	Units	Notes

Internal Transfers of Manure: *(blank rows are for recording transfers as they occur)*

Transfer Month	Transfer Year	Source of Manure	Manure Destination	Target Transfer Amount	Units	Notes

B. Planned Manure Applications - 6/2015 - 5/2016

Month and Year	Field ID	Field SubID	Planned Crop(s)	Source	Application Equipment	Acres Covered	Application Rate	Units per acre	Total Applied
Oct 2015	MO602419P 4000		Corn grain	GDU	Injector Tank	61.8	4,000	Gal	247,000
Oct 2015	MO602429P 8000B		Soybeans	Gestation	Injector Tank	94.8	5,800	Gal	549,900
Oct 2015	MO602429P 8000C		Soybeans	Gestation	Injector Tank	21.7	5,800	Gal	126,100
Oct 2015	MO602429P 8000D		Soybeans	Gestation	Injector Tank	225.0	5,800	Gal	1,305,200
Nov 2015	MO602429P 8000D		Soybeans	Gestation	Injector Tank	59.1	5,800	Gal	342,550

Manure Application Records - 6/2015 - 5/2016

App #	Date	Field ID	Field SubID	Manure Source	Application Equipment	Actual Rate	Actual Loads	Total Applied	Acres Covered
1									
2									
3									
4									
5									
6									
7									

Manure Application Records - 6/2015 - 5/2016 (continued)

App #	Applicator's Name	¹ Soil Condition	² Ground Cover	³ Days to Incorporate	Air Temp	Wind Speed	Wind Direction	⁴ Rain Before	⁵ Rain After	⁶ Weather
1										
2										
3										
4										
5										
6										
7										

1. Soil condition at time of operations: Dry, Firm, Wet, Muddy, Snow-Covered, Frozen.
2. Percent residue or ground cover at time of application.
3. Number of days to incorporate manure after application: Use "N1" for no incorporation.
4. Amount of rainfall during the 24 hours prior to application.
5. Amount of rainfall during the 24 hours after application.
6. Weather condition at time of application: Sunny, Partly Cloudy, Cloudy, Rain, Snow.

C. Planned Commercial Fertilizer Applications - 6/2015 - 5/2016

No planned commercial fertilizer applications for the period.

D. Recommended Manure Management Practices

Every time you apply manure you should review the following checklist to be sure conditions are favorable for manure applications. **These practices are required on permitted operations and operations that receive cost-share support through EQIP.**

- Know the proper manure source and application rate for each field.
- Keep good records, write down such things as operations performed, dates and times, actual rates, and weather conditions. This document provides record keeping forms.
- No surface application of manure if precipitation, likely to create runoff, is forecasted to occur within 24 hours of the planned application.
- No manure application on land with a slope greater than 20 percent.
- No surface application of manure to frozen, snow-covered or saturated soils.
- Manure applications shall comply with all manure application setbacks defined in the table below:

Manure application setback distances where manure should not be applied. For streams, lakes and wetlands the setback distance is measured from the defined edge of the water feature.

Setback Feature	Application Conditions	Setback Distance (feet)
Public or private drinking water well, drinking water lake or impoundment, or drinking water intake structure.	All applications	300
Other wells including un-plugged abandon wells	All applications	300
Public and privately owned lakes and impoundments not used as a water supply including impoundments with no outlet. Perennial streams, intermittent streams, canals, drainage ditches and wetlands. Tile line inlet (un-plugged during application).	Permanently vegetated setback	35
	Up-gradient, no or insufficient vegetated setback	100
	Down-gradient, no or insufficient vegetated setback	35
Losing streams, cave entrance, spring, or active sinkhole.	All applications	300
Non-owned occupied residence.	All applications	150
Public use area including non-owned businesses.	All applications	150
Public roads and property boundaries.	All applications	50

The following practices are recommended:

- Apply nutrients close to crop use to maximize nutrient uptake and reduce potential losses.
- Calibrate and maintain application equipment to apply accurate and uniform rates; all land application equipment should be calibrated at least annually.
- Avoid application when wind is blowing in the direction of neighbors or on weekends and holidays when people are more likely to be outdoors.

For liquid applications:

- Adjusting surface application rates to meet infiltration rate and water holding capacity of the soil.
- Irrigation systems should have automatic shut-off devices in case of pressure loss and/or an operator on-site at all times during operation to monitor application equipment.
- The perimeter of all fields receiving manure should be checked regularly during operation of land application equipment to confirm manure is not running off the field or entering waters of the state.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P1300

Field Information

Total Acres:	14.4	Spreadable Acres:	12.2
Non-Spreadable Acres:	2.2	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	100	75	80

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P4000

Field Information

Total Acres:	112.2	Spreadable Acres:	102.2
Non-Spreadable Acres:	10.0	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	100	75	80

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2015			
Manure Source	GDU			
Application Rate	4,000 gal/a			
Acres Covered	61.8			
Total Applied	247,000 gal			
Loads per Field	38.0			
Placement	Injected			
N (lbs/acres)	154			
P₂O₅ (lbs/acre)	168			
K₂O (lbs/acre)	106			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602420P3400

Field Information

Total Acres:	30.9	Spreadable Acres:	29.3
Non-Spreadable Acres:	1.6	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	70	20

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602420P4000

Field Information

Total Acres:	108.8	Spreadable Acres:	104.6
Non-Spreadable Acres:	4.2	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	70	45

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602421P3500B

Field Information

Total Acres:	25.2	Spreadable Acres:	21.6
Non-Spreadable Acres:	3.6	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	80	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602421P3500C

Field Information

Total Acres:	19.8	Spreadable Acres:	18.7
Non-Spreadable Acres:	1.1	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	125	0	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000B

Field Information

Total Acres:	98.7	Spreadable Acres:	94.7
Non-Spreadable Acres:	4.0	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	100	55

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2015			
Manure Source	Gestation			
Application Rate	5,800 gal/a			
Acres Covered	94.8			
Total Applied	549,900 gal			
Loads per Field	84.6			
Placement	Injected			
N (lbs/acres)	96			
P₂O₅ (lbs/acre)	145			
K₂O (lbs/acre)	206			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000C

Field Information

Total Acres:	24.1	Spreadable Acres:	21.7
Non-Spreadable Acres:	2.4	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	75	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2015			
Manure Source	Gestation			
Application Rate	5,800 gal/a			
Acres Covered	21.7			
Total Applied	126,100 gal			
Loads per Field	19.4			
Placement	Injected			
N (lbs/acres)	96			
P₂O₅ (lbs/acre)	145			
K₂O (lbs/acre)	206			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000D

Field Information

Total Acres:	186.1	Spreadable Acres:	168.2
Non-Spreadable Acres:	17.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	40	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1	Application 2		
Application Time	Oct 2015	Nov 2015		
Manure Source	Gestation	Gestation		
Application Rate	5,800 gal/a	5,800 gal/a		
Acres Covered	225.0	59.1		
Total Applied	1,305,200 gal	342,550 gal		
Loads per Field	200.8	52.7		
Placement	Injected	Injected		
N (lbs/acres)	96	96		
P₂O₅ (lbs/acre)	145	145		
K₂O (lbs/acre)	206	206		

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P1150B

Field Information

Total Acres:	6.0	Spreadable Acres:	4.9
Non-Spreadable Acres:	1.1	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	100	80	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P1150C

Field Information

Total Acres:	6.9	Spreadable Acres:	6.0
Non-Spreadable Acres:	0.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	75	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P1400

Field Information

Total Acres:	21.0	Spreadable Acres:	13.9
Non-Spreadable Acres:	7.1	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	100	80	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID:

Field Information

Total Acres:	1.0	Spreadable Acres:	
Non-Spreadable Acres:		Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
------	------------	---	-------------------------------	------------------

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P3000B

Field Information

Total Acres:	34.0	Spreadable Acres:	31.7
Non-Spreadable Acres:	2.3	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	80	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P3000C

Field Information

Total Acres:	3.9	Spreadable Acres:	0.7
Non-Spreadable Acres:	3.2	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	125	85	15

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P3000D

Field Information

Total Acres:	3.7	Spreadable Acres:	1.9
Non-Spreadable Acres:	1.8	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	85	30

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000E

Field Information

Total Acres:	111.4	Spreadable Acres:	98.9
Non-Spreadable Acres:	12.5	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	85	35

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P4200

Field Information

Total Acres:	11.3	Spreadable Acres:	2.4
Non-Spreadable Acres:	8.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	55	30

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P4300

Field Information

Total Acres:	17.1	Spreadable Acres:	7.2
Non-Spreadable Acres:	9.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	55	45

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2015 - 5/2016 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P4400

Field Information

Total Acres:	35.6	Spreadable Acres:	31.0
Non-Spreadable Acres:	4.6	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	100	40

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Summary Tables - 6/2015 - 5/2016

F. Manure Summary: 6/2015 - 5/2016

	Source 1	Source 2		
Source	Gestation	GDU		
Units	gals	gals		
Beginning of Year Inventory	0	0		
Inputs				
Production	4,558,000	502,000		
Imports - off farm	0	0		
Transfers - on farm	0	0		
Total Inputs	4,558,000	502,000		
Outputs				
Land Applied	2,323,750	247,000		
Exports - off farm	0	0		
Transfers - on farm	0	0		
Total Outputs	2,323,750	247,000		
End of Year Inventory	2,234,250	255,000		

G. Land Applied Nutrient Summary: 6/2015 - 5/2016

	Total Applied	PAN ¹	P ₂ O ₅	K ₂ O
Manure Source	(tons or gals)	-----lbs-----		
Gestation	2,323,750 gals	38,458	58,087	82,524
GDU	247,000 gals	9,517	10,382	6,551
Manure Total		47,975	68,469	89,075
	Total Applied	N	P ₂ O ₅	K ₂ O
Fertilizer Source	(lbs or gals)	-----lbs-----		
Fertilizer Total		0	0	0
Total		47,975	68,469	89,075

H. Lime Recommendations

These lime recommendations are one-time applications meant to be applied only once to adjust soil pH to its desired level. If you have already applied the recommended lime rate in a previous year of this plan please disregard these recommendations.

Lime Recommendations¹

Field ID	Field SubID	Field Size	Test Year	NA ²	pH	pH Rating	Mg (lbs/a)	Mg Rating	Lime Rec. lbs ENM/acre ³	Mg Rec. lbs EMg/acre ⁴
MO602419P1300		14.4	2012	6.9	5.8	Medium	302	High	1,780	0 [D]
MO602419P4000		112.2	2012	6.9	5.8	Medium	302	High	1,780	0 [D]
MO602420P3400		30.9	2015	6.5	5.9	Medium	1,306	High	1,565	0 [D]
MO602420P4000		108.8	2015	6.5	5.7	Medium	1,358	High	1,765	0 [D]
MO602421P3500B		25.2	2015	6.4	5.7	Medium	1,334	High	1,740	0 [D]
MO602421P3500C		19.8	2015	6.4	5.6	Medium	1,238	High	1,815	0 [D]
MO602429P8000B		98.7	2015	6.6	6.1	High	1,522	High	1,295	0 [D]
MO602429P8000C		24.1	2015	6.7	6.4	High	1,562	High	495	0 [D]
MO602429P8000D		186.1	2015	6.7	6.5	High	1,290	High	0	0
MO602430P1150B		6.0	2012	7.1	6.5	High	566	High	0	0
MO602430P1150C		6.9	2015	6.4	5.8	Medium	1,584	High	1,650	0 [D]
MO602430P1400		21.0	2012	7.1	6.5	High	566	High	0	0
		1.0	2012	6.6	5.7	**	652	**	**	**
MO602419P3000B		34.0	2015	6.4	5.8	Medium	1,502	High	1,650	0 [D]
MO602419P3000C		3.9	2015	6.3	5.6	Medium	1,574	High	1,790	0 [D]
MO602419P3000D		3.7	2015	6.3	5.5	Medium	1,370	High	1,850	0 [D]
MO602429P8000E		111.4	2015	6.7	6.3	High	1,506	High	840	0 [D]
MO602430P4200		11.3	2015		7.0	*	842	*	*	*

Field ID	Field SubID	Field Size	Test Year	NA ²	pH	pH Rating	Mg (lbs/a)	Mg Rating	Lime Rec. lbs ENM/acre ³	Mg Rec. lbs EMg/acre ⁴
MO602430P4300		17.1	2015		7.0	*	835	*	*	*
MO602430P4400		35.6	2015	6.7	6.2	High	1,324	High	1,105	0 [D]

¹These lime recommendations assume you used the University of Missouri soil testing laboratory, or comparable lab.

²NA = Neutralizable Acidity, units in meq/100g soil.

³ENM = Effective Neutralizing Material.

⁴EMg = Effective Magnesium.

** - No recommendation: No crop has been selected for this field in order to calculate lime recommendation.

* - No recommendation: Some soil test data is missing for this field. Please run the Essential Data Detection Tool.

[D] To determine limestone needed in tons/acre, divide your ENM requirement by the guarantee of your limestone dealer.

I. Crop Record Keeping Table: 6/2015 - 5/2016

Field ID	Field SubID	Crop	Planting Date	Hybrid or Variety	Seeding Rate	Harvest date(s)	Yield/A
MO602419P 1300		Corn grain					
MO602419P 4000		Corn grain					
MO602420P 3400		Corn grain					
MO602420P 4000		Soybeans					
MO602421P 3500B		Corn grain					
MO602421P 3500C		Corn grain					
MO602429P 8000B		Soybeans					
MO602429P 8000C		Soybeans					
MO602429P 8000D		Soybeans					
MO602430P 1150B		Corn grain					
MO602430P 1150C		Corn grain					
MO602430P 1400		Corn grain					
MO602419P 3000B		Corn grain					
MO602419P 3000C		Corn grain					
MO602419P 3000D		Corn grain					
MO602429P		Soybeans					

Field ID	Field SubID	Crop	Planting Date	Hybrid or Variety	Seeding Rate	Harvest date(s)	Yield/A
8000E							
MO602430P 4200		Soybeans					
MO602430P 4300		Soybeans					
MO602430P 4400		Soybeans					

Document Source Information

Report based on information from Manure Management Planer (MMP 0.3.3.2)

Plan:

File: S:\Manure ground\MMP P Index Plans\Trenton Farms RE, LLC\Original MMP 2015.mmp
Initialized: 11/6/2008
Last Saved: 6/3/2015 5:00:06 PM
Exported: 6/3/2015 5:03:14 PM
Title:
Years in Plan: 5
Plan Start Year: 2015
Plan Start Month: 6

Operation:

Name: Trenton Farms RE, LLC

Operation Contact:

Trenton Farms RE, LLC
SW State Highway W
Trenton MO 64683
507-825-7032 (office)
(home)

Missouri

Comprehensive Nutrient Management Plan

FARMER PLAN DOCUMENT

Operation Name: Trenton Farms RE, LLC

This plan is a summary of the key activities for one year of the nutrient management plan. The period of time covered by this plan is:

6/2016 - 5/2017

The objective of this document is to provide a concise list of the nutrient management activities on this operation for the year indicated. Activities covered by this plan include:

- Planned manure transfers and sales.
- Planned manure application dates and rates.
- Planned fertilizer application dates and rates.

Record keeping is an important part of nutrient management. Please use the space in this plan to record what actually occurred on each field.

Farm contact information: Trenton Farms RE, LLC
SW State Highway W
Trenton, MO 64683
507-825-7032 (office)

Whole Plan Period: June 2015 - May 2020

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A. Manure Transfers - 6/2016 - 5/2017

Exports off the Farm: *(blank rows are for recording exports as they occur)*

Export Month	Export Year	Source of Manure	Target Export Amount	Units	Receiving Operation	Notes

Imports onto the Farm: *(blank rows are for recording imports as they occur)*

Import Month	Import Year	Source of Manure	Animal Type	Target Import Amount	Units	Notes

Internal Transfers of Manure: *(blank rows are for recording transfers as they occur)*

Transfer Month	Transfer Year	Source of Manure	Manure Destination	Target Transfer Amount	Units	Notes

B. Planned Manure Applications - 6/2016 - 5/2017

Month and Year	Field ID	Field SubID	Planned Crop(s)	Source	Application Equipment	Acres Covered	Application Rate	Units per acre	Total Applied
Oct 2016	MO602419P 1300		Soybeans	GDU	Injector Tank	12.3	2,600	Gal	31,850
Oct 2016	MO602419P 3000B		Soybeans	Gestation	Injector Tank	9.2	7,900	Gal	72,800
Oct 2016	MO602419P 3000C		Soybeans	GDU	Injector Tank	0.8	3,300	Gal	2,600
Oct 2016	MO602419P 3000D		Soybeans	GDU	Injector Tank	1.9	3,400	Gal	6,500
Oct 2016	MO602419P 4000		Soybeans	GDU	Injector Tank	102.4	2,400	Gal	245,700
Oct 2016	MO602420P 3400		Soybeans	GDU	Injector Tank	29.5	2,600	Gal	76,700
Oct 2016	MO602420P 4000		Corn grain	Gestation	Injector Tank	75.6	9,300	Gal	703,300
Oct 2016	MO602421P 3500C		Soybeans	Gestation	Injector Tank	18.8	6,100	Gal	114,400
Oct 2016	MO602429P 8000B		Corn grain	Gestation	Injector Tank	94.8	8,300	Gal	786,500
Oct 2016	MO602429P 8000C		Corn grain	Gestation	Injector Tank	21.8	8,300	Gal	180,700
Oct 2016	MO602429P 8000D		Corn grain	Gestation	Injector Tank	284.0	8,300	Gal	2,357,550
Oct 2016	MO602430P 1150B		Soybeans	GDU	Injector Tank	5.0	2,600	Gal	13,000
Oct 2016	MO602430P 1150C		Soybeans	GDU	Injector Tank	6.0	2,600	Gal	15,600
Oct 2016	MO602430P 1400		Soybeans	GDU	Injector Tank	14.0	2,600	Gal	36,400
Oct 2016	MO602430P 4200		Corn grain	GDU	Injector Tank	2.4	4,000	Gal	9,750

Month and Year	Field ID	Field SubID	Planned Crop(s)	Source	Application Equipment	Acres Covered	Application Rate	Units per acre	Total Applied
Oct 2016	MO602430P 4300		Corn grain	GDU	Injector Tank	7.3	4,000	Gal	29,250
Oct 2016	MO602430P 4400		Corn grain	GDU	Injector Tank	8.6	4,000	Gal	34,450
Nov 2016	MO602420P 4000		Corn grain	Gestation	Injector Tank	29.0	9,300	Gal	269,750
Nov 2016	MO602421P 3500B		Soybeans	Gestation	Injector Tank	20.7	6,100	Gal	126,100

Manure Application Records - 6/2016 - 5/2017

App #	Date	Field ID	Field SubID	Manure Source	Application Equipment	Actual Rate	Actual Loads	Total Applied	Acres Covered
1									
2									
3									
4									
5									
6									
7									

Manure Application Records - 6/2016 - 5/2017 (continued)

App #	Applicator's Name	¹ Soil Condition	² Ground Cover	³ Days to Incorporate	Air Temp	Wind Speed	Wind Direction	⁴ Rain Before	⁵ Rain After	⁶ Weather
1										
2										
3										
4										
5										
6										
7										

1. Soil condition at time of operations: Dry, Firm, Wet, Muddy, Snow-Covered, Frozen.
2. Percent residue or ground cover at time of application.
3. Number of days to incorporate manure after application: Use "N1" for no incorporation.
4. Amount of rainfall during the 24 hours prior to application.
5. Amount of rainfall during the 24 hours after application.
6. Weather condition at time of application: Sunny, Partly Cloudy, Cloudy, Rain, Snow.

Manure Application Records - 6/2016 - 5/2017

App #	Date	Field ID	Field SubID	Manure Source	Application Equipment	Actual Rate	Actual Loads	Total Applied	Acres Covered
8									
9									
10									
11									
12									
13									
14									

Manure Application Records - 6/2016 - 5/2017 (continued)

App #	Applicator's Name	¹ Soil Condition	² Ground Cover	³ Days to Incorporate	Air Temp	Wind Speed	Wind Direction	⁴ Rain Before	⁵ Rain After	⁶ Weather
8										
9										
10										
11										
12										
13										
14										

1. Soil condition at time of operations: Dry, Firm, Wet, Muddy, Snow-Covered, Frozen.
2. Percent residue or ground cover at time of application.
3. Number of days to incorporate manure after application: Use "N1" for no incorporation.
4. Amount of rainfall during the 24 hours prior to application.
5. Amount of rainfall during the 24 hours after application.
6. Weather condition at time of application: Sunny, Partly Cloudy, Cloudy, Rain, Snow.

Manure Application Records - 6/2016 - 5/2017

App #	Date	Field ID	Field SubID	Manure Source	Application Equipment	Actual Rate	Actual Loads	Total Applied	Acres Covered
15									
16									
17									
18									
19									
20									
21									

Manure Application Records - 6/2016 - 5/2017 (continued)

App #	Applicator's Name	¹ Soil Condition	² Ground Cover	³ Days to Incorporate	Air Temp	Wind Speed	Wind Direction	⁴ Rain Before	⁵ Rain After	⁶ Weather
15										
16										
17										
18										
19										
20										
21										

1. Soil condition at time of operations: Dry, Firm, Wet, Muddy, Snow-Covered, Frozen.
2. Percent residue or ground cover at time of application.
3. Number of days to incorporate manure after application: Use "N1" for no incorporation.
4. Amount of rainfall during the 24 hours prior to application.
5. Amount of rainfall during the 24 hours after application.
6. Weather condition at time of application: Sunny, Partly Cloudy, Cloudy, Rain, Snow.

C. Planned Commercial Fertilizer Applications - 6/2016 - 5/2017

No planned commercial fertilizer applications for the period.

D. Recommended Manure Management Practices

Every time you apply manure you should review the following checklist to be sure conditions are favorable for manure applications. **These practices are required on permitted operations and operations that receive cost-share support through EQIP.**

- Know the proper manure source and application rate for each field.
- Keep good records, write down such things as operations performed, dates and times, actual rates, and weather conditions. This document provides record keeping forms.
- No surface application of manure if precipitation, likely to create runoff, is forecasted to occur within 24 hours of the planned application.
- No manure application on land with a slope greater than 20 percent.
- No surface application of manure to frozen, snow-covered or saturated soils.
- Manure applications shall comply with all manure application setbacks defined in the table below:

Manure application setback distances where manure should not be applied. For streams, lakes and wetlands the setback distance is measured from the defined edge of the water feature.

Setback Feature	Application Conditions	Setback Distance (feet)
Public or private drinking water well, drinking water lake or impoundment, or drinking water intake structure.	All applications	300
Other wells including un-plugged abandon wells	All applications	300
Public and privately owned lakes and impoundments not used as a water supply including impoundments with no outlet. Perennial streams, intermittent streams, canals, drainage ditches and wetlands. Tile line inlet (un-plugged during application).	Permanently vegetated setback	35
	Up-gradient, no or insufficient vegetated setback	100
	Down-gradient, no or insufficient vegetated setback	35
Losing streams, cave entrance, spring, or active sinkhole.	All applications	300
Non-owned occupied residence.	All applications	150
Public use area including non-owned businesses.	All applications	150
Public roads and property boundaries.	All applications	50

The following practices are recommended:

- Apply nutrients close to crop use to maximize nutrient uptake and reduce potential losses.
- Calibrate and maintain application equipment to apply accurate and uniform rates; all land application equipment should be calibrated at least annually.
- Avoid application when wind is blowing in the direction of neighbors or on weekends and holidays when people are more likely to be outdoors.

For liquid applications:

- Adjusting surface application rates to meet infiltration rate and water holding capacity of the soil.
- Irrigation systems should have automatic shut-off devices in case of pressure loss and/or an operator on-site at all times during operation to monitor application equipment.
- The perimeter of all fields receiving manure should be checked regularly during operation of land application equipment to confirm manure is not running off the field or entering waters of the state.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P1300

Field Information

Total Acres:	14.4	Spreadable Acres:	12.2
Non-Spreadable Acres:	2.2	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	60	105

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	GDU			
Application Rate	2,600 gal/a			
Acres Covered	12.3			
Total Applied	31,850 gal			
Loads per Field	4.9			
Placement	Injected			
N (lbs/acres)	100			
P₂O₅ (lbs/acre)	109			
K₂O (lbs/acre)	69			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P4000

Field Information

Total Acres:	112.2	Spreadable Acres:	102.2
Non-Spreadable Acres:	10.0	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	60	105

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	GDU			
Application Rate	2,400 gal/a			
Acres Covered	102.4			
Total Applied	245,700 gal			
Loads per Field	37.8			
Placement	Injected			
N (lbs/acres)	92			
P₂O₅ (lbs/acre)	101			
K₂O (lbs/acre)	63			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602420P3400

Field Information

Total Acres:	30.9	Spreadable Acres:	29.3
Non-Spreadable Acres:	1.6	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	50	40

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	GDU			
Application Rate	2,600 gal/a			
Acres Covered	29.5			
Total Applied	76,700 gal			
Loads per Field	11.8			
Placement	Injected			
N (lbs/acres)	100			
P₂O₅ (lbs/acre)	109			
K₂O (lbs/acre)	69			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602420P4000

Field Information

Total Acres:	108.8	Spreadable Acres:	104.6
Non-Spreadable Acres:	4.2	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	85	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1	Application 2		
Application Time	Oct 2016	Nov 2016		
Manure Source	Gestation	Gestation		
Application Rate	9,300 gal/a	9,300 gal/a		
Acres Covered	75.6	29.0		
Total Applied	703,300 gal	269,750 gal		
Loads per Field	108.2	41.5		
Placement	Injected	Injected		
N (lbs/acres)	153	153		
P₂O₅ (lbs/acre)	233	233		
K₂O (lbs/acre)	330	330		

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602421P3500B

Field Information

Total Acres:	25.2	Spreadable Acres:	21.6
Non-Spreadable Acres:	3.6	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	60	40

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Nov 2016			
Manure Source	Gestation			
Application Rate	6,100 gal/a			
Acres Covered	20.7			
Total Applied	126,100 gal			
Loads per Field	19.4			
Placement	Injected			
N (lbs/acres)	101			
P₂O₅ (lbs/acre)	153			
K₂O (lbs/acre)	217			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602421P3500C

Field Information

Total Acres:	19.8	Spreadable Acres:	18.7
Non-Spreadable Acres:	1.1	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	0	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	Gestation			
Application Rate	6,100 gal/a			
Acres Covered	18.8			
Total Applied	114,400 gal			
Loads per Field	17.6			
Placement	Injected			
N (lbs/acres)	101			
P₂O₅ (lbs/acre)	153			
K₂O (lbs/acre)	217			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000B

Field Information

Total Acres:	98.7	Spreadable Acres:	94.7
Non-Spreadable Acres:	4.0	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	135	115	30

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	Gestation			
Application Rate	8,300 gal/a			
Acres Covered	94.8			
Total Applied	786,500 gal			
Loads per Field	121.0			
Placement	Injected			
N (lbs/acres)	137			
P₂O₅ (lbs/acre)	208			
K₂O (lbs/acre)	295			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000C

Field Information

Total Acres:	24.1	Spreadable Acres:	21.7
Non-Spreadable Acres:	2.4	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	95	15

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	Gestation			
Application Rate	8,300 gal/a			
Acres Covered	21.8			
Total Applied	180,700 gal			
Loads per Field	27.8			
Placement	Injected			
N (lbs/acres)	137			
P₂O₅ (lbs/acre)	208			
K₂O (lbs/acre)	295			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000D

Field Information

Total Acres:	186.1	Spreadable Acres:	168.2
Non-Spreadable Acres:	17.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	55	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	Gestation			
Application Rate	8,300 gal/a			
Acres Covered	284.0			
Total Applied	2,357,550 gal			
Loads per Field	362.7			
Placement	Injected			
N (lbs/acres)	137			
P₂O₅ (lbs/acre)	208			
K₂O (lbs/acre)	295			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P1150B

Field Information

Total Acres:	6.0	Spreadable Acres:	4.9
Non-Spreadable Acres:	1.1	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	60	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	GDU			
Application Rate	2,600 gal/a			
Acres Covered	5.0			
Total Applied	13,000 gal			
Loads per Field	2.0			
Placement	Injected			
N (lbs/acres)	100			
P₂O₅ (lbs/acre)	109			
K₂O (lbs/acre)	69			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P1150C

Field Information

Total Acres:	6.9	Spreadable Acres:	6.0
Non-Spreadable Acres:	0.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	55	40

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	GDU			
Application Rate	2,600 gal/a			
Acres Covered	6.0			
Total Applied	15,600 gal			
Loads per Field	2.4			
Placement	Injected			
N (lbs/acres)	100			
P₂O₅ (lbs/acre)	109			
K₂O (lbs/acre)	69			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P1400

Field Information

Total Acres:	21.0	Spreadable Acres:	13.9
Non-Spreadable Acres:	7.1	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	60	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	GDU			
Application Rate	2,600 gal/a			
Acres Covered	14.0			
Total Applied	36,400 gal			
Loads per Field	5.6			
Placement	Injected			
N (lbs/acres)	100			
P₂O₅ (lbs/acre)	109			
K₂O (lbs/acre)	69			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID:

Field Information

Total Acres:	1.0	Spreadable Acres:	
Non-Spreadable Acres:		Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
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This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P3000B

Field Information

Total Acres:	34.0	Spreadable Acres:	31.7
Non-Spreadable Acres:	2.3	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	60	40

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	Gestation			
Application Rate	7,900 gal/a			
Acres Covered	9.2			
Total Applied	72,800 gal			
Loads per Field	11.2			
Placement	Injected			
N (lbs/acres)	130			
P₂O₅ (lbs/acre)	198			
K₂O (lbs/acre)	280			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P3000C

Field Information

Total Acres:	3.9	Spreadable Acres:	0.7
Non-Spreadable Acres:	3.2	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	65	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	GDU			
Application Rate	3,300 gal/a			
Acres Covered	0.8			
Total Applied	2,600 gal			
Loads per Field	0.4			
Placement	Injected			
N (lbs/acres)	127			
P₂O₅ (lbs/acre)	139			
K₂O (lbs/acre)	87			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P3000D

Field Information

Total Acres:	3.7	Spreadable Acres:	1.9
Non-Spreadable Acres:	1.8	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	65	50

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	GDU			
Application Rate	3,400 gal/a			
Acres Covered	1.9			
Total Applied	6,500 gal			
Loads per Field	1.0			
Placement	Injected			
N (lbs/acres)	131			
P₂O₅ (lbs/acre)	143			
K₂O (lbs/acre)	90			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000E

Field Information

Total Acres:	111.4	Spreadable Acres:	98.9
Non-Spreadable Acres:	12.5	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	105	20

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P4200

Field Information

Total Acres:	11.3	Spreadable Acres:	2.4
Non-Spreadable Acres:	8.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	140	75	20

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	GDU			
Application Rate	4,000 gal/a			
Acres Covered	2.4			
Total Applied	9,750 gal			
Loads per Field	1.5			
Placement	Injected			
N (lbs/acres)	154			
P₂O₅ (lbs/acre)	168			
K₂O (lbs/acre)	106			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P4300

Field Information

Total Acres:	17.1	Spreadable Acres:	7.2
Non-Spreadable Acres:	9.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	140	70	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	GDU			
Application Rate	4,000 gal/a			
Acres Covered	7.3			
Total Applied	29,250 gal			
Loads per Field	4.5			
Placement	Injected			
N (lbs/acres)	154			
P₂O₅ (lbs/acre)	168			
K₂O (lbs/acre)	106			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2016 - 5/2017 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P4400

Field Information

Total Acres:	35.6	Spreadable Acres:	31.0
Non-Spreadable Acres:	4.6	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	125	115	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2016			
Manure Source	GDU			
Application Rate	4,000 gal/a			
Acres Covered	8.6			
Total Applied	34,450 gal			
Loads per Field	5.3			
Placement	Injected			
N (lbs/acres)	154			
P₂O₅ (lbs/acre)	168			
K₂O (lbs/acre)	106			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

Summary Tables - 6/2016 - 5/2017

F. Manure Summary: 6/2016 - 5/2017

	Source 1	Source 2		
Source	Gestation	GDU		
Units	gals	gals		
Beginning of Year Inventory	2,234,250	255,000		
Inputs				
Production	4,558,000	502,000		
Imports - off farm	0	0		
Transfers - on farm	0	0		
Total Inputs	4,558,000	502,000		
Outputs				
Land Applied	4,611,100	501,800		
Exports - off farm	0	0		
Transfers - on farm	0	0		
Total Outputs	4,611,100	501,800		
End of Year Inventory	2,181,150	255,200		

G. Land Applied Nutrient Summary: 6/2016 - 5/2017

	Total Applied	PAN ¹	P ₂ O ₅	K ₂ O
Manure Source	(tons or gals)	-----lbs-----		
Gestation	4,611,100 gals	76,073	115,561	163,843
GDU	501,800 gals	19,270	21,081	13,242
Manure Total		95,343	136,642	177,085
	Total Applied	N	P ₂ O ₅	K ₂ O
Fertilizer Source	(lbs or gals)	-----lbs-----		
Fertilizer Total		0	0	0
Total		95,343	136,642	177,085

H. Lime Recommendations

These lime recommendations are one-time applications meant to be applied only once to adjust soil pH to its desired level. If you have already applied the recommended lime rate in a previous year of this plan please disregard these recommendations.

Lime Recommendations¹

Field ID	Field SubID	Field Size	Test Year	NA ²	pH	pH Rating	Mg (lbs/a)	Mg Rating	Lime Rec. lbs ENM/acre ³	Mg Rec. lbs EMg/acre ⁴
MO602419P1300		14.4	2012	6.9	5.8	Medium	302	High	1,780	0 [D]
MO602419P4000		112.2	2012	6.9	5.8	Medium	302	High	1,780	0 [D]
MO602420P3400		30.9	2015	6.5	5.9	Medium	1,306	High	1,565	0 [D]
MO602420P4000		108.8	2015	6.5	5.7	Medium	1,358	High	1,765	0 [D]
MO602421P3500B		25.2	2015	6.4	5.7	Medium	1,334	High	1,740	0 [D]
MO602421P3500C		19.8	2015	6.4	5.6	Medium	1,238	High	1,815	0 [D]
MO602429P8000B		98.7	2015	6.6	6.1	High	1,522	High	1,295	0 [D]
MO602429P8000C		24.1	2015	6.7	6.4	High	1,562	High	495	0 [D]
MO602429P8000D		186.1	2015	6.7	6.5	High	1,290	High	0	0
MO602430P1150B		6.0	2012	7.1	6.5	High	566	High	0	0
MO602430P1150C		6.9	2015	6.4	5.8	Medium	1,584	High	1,650	0 [D]
MO602430P1400		21.0	2012	7.1	6.5	High	566	High	0	0
		1.0	2012	6.6	5.7	**	652	**	**	**
MO602419P3000B		34.0	2015	6.4	5.8	Medium	1,502	High	1,650	0 [D]
MO602419P3000C		3.9	2015	6.3	5.6	Medium	1,574	High	1,790	0 [D]
MO602419P3000D		3.7	2015	6.3	5.5	Medium	1,370	High	1,850	0 [D]
MO602429P8000E		111.4	2015	6.7	6.3	High	1,506	High	840	0 [D]
MO602430P4200		11.3	2015		7.0	*	842	*	*	*

Field ID	Field SubID	Field Size	Test Year	NA ²	pH	pH Rating	Mg (lbs/a)	Mg Rating	Lime Rec. lbs ENM/acre ³	Mg Rec. lbs EMg/acre ⁴
MO602430P4300		17.1	2015		7.0	*	835	*	*	*
MO602430P4400		35.6	2015	6.7	6.2	High	1,324	High	1,105	0 [D]

¹These lime recommendations assume you used the University of Missouri soil testing laboratory, or comparable lab.

²NA = Neutralizable Acidity, units in meq/100g soil.

³ENM = Effective Neutralizing Material.

⁴EMg = Effective Magnesium.

** - No recommendation: No crop has been selected for this field in order to calculate lime recommendation.

* - No recommendation: Some soil test data is missing for this field. Please run the Essential Data Detection Tool.

[D] To determine limestone needed in tons/acre, divide your ENM requirement by the guarantee of your limestone dealer.

I. Crop Record Keeping Table: 6/2016 - 5/2017

Field ID	Field SubID	Crop	Planting Date	Hybrid or Variety	Seeding Rate	Harvest date(s)	Yield/A
MO602419P 1300		Soybeans					
MO602419P 4000		Soybeans					
MO602420P 3400		Soybeans					
MO602420P 4000		Corn grain					
MO602421P 3500B		Soybeans					
MO602421P 3500C		Soybeans					
MO602429P 8000B		Corn grain					
MO602429P 8000C		Corn grain					
MO602429P 8000D		Corn grain					
MO602430P 1150B		Soybeans					
MO602430P 1150C		Soybeans					
MO602430P 1400		Soybeans					
MO602419P 3000B		Soybeans					
MO602419P 3000C		Soybeans					
MO602419P 3000D		Soybeans					
MO602429P		Corn grain					

Field ID	Field SubID	Crop	Planting Date	Hybrid or Variety	Seeding Rate	Harvest date(s)	Yield/A
8000E							
MO602430P 4200		Corn grain					
MO602430P 4300		Corn grain					
MO602430P 4400		Corn grain					

Document Source Information

Report based on information from Manure Management Planer (MMP 0.3.3.2)

Plan:

File: S:\Manure ground\MMP P Index Plans\Trenton Farms RE, LLC\Original MMP 2015.mmp
Initialized: 11/6/2008
Last Saved: 6/3/2015 5:00:06 PM
Exported: 6/3/2015 5:03:14 PM
Title:
Years in Plan: 5
Plan Start Year: 2015
Plan Start Month: 6

Operation:

Name: Trenton Farms RE, LLC

Operation Contact:

Trenton Farms RE, LLC
SW State Highway W
Trenton MO 64683
507-825-7032 (office)
(home)

Missouri

Comprehensive Nutrient Management Plan

FARMER PLAN DOCUMENT

Operation Name: Trenton Farms RE, LLC

This plan is a summary of the key activities for one year of the nutrient management plan. The period of time covered by this plan is:

6/2017 - 5/2018

The objective of this document is to provide a concise list of the nutrient management activities on this operation for the year indicated. Activities covered by this plan include:

- Planned manure transfers and sales.
- Planned manure application dates and rates.
- Planned fertilizer application dates and rates.

Record keeping is an important part of nutrient management. Please use the space in this plan to record what actually occurred on each field.

Farm contact information: Trenton Farms RE, LLC
SW State Highway W
Trenton, MO 64683
507-825-7032 (office)

Whole Plan Period: June 2015 - May 2020

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A. Manure Transfers - 6/2017 - 5/2018

Exports off the Farm: *(blank rows are for recording exports as they occur)*

Export Month	Export Year	Source of Manure	Target Export Amount	Units	Receiving Operation	Notes

Imports onto the Farm: *(blank rows are for recording imports as they occur)*

Import Month	Import Year	Source of Manure	Animal Type	Target Import Amount	Units	Notes

Internal Transfers of Manure: *(blank rows are for recording transfers as they occur)*

Transfer Month	Transfer Year	Source of Manure	Manure Destination	Target Transfer Amount	Units	Notes

B. Planned Manure Applications - 6/2017 - 5/2018

Month and Year	Field ID	Field SubID	Planned Crop(s)	Source	Application Equipment	Acres Covered	Application Rate	Units per acre	Total Applied
Sep 2017	MO602430P 1150B		Corn grain	GDU	Injector Tank	5.0	3,800	Gal	18,850
Oct 2017	MO602419P 1300		Corn grain	GDU	Injector Tank	12.3	3,800	Gal	46,800
Oct 2017	MO602419P 4000		Corn grain	GDU	Injector Tank	102.3	3,800	Gal	388,700
Oct 2017	MO602420P 3400		Corn grain	Gestation	Injector Tank	29.4	9,300	Gal	273,000
Oct 2017	MO602420P 4000		Soybeans	Gestation	Injector Tank	104.6	6,100	Gal	638,300
Oct 2017	MO602421P 3500B		Corn grain	Gestation	Injector Tank	21.7	9,300	Gal	201,500
Oct 2017	MO602421P 3500C		Corn grain	Gestation	Injector Tank	18.7	9,300	Gal	174,200
Oct 2017	MO602429P 8000B		Soybeans	Gestation	Injector Tank	94.8	6,700	Gal	635,050
Oct 2017	MO602429P 8000C		Soybeans	Gestation	Injector Tank	21.7	6,400	Gal	139,100
Oct 2017	MO602429P 8000D		Soybeans	Gestation	Injector Tank	168.3	5,400	Gal	908,700
Oct 2017	MO602429P 8000E		Soybeans	Gestation	Injector Tank	99.0	7,900	Gal	781,950
Oct 2017	MO602430P 1150C		Corn grain	GDU	Injector Tank	6.2	3,800	Gal	23,400
Oct 2017	MO602430P 1400		Corn grain	GDU	Injector Tank	6.5	3,800	Gal	24,700
Oct 2017	MO602430P 4200		Soybeans	Gestation	Injector Tank	2.5	7,600	Gal	18,850
Oct 2017	MO602430P 4300		Soybeans	Gestation	Injector Tank	7.3	7,600	Gal	55,250

Month and Year	Field ID	Field SubID	Planned Crop(s)	Source	Application Equipment	Acres Covered	Application Rate	Units per acre	Total Applied
Oct 2017	MO602430P 4400		Soybeans	Gestation	Injector Tank	31.0	7,400	Gal	229,450

Manure Application Records - 6/2017 - 5/2018

App #	Date	Field ID	Field SubID	Manure Source	Application Equipment	Actual Rate	Actual Loads	Total Applied	Acres Covered
1									
2									
3									
4									
5									
6									
7									

Manure Application Records - 6/2017 - 5/2018 (continued)

App #	Applicator's Name	¹ Soil Condition	² Ground Cover	³ Days to Incorporate	Air Temp	Wind Speed	Wind Direction	⁴ Rain Before	⁵ Rain After	⁶ Weather
1										
2										
3										
4										
5										
6										
7										

1. Soil condition at time of operations: Dry, Firm, Wet, Muddy, Snow-Covered, Frozen.
2. Percent residue or ground cover at time of application.
3. Number of days to incorporate manure after application: Use "N1" for no incorporation.
4. Amount of rainfall during the 24 hours prior to application.
5. Amount of rainfall during the 24 hours after application.
6. Weather condition at time of application: Sunny, Partly Cloudy, Cloudy, Rain, Snow.

Manure Application Records - 6/2017 - 5/2018

App #	Date	Field ID	Field SubID	Manure Source	Application Equipment	Actual Rate	Actual Loads	Total Applied	Acres Covered
8									
9									
10									
11									
12									
13									
14									

Manure Application Records - 6/2017 - 5/2018 (continued)

App #	Applicator's Name	¹ Soil Condition	² Ground Cover	³ Days to Incorporate	Air Temp	Wind Speed	Wind Direction	⁴ Rain Before	⁵ Rain After	⁶ Weather
8										
9										
10										
11										
12										
13										
14										

1. Soil condition at time of operations: Dry, Firm, Wet, Muddy, Snow-Covered, Frozen.
2. Percent residue or ground cover at time of application.
3. Number of days to incorporate manure after application: Use "N1" for no incorporation.
4. Amount of rainfall during the 24 hours prior to application.
5. Amount of rainfall during the 24 hours after application.
6. Weather condition at time of application: Sunny, Partly Cloudy, Cloudy, Rain, Snow.

Manure Application Records - 6/2017 - 5/2018

App #	Date	Field ID	Field SubID	Manure Source	Application Equipment	Actual Rate	Actual Loads	Total Applied	Acres Covered
15									
16									
17									
18									
19									
20									
21									

Manure Application Records - 6/2017 - 5/2018 (continued)

App #	Applicator's Name	¹ Soil Condition	² Ground Cover	³ Days to Incorporate	Air Temp	Wind Speed	Wind Direction	⁴ Rain Before	⁵ Rain After	⁶ Weather
15										
16										
17										
18										
19										
20										
21										

1. Soil condition at time of operations: Dry, Firm, Wet, Muddy, Snow-Covered, Frozen.
2. Percent residue or ground cover at time of application.
3. Number of days to incorporate manure after application: Use "N1" for no incorporation.
4. Amount of rainfall during the 24 hours prior to application.
5. Amount of rainfall during the 24 hours after application.
6. Weather condition at time of application: Sunny, Partly Cloudy, Cloudy, Rain, Snow.

C. Planned Commercial Fertilizer Applications - 6/2017 - 5/2018

No planned commercial fertilizer applications for the period.

D. Recommended Manure Management Practices

Every time you apply manure you should review the following checklist to be sure conditions are favorable for manure applications. **These practices are required on permitted operations and operations that receive cost-share support through EQIP.**

- Know the proper manure source and application rate for each field.
- Keep good records, write down such things as operations performed, dates and times, actual rates, and weather conditions. This document provides record keeping forms.
- No surface application of manure if precipitation, likely to create runoff, is forecasted to occur within 24 hours of the planned application.
- No manure application on land with a slope greater than 20 percent.
- No surface application of manure to frozen, snow-covered or saturated soils.
- Manure applications shall comply with all manure application setbacks defined in the table below:

Manure application setback distances where manure should not be applied. For streams, lakes and wetlands the setback distance is measured from the defined edge of the water feature.

Setback Feature	Application Conditions	Setback Distance (feet)
Public or private drinking water well, drinking water lake or impoundment, or drinking water intake structure.	All applications	300
Other wells including un-plugged abandon wells	All applications	300
Public and privately owned lakes and impoundments not used as a water supply including impoundments with no outlet. Perennial streams, intermittent streams, canals, drainage ditches and wetlands. Tile line inlet (un-plugged during application).	Permanently vegetated setback	35
	Up-gradient, no or insufficient vegetated setback	100
	Down-gradient, no or insufficient vegetated setback	35
Losing streams, cave entrance, spring, or active sinkhole.	All applications	300
Non-owned occupied residence.	All applications	150
Public use area including non-owned businesses.	All applications	150
Public roads and property boundaries.	All applications	50

The following practices are recommended:

- Apply nutrients close to crop use to maximize nutrient uptake and reduce potential losses.
- Calibrate and maintain application equipment to apply accurate and uniform rates; all land application equipment should be calibrated at least annually.
- Avoid application when wind is blowing in the direction of neighbors or on weekends and holidays when people are more likely to be outdoors.

For liquid applications:

- Adjusting surface application rates to meet infiltration rate and water holding capacity of the soil.
- Irrigation systems should have automatic shut-off devices in case of pressure loss and/or an operator on-site at all times during operation to monitor application equipment.
- The perimeter of all fields receiving manure should be checked regularly during operation of land application equipment to confirm manure is not running off the field or entering waters of the state.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P1300

Field Information

Total Acres:	14.4	Spreadable Acres:	12.2
Non-Spreadable Acres:	2.2	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	100	75	80

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2017			
Manure Source	GDU			
Application Rate	3,800 gal/a			
Acres Covered	12.3			
Total Applied	46,800 gal			
Loads per Field	7.2			
Placement	Injected			
N (lbs/acres)	146			
P₂O₅ (lbs/acre)	160			
K₂O (lbs/acre)	100			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P4000

Field Information

Total Acres:	112.2	Spreadable Acres:	102.2
Non-Spreadable Acres:	10.0	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	100	75	80

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2017			
Manure Source	GDU			
Application Rate	3,800 gal/a			
Acres Covered	102.3			
Total Applied	388,700 gal			
Loads per Field	59.8			
Placement	Injected			
N (lbs/acres)	146			
P₂O₅ (lbs/acre)	160			
K₂O (lbs/acre)	100			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602420P3400

Field Information

Total Acres:	30.9	Spreadable Acres:	29.3
Non-Spreadable Acres:	1.6	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	70	20

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2017			
Manure Source	Gestation			
Application Rate	9,300 gal/a			
Acres Covered	29.4			
Total Applied	273,000 gal			
Loads per Field	42.0			
Placement	Injected			
N (lbs/acres)	153			
P₂O₅ (lbs/acre)	233			
K₂O (lbs/acre)	330			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602420P4000

Field Information

Total Acres:	108.8	Spreadable Acres:	104.6
Non-Spreadable Acres:	4.2	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	70	45

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2017			
Manure Source	Gestation			
Application Rate	6,100 gal/a			
Acres Covered	104.6			
Total Applied	638,300 gal			
Loads per Field	98.2			
Placement	Injected			
N (lbs/acres)	101			
P₂O₅ (lbs/acre)	153			
K₂O (lbs/acre)	217			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602421P3500B

Field Information

Total Acres:	25.2	Spreadable Acres:	21.6
Non-Spreadable Acres:	3.6	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	80	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2017			
Manure Source	Gestation			
Application Rate	9,300 gal/a			
Acres Covered	21.7			
Total Applied	201,500 gal			
Loads per Field	31.0			
Placement	Injected			
N (lbs/acres)	153			
P₂O₅ (lbs/acre)	233			
K₂O (lbs/acre)	330			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602421P3500C

Field Information

Total Acres:	19.8	Spreadable Acres:	18.7
Non-Spreadable Acres:	1.1	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	125	0	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2017			
Manure Source	Gestation			
Application Rate	9,300 gal/a			
Acres Covered	18.7			
Total Applied	174,200 gal			
Loads per Field	26.8			
Placement	Injected			
N (lbs/acres)	153			
P₂O₅ (lbs/acre)	233			
K₂O (lbs/acre)	330			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000B

Field Information

Total Acres:	98.7	Spreadable Acres:	94.7
Non-Spreadable Acres:	4.0	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	100	55

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2017			
Manure Source	Gestation			
Application Rate	6,700 gal/a			
Acres Covered	94.8			
Total Applied	635,050 gal			
Loads per Field	97.7			
Placement	Injected			
N (lbs/acres)	111			
P₂O₅ (lbs/acre)	168			
K₂O (lbs/acre)	238			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000C

Field Information

Total Acres:	24.1	Spreadable Acres:	21.7
Non-Spreadable Acres:	2.4	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	75	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2017			
Manure Source	Gestation			
Application Rate	6,400 gal/a			
Acres Covered	21.7			
Total Applied	139,100 gal			
Loads per Field	21.4			
Placement	Injected			
N (lbs/acres)	106			
P₂O₅ (lbs/acre)	160			
K₂O (lbs/acre)	227			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000D

Field Information

Total Acres:	186.1	Spreadable Acres:	168.2
Non-Spreadable Acres:	17.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	40	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2017			
Manure Source	Gestation			
Application Rate	5,400 gal/a			
Acres Covered	168.3			
Total Applied	908,700 gal			
Loads per Field	139.8			
Placement	Injected			
N (lbs/acres)	89			
P₂O₅ (lbs/acre)	135			
K₂O (lbs/acre)	192			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P1150B

Field Information

Total Acres:	6.0	Spreadable Acres:	4.9
Non-Spreadable Acres:	1.1	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	100	80	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Sep 2017			
Manure Source	GDU			
Application Rate	3,800 gal/a			
Acres Covered	5.0			
Total Applied	18,850 gal			
Loads per Field	2.9			
Placement	Injected			
N (lbs/acres)	146			
P₂O₅ (lbs/acre)	160			
K₂O (lbs/acre)	100			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P1150C

Field Information

Total Acres:	6.9	Spreadable Acres:	6.0
Non-Spreadable Acres:	0.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	75	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2017			
Manure Source	GDU			
Application Rate	3,800 gal/a			
Acres Covered	6.2			
Total Applied	23,400 gal			
Loads per Field	3.6			
Placement	Injected			
N (lbs/acres)	146			
P₂O₅ (lbs/acre)	160			
K₂O (lbs/acre)	100			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P1400

Field Information

Total Acres:	21.0	Spreadable Acres:	13.9
Non-Spreadable Acres:	7.1	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	100	80	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2017			
Manure Source	GDU			
Application Rate	3,800 gal/a			
Acres Covered	6.5			
Total Applied	24,700 gal			
Loads per Field	3.8			
Placement	Injected			
N (lbs/acres)	146			
P₂O₅ (lbs/acre)	160			
K₂O (lbs/acre)	100			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID:

Field Information

Total Acres:	1.0	Spreadable Acres:	
Non-Spreadable Acres:		Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
------	------------	---	-------------------------------	------------------

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P3000B

Field Information

Total Acres:	34.0	Spreadable Acres:	31.7
Non-Spreadable Acres:	2.3	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	80	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P3000C

Field Information

Total Acres:	3.9	Spreadable Acres:	0.7
Non-Spreadable Acres:	3.2	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	125	85	15

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P3000D

Field Information

Total Acres:	3.7	Spreadable Acres:	1.9
Non-Spreadable Acres:	1.8	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	85	30

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000E

Field Information

Total Acres:	111.4	Spreadable Acres:	98.9
Non-Spreadable Acres:	12.5	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	85	35

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2017			
Manure Source	Gestation			
Application Rate	7,900 gal/a			
Acres Covered	99.0			
Total Applied	781,950 gal			
Loads per Field	120.3			
Placement	Injected			
N (lbs/acres)	130			
P₂O₅ (lbs/acre)	198			
K₂O (lbs/acre)	280			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P4200

Field Information

Total Acres:	11.3	Spreadable Acres:	2.4
Non-Spreadable Acres:	8.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	55	30

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2017			
Manure Source	Gestation			
Application Rate	7,600 gal/a			
Acres Covered	2.5			
Total Applied	18,850 gal			
Loads per Field	2.9			
Placement	Injected			
N (lbs/acres)	125			
P₂O₅ (lbs/acre)	190			
K₂O (lbs/acre)	270			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P4300

Field Information

Total Acres:	17.1	Spreadable Acres:	7.2
Non-Spreadable Acres:	9.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	55	45

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2017			
Manure Source	Gestation			
Application Rate	7,600 gal/a			
Acres Covered	7.3			
Total Applied	55,250 gal			
Loads per Field	8.5			
Placement	Injected			
N (lbs/acres)	125			
P₂O₅ (lbs/acre)	190			
K₂O (lbs/acre)	270			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2017 - 5/2018 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P4400

Field Information

Total Acres:	35.6	Spreadable Acres:	31.0
Non-Spreadable Acres:	4.6	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	100	40

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2017			
Manure Source	Gestation			
Application Rate	7,400 gal/a			
Acres Covered	31.0			
Total Applied	229,450 gal			
Loads per Field	35.3			
Placement	Injected			
N (lbs/acres)	122			
P₂O₅ (lbs/acre)	185			
K₂O (lbs/acre)	263			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Summary Tables - 6/2017 - 5/2018

F. Manure Summary: 6/2017 - 5/2018

	Source 1	Source 2		
Source	Gestation	GDU		
Units	gals	gals		
Beginning of Year Inventory	2,181,150	255,200		
Inputs				
Production	4,558,000	502,000		
Imports - off farm	0	0		
Transfers - on farm	0	0		
Total Inputs	4,558,000	502,000		
Outputs				
Land Applied	4,055,350	502,450		
Exports - off farm	0	0		
Transfers - on farm	0	0		
Total Outputs	4,055,350	502,450		
End of Year Inventory	2,683,800	254,750		

G. Land Applied Nutrient Summary: 6/2017 - 5/2018

	Total Applied	PAN ¹	P ₂ O ₅	K ₂ O
Manure Source	(tons or gals)	-----lbs-----		
Gestation	4,055,350 gals	66,924	101,585	144,053
GDU	502,450 gals	19,316	21,168	13,230
Manure Total		86,240	122,753	157,283
	Total Applied	N	P ₂ O ₅	K ₂ O
Fertilizer Source	(lbs or gals)	-----lbs-----		
Fertilizer Total		0	0	0
Total		86,240	122,753	157,283

H. Lime Recommendations

These lime recommendations are one-time applications meant to be applied only once to adjust soil pH to its desired level. If you have already applied the recommended lime rate in a previous year of this plan please disregard these recommendations.

Lime Recommendations¹

Field ID	Field SubID	Field Size	Test Year	NA ²	pH	pH Rating	Mg (lbs/a)	Mg Rating	Lime Rec. lbs ENM/acre ³	Mg Rec. lbs EMg/acre ⁴
MO602419P1300		14.4	2012	6.9	5.8	Medium	302	High	1,780	0 [D]
MO602419P4000		112.2	2012	6.9	5.8	Medium	302	High	1,780	0 [D]
MO602420P3400		30.9	2015	6.5	5.9	Medium	1,306	High	1,565	0 [D]
MO602420P4000		108.8	2015	6.5	5.7	Medium	1,358	High	1,765	0 [D]
MO602421P3500B		25.2	2015	6.4	5.7	Medium	1,334	High	1,740	0 [D]
MO602421P3500C		19.8	2015	6.4	5.6	Medium	1,238	High	1,815	0 [D]
MO602429P8000B		98.7	2015	6.6	6.1	High	1,522	High	1,295	0 [D]
MO602429P8000C		24.1	2015	6.7	6.4	High	1,562	High	495	0 [D]
MO602429P8000D		186.1	2015	6.7	6.5	High	1,290	High	0	0
MO602430P1150B		6.0	2012	7.1	6.5	High	566	High	0	0
MO602430P1150C		6.9	2015	6.4	5.8	Medium	1,584	High	1,650	0 [D]
MO602430P1400		21.0	2012	7.1	6.5	High	566	High	0	0
		1.0	2012	6.6	5.7	**	652	**	**	**
MO602419P3000B		34.0	2015	6.4	5.8	Medium	1,502	High	1,650	0 [D]
MO602419P3000C		3.9	2015	6.3	5.6	Medium	1,574	High	1,790	0 [D]
MO602419P3000D		3.7	2015	6.3	5.5	Medium	1,370	High	1,850	0 [D]
MO602429P8000E		111.4	2015	6.7	6.3	High	1,506	High	840	0 [D]
MO602430P4200		11.3	2015		7.0	*	842	*	*	*

Field ID	Field SubID	Field Size	Test Year	NA ²	pH	pH Rating	Mg (lbs/a)	Mg Rating	Lime Rec. lbs ENM/acre ³	Mg Rec. lbs EMg/acre ⁴
MO602430P4300		17.1	2015		7.0	*	835	*	*	*
MO602430P4400		35.6	2015	6.7	6.2	High	1,324	High	1,105	0 [D]

¹These lime recommendations assume you used the University of Missouri soil testing laboratory, or comparable lab.

²NA = Neutralizable Acidity, units in meq/100g soil.

³ENM = Effective Neutralizing Material.

⁴EMg = Effective Magnesium.

** - No recommendation: No crop has been selected for this field in order to calculate lime recommendation.

* - No recommendation: Some soil test data is missing for this field. Please run the Essential Data Detection Tool.

[D] To determine limestone needed in tons/acre, divide your ENM requirement by the guarantee of your limestone dealer.

I. Crop Record Keeping Table: 6/2017 - 5/2018

Field ID	Field SubID	Crop	Planting Date	Hybrid or Variety	Seeding Rate	Harvest date(s)	Yield/A
MO602419P 1300		Corn grain					
MO602419P 4000		Corn grain					
MO602420P 3400		Corn grain					
MO602420P 4000		Soybeans					
MO602421P 3500B		Corn grain					
MO602421P 3500C		Corn grain					
MO602429P 8000B		Soybeans					
MO602429P 8000C		Soybeans					
MO602429P 8000D		Soybeans					
MO602430P 1150B		Corn grain					
MO602430P 1150C		Corn grain					
MO602430P 1400		Corn grain					
MO602419P 3000B		Corn grain					
MO602419P 3000C		Corn grain					
MO602419P 3000D		Corn grain					
MO602429P		Soybeans					

Field ID	Field SubID	Crop	Planting Date	Hybrid or Variety	Seeding Rate	Harvest date(s)	Yield/A
8000E							
MO602430P 4200		Soybeans					
MO602430P 4300		Soybeans					
MO602430P 4400		Soybeans					

Document Source Information

Report based on information from Manure Management Planer (MMP 0.3.3.2)

Plan:

File: S:\Manure ground\MMP P Index Plans\Trenton Farms RE, LLC\Original MMP 2015.mmp
Initialized: 11/6/2008
Last Saved: 6/3/2015 5:00:06 PM
Exported: 6/3/2015 5:03:14 PM
Title:
Years in Plan: 5
Plan Start Year: 2015
Plan Start Month: 6

Operation:

Name: Trenton Farms RE, LLC

Operation Contact:

Trenton Farms RE, LLC
SW State Highway W
Trenton MO 64683
507-825-7032 (office)
(home)

Missouri

Comprehensive Nutrient Management Plan

FARMER PLAN DOCUMENT

Operation Name: Trenton Farms RE, LLC

This plan is a summary of the key activities for one year of the nutrient management plan. The period of time covered by this plan is:

6/2018 - 5/2019

The objective of this document is to provide a concise list of the nutrient management activities on this operation for the year indicated. Activities covered by this plan include:

- Planned manure transfers and sales.
- Planned manure application dates and rates.
- Planned fertilizer application dates and rates.

Record keeping is an important part of nutrient management. Please use the space in this plan to record what actually occurred on each field.

Farm contact information: Trenton Farms RE, LLC
SW State Highway W
Trenton, MO 64683
507-825-7032 (office)

Whole Plan Period: June 2015 - May 2020

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A. Manure Transfers - 6/2018 - 5/2019

Exports off the Farm: *(blank rows are for recording exports as they occur)*

Export Month	Export Year	Source of Manure	Target Export Amount	Units	Receiving Operation	Notes

Imports onto the Farm: *(blank rows are for recording imports as they occur)*

Import Month	Import Year	Source of Manure	Animal Type	Target Import Amount	Units	Notes

Internal Transfers of Manure: *(blank rows are for recording transfers as they occur)*

Transfer Month	Transfer Year	Source of Manure	Manure Destination	Target Transfer Amount	Units	Notes

B. Planned Manure Applications - 6/2018 - 5/2019

Month and Year	Field ID	Field SubID	Planned Crop(s)	Source	Application Equipment	Acres Covered	Application Rate	Units per acre	Total Applied
Sep 2018	MO602419P 4000		Soybeans	GDU	Injector Tank	102.3	2,300	Gal	235,300
Oct 2018	MO602419P 1300		Soybeans	GDU	Injector Tank	12.4	2,300	Gal	28,600
Oct 2018	MO602420P 3400		Soybeans	Gestation	Injector Tank	29.4	6,200	Gal	182,000
Oct 2018	MO602420P 4000		Corn grain	Gestation	Injector Tank	104.6	8,200	Gal	858,000
Oct 2018	MO602421P 3500B		Soybeans	Gestation	Injector Tank	21.7	6,200	Gal	134,550
Oct 2018	MO602421P 3500C		Soybeans	Gestation	Injector Tank	18.7	5,900	Gal	110,500
Oct 2018	MO602429P 8000B		Corn grain	Gestation	Injector Tank	94.8	8,100	Gal	767,650
Oct 2018	MO602429P 8000C		Corn grain	Gestation	Injector Tank	21.7	8,100	Gal	176,150
Oct 2018	MO602429P 8000D		Corn grain	Gestation	Injector Tank	168.2	8,300	Gal	1,396,200
Oct 2018	MO602429P 8000E		Corn grain	Gestation	Injector Tank	98.9	7,800	Gal	771,550
Oct 2018	MO602430P 4200		Corn grain	GDU	Injector Tank	2.5	3,400	Gal	8,450
Oct 2018	MO602430P 4300		Corn grain	GDU	Injector Tank	7.3	3,400	Gal	24,700
Oct 2018	MO602430P 4400		Corn grain	GDU	Injector Tank	31.2	3,400	Gal	105,950
Nov 2018	MO602430P 1150B		Soybeans	GDU	Injector Tank	5.1	2,300	Gal	11,700
Nov 2018	MO602430P 1150C		Soybeans	GDU	Injector Tank	6.1	3,000	Gal	18,200

Month and Year	Field ID	Field SubID	Planned Crop(s)	Source	Application Equipment	Acres Covered	Application Rate	Units per acre	Total Applied
Nov 2018	MO602430P 1400		Soybeans	GDU	Injector Tank	14.0	2,500	Gal	35,100

Manure Application Records - 6/2018 - 5/2019

App #	Date	Field ID	Field SubID	Manure Source	Application Equipment	Actual Rate	Actual Loads	Total Applied	Acres Covered
1									
2									
3									
4									
5									
6									
7									

Manure Application Records - 6/2018 - 5/2019 (continued)

App #	Applicator's Name	¹ Soil Condition	² Ground Cover	³ Days to Incorporate	Air Temp	Wind Speed	Wind Direction	⁴ Rain Before	⁵ Rain After	⁶ Weather
1										
2										
3										
4										
5										
6										
7										

1. Soil condition at time of operations: Dry, Firm, Wet, Muddy, Snow-Covered, Frozen.
2. Percent residue or ground cover at time of application.
3. Number of days to incorporate manure after application: Use "N1" for no incorporation.
4. Amount of rainfall during the 24 hours prior to application.
5. Amount of rainfall during the 24 hours after application.
6. Weather condition at time of application: Sunny, Partly Cloudy, Cloudy, Rain, Snow.

Manure Application Records - 6/2018 - 5/2019

App #	Date	Field ID	Field SubID	Manure Source	Application Equipment	Actual Rate	Actual Loads	Total Applied	Acres Covered
8									
9									
10									
11									
12									
13									
14									

Manure Application Records - 6/2018 - 5/2019 (continued)

App #	Applicator's Name	¹ Soil Condition	² Ground Cover	³ Days to Incorporate	Air Temp	Wind Speed	Wind Direction	⁴ Rain Before	⁵ Rain After	⁶ Weather
8										
9										
10										
11										
12										
13										
14										

1. Soil condition at time of operations: Dry, Firm, Wet, Muddy, Snow-Covered, Frozen.
2. Percent residue or ground cover at time of application.
3. Number of days to incorporate manure after application: Use "N1" for no incorporation.
4. Amount of rainfall during the 24 hours prior to application.
5. Amount of rainfall during the 24 hours after application.
6. Weather condition at time of application: Sunny, Partly Cloudy, Cloudy, Rain, Snow.

Manure Application Records - 6/2018 - 5/2019

App #	Date	Field ID	Field SubID	Manure Source	Application Equipment	Actual Rate	Actual Loads	Total Applied	Acres Covered
15									
16									
17									
18									
19									
20									
21									

Manure Application Records - 6/2018 - 5/2019 (continued)

App #	Applicator's Name	¹ Soil Condition	² Ground Cover	³ Days to Incorporate	Air Temp	Wind Speed	Wind Direction	⁴ Rain Before	⁵ Rain After	⁶ Weather
15										
16										
17										
18										
19										
20										
21										

1. Soil condition at time of operations: Dry, Firm, Wet, Muddy, Snow-Covered, Frozen.
2. Percent residue or ground cover at time of application.
3. Number of days to incorporate manure after application: Use "N1" for no incorporation.
4. Amount of rainfall during the 24 hours prior to application.
5. Amount of rainfall during the 24 hours after application.
6. Weather condition at time of application: Sunny, Partly Cloudy, Cloudy, Rain, Snow.

C. Planned Commercial Fertilizer Applications - 6/2018 - 5/2019

No planned commercial fertilizer applications for the period.

D. Recommended Manure Management Practices

Every time you apply manure you should review the following checklist to be sure conditions are favorable for manure applications. **These practices are required on permitted operations and operations that receive cost-share support through EQIP.**

- Know the proper manure source and application rate for each field.
- Keep good records, write down such things as operations performed, dates and times, actual rates, and weather conditions. This document provides record keeping forms.
- No surface application of manure if precipitation, likely to create runoff, is forecasted to occur within 24 hours of the planned application.
- No manure application on land with a slope greater than 20 percent.
- No surface application of manure to frozen, snow-covered or saturated soils.
- Manure applications shall comply with all manure application setbacks defined in the table below:

Manure application setback distances where manure should not be applied. For streams, lakes and wetlands the setback distance is measured from the defined edge of the water feature.

Setback Feature	Application Conditions	Setback Distance (feet)
Public or private drinking water well, drinking water lake or impoundment, or drinking water intake structure.	All applications	300
Other wells including un-plugged abandon wells	All applications	300
Public and privately owned lakes and impoundments not used as a water supply including impoundments with no outlet. Perennial streams, intermittent streams, canals, drainage ditches and wetlands. Tile line inlet (un-plugged during application).	Permanently vegetated setback	35
	Up-gradient, no or insufficient vegetated setback	100
	Down-gradient, no or insufficient vegetated setback	35
Losing streams, cave entrance, spring, or active sinkhole.	All applications	300
Non-owned occupied residence.	All applications	150
Public use area including non-owned businesses.	All applications	150
Public roads and property boundaries.	All applications	50

The following practices are recommended:

- Apply nutrients close to crop use to maximize nutrient uptake and reduce potential losses.
- Calibrate and maintain application equipment to apply accurate and uniform rates; all land application equipment should be calibrated at least annually.
- Avoid application when wind is blowing in the direction of neighbors or on weekends and holidays when people are more likely to be outdoors.

For liquid applications:

- Adjusting surface application rates to meet infiltration rate and water holding capacity of the soil.
- Irrigation systems should have automatic shut-off devices in case of pressure loss and/or an operator on-site at all times during operation to monitor application equipment.
- The perimeter of all fields receiving manure should be checked regularly during operation of land application equipment to confirm manure is not running off the field or entering waters of the state.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P1300

Field Information

Total Acres:	14.4	Spreadable Acres:	12.2
Non-Spreadable Acres:	2.2	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	60	105

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2018			
Manure Source	GDU			
Application Rate	2,300 gal/a			
Acres Covered	12.4			
Total Applied	28,600 gal			
Loads per Field	4.4			
Placement	Injected			
N (lbs/acres)	89			
P₂O₅ (lbs/acre)	97			
K₂O (lbs/acre)	61			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P4000

Field Information

Total Acres:	112.2	Spreadable Acres:	102.2
Non-Spreadable Acres:	10.0	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	60	105

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Sep 2018			
Manure Source	GDU			
Application Rate	2,300 gal/a			
Acres Covered	102.3			
Total Applied	235,300 gal			
Loads per Field	36.2			
Placement	Injected			
N (lbs/acres)	89			
P₂O₅ (lbs/acre)	97			
K₂O (lbs/acre)	61			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602420P3400

Field Information

Total Acres:	30.9	Spreadable Acres:	29.3
Non-Spreadable Acres:	1.6	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	50	40

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2018			
Manure Source	Gestation			
Application Rate	6,200 gal/a			
Acres Covered	29.4			
Total Applied	182,000 gal			
Loads per Field	28.0			
Placement	Injected			
N (lbs/acres)	102			
P₂O₅ (lbs/acre)	155			
K₂O (lbs/acre)	220			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602420P4000

Field Information

Total Acres:	108.8	Spreadable Acres:	104.6
Non-Spreadable Acres:	4.2	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	85	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2018			
Manure Source	Gestation			
Application Rate	8,200 gal/a			
Acres Covered	104.6			
Total Applied	858,000 gal			
Loads per Field	132.0			
Placement	Injected			
N (lbs/acres)	135			
P₂O₅ (lbs/acre)	205			
K₂O (lbs/acre)	291			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602421P3500B

Field Information

Total Acres:	25.2	Spreadable Acres:	21.6
Non-Spreadable Acres:	3.6	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	60	40

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2018			
Manure Source	Gestation			
Application Rate	6,200 gal/a			
Acres Covered	21.7			
Total Applied	134,550 gal			
Loads per Field	20.7			
Placement	Injected			
N (lbs/acres)	102			
P₂O₅ (lbs/acre)	155			
K₂O (lbs/acre)	220			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602421P3500C

Field Information

Total Acres:	19.8	Spreadable Acres:	18.7
Non-Spreadable Acres:	1.1	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	0	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2018			
Manure Source	Gestation			
Application Rate	5,900 gal/a			
Acres Covered	18.7			
Total Applied	110,500 gal			
Loads per Field	17.0			
Placement	Injected			
N (lbs/acres)	97			
P₂O₅ (lbs/acre)	148			
K₂O (lbs/acre)	209			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000B

Field Information

Total Acres:	98.7	Spreadable Acres:	94.7
Non-Spreadable Acres:	4.0	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	135	115	30

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2018			
Manure Source	Gestation			
Application Rate	8,100 gal/a			
Acres Covered	94.8			
Total Applied	767,650 gal			
Loads per Field	118.1			
Placement	Injected			
N (lbs/acres)	134			
P₂O₅ (lbs/acre)	203			
K₂O (lbs/acre)	288			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000C

Field Information

Total Acres:	24.1	Spreadable Acres:	21.7
Non-Spreadable Acres:	2.4	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	95	15

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2018			
Manure Source	Gestation			
Application Rate	8,100 gal/a			
Acres Covered	21.7			
Total Applied	176,150 gal			
Loads per Field	27.1			
Placement	Injected			
N (lbs/acres)	134			
P₂O₅ (lbs/acre)	203			
K₂O (lbs/acre)	288			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000D

Field Information

Total Acres:	186.1	Spreadable Acres:	168.2
Non-Spreadable Acres:	17.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	55	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2018			
Manure Source	Gestation			
Application Rate	8,300 gal/a			
Acres Covered	168.2			
Total Applied	1,396,200 gal			
Loads per Field	214.8			
Placement	Injected			
N (lbs/acres)	137			
P₂O₅ (lbs/acre)	208			
K₂O (lbs/acre)	295			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P1150B

Field Information

Total Acres:	6.0	Spreadable Acres:	4.9
Non-Spreadable Acres:	1.1	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	60	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Nov 2018			
Manure Source	GDU			
Application Rate	2,300 gal/a			
Acres Covered	5.1			
Total Applied	11,700 gal			
Loads per Field	1.8			
Placement	Injected			
N (lbs/acres)	89			
P₂O₅ (lbs/acre)	97			
K₂O (lbs/acre)	61			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P1150C

Field Information

Total Acres:	6.9	Spreadable Acres:	6.0
Non-Spreadable Acres:	0.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	55	40

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Nov 2018			
Manure Source	GDU			
Application Rate	3,000 gal/a			
Acres Covered	6.1			
Total Applied	18,200 gal			
Loads per Field	2.8			
Placement	Injected			
N (lbs/acres)	116			
P₂O₅ (lbs/acre)	126			
K₂O (lbs/acre)	79			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P1400

Field Information

Total Acres:	21.0	Spreadable Acres:	13.9
Non-Spreadable Acres:	7.1	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	60	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Nov 2018			
Manure Source	GDU			
Application Rate	2,500 gal/a			
Acres Covered	14.0			
Total Applied	35,100 gal			
Loads per Field	5.4			
Placement	Injected			
N (lbs/acres)	96			
P₂O₅ (lbs/acre)	105			
K₂O (lbs/acre)	66			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID:

Field Information

Total Acres:	1.0	Spreadable Acres:	
Non-Spreadable Acres:		Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
------	------------	---	-------------------------------	------------------

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P3000B

Field Information

Total Acres:	34.0	Spreadable Acres:	31.7
Non-Spreadable Acres:	2.3	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	60	40

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P3000C

Field Information

Total Acres:	3.9	Spreadable Acres:	0.7
Non-Spreadable Acres:	3.2	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	65	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P3000D

Field Information

Total Acres:	3.7	Spreadable Acres:	1.9
Non-Spreadable Acres:	1.8	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	65	50

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000E

Field Information

Total Acres:	111.4	Spreadable Acres:	98.9
Non-Spreadable Acres:	12.5	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	105	20

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2018			
Manure Source	Gestation			
Application Rate	7,800 gal/a			
Acres Covered	98.9			
Total Applied	771,550 gal			
Loads per Field	118.7			
Placement	Injected			
N (lbs/acres)	129			
P₂O₅ (lbs/acre)	195			
K₂O (lbs/acre)	277			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P4200

Field Information

Total Acres:	11.3	Spreadable Acres:	2.4
Non-Spreadable Acres:	8.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	140	75	20

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2018			
Manure Source	GDU			
Application Rate	3,400 gal/a			
Acres Covered	2.5			
Total Applied	8,450 gal			
Loads per Field	1.3			
Placement	Injected			
N (lbs/acres)	131			
P₂O₅ (lbs/acre)	143			
K₂O (lbs/acre)	90			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P4300

Field Information

Total Acres:	17.1	Spreadable Acres:	7.2
Non-Spreadable Acres:	9.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	140	70	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2018			
Manure Source	GDU			
Application Rate	3,400 gal/a			
Acres Covered	7.3			
Total Applied	24,700 gal			
Loads per Field	3.8			
Placement	Injected			
N (lbs/acres)	131			
P₂O₅ (lbs/acre)	143			
K₂O (lbs/acre)	90			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2018 - 5/2019 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P4400

Field Information

Total Acres:	35.6	Spreadable Acres:	31.0
Non-Spreadable Acres:	4.6	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	125	115	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2018			
Manure Source	GDU			
Application Rate	3,400 gal/a			
Acres Covered	31.2			
Total Applied	105,950 gal			
Loads per Field	16.3			
Placement	Injected			
N (lbs/acres)	131			
P₂O₅ (lbs/acre)	143			
K₂O (lbs/acre)	90			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

Summary Tables - 6/2018 - 5/2019

F. Manure Summary: 6/2018 - 5/2019

	Source 1	Source 2		
Source	Gestation	GDU		
Units	gals	gals		
Beginning of Year Inventory	2,683,800	254,750		
Inputs				
Production	4,558,000	502,000		
Imports - off farm	0	0		
Transfers - on farm	0	0		
Total Inputs	4,558,000	502,000		
Outputs				
Land Applied	4,396,600	468,000		
Exports - off farm	0	0		
Transfers - on farm	0	0		
Total Outputs	4,396,600	468,000		
End of Year Inventory	2,845,200	288,750		

G. Land Applied Nutrient Summary: 6/2018 - 5/2019

	Total Applied	PAN ¹	P ₂ O ₅	K ₂ O
Manure Source	(tons or gals)	-----lbs-----		
Gestation	4,396,600 gals	72,559	110,053	156,155
GDU	468,000 gals	18,086	19,724	12,403
Manure Total		90,645	129,777	168,558
	Total Applied	N	P ₂ O ₅	K ₂ O
Fertilizer Source	(lbs or gals)	-----lbs-----		
Fertilizer Total		0	0	0
Total		90,645	129,777	168,558

H. Lime Recommendations

These lime recommendations are one-time applications meant to be applied only once to adjust soil pH to its desired level. If you have already applied the recommended lime rate in a previous year of this plan please disregard these recommendations.

Lime Recommendations¹

Field ID	Field SubID	Field Size	Test Year	NA ²	pH	pH Rating	Mg (lbs/a)	Mg Rating	Lime Rec. lbs ENM/acre ³	Mg Rec. lbs EMg/acre ⁴
MO602419P1300		14.4	2012	6.9	5.8	Medium	302	High	1,780	0 [D]
MO602419P4000		112.2	2012	6.9	5.8	Medium	302	High	1,780	0 [D]
MO602420P3400		30.9	2015	6.5	5.9	Medium	1,306	High	1,565	0 [D]
MO602420P4000		108.8	2015	6.5	5.7	Medium	1,358	High	1,765	0 [D]
MO602421P3500B		25.2	2015	6.4	5.7	Medium	1,334	High	1,740	0 [D]
MO602421P3500C		19.8	2015	6.4	5.6	Medium	1,238	High	1,815	0 [D]
MO602429P8000B		98.7	2015	6.6	6.1	High	1,522	High	1,295	0 [D]
MO602429P8000C		24.1	2015	6.7	6.4	High	1,562	High	495	0 [D]
MO602429P8000D		186.1	2015	6.7	6.5	High	1,290	High	0	0
MO602430P1150B		6.0	2012	7.1	6.5	High	566	High	0	0
MO602430P1150C		6.9	2015	6.4	5.8	Medium	1,584	High	1,650	0 [D]
MO602430P1400		21.0	2012	7.1	6.5	High	566	High	0	0
		1.0	2012	6.6	5.7	**	652	**	**	**
MO602419P3000B		34.0	2015	6.4	5.8	Medium	1,502	High	1,650	0 [D]
MO602419P3000C		3.9	2015	6.3	5.6	Medium	1,574	High	1,790	0 [D]
MO602419P3000D		3.7	2015	6.3	5.5	Medium	1,370	High	1,850	0 [D]
MO602429P8000E		111.4	2015	6.7	6.3	High	1,506	High	840	0 [D]
MO602430P4200		11.3	2015		7.0	*	842	*	*	*

Field ID	Field SubID	Field Size	Test Year	NA ²	pH	pH Rating	Mg (lbs/a)	Mg Rating	Lime Rec. lbs ENM/acre ³	Mg Rec. lbs EMg/acre ⁴
MO602430P4300		17.1	2015		7.0	*	835	*	*	*
MO602430P4400		35.6	2015	6.7	6.2	High	1,324	High	1,105	0 [D]

¹These lime recommendations assume you used the University of Missouri soil testing laboratory, or comparable lab.

²NA = Neutralizable Acidity, units in meq/100g soil.

³ENM = Effective Neutralizing Material.

⁴EMg = Effective Magnesium.

** - No recommendation: No crop has been selected for this field in order to calculate lime recommendation.

* - No recommendation: Some soil test data is missing for this field. Please run the Essential Data Detection Tool.

[D] To determine limestone needed in tons/acre, divide your ENM requirement by the guarantee of your limestone dealer.

I. Crop Record Keeping Table: 6/2018 - 5/2019

Field ID	Field SubID	Crop	Planting Date	Hybrid or Variety	Seeding Rate	Harvest date(s)	Yield/A
MO602419P 1300		Soybeans					
MO602419P 4000		Soybeans					
MO602420P 3400		Soybeans					
MO602420P 4000		Corn grain					
MO602421P 3500B		Soybeans					
MO602421P 3500C		Soybeans					
MO602429P 8000B		Corn grain					
MO602429P 8000C		Corn grain					
MO602429P 8000D		Corn grain					
MO602430P 1150B		Soybeans					
MO602430P 1150C		Soybeans					
MO602430P 1400		Soybeans					
MO602419P 3000B		Soybeans					
MO602419P 3000C		Soybeans					
MO602419P 3000D		Soybeans					
MO602429P		Corn grain					

Field ID	Field SubID	Crop	Planting Date	Hybrid or Variety	Seeding Rate	Harvest date(s)	Yield/A
8000E							
MO602430P 4200		Corn grain					
MO602430P 4300		Corn grain					
MO602430P 4400		Corn grain					

Document Source Information

Report based on information from Manure Management Planer (MMP 0.3.3.2)

Plan:

File: S:\Manure ground\MMP P Index Plans\Trenton Farms RE, LLC\Original MMP 2015.mmp
Initialized: 11/6/2008
Last Saved: 6/3/2015 5:00:06 PM
Exported: 6/3/2015 5:03:14 PM
Title:
Years in Plan: 5
Plan Start Year: 2015
Plan Start Month: 6

Operation:

Name: Trenton Farms RE, LLC

Operation Contact:

Trenton Farms RE, LLC
SW State Highway W
Trenton MO 64683
507-825-7032 (office)
(home)

Missouri

Comprehensive Nutrient Management Plan

FARMER PLAN DOCUMENT

Operation Name: Trenton Farms RE, LLC

This plan is a summary of the key activities for one year of the nutrient management plan. The period of time covered by this plan is:

6/2019 - 5/2020

The objective of this document is to provide a concise list of the nutrient management activities on this operation for the year indicated. Activities covered by this plan include:

- Planned manure transfers and sales.
- Planned manure application dates and rates.
- Planned fertilizer application dates and rates.

Record keeping is an important part of nutrient management. Please use the space in this plan to record what actually occurred on each field.

Farm contact information: Trenton Farms RE, LLC
SW State Highway W
Trenton, MO 64683
507-825-7032 (office)

Whole Plan Period: June 2015 - May 2020

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A. Manure Transfers - 6/2019 - 5/2020

Exports off the Farm: *(blank rows are for recording exports as they occur)*

Export Month	Export Year	Source of Manure	Target Export Amount	Units	Receiving Operation	Notes

Imports onto the Farm: *(blank rows are for recording imports as they occur)*

Import Month	Import Year	Source of Manure	Animal Type	Target Import Amount	Units	Notes

Internal Transfers of Manure: *(blank rows are for recording transfers as they occur)*

Transfer Month	Transfer Year	Source of Manure	Manure Destination	Target Transfer Amount	Units	Notes

B. Planned Manure Applications - 6/2019 - 5/2020

Month and Year	Field ID	Field SubID	Planned Crop(s)	Source	Application Equipment	Acres Covered	Application Rate	Units per acre	Total Applied
Sep 2019	MO602419P 1300		Corn grain	GDU	Injector Tank	12.3	3,800	Gal	46,800
Oct 2019	MO602419P 3000B		Corn grain	GDU	Injector Tank	14.6	4,000	Gal	58,500
Oct 2019	MO602419P 4000		Corn grain	GDU	Injector Tank	102.3	3,800	Gal	388,700
Oct 2019	MO602420P 3400		Corn grain	Gestation	Injector Tank	29.4	8,100	Gal	237,900
Oct 2019	MO602420P 4000		Soybeans	Gestation	Injector Tank	104.6	6,400	Gal	669,500
Oct 2019	MO602421P 3500B		Corn grain	Gestation	Injector Tank	21.7	8,100	Gal	175,500
Oct 2019	MO602421P 3500C		Corn grain	Gestation	Injector Tank	18.7	8,200	Gal	153,400
Oct 2019	MO602429P 8000B		Soybeans	Gestation	Injector Tank	94.8	6,700	Gal	635,050
Oct 2019	MO602429P 8000C		Soybeans	Gestation	Injector Tank	21.7	6,400	Gal	139,100
Oct 2019	MO602429P 8000D		Soybeans	Gestation	Injector Tank	168.3	6,400	Gal	1,077,050
Oct 2019	MO602429P 8000E		Soybeans	Gestation	Injector Tank	98.9	6,500	Gal	642,850
Oct 2019	MO602430P 1150B		Corn grain	GDU	Injector Tank	5.0	3,800	Gal	18,850
Oct 2019	MO602430P 1150C		Corn grain	GDU	Injector Tank	6.1	3,700	Gal	22,750
Oct 2019	MO602430P 4200		Soybeans	Gestation	Injector Tank	2.4	7,700	Gal	18,850
Oct 2019	MO602430P 4300		Soybeans	Gestation	Injector Tank	7.3	7,700	Gal	55,900

Month and Year	Field ID	Field SubID	Planned Crop(s)	Source	Application Equipment	Acres Covered	Application Rate	Units per acre	Total Applied
Oct 2019	MO602430P 4400		Soybeans	Gestation	Injector Tank	31.1	6,800	Gal	211,250

Manure Application Records - 6/2019 - 5/2020

App #	Date	Field ID	Field SubID	Manure Source	Application Equipment	Actual Rate	Actual Loads	Total Applied	Acres Covered
1									
2									
3									
4									
5									
6									
7									

Manure Application Records - 6/2019 - 5/2020 (continued)

App #	Applicator's Name	¹ Soil Condition	² Ground Cover	³ Days to Incorporate	Air Temp	Wind Speed	Wind Direction	⁴ Rain Before	⁵ Rain After	⁶ Weather
1										
2										
3										
4										
5										
6										
7										

1. Soil condition at time of operations: Dry, Firm, Wet, Muddy, Snow-Covered, Frozen.
2. Percent residue or ground cover at time of application.
3. Number of days to incorporate manure after application: Use "N1" for no incorporation.
4. Amount of rainfall during the 24 hours prior to application.
5. Amount of rainfall during the 24 hours after application.
6. Weather condition at time of application: Sunny, Partly Cloudy, Cloudy, Rain, Snow.

Manure Application Records - 6/2019 - 5/2020

App #	Date	Field ID	Field SubID	Manure Source	Application Equipment	Actual Rate	Actual Loads	Total Applied	Acres Covered
8									
9									
10									
11									
12									
13									
14									

Manure Application Records - 6/2019 - 5/2020 (continued)

App #	Applicator's Name	¹ Soil Condition	² Ground Cover	³ Days to Incorporate	Air Temp	Wind Speed	Wind Direction	⁴ Rain Before	⁵ Rain After	⁶ Weather
8										
9										
10										
11										
12										
13										
14										

1. Soil condition at time of operations: Dry, Firm, Wet, Muddy, Snow-Covered, Frozen.
2. Percent residue or ground cover at time of application.
3. Number of days to incorporate manure after application: Use "N1" for no incorporation.
4. Amount of rainfall during the 24 hours prior to application.
5. Amount of rainfall during the 24 hours after application.
6. Weather condition at time of application: Sunny, Partly Cloudy, Cloudy, Rain, Snow.

Manure Application Records - 6/2019 - 5/2020

App #	Date	Field ID	Field SubID	Manure Source	Application Equipment	Actual Rate	Actual Loads	Total Applied	Acres Covered
15									
16									
17									
18									
19									
20									
21									

Manure Application Records - 6/2019 - 5/2020 (continued)

App #	Applicator's Name	¹ Soil Condition	² Ground Cover	³ Days to Incorporate	Air Temp	Wind Speed	Wind Direction	⁴ Rain Before	⁵ Rain After	⁶ Weather
15										
16										
17										
18										
19										
20										
21										

1. Soil condition at time of operations: Dry, Firm, Wet, Muddy, Snow-Covered, Frozen.
2. Percent residue or ground cover at time of application.
3. Number of days to incorporate manure after application: Use "N1" for no incorporation.
4. Amount of rainfall during the 24 hours prior to application.
5. Amount of rainfall during the 24 hours after application.
6. Weather condition at time of application: Sunny, Partly Cloudy, Cloudy, Rain, Snow.

C. Planned Commercial Fertilizer Applications - 6/2019 - 5/2020

No planned commercial fertilizer applications for the period.

D. Recommended Manure Management Practices

Every time you apply manure you should review the following checklist to be sure conditions are favorable for manure applications. **These practices are required on permitted operations and operations that receive cost-share support through EQIP.**

- Know the proper manure source and application rate for each field.
- Keep good records, write down such things as operations performed, dates and times, actual rates, and weather conditions. This document provides record keeping forms.
- No surface application of manure if precipitation, likely to create runoff, is forecasted to occur within 24 hours of the planned application.
- No manure application on land with a slope greater than 20 percent.
- No surface application of manure to frozen, snow-covered or saturated soils.
- Manure applications shall comply with all manure application setbacks defined in the table below:

Manure application setback distances where manure should not be applied. For streams, lakes and wetlands the setback distance is measured from the defined edge of the water feature.

Setback Feature	Application Conditions	Setback Distance (feet)
Public or private drinking water well, drinking water lake or impoundment, or drinking water intake structure.	All applications	300
Other wells including un-plugged abandon wells	All applications	300
Public and privately owned lakes and impoundments not used as a water supply including impoundments with no outlet. Perennial streams, intermittent streams, canals, drainage ditches and wetlands. Tile line inlet (un-plugged during application).	Permanently vegetated setback	35
	Up-gradient, no or insufficient vegetated setback	100
	Down-gradient, no or insufficient vegetated setback	35
Losing streams, cave entrance, spring, or active sinkhole.	All applications	300
Non-owned occupied residence.	All applications	150
Public use area including non-owned businesses.	All applications	150
Public roads and property boundaries.	All applications	50

The following practices are recommended:

- Apply nutrients close to crop use to maximize nutrient uptake and reduce potential losses.
- Calibrate and maintain application equipment to apply accurate and uniform rates; all land application equipment should be calibrated at least annually.
- Avoid application when wind is blowing in the direction of neighbors or on weekends and holidays when people are more likely to be outdoors.

For liquid applications:

- Adjusting surface application rates to meet infiltration rate and water holding capacity of the soil.
- Irrigation systems should have automatic shut-off devices in case of pressure loss and/or an operator on-site at all times during operation to monitor application equipment.
- The perimeter of all fields receiving manure should be checked regularly during operation of land application equipment to confirm manure is not running off the field or entering waters of the state.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P1300

Field Information

Total Acres:	14.4	Spreadable Acres:	12.2
Non-Spreadable Acres:	2.2	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	100	75	80

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Sep 2019			
Manure Source	GDU			
Application Rate	3,800 gal/a			
Acres Covered	12.3			
Total Applied	46,800 gal			
Loads per Field	7.2			
Placement	Injected			
N (lbs/acres)	146			
P₂O₅ (lbs/acre)	160			
K₂O (lbs/acre)	100			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P4000

Field Information

Total Acres:	112.2	Spreadable Acres:	102.2
Non-Spreadable Acres:	10.0	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	100	75	80

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2019			
Manure Source	GDU			
Application Rate	3,800 gal/a			
Acres Covered	102.3			
Total Applied	388,700 gal			
Loads per Field	59.8			
Placement	Injected			
N (lbs/acres)	146			
P₂O₅ (lbs/acre)	160			
K₂O (lbs/acre)	100			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602420P3400

Field Information

Total Acres:	30.9	Spreadable Acres:	29.3
Non-Spreadable Acres:	1.6	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	70	20

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2019			
Manure Source	Gestation			
Application Rate	8,100 gal/a			
Acres Covered	29.4			
Total Applied	237,900 gal			
Loads per Field	36.6			
Placement	Injected			
N (lbs/acres)	134			
P₂O₅ (lbs/acre)	203			
K₂O (lbs/acre)	288			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602420P4000

Field Information

Total Acres:	108.8	Spreadable Acres:	104.6
Non-Spreadable Acres:	4.2	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	70	45

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2019			
Manure Source	Gestation			
Application Rate	6,400 gal/a			
Acres Covered	104.6			
Total Applied	669,500 gal			
Loads per Field	103.0			
Placement	Injected			
N (lbs/acres)	106			
P₂O₅ (lbs/acre)	160			
K₂O (lbs/acre)	227			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602421P3500B

Field Information

Total Acres:	25.2	Spreadable Acres:	21.6
Non-Spreadable Acres:	3.6	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	80	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2019			
Manure Source	Gestation			
Application Rate	8,100 gal/a			
Acres Covered	21.7			
Total Applied	175,500 gal			
Loads per Field	27.0			
Placement	Injected			
N (lbs/acres)	134			
P₂O₅ (lbs/acre)	203			
K₂O (lbs/acre)	288			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602421P3500C

Field Information

Total Acres:	19.8	Spreadable Acres:	18.7
Non-Spreadable Acres:	1.1	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	125	0	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2019			
Manure Source	Gestation			
Application Rate	8,200 gal/a			
Acres Covered	18.7			
Total Applied	153,400 gal			
Loads per Field	23.6			
Placement	Injected			
N (lbs/acres)	135			
P₂O₅ (lbs/acre)	205			
K₂O (lbs/acre)	291			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000B

Field Information

Total Acres:	98.7	Spreadable Acres:	94.7
Non-Spreadable Acres:	4.0	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	100	55

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2019			
Manure Source	Gestation			
Application Rate	6,700 gal/a			
Acres Covered	94.8			
Total Applied	635,050 gal			
Loads per Field	97.7			
Placement	Injected			
N (lbs/acres)	111			
P₂O₅ (lbs/acre)	168			
K₂O (lbs/acre)	238			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000C

Field Information

Total Acres:	24.1	Spreadable Acres:	21.7
Non-Spreadable Acres:	2.4	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	75	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2019			
Manure Source	Gestation			
Application Rate	6,400 gal/a			
Acres Covered	21.7			
Total Applied	139,100 gal			
Loads per Field	21.4			
Placement	Injected			
N (lbs/acres)	106			
P₂O₅ (lbs/acre)	160			
K₂O (lbs/acre)	227			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000D

Field Information

Total Acres:	186.1	Spreadable Acres:	168.2
Non-Spreadable Acres:	17.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	40	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2019			
Manure Source	Gestation			
Application Rate	6,400 gal/a			
Acres Covered	168.3			
Total Applied	1,077,050 gal			
Loads per Field	165.7			
Placement	Injected			
N (lbs/acres)	106			
P₂O₅ (lbs/acre)	160			
K₂O (lbs/acre)	227			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P1150B

Field Information

Total Acres:	6.0	Spreadable Acres:	4.9
Non-Spreadable Acres:	1.1	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	100	80	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2019			
Manure Source	GDU			
Application Rate	3,800 gal/a			
Acres Covered	5.0			
Total Applied	18,850 gal			
Loads per Field	2.9			
Placement	Injected			
N (lbs/acres)	146			
P₂O₅ (lbs/acre)	160			
K₂O (lbs/acre)	100			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P1150C

Field Information

Total Acres:	6.9	Spreadable Acres:	6.0
Non-Spreadable Acres:	0.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	75	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2019			
Manure Source	GDU			
Application Rate	3,700 gal/a			
Acres Covered	6.1			
Total Applied	22,750 gal			
Loads per Field	3.5			
Placement	Injected			
N (lbs/acres)	142			
P₂O₅ (lbs/acre)	155			
K₂O (lbs/acre)	98			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P1400

Field Information

Total Acres:	21.0	Spreadable Acres:	13.9
Non-Spreadable Acres:	7.1	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	100	80	0

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID:

Field Information

Total Acres:	1.0	Spreadable Acres:	
Non-Spreadable Acres:		Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
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This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P3000B

Field Information

Total Acres:	34.0	Spreadable Acres:	31.7
Non-Spreadable Acres:	2.3	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	80	25

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2019			
Manure Source	GDU			
Application Rate	4,000 gal/a			
Acres Covered	14.6			
Total Applied	58,500 gal			
Loads per Field	9.0			
Placement	Injected			
N (lbs/acres)	154			
P₂O₅ (lbs/acre)	168			
K₂O (lbs/acre)	106			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P3000C

Field Information

Total Acres:	3.9	Spreadable Acres:	0.7
Non-Spreadable Acres:	3.2	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	125	85	15

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602419P3000D

Field Information

Total Acres:	3.7	Spreadable Acres:	1.9
Non-Spreadable Acres:	1.8	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Corn grain	122.099998474121 bu	130	85	30

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

No planned manure application.

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Crop Management

* Nitrogen Credit: Nitrogen requirements have been reduced by 30 pounds per acre for this corn crop as it follows soybeans.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602429P8000E

Field Information

Total Acres:	111.4	Spreadable Acres:	98.9
Non-Spreadable Acres:	12.5	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	85	35

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2019			
Manure Source	Gestation			
Application Rate	6,500 gal/a			
Acres Covered	98.9			
Total Applied	642,850 gal			
Loads per Field	98.9			
Placement	Injected			
N (lbs/acres)	107			
P₂O₅ (lbs/acre)	163			
K₂O (lbs/acre)	231			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P4200

Field Information

Total Acres:	11.3	Spreadable Acres:	2.4
Non-Spreadable Acres:	8.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	55	30

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2019			
Manure Source	Gestation			
Application Rate	7,700 gal/a			
Acres Covered	2.4			
Total Applied	18,850 gal			
Loads per Field	2.9			
Placement	Injected			
N (lbs/acres)	127			
P₂O₅ (lbs/acre)	193			
K₂O (lbs/acre)	273			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P4300

Field Information

Total Acres:	17.1	Spreadable Acres:	7.2
Non-Spreadable Acres:	9.9	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	55	45

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2019			
Manure Source	Gestation			
Application Rate	7,700 gal/a			
Acres Covered	7.3			
Total Applied	55,900 gal			
Loads per Field	8.6			
Placement	Injected			
N (lbs/acres)	127			
P₂O₅ (lbs/acre)	193			
K₂O (lbs/acre)	273			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

6/2019 - 5/2020 NUTRIENT MANAGEMENT PLAN

FIELD ID: MO602430P4400

Field Information

Total Acres:	35.6	Spreadable Acres:	31.0
Non-Spreadable Acres:	4.6	Distance to Storage:	0.00 miles

Fertilizer Recommendation (lbs/acre)

Crop	Yield Goal	N	P ₂ O ₅	K ₂ O
Soybeans	43.7999992370605 bu	0	100	40

This fertilizer recommendation has not been adjusted for any applications of manure or fertilizer.

Manure Management

	Application 1			
Application Time	Oct 2019			
Manure Source	Gestation			
Application Rate	6,800 gal/a			
Acres Covered	31.1			
Total Applied	211,250 gal			
Loads per Field	32.5			
Placement	Injected			
N (lbs/acres)	112			
P₂O₅ (lbs/acre)	170			
K₂O (lbs/acre)	241			

Commercial Fertilizer Management

No planned commercial fertilizer application. No records in database.

Summary Tables - 6/2019 - 5/2020

F. Manure Summary: 6/2019 - 5/2020

	Source 1	Source 2		
Source	Gestation	GDU		
Units	gals	gals		
Beginning of Year Inventory	2,845,200	288,750		
Inputs				
Production	4,558,000	502,000		
Imports - off farm	0	0		
Transfers - on farm	0	0		
Total Inputs	4,558,000	502,000		
Outputs				
Land Applied	4,016,350	535,600		
Exports - off farm	0	0		
Transfers - on farm	0	0		
Total Outputs	4,016,350	535,600		
End of Year Inventory	3,386,850	255,150		

G. Land Applied Nutrient Summary: 6/2019 - 5/2020

	Total Applied	PAN ¹	P ₂ O ₅	K ₂ O
Manure Source	(tons or gals)	-----lbs-----		
Gestation	4,016,350 gals	66,421	100,549	142,584
GDU	535,600 gals	20,576	22,534	14,106
Manure Total		86,997	123,083	156,690
	Total Applied	N	P ₂ O ₅	K ₂ O
Fertilizer Source	(lbs or gals)	-----lbs-----		
Fertilizer Total		0	0	0
Total		86,997	123,083	156,690

H. Lime Recommendations

These lime recommendations are one-time applications meant to be applied only once to adjust soil pH to its desired level. If you have already applied the recommended lime rate in a previous year of this plan please disregard these recommendations.

Lime Recommendations¹

Field ID	Field SubID	Field Size	Test Year	NA ²	pH	pH Rating	Mg (lbs/a)	Mg Rating	Lime Rec. lbs ENM/acre ³	Mg Rec. lbs EMg/acre ⁴
MO602419P1300		14.4	2012	6.9	5.8	Medium	302	High	1,780	0 [D]
MO602419P4000		112.2	2012	6.9	5.8	Medium	302	High	1,780	0 [D]
MO602420P3400		30.9	2015	6.5	5.9	Medium	1,306	High	1,565	0 [D]
MO602420P4000		108.8	2015	6.5	5.7	Medium	1,358	High	1,765	0 [D]
MO602421P3500B		25.2	2015	6.4	5.7	Medium	1,334	High	1,740	0 [D]
MO602421P3500C		19.8	2015	6.4	5.6	Medium	1,238	High	1,815	0 [D]
MO602429P8000B		98.7	2015	6.6	6.1	High	1,522	High	1,295	0 [D]
MO602429P8000C		24.1	2015	6.7	6.4	High	1,562	High	495	0 [D]
MO602429P8000D		186.1	2015	6.7	6.5	High	1,290	High	0	0
MO602430P1150B		6.0	2012	7.1	6.5	High	566	High	0	0
MO602430P1150C		6.9	2015	6.4	5.8	Medium	1,584	High	1,650	0 [D]
MO602430P1400		21.0	2012	7.1	6.5	High	566	High	0	0
		1.0	2012	6.6	5.7	**	652	**	**	**
MO602419P3000B		34.0	2015	6.4	5.8	Medium	1,502	High	1,650	0 [D]
MO602419P3000C		3.9	2015	6.3	5.6	Medium	1,574	High	1,790	0 [D]
MO602419P3000D		3.7	2015	6.3	5.5	Medium	1,370	High	1,850	0 [D]
MO602429P8000E		111.4	2015	6.7	6.3	High	1,506	High	840	0 [D]
MO602430P4200		11.3	2015		7.0	*	842	*	*	*

Field ID	Field SubID	Field Size	Test Year	NA ²	pH	pH Rating	Mg (lbs/a)	Mg Rating	Lime Rec. lbs ENM/acre ³	Mg Rec. lbs EMg/acre ⁴
MO602430P4300		17.1	2015		7.0	*	835	*	*	*
MO602430P4400		35.6	2015	6.7	6.2	High	1,324	High	1,105	0 [D]

¹These lime recommendations assume you used the University of Missouri soil testing laboratory, or comparable lab.

²NA = Neutralizable Acidity, units in meq/100g soil.

³ENM = Effective Neutralizing Material.

⁴EMg = Effective Magnesium.

** - No recommendation: No crop has been selected for this field in order to calculate lime recommendation.

* - No recommendation: Some soil test data is missing for this field. Please run the Essential Data Detection Tool.

[D] To determine limestone needed in tons/acre, divide your ENM requirement by the guarantee of your limestone dealer.

I. Crop Record Keeping Table: 6/2019 - 5/2020

Field ID	Field SubID	Crop	Planting Date	Hybrid or Variety	Seeding Rate	Harvest date(s)	Yield/A
MO602419P 1300		Corn grain					
MO602419P 4000		Corn grain					
MO602420P 3400		Corn grain					
MO602420P 4000		Soybeans					
MO602421P 3500B		Corn grain					
MO602421P 3500C		Corn grain					
MO602429P 8000B		Soybeans					
MO602429P 8000C		Soybeans					
MO602429P 8000D		Soybeans					
MO602430P 1150B		Corn grain					
MO602430P 1150C		Corn grain					
MO602430P 1400		Corn grain					
MO602419P 3000B		Corn grain					
MO602419P 3000C		Corn grain					
MO602419P 3000D		Corn grain					
MO602429P		Soybeans					

Field ID	Field SubID	Crop	Planting Date	Hybrid or Variety	Seeding Rate	Harvest date(s)	Yield/A
8000E							
MO602430P 4200		Soybeans					
MO602430P 4300		Soybeans					
MO602430P 4400		Soybeans					

Document Source Information

Report based on information from Manure Management Planer (MMP 0.3.3.2)

Plan:

File: S:\Manure ground\MMP P Index Plans\Trenton Farms RE, LLC\Original MMP 2015.mmp
Initialized: 11/6/2008
Last Saved: 6/3/2015 5:00:06 PM
Exported: 6/3/2015 5:03:14 PM
Title:
Years in Plan: 5
Plan Start Year: 2015
Plan Start Month: 6

Operation:

Name: Trenton Farms RE, LLC

Operation Contact:

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