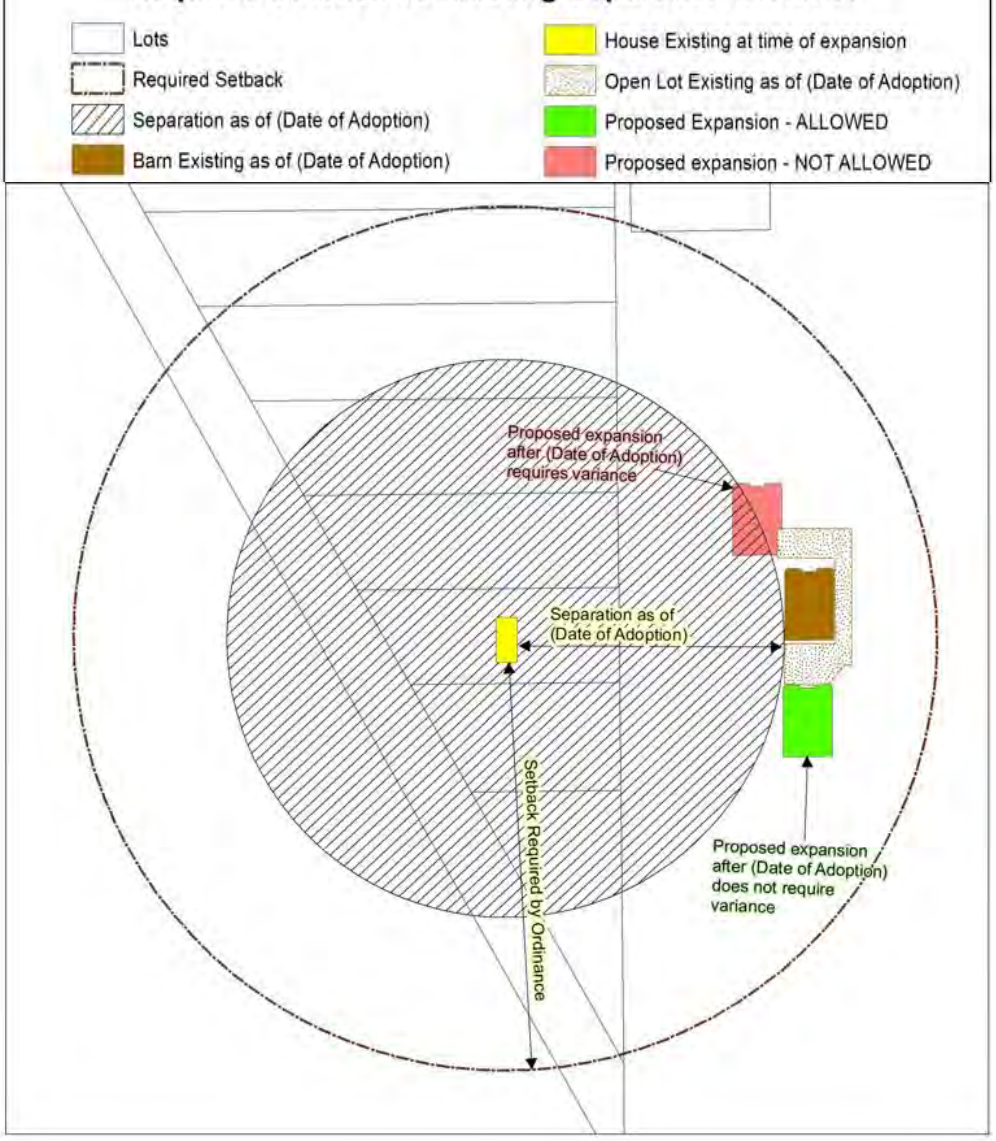
the incorporated community were expanded, after the date that the concentrated animal feeding operation was established. The date that the Concentrated Animal feeding Operation was established is the date on which the Concentrated Animal Feeding Operation commenced operating. A change in ownership or expansion shall not change the date of operation.

vi. Any Concentrated Animal Feeding Operation in operation as of January 1, 2019 which does not comply with the suggested minimum setback/separation distance requirements is allowed to be replaced in the event of a calamity without obtaining a variance. Provided, that the replacement does not further encroach the setback/separation distance existing at the time of the calamity. See Figure 4.24.7.

FIGURE 4.24.7

Required Setback vs Existing Separation Distance



Each application for a new or expanded Concentrated Animal Feeding Operation (CAFO) will be reviewed by the board of Adjustment on a site-specific basis. In granting a conditional use, the Board of Adjustment may determine one (1) or more of the following considerations warrant an increase in setbacks and separation distances.

i. Considerations To Increase Suggested Setbacks And Separation Distances

   a. A concentration of Concentrated Animal Feeding Operations in the area exists or would occur which may pose an air or water quality concern.

   b. Due to topography and/or prevailing wind direction, additional setback and separation distance is appropriate to safeguard air or water quality. The South Dakota Odor Footprint Tool may be utilized to determine the need to increase setback and/or separation requirements.

   c. A Concentrated Animal Feeding Operation is in excess of five thousand (5,000) animal units.

   d. Review of past management practices and proposed improvements to manure handling facilities.

ii. In granting a conditional use, the Board of Adjustment may determine one (1) or more of the following considerations warrant a decrease in setbacks and separation distances

   a. Public input relating to the setback or separation distance requested;

   b. Site specific review dealing with drainage, topography, and wind direction;

   c. Review of the operation of the Concentrated Animal Feeding Operation as it pertains to the type of manure handling system and manure application methods to be used would not require conformance with suggested setback and separation distances as outlined herein;

   d. An existing Concentrated Animal Feeding Operation proposes to expand but does not meet suggested setback or separation distances, the Board of Adjustment may reduce suggested setbacks and separation distances after review of past management practices and proposed improvements to manure handling facilities;

   e. Due to the type of manure handling and management of the CAFO little or no impact on adjacent property is expected. The use of Bio-filters, lagoon covers, and/or methane digesters are examples of improvements which may result in the reduction of recommended setbacks and separation distances. The South Dakota Odor Footprint Tool may be utilized to determine the need to decrease setback and/or separation requirements;

   f. Due to topography and/or prevailing wind direction little or no impact on adjacent property is expected. The South Dakota Odor Footprint Tool may be utilized to determine the need to decrease setback and/or separation requirements;

g. By limiting the proposed expansion to specific number of animal units no adverse impacts are expected. The South Dakota Odor Footprint Tool may be utilized to determine the need to decrease setback and/or separation requirements;

9. Standards for Concentrated Animal Feeding Operations *(Amended: Ordinance 01-19)*

a. The Board of Adjustment may request information relating to a Concentrated Animal Feeding Operation not contained in these regulations.

b. The Board of Adjustment may impose, in addition to the standards and requirements set forth in these regulations additional conditions which the Board of Adjustment considers necessary to protect the public health, safety and welfare.

c. Conditional use permits for concentrated Animal Feeding Operations shall be in effect only as long as sufficient land specified for spreading purposes is available for such purposes and other provisions of the permit are being adhered to.

d. When considering an application, the Board of Adjustment will take into consideration current and past violations relating to Concentrated Animal Feeding Operations that the applicant has or had an interest in.

e. Permit applicants will be required to file a letter of assurances as required by the Board of Adjustment. The letter of assurances will be prepared by the Administrative Official and signed by both the applicant and the Chairperson of the Board of Adjustment. The letter of assurances will be prepared by the Administrative Official and signed by both the applicant and the Chairperson. The permit for the Concentrated Animal Feeding Operation is based upon compliance with the regulations herein, and letter of assurances. Any violation of the regulations or non-compliance with the letter of assurances shall be cause for revoking a permit. Permit applicants will be notified by registered mail and a hearing before the Board of Adjustment shall either revoke the permit or set a time line for compliance. If compliance is not met, the permit shall be revoked and the permit holder ordered to cease operations. Permits and letters of assurances will be reviewed on an annual basis for compliance.

f. As a condition of the permit, the County Board of Adjustment may require the applicant/operator to compensate townships and/or the County for excessive wear or damage to roads as a result of manure transportation.

10. Information Required for Class A, and B Concentrated Animal Feeding Operation Permit.

a. Owner's name, address and telephone number.

b. Legal descriptions of site and site plan.

c. Number and type of animals.

d. Documentation of a South Dakota Department of Environment and Natural Resources approved nutrient management plan.

e. Documentation of a South Dakota Department of Environment and Natural Resources

approved manure management and operation plan.

f. Management plan for fly and odor control.

g. Information on ability to meet designated setback requirements including site plan to scale.

h. Documentation of approved General Permit from South Dakota Department of Environment & Natural Resources.

i. Notification of whomever maintains the access road (township, county and state).

j. Notification of public water supply officials.

k. Notification, by certified mail, of all adjoining landowners within one-mile of the proposed site.

l. Information on soils, shallow aquifers, designated wellhead protection areas, and 100-year floodplain designation.

m. Any other information as contained in the application and requested by the County Administrative Official.

11. Information Required for Class C, D, and E Concentrated Animal Feeding Operation Permit.

a. Owner's name, address and telephone number.

b. Legal descriptions of site and site plan.

c. Number and type of animals.

d. Nutrient management plan if required.

e. Manure management and operation plan if required.

f. Management plan for fly and odor control.

g. Information on ability to meet designated setback requirements, including site plan to scale.

h. Review of plans and specifications and nutrient management plan by the South Dakota Department of Environment & Natural Resources if using lagoon or earthen storage basin.

i. Information on soils, shallow aquifers, designated wellhead protection areas, and 100-year floodplain designation.

j. Notification of whoever maintains the access road (township, county and state). Notification of public water supply officials.

k. Any other information as contained in the application and requested by the County Administrative Official.

RUSLE2 Profile Erosion Calculation Record

Info: Field 1

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 2

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 3

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 4

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 5

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 6

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 7

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwA Poinsett-Waubay silty clay loams, 0 to 2 percent slopes\Poinsett Silty clay loam 55%	150	1.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.28	0.28	0.28	0.28	0.10	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.637	0.84	0.31	0.89	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 8

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 9

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 10

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 11

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\HmA Hetland silty clay loam, 0 to 2 percent slopes\Hetland Silty clay loam 90%	150	1.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.37	0.37	0.37	0.37	0.11	0.29	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.630	0.84	0.31	0.86	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 12

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 13

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 14

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 15

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 16

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 17

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 18

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwA Poinsett-Waubay silty clay loams, 0 to 2 percent slopes\Poinsett Silty clay loam 55%	150	1.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.28	0.28	0.28	0.28	0.10	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.637	0.84	0.31	0.89	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 19

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 20

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 21

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 22

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 23

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 24

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 25

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 26

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 27

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 28

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 29

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 30

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 31

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwA Poinsett-Waubay silty clay loams, 0 to 2 percent slopes\Poinsett Silty clay loam 55%	150	1.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.28	0.28	0.28	0.28	0.10	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.637	0.84	0.31	0.89	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 32

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwA Poinsett-Waubay silty clay loams, 0 to 2 percent slopes\Poinsett Silty clay loam 55%	150	1.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.28	0.28	0.28	0.28	0.10	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.637	0.84	0.31	0.89	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 33

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\Cw Cubden-Tonka silty clay loams\Cubden Silty clay loam 55%	150	4.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.96	0.96	0.96	0.96	0.096	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.583	0.84	0.31	0.62	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 34

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 35

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 36

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 37

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 38

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 39

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 40

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 41

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 42

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 43

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 44

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 45

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 46

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PrB Poinsett-Rusklyn-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 40%	120	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.70	0.70	0.70	0.70	0.097	0.22	120	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.604	0.84	0.31	0.72	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 47

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwB Poinsett-Waubay silty clay loams, 1 to 6 percent slopes\Poinsett Silty clay loam 65%	150	3.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.73	0.73	0.73	0.73	0.098	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.601	0.84	0.31	0.71	69.9	0

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

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

RUSLE2 Profile Erosion Calculation Record

Info: Field 48

File: profiles\default
Access Group: R2_NRCS_Fld_Office

Inputs:

Location	*Soil*	*Slope length (horiz)*	*Avg. slope steepness, %*
USA\South Dakota\Clark County	Clark County, South Dakota\PwA Poinsett-Waubay silty clay loams, 0 to 2 percent slopes\Poinsett Silty clay loam 55%	150	1.0

Management	*Vegetation*	*Yield units*	*# yield units, #/ac*
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Corn, grain	bushels	180.00
managements\CMZ 04\c.Other Local Mgt Records\Manure C-Soy	vegetations\Soybean, mw 30 in rows	bu	30.000

Contouring	*Strips/barriers*	*Diversion/terrace, sediment basin*	*Subsurface drainage*	*Adjust res. burial level*	*General yield level*	*Rock cover, %*
a. rows up-and-down hill	(none)	(none)	(none)	Normal res. burial	Base yield	0

Outputs:

T value	*Soil loss erod. portion*	*Detachment on slope*	*Soil loss for cons. plan*	*Sediment delivery*	*Net C factor*	*Net K factor*	*Crit. slope length*	*Surf. cover after planting, %*
5.0	0.28	0.28	0.28	0.28	0.10	0.22	150	

Date	*Operation*	*Vegetation*	*Surf. res. cov. after op, %*
10/31/0	Manure injector, liquid low disturb.30 inch		69
5/5/1	Cultivator, field w/ spike points		38
5/5/1	Fert applic. surface broadcast		38
5/5/1	planter, double disk opnr	Corn, grain	38
5/6/1	Sprayer, pre-emergence		37
6/7/1	Sprayer, post emergence and fert. tank mix		37
10/10/1	Harvest, killing crop 50pct standing stubble		86
10/14/1	Chisel plow, disk, twst. pts.		49
5/10/2	Cultivator, field w/ spike points		38
5/10/2	Sprayer, pre-emergence		38
5/10/2	Drill or airseeder, double disk	Soybean, mw 30 in rows	38
6/7/2	Sprayer, post emergence		42
8/1/2	Sprayer, insecticide post emergence		28
10/5/2	Harvest, killing crop 20pct standing stubble		75

FUEL USE EVALUATION:

Fuel type for entire run	*Equiv. diesel use for entire simulation*	*Energy use for entire simulation*	*Fuel cost for entire simulation, US$/ac*
(none)	10	1400000	0

SCI and STIR Output

Soil conditioning index (SCI)	*SCI OM subfactor*	*SCI FO subfactor*	*SCI ER subfactor*	*Avg. annual slope STIR*	*Wind & irrigation-induced erosion for SCI, t/ac/yr*
0.637	0.84	0.31	0.89	69.9	0

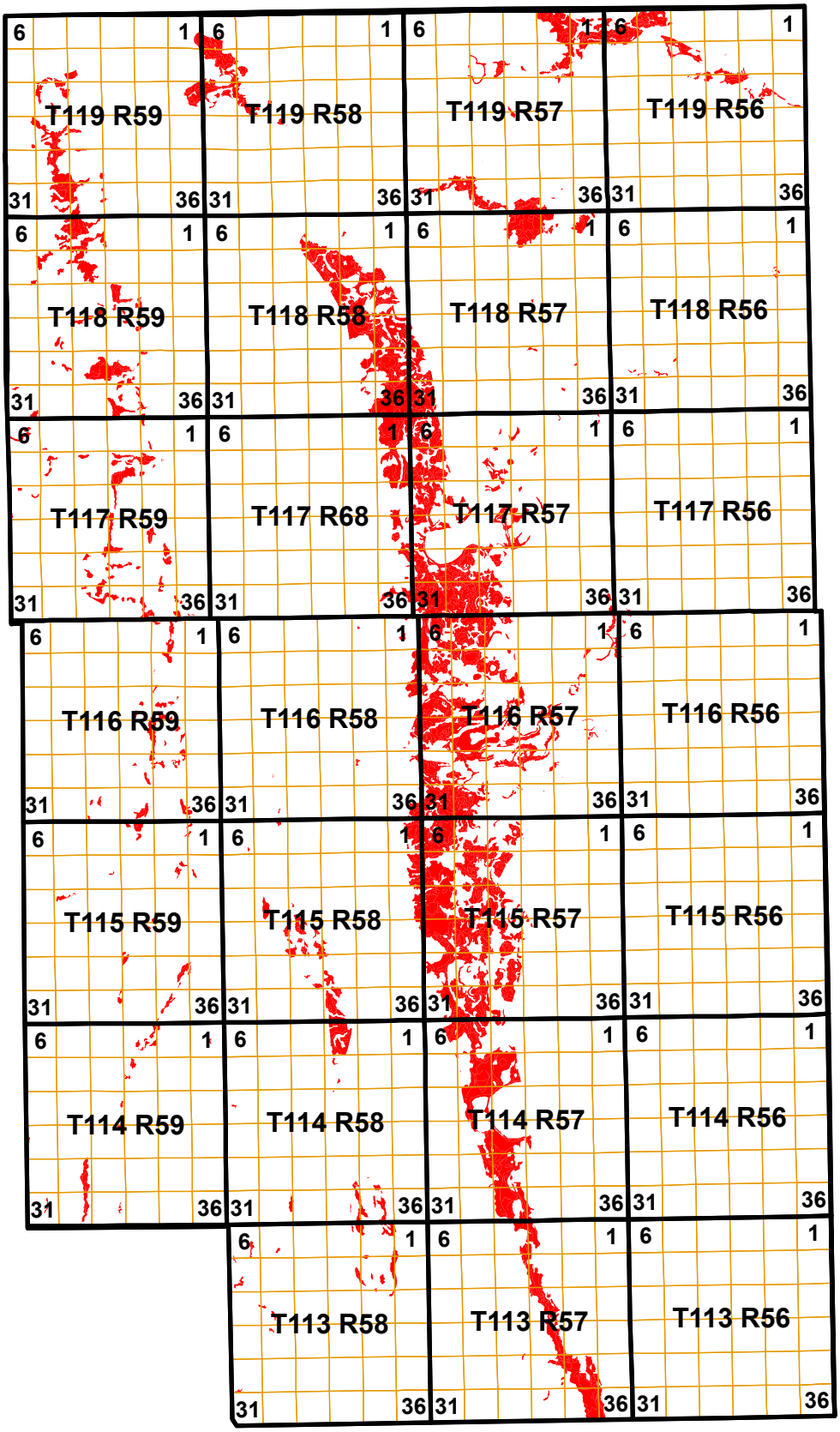
The **SCI** is the **Soil Conditioning Index** rating. If the calculated index is a negative value, soil organic matter levels are predicted to decline under that production system. If the index is a positive value, soil organic matter levels are predicted to increase under that system.

The **STIR** value is the **Soil Tillage Intensity Rating**. It utilizes the speed, depth, surface disturbance percent and tillage type parameters to calculate a tillage intensity rating for the system used in growing a crop or a rotation. STIR ratings tend to show the differences in the degree of soil disturbance between systems. The kind, severity and number of ground disturbing passes are evaluated for the entire cropping rotation as shown in the management description.

U.S Department of Agriculture

Natural Resources Conservation Service

SD LEACHING TOOL CLARK COUNTY



Legend

Leach_Risk High

Townships

0 3.25 6.5 13

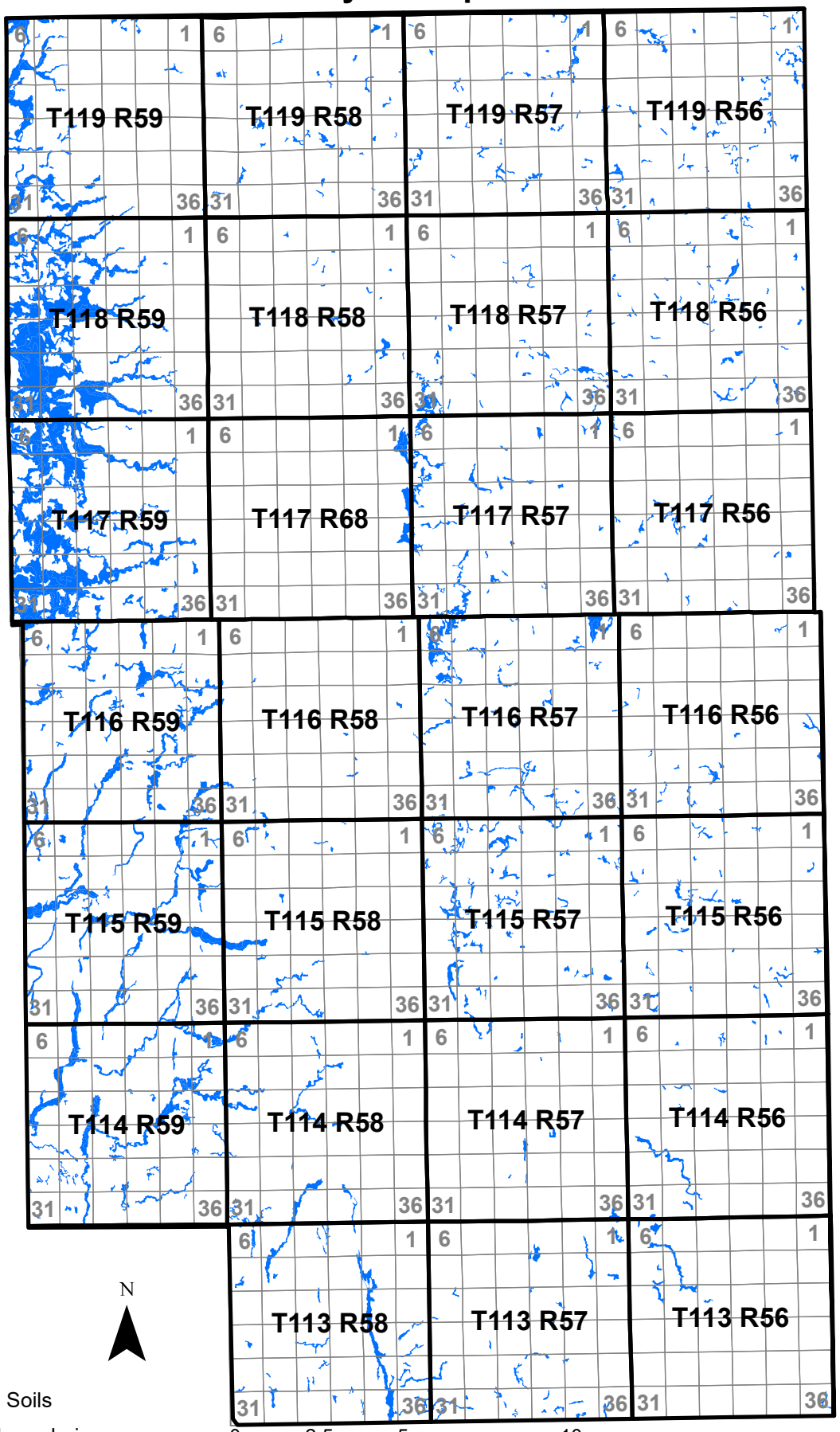
Miles

Map Produced by USDA/NRCS
South Dakota State Office
Geographic Information System, July 2015

U.S Department of Agriculture

Natural Resources Conservation Service

Clark County Floodplain Soils



Legend

- Floodplain Soils
- Township boundaries
- Sections

0 2.5 5 10

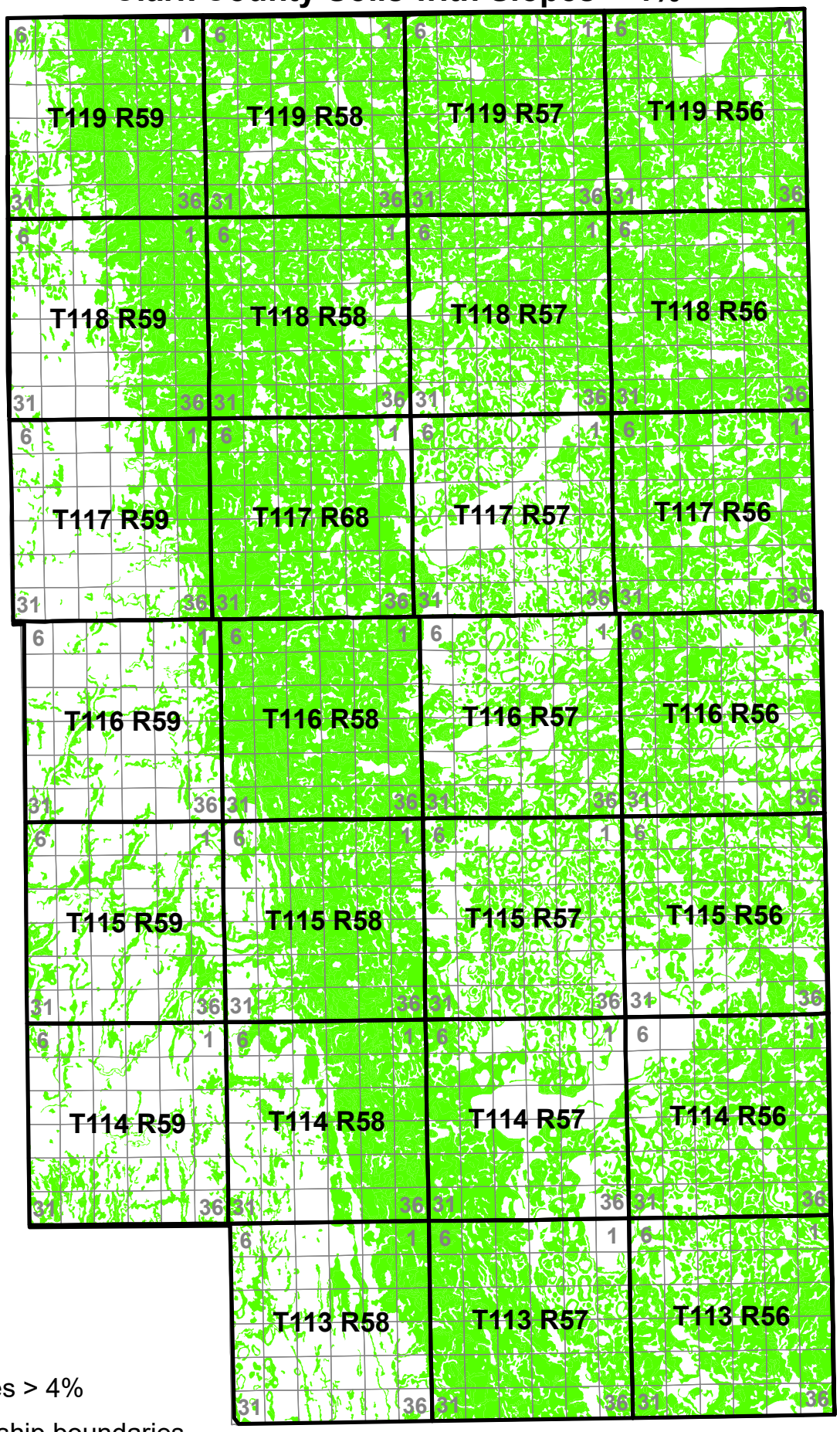
Miles

Map Produced by USDA/NRCS
South Dakota State Office
Geographic Information System, Aug 2015

U.S Department of Agriculture

Natural Resources Conservation Service

Clark County Soils with Slopes > 4%



Legend

- Slopes > 4%
- Township boundaries
- Sections

0 3 6 12

Miles

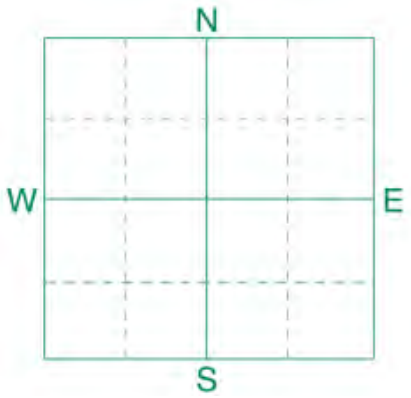
Map Produced by USDA/NRCS
South Dakota State Office
Geographic Information System, Aug 2015

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 1**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879831** BOX # **3545**
LAB # **BN22014**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**40 ppm**	******	******	******	******
Potassium	**479 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**3.14 ppm**	******	******	******	******
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.8 %**	******	******	******	*
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.59 mmho/cm**	******	******	**	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**0**		Zn	**0**		Zn	**0**	
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.1**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

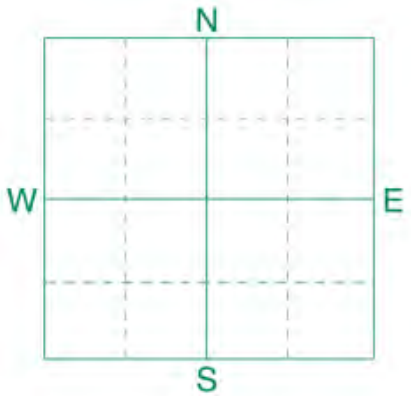
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 2**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879832** BOX # **3546**
LAB # **BN22030**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**24 ppm**	******	******	******	******
Potassium	**404 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**2.55 ppm**	******	******	******	******
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.4 %**	******	******	******	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.35 mmho/cm**	********			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**0**		Zn	**0**		Zn	**0**	
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.0**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

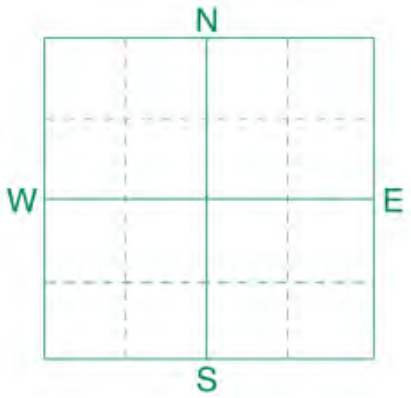
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 3**
SAMPLE ID
FIELD NAME **Field 3**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879833** BOX # **3546**
LAB # **BN22021**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**20 ppm**	******	******	******	******
Potassium	**215 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.13 ppm**	******	******	******	*
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.4 %**	******	******	******	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.2 mmho/cm**	*****			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**2.0**	**Tons**	Lime	**2.0**	**Tons**	Lime	**2.0**	**Tons**

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **5.7**	**6.6**						

General Comments: Lime guideline assumes average 1000 lb ENP/ton ag lime. Reduce rate by 1/2 for western Iowa, western Minnesota, North Dakota, and South Dakota.

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

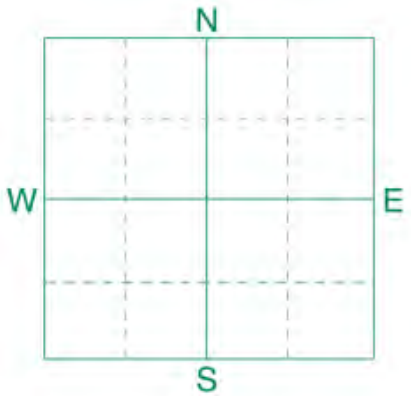
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 4**
SAMPLE ID
FIELD NAME **Field 4**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879834** BOX # **3547**
LAB # **BN22048**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**10 ppm**	******	******	****	
Potassium	**431 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**2.34 ppm**	******	******	******	******
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**5.0 %**	******	******	******	**
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.38 mmho/cm**	********	***		

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**50**	**Broadcast**	P_2O_5	**60**	**Broadcast**	P_2O_5	**70**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**0**		Zn	**0**		Zn	**0**	
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.1**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

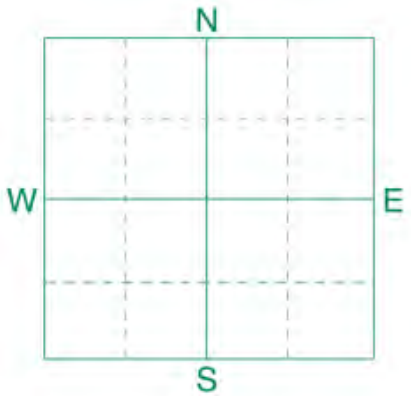
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 5**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879835** BOX # **3545**
LAB # **BN22007**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**14 ppm**	******	******	******	****
Potassium	**392 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**3.70 ppm**	******	******	******	******
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**3.9 %**	******	******	***	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.33 mmho/cm**	********	**		

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**30**	**Broadcast**	P_2O_5	**35**	**Broadcast**	P_2O_5	**40**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**0**		Zn	**0**		Zn	**0**	
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.3**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

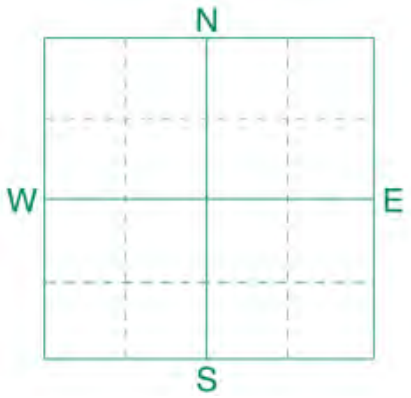
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 6**
SAMPLE ID
FIELD NAME **Field 6**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879836** BOX # **3544**
LAB # **BN21999**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation (VLow / Low / Med / High)
Nitrate		
Olsen Phosphorus	12 ppm	****** ****** ******
Potassium	206 ppm	****** ****** ****** ******
Chloride		
Sulfur		
Boron		
Zinc	1.44 ppm	****** ****** ****** ***
Iron		
Manganese		
Copper		
Magnesium		
Calcium		
Sodium		
Org.Matter	4.1 %	****** ****** ****
Carbonate(CCE)		
0-6" Sol. Salts	0.94 mmho/cm	****** ****** ****** *

	1st Crop Choice		2nd Crop Choice		3rd Crop Choice	
	Corn-Grain		Corn-Grain		Corn-Grain	
	YIELD GOAL		YIELD GOAL		YIELD GOAL	
	150 BU		180 BU		200 BU	
	SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES	
	Centrol		Centrol		Centrol	
	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION
N	**110**		**130**		**145**	
P_2O_5	**40**	**Broadcast**	**50**	**Broadcast**	**55**	**Broadcast**
K_2O	**0**		**0**		**0**	
Cl						
S						
B						
Zn	**1**	**Broadcast**	**2**	**Broadcast**	**2**	**Broadcast**
Fe						
Mn						
Cu						
Mg						
Lime	**0**		**0**		**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.9**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

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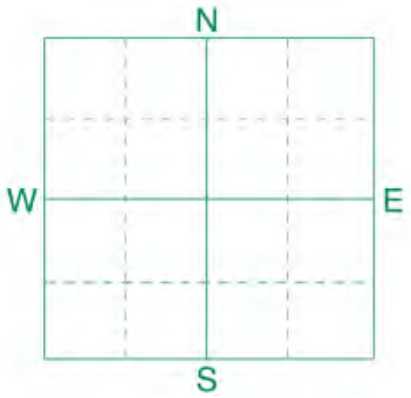
Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 7**
SAMPLE ID
FIELD NAME **Field 7**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879837** BOX # **3545**
LAB # **BN22015**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**15 ppm**	******	******	******	******
Potassium	**324 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.87 ppm**	******	******	******	*****
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**5.1 %**	******	******	******	**
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.58 mmho/cm**	******	******	**	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**25**	**Broadcast**	P_2O_5	**30**	**Broadcast**	P_2O_5	**30**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.7**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

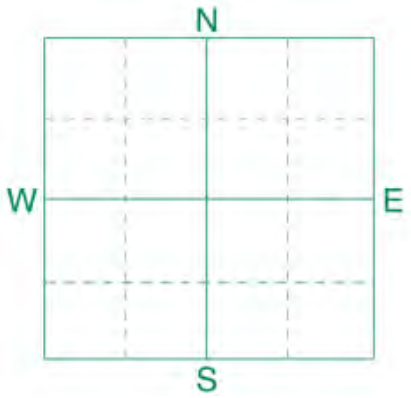
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 8**
SAMPLE ID
FIELD NAME **Field 8**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879838** BOX # **3545**
LAB # **BN22267**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**10 ppm**	******	******	****	
Potassium	**281 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.47 ppm**	******	******	******	***
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.8 %**	******	******	******	*
Carbonate(CCE)					
Sol. Salts **0-6"**	**1.36 mmho/cm**	******	******	******	***

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**50**	**Broadcast**	P_2O_5	**60**	**Broadcast**	P_2O_5	**70**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.2**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

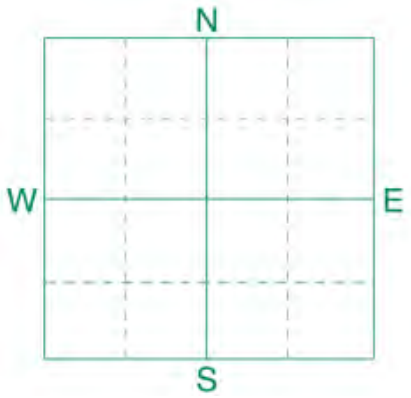
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 9**
SAMPLE ID
FIELD NAME **Field 9**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879839** BOX # **3547**
LAB # **BN22049**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Olsen Phosphorus	8 ppm	******	******		
Potassium	216 ppm	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	0.59 ppm	******	******		
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	4.2 %	******	******	*****	
Carbonate(CCE)					
0-6" Sol. Salts	0.74 mmho/cm	******	******	******	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	110		N	130		N	145	
P_2O_5	60	Broadcast	P_2O_5	75	Broadcast	P_2O_5	80	Broadcast
K_2O	0		K_2O	0		K_2O	0	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	4	Broadcast	Zn	5	Broadcast	Zn	5	Broadcast
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	0		Lime	0		Lime	0	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.5							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

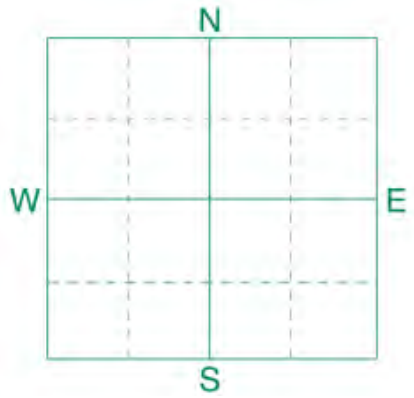
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 10**
SAMPLE ID
FIELD NAME **Field 10**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879840** BOX # **3545**
LAB # **BN22019**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**14 ppm**	******	******	******	****
Potassium	**356 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**2.06 ppm**	******	******	******	******
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.5 %**	******	******	******	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.21 mmho/cm**	*****			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**30**	**Broadcast**	P_2O_5	**35**	**Broadcast**	P_2O_5	**40**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**0**		Zn	**0**		Zn	**0**	
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.4**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

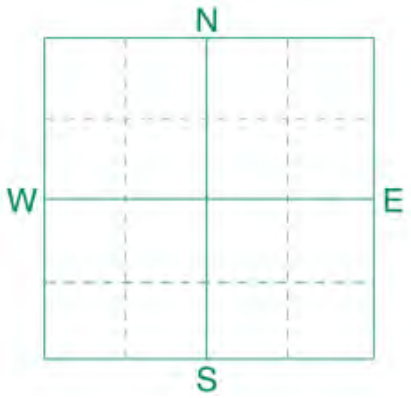
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 11**
SAMPLE ID
FIELD NAME **Field 11**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879841** BOX # **3545**
LAB # **BN22013**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**9 ppm**	******	********	**	
Potassium	**211 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.48 ppm**	******	******	******	***
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.7 %**	******	******	******	
Carbonate(CCE)					
Sol. Salts **0-6"**	**1.19 mmho/cm**	******	******	******	**

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**55**	**Broadcast**	P_2O_5	**70**	**Broadcast**	P_2O_5	**75**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**2.0**	**Tons**	Lime	**2.0**	**Tons**	Lime	**2.0**	**Tons**

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **5.6**	**6.7**						

General Comments: Lime guideline assumes average 1000 lb ENP/ton ag lime. Reduce rate by 1/2 for western Iowa, western Minnesota, North Dakota, and South Dakota.

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

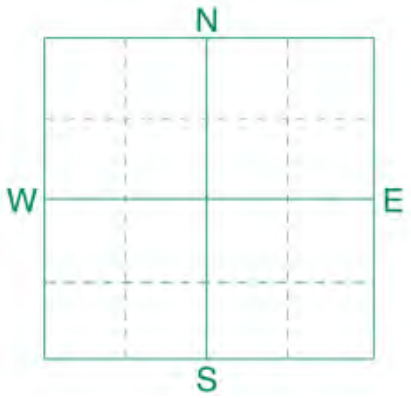
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 12**
SAMPLE ID
FIELD NAME **Field 12**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879842** BOX # **3545**
LAB # **BN22012**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**17 ppm**	******	******	******	******
Potassium	**234 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**0.70 ppm**	******	******	*	
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.7 %**	******	******	******	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.38 mmho/cm**	********	***		

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**3**	**Broadcast**	Zn	**4**	**Broadcast**	Zn	**4**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.3**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

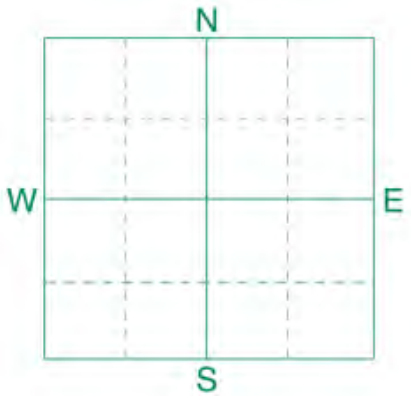
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 13**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879843** BOX # **3545**
LAB # **BN22003**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation (VLow / Low / Med / High)
Nitrate	0-6" **33 lb/acre** 6-24" **84 lb/acre** 0-24" **117 lb/acre**	******* ******* ******* *******
Phosphorus	Olsen **7 ppm**	******* *******
Potassium	**207 ppm**	******* ******* ******* *******
Chloride		
Sulfur		
Boron		
Zinc	**1.06 ppm**	******* ******* *******
Iron		
Manganese		
Copper		
Magnesium		
Calcium		
Sodium		
Org.Matter	**4.2 %**	******* ******* ******
Carbonate(CCE)		
Sol. Salts	0-6" **0.36 mmho/cm** 6-24" **0.41 mmho/cm**	******** **********

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**35**		N	**55**		N	**65**	
P_2O_5	**65**	**Broadcast**	P_2O_5	**80**	**Broadcast**	P_2O_5	**90**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.3** 6-24" **7.3**							

Crop 1: Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

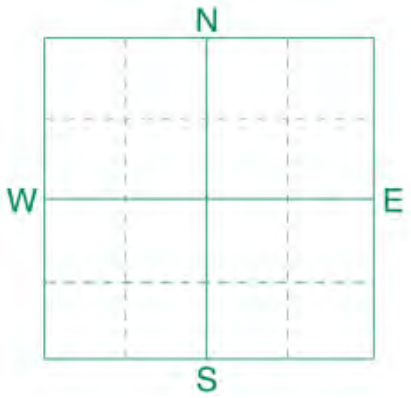
Crop 3: Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 14**
SAMPLE ID
FIELD NAME **Field 14**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879844** BOX # **3545**
LAB # **BN22016**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**14 ppm**	******	******	******	****
Potassium	**253 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.77 ppm**	******	******	******	*****
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.2 %**	******	******	*****	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.29 mmho/cm**	*******			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**30**	**Broadcast**	P_2O_5	**35**	**Broadcast**	P_2O_5	**40**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**2.0**	**Tons**	Lime	**2.0**	**Tons**	Lime	**2.0**	**Tons**

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **5.9**	**6.8**						

General Comments: Lime guideline assumes average 1000 lb ENP/ton ag lime. Reduce rate by 1/2 for western Iowa, western Minnesota, North Dakota, and South Dakota.

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

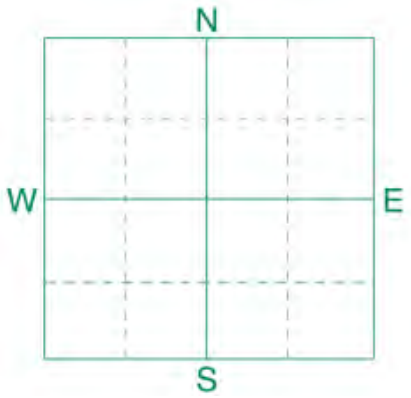
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 15**
SAMPLE ID
FIELD NAME **Field 15**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879845** BOX # **3545**
LAB # **BN22020**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**15 ppm**	******	******	******	******
Potassium	**277 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.57 ppm**	******	******	******	***
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.6 %**	******	******	******	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.21 mmho/cm**	*****			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**25**	**Broadcast**	P_2O_5	**30**	**Broadcast**	P_2O_5	**30**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**2.0**	**Tons**	Lime	**2.0**	**Tons**	Lime	**2.0**	**Tons**

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **5.7**	**6.7**						

General Comments: Lime guideline assumes average 1000 lb ENP/ton ag lime. Reduce rate by 1/2 for western Iowa, western Minnesota, North Dakota, and South Dakota.

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

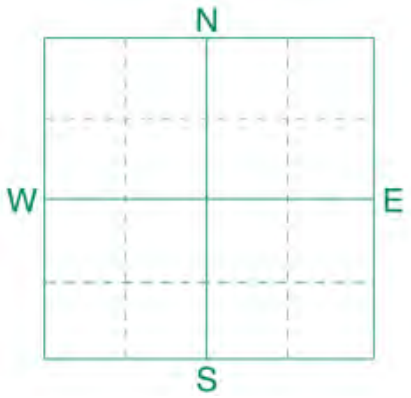
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 16**
SAMPLE ID
FIELD NAME **Field 16**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879846** BOX # **3544**
LAB # **BN22002**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Olsen Phosphorus	**11 ppm**	******	******	******	
Potassium	**274 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.47 ppm**	******	******	******	***
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.0 %**	******	******	****	
Carbonate(CCE)					
0-6" Sol. Salts	**0.32 mmho/cm**	********	**		

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**45**	**Broadcast**	P_2O_5	**55**	**Broadcast**	P_2O_5	**60**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.7**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

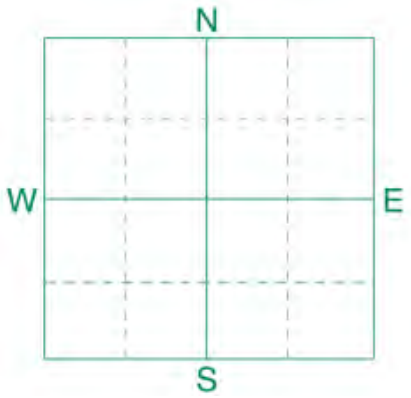
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 17**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879847** BOX # **3545**
LAB # **BN22009**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**17 ppm**	******	******	******	******
Potassium	**399 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**3.41 ppm**	******	******	******	******
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.6 %**	******	******	******	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.38 mmho/cm**	********	***		

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**0**		Zn	**0**		Zn	**0**	
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.2**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

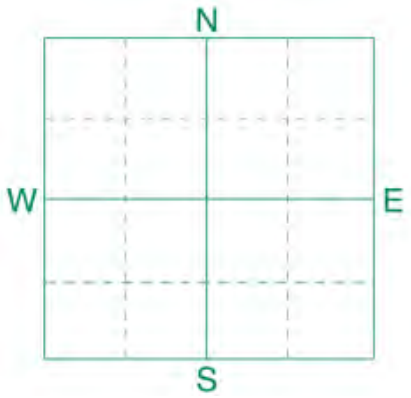
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 18**
SAMPLE ID
FIELD NAME **Field 18**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879848** BOX # **3546**
LAB # **BN22022**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Olsen Phosphorus	6 ppm	**********			
Potassium	188 ppm	**********	**********	**********	**********
Chloride					
Sulfur					
Boron					
Zinc	0.94 ppm	**********	**********	**********	
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	4.4 %	**********	**********	**********	
Carbonate(CCE)					
0-6" Sol. Salts	0.22 mmho/cm	**********			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	110		N	130		N	145	
P_2O_5	75	Broadcast	P_2O_5	85	Broadcast	P_2O_5	95	Broadcast
K_2O	20	Broadcast	K_2O	25	Broadcast	K_2O	25	Broadcast
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	3	Broadcast	Zn	4	Broadcast	Zn	4	Broadcast
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	2.0	Tons	Lime	2.0	Tons	Lime	2.0	Tons

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 5.7	6.6						

General Comments: Lime guideline assumes average 1000 lb ENP/ton ag lime. Reduce rate by 1/2 for western Iowa, western Minnesota, North Dakota, and South Dakota.

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

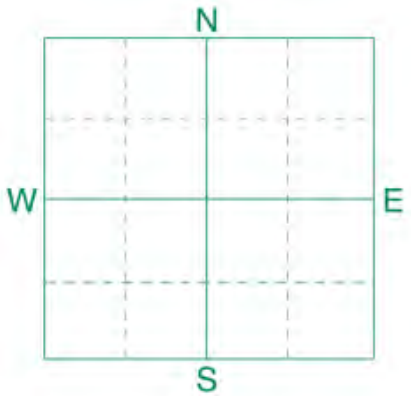
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 19**
SAMPLE ID
FIELD NAME **Field 19**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879849** BOX # **3546**
LAB # **BN22038**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil			Interpretation (VLow Low Med High)
Nitrate			
Phosphorus	Olsen	5 ppm	********
Potassium		144 ppm	**********
Chloride			
Sulfur			
Boron			
Zinc		1.74 ppm	**********
Iron			
Manganese			
Copper			
Magnesium			
Calcium			
Sodium			
Org.Matter		3.8 %	**********
Carbonate(CCE)			
Sol. Salts	0-6"	0.44 mmho/cm	**********

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	110		N	130		N	145	
P_2O_5	80	Broadcast	P_2O_5	95	Broadcast	P_2O_5	105	Broadcast
K_2O	50	Broadcast	K_2O	60	Broadcast	K_2O	70	Broadcast
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	1	Broadcast	Zn	2	Broadcast	Zn	2	Broadcast
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	0		Lime	0		Lime	0	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 6.4							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

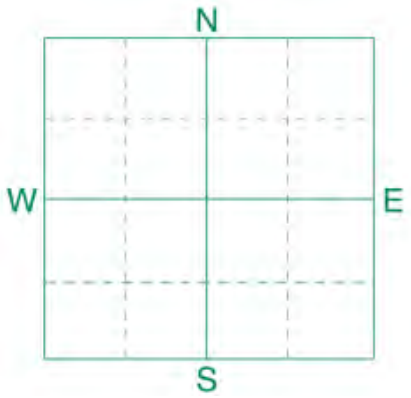
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 20**
SAMPLE ID
FIELD NAME **Field 20**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879850** BOX # **3546**
LAB # **BN22033**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**23 ppm**	******	******	******	******
Potassium	**328 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.66 ppm**	******	******	******	****
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**5.0 %**	******	******	******	**
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.24 mmho/cm**	******			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.3**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

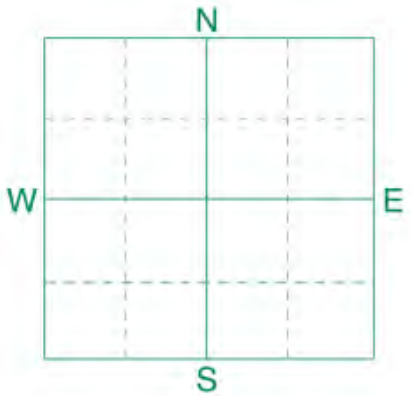
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 21**
SAMPLE ID
FIELD NAME **Field 21**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879851** BOX # **3546**
LAB # **BN22039**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**38 ppm**	******	******	******	******
Potassium	**204 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.80 ppm**	******	******	******	*****
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**3.9 %**	******	******	***	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.19 mmho/cm**	****			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**2**	**Broadcast**	Zn	**3**	**Broadcast**	Zn	**3**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.2**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

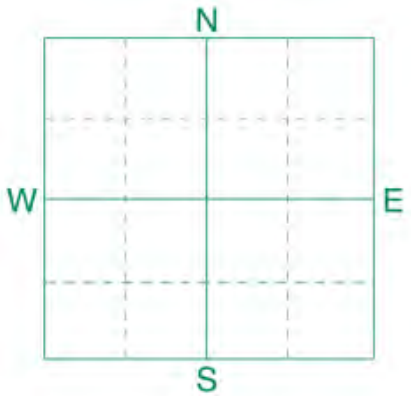
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 22**
SAMPLE ID
FIELD NAME **Field 22**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879853** BOX # **3547**
LAB # **BN22051**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**16 ppm**	******	******	******	******
Potassium	**282 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**2.07 ppm**	******	******	******	******
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.9 %**	******	******	******	*
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.15 mmho/cm**	***			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**	P_2O_5	**25**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**0**		Zn	**0**		Zn	**0**	
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**2.5**	**Tons**	Lime	**2.5**	**Tons**	Lime	**2.5**	**Tons**

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **5.8**	**6.5**						

General Comments: Lime guideline assumes average 1000 lb ENP/ton ag lime. Reduce rate by 1/2 for western Iowa, western Minnesota, North Dakota, and South Dakota.

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

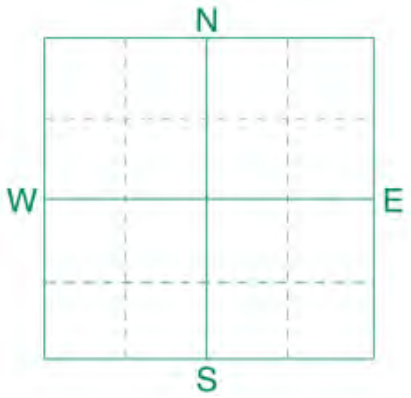
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 23**
SAMPLE ID
FIELD NAME **Field 23**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879854** BOX # **3546**
LAB # **BN22034**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**34 ppm**	******	******	******	******
Potassium	**620 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**2.98 ppm**	******	******	******	******
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**5.4 %**	******	******	******	***
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.33 mmho/cm**	********	**		

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**0**		Zn	**0**		Zn	**0**	
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.9**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

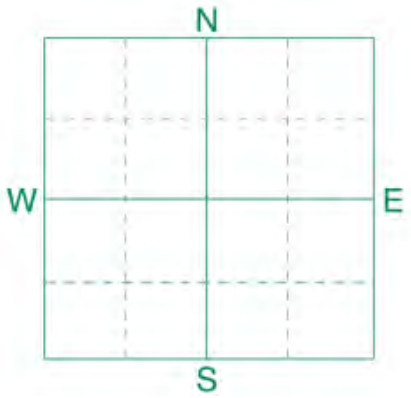
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 24**
SAMPLE ID
FIELD NAME **Field 24**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879855** BOX # **3544**
LAB # **BN22001**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**8 ppm**	******	******		
Potassium	**316 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.13 ppm**	******	******	******	*
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.3 %**	******	******	*****	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.31 mmho/cm**	*******			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**60**	**Broadcast**	P_2O_5	**75**	**Broadcast**	P_2O_5	**80**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.4**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

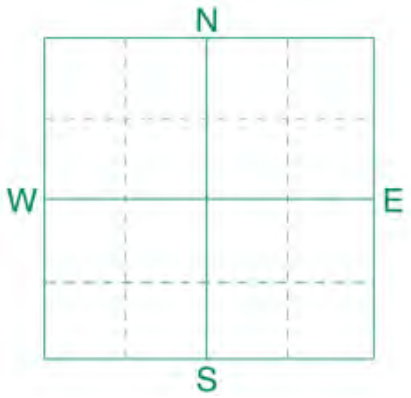
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 25**
SAMPLE ID
FIELD NAME **Field 25**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879856** BOX # **3545**
LAB # **BN22005**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**13 ppm**	******	******	******	**
Potassium	**299 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**2.72 ppm**	******	******	******	******
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**3.9 %**	******	******	***	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.17 mmho/cm**	****			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**35**	**Broadcast**	P_2O_5	**40**	**Broadcast**	P_2O_5	**45**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**0**		Zn	**0**		Zn	**0**	
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.1**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

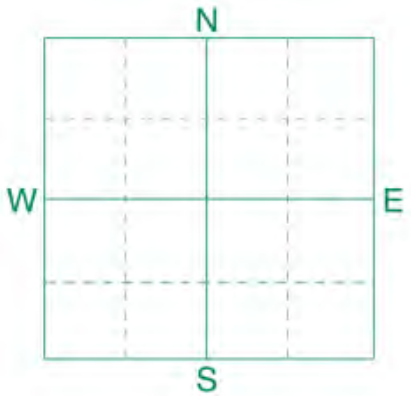
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 26**
SAMPLE ID
FIELD NAME **Field 26**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879857** BOX # **3547**
LAB # **BN22050**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**13 ppm**	******	******	******	**
Potassium	**260 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.79 ppm**	******	******	******	*****
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.7 %**	******	******	******	
Carbonate(CCE)					
Sol. Salts **0-6"**	**1.02 mmho/cm**	******	******	******	*

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**35**	**Broadcast**	P_2O_5	**40**	**Broadcast**	P_2O_5	**45**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.6**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

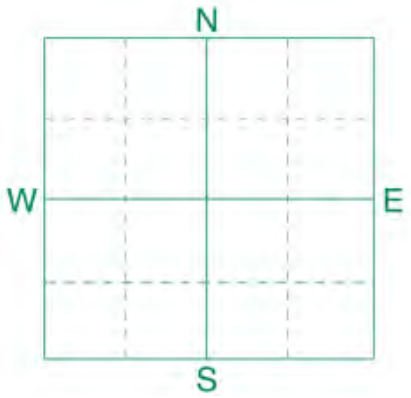
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 27**
SAMPLE ID
FIELD NAME
COUNTY
TWP **Lake** RANGE
SECTION **24** QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879858** BOX # **3545**
LAB # **BN22006**

Date Sampled | Date Received **04/29/2020** | Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**17 ppm**	******	******	******	******
Potassium	**296 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**0.76 ppm**	******	******	**	
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.7 %**	******	******	******	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.22 mmho/cm**	*****			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**3**	**Broadcast**	Zn	**4**	**Broadcast**	Zn	**4**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.0**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

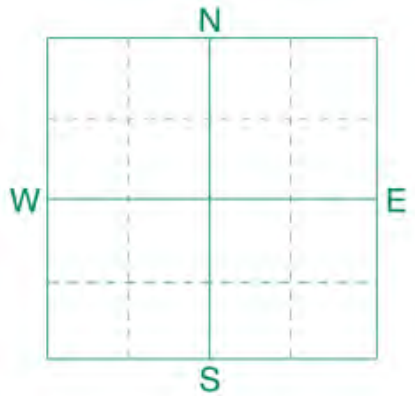
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 28**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879859** BOX # **3545**
LAB # **BN22017**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**12 ppm**	******	******	******	
Potassium	**349 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.59 ppm**	******	******	******	****
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.8 %**	******	******	******	*
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.45 mmho/cm**	******	******		

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**40**	**Broadcast**	P_2O_5	**50**	**Broadcast**	P_2O_5	**55**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.2**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

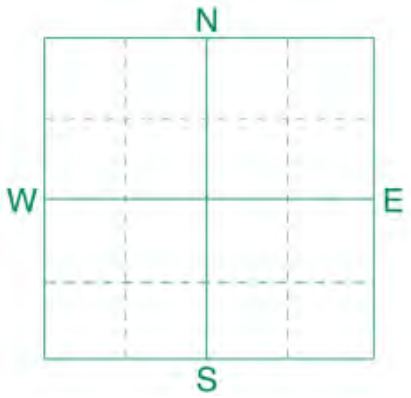
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 29**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879860** BOX # **3546**
LAB # **BN22026**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**10 ppm**	******	******	*****	
Potassium	**493 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.20 ppm**	******	******	******	*
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.3 %**	******	******	*****	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.72 mmho/cm**	******	******	*****	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**50**	**Broadcast**	P_2O_5	**60**	**Broadcast**	P_2O_5	**70**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.3**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

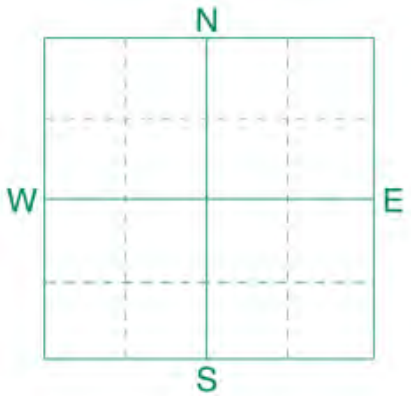
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 30**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879861** BOX # **3545**
LAB # **BN22010**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**12 ppm**	******	******	******	
Potassium	**360 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.58 ppm**	******	******	******	***
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.4 %**	******	******	******	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.21 mmho/cm**	*****			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**40**	**Broadcast**	P_2O_5	**50**	**Broadcast**	P_2O_5	**55**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.1**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

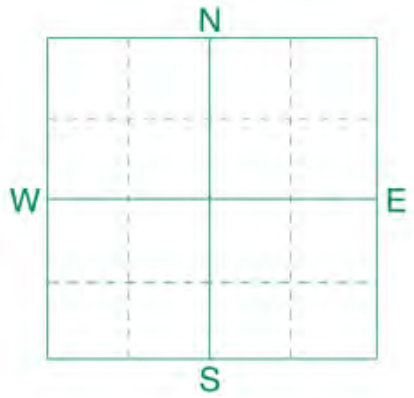
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 31**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879862** BOX # **3546**
LAB # **BN22032**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**8 ppm**	******	******		
Potassium	**329 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.67 ppm**	******	******	******	****
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.2 %**	******	******	*****	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.44 mmho/cm**	********	****		

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**60**	**Broadcast**	P_2O_5	**75**	**Broadcast**	P_2O_5	**80**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.2**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

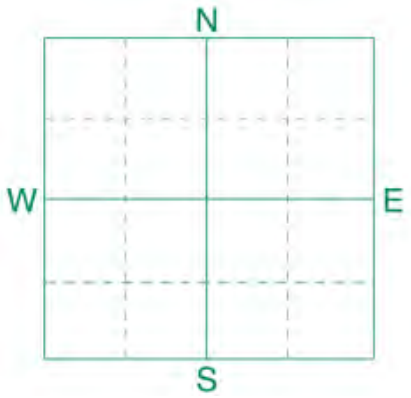
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 32**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879863** BOX # **3545**
LAB # **BN22018**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**15 ppm**	******	******	******	******
Potassium	**265 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**3.80 ppm**	******	******	******	******
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.4 %**	******	******	******	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.91 mmho/cm**	******	******	******	*

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**25**	**Broadcast**	P_2O_5	**30**	**Broadcast**	P_2O_5	**30**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**0**		Zn	**0**		Zn	**0**	
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.9**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

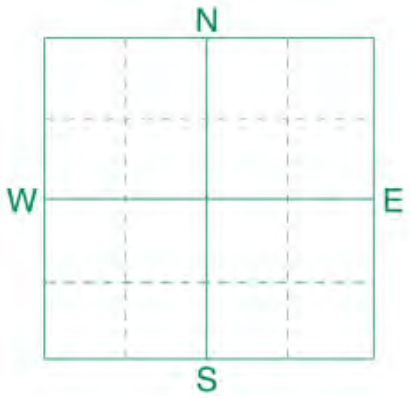
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 33**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879864** BOX # **3546**
LAB # **BN22023**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Olsen Phosphorus	6 ppm	**********			
Potassium	377 ppm	**********	**********	**********	**********
Chloride					
Sulfur					
Boron					
Zinc	2.45 ppm	**********	**********	**********	**********
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	5.0 %	**********	**********	**********	**
Carbonate(CCE)					
0-6" Sol. Salts	0.62 mmho/cm	**********	**********	***	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	110		N	130		N	145	
P_2O_5	75	Broadcast	P_2O_5	85	Broadcast	P_2O_5	95	Broadcast
K_2O	0		K_2O	0		K_2O	0	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	0		Zn	0		Zn	0	
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	0		Lime	0		Lime	0	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.4**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

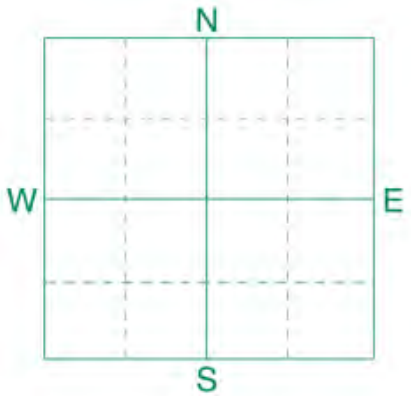
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 34**
SAMPLE ID
FIELD NAME
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879865** BOX # **3547**
LAB # **BN22047**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Olsen Phosphorus	6 ppm	**********			
Potassium	196 ppm	**********	**********	**********	**********
Chloride					
Sulfur					
Boron					
Zinc	1.55 ppm	**********	**********	**********	***
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	4.3 %	**********	**********	**********	
Carbonate(CCE)					
0-6" Sol. Salts	0.46 mmho/cm	**********	**********		

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**75**	**Broadcast**	P_2O_5	**85**	**Broadcast**	P_2O_5	**95**	**Broadcast**
K_2O	**20**	**Broadcast**	K_2O	**20**	**Broadcast**	K_2O	**20**	**Broadcast**
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.8**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

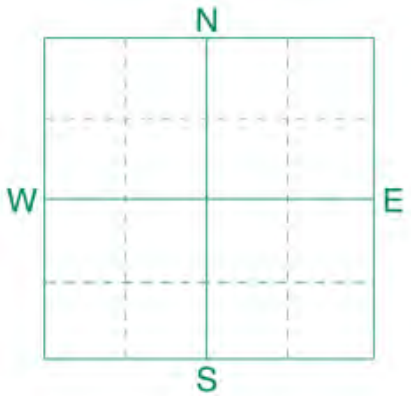
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 35**
SAMPLE ID
FIELD NAME **Field 35**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879866** BOX # **3545**
LAB # **BN22008**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**16 ppm**	******	******	******	******
Potassium	**382 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**2.62 ppm**	******	******	******	******
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**5.1 %**	******	******	******	**
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.27 mmho/cm**	******			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**	P_2O_5	**25**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**0**		Zn	**0**		Zn	**0**	
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.8**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

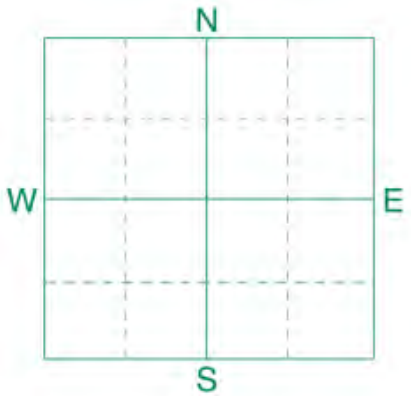
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 36**
SAMPLE ID
FIELD NAME **Field 36**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879867** BOX # **3544**
LAB # **BN22000**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**15 ppm**	******	******	******	******
Potassium	**394 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.18 ppm**	******	******	******	*
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.6 %**	******	******	******	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.51 mmho/cm**	******	******		

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**25**	**Broadcast**	P_2O_5	**30**	**Broadcast**	P_2O_5	**30**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.3**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

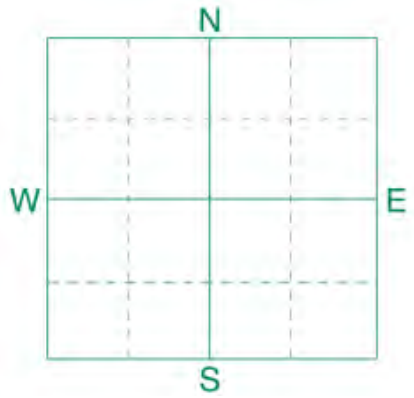
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 37**
SAMPLE ID
FIELD NAME **Field 37**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879869** BOX # **3546**
LAB # **BN22027**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation (VLow Low Med High)
Nitrate		
Olsen Phosphorus	13 ppm	**********
Potassium	274 ppm	**********
Chloride		
Sulfur		
Boron		
Zinc	0.98 ppm	**********
Iron		
Manganese		
Copper		
Magnesium		
Calcium		
Sodium		
Org.Matter	4.4 %	**********
Carbonate(CCE)		
0-6" Sol. Salts	0.58 mmho/cm	**********

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	110		N	130		N	145	
P_2O_5	35	Broadcast	P_2O_5	40	Broadcast	P_2O_5	45	Broadcast
K_2O	0		K_2O	0		K_2O	0	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	3	Broadcast	Zn	4	Broadcast	Zn	4	Broadcast
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	0		Lime	0		Lime	0	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.9**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

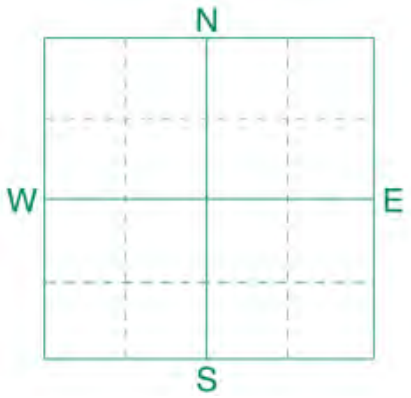
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 38**
SAMPLE ID
FIELD NAME **Field 38**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879870** BOX # **3545**
LAB # **BN22004**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation (VLow / Low / Med / High)
Nitrate	0-6" **27 lb/acre** 6-24" **45 lb/acre** 0-24" **72 lb/acre**	**********
Phosphorus	**Olsen** **6 ppm**	**********
Potassium	**221 ppm**	**********
Chloride		
Sulfur		
Boron		
Zinc	**0.79 ppm**	**********
Iron		
Manganese		
Copper		
Magnesium		
Calcium		
Sodium		
Org.Matter	**4.1 %**	**********
Carbonate(CCE)		
Sol. Salts	0-6" **0.46 mmho/cm** 6-24" **0.29 mmho/cm**	**********

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**80**		N	**100**		N	**110**	
P_2O_5	**75**	**Broadcast**	P_2O_5	**85**	**Broadcast**	P_2O_5	**95**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**3**	**Broadcast**	Zn	**4**	**Broadcast**	Zn	**4**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.0** 6-24" **7.2**							

Crop 1: Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

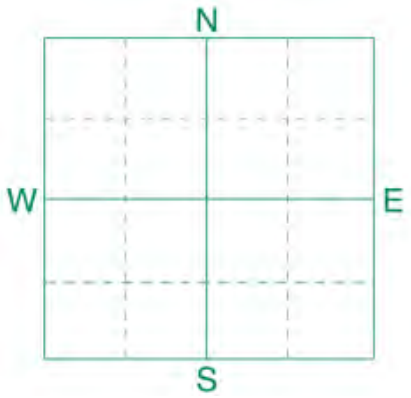
Crop 3: Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 39**
SAMPLE ID
FIELD NAME **Field 39**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879871** BOX # **3546**
LAB # **BN22025**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Olsen Phosphorus	6 ppm	**********			
Potassium	251 ppm	**********	**********	**********	**********
Chloride					
Sulfur					
Boron					
Zinc	1.05 ppm	**********	**********	**********	
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	3.9 %	**********	**********	***	
Carbonate(CCE)					
0-6" Sol. Salts	0.2 mmho/cm	*****			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	110		N	130		N	145	
P_2O_5	75	Broadcast	P_2O_5	85	Broadcast	P_2O_5	95	Broadcast
K_2O	0		K_2O	0		K_2O	0	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	1	Broadcast	Zn	2	Broadcast	Zn	2	Broadcast
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	0		Lime	0		Lime	0	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 6.4							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

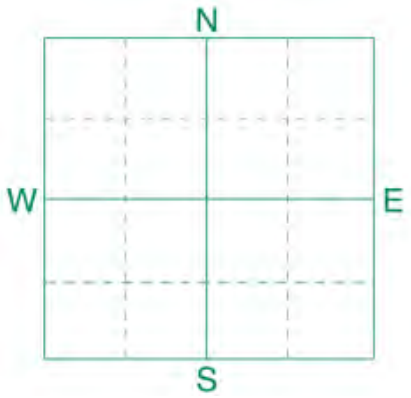
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 40**
SAMPLE ID
FIELD NAME **Field 40**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879872** BOX # **3546**
LAB # **BN22036**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**19 ppm**	******	******	******	******
Potassium	**265 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**0.95 ppm**	******	******	******	
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**5.0 %**	******	******	******	**
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.19 mmho/cm**	****			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**3**	**Broadcast**	Zn	**4**	**Broadcast**	Zn	**4**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**3.0**	**Tons**	Lime	**3.0**	**Tons**	Lime	**3.0**	**Tons**

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **5.5**	**6.4**						

General Comments: Lime guideline assumes average 1000 lb ENP/ton ag lime. Reduce rate by 1/2 for western Iowa, western Minnesota, North Dakota, and South Dakota.

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

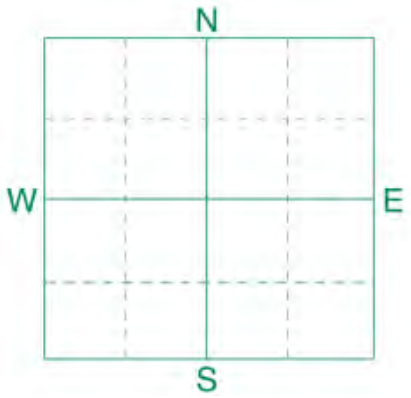
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 41**
SAMPLE ID
FIELD NAME **Field 41**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879873** BOX # **3546**
LAB # **BN22031**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Olsen Phosphorus	8 ppm	******	******		
Potassium	319 ppm	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	1.33 ppm	******	******	******	**
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	4.7 %	******	******	******	
Carbonate(CCE)					
0-6" Sol. Salts	1.12 mmho/cm	******	******	******	**

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	110		N	130		N	145	
P_2O_5	60	Broadcast	P_2O_5	75	Broadcast	P_2O_5	80	Broadcast
K_2O	0		K_2O	0		K_2O	0	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	1	Broadcast	Zn	2	Broadcast	Zn	2	Broadcast
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	0		Lime	0		Lime	0	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.3							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

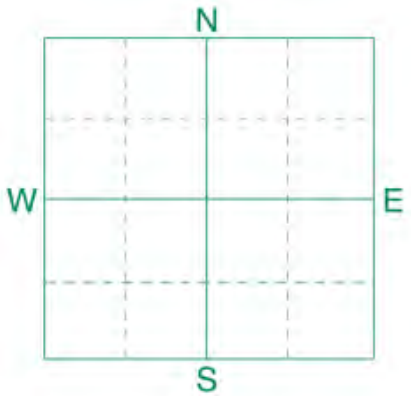
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 42**
SAMPLE ID
FIELD NAME **Field 42**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879874** BOX # **3546**
LAB # **BN22040**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation (VLow Low Med High)
Nitrate		
Olsen Phosphorus	11 ppm	**********
Potassium	168 ppm	**********
Chloride		
Sulfur		
Boron		
Zinc	1.11 ppm	**********
Iron		
Manganese		
Copper		
Magnesium		
Calcium		
Sodium		
Org.Matter	4.0 %	**********
Carbonate(CCE)		
0-6" Sol. Salts	0.78 mmho/cm	**********

	1st Crop Choice		2nd Crop Choice		3rd Crop Choice	
	Corn-Grain		Corn-Grain		Corn-Grain	
	YIELD GOAL		YIELD GOAL		YIELD GOAL	
	150 BU		180 BU		200 BU	
	SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES	
	Centrol		Centrol		Centrol	
	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION
N	**110**		**130**		**145**	
P_2O_5	**45**	**Broadcast**	**55**	**Broadcast**	**60**	**Broadcast**
K_2O	**35**	**Broadcast**	**40**	**Broadcast**	**45**	**Broadcast**
Cl						
S						
B						
Zn	**1**	**Broadcast**	**2**	**Broadcast**	**2**	**Broadcast**
Fe						
Mn						
Cu						
Mg						
Lime	**0**		**0**		**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.2**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

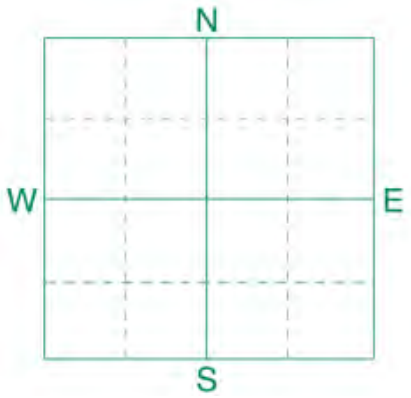
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 43**
SAMPLE ID
FIELD NAME **Field 43**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879875** BOX # **3546**
LAB # **BN22035**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**13 ppm**	******	******	********	**
Potassium	**249 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**0.95 ppm**	******	******	******	
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.8 %**	******	******	*******	*
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.19 mmho/cm**	****			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**35**	**Broadcast**	P_2O_5	**40**	**Broadcast**	P_2O_5	**45**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**3**	**Broadcast**	Zn	**4**	**Broadcast**	Zn	**4**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**2.5**	**Tons**	Lime	**2.5**	**Tons**	Lime	**2.5**	**Tons**

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **5.5**	**6.5**						

General Comments: Lime guideline assumes average 1000 lb ENP/ton ag lime. Reduce rate by 1/2 for western Iowa, western Minnesota, North Dakota, and South Dakota.

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

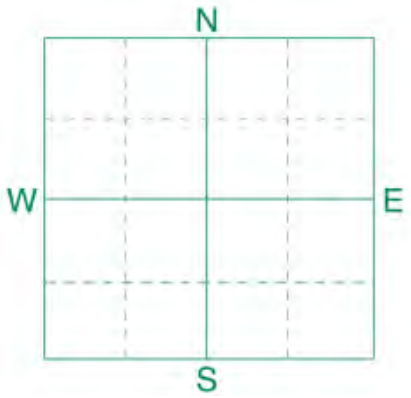
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 44**
SAMPLE ID
FIELD NAME **Field 44**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879876** BOX # **3546**
LAB # **BN22024**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**15 ppm**	******	******	******	******
Potassium	**302 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**0.97 ppm**	******	******	******	
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.4 %**	******	******	******	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.66 mmho/cm**	******	******	****	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**25**	**Broadcast**	P_2O_5	**30**	**Broadcast**	P_2O_5	**30**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**3**	**Broadcast**	Zn	**4**	**Broadcast**	Zn	**4**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.6**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

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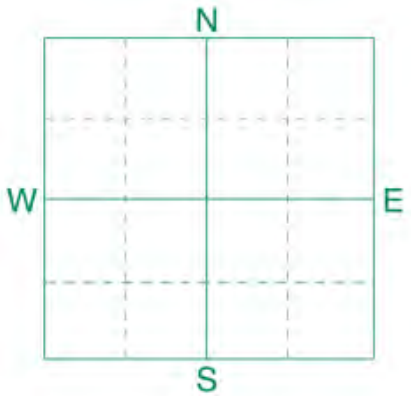
CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 45**
SAMPLE ID
FIELD NAME **Field 45**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879877** BOX # **3546**
LAB # **BN22037**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**13 ppm**	******	******	******	**
Potassium	**304 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**3.25 ppm**	******	******	******	******
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.9 %**	******	******	******	*
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.21 mmho/cm**	*****			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**35**	**Broadcast**	P_2O_5	**40**	**Broadcast**	P_2O_5	**45**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**0**		Zn	**0**		Zn	**0**	
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.1**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

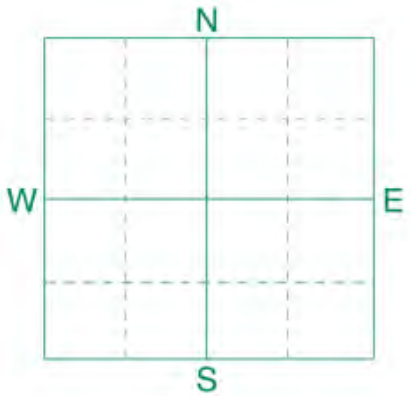
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 46**
SAMPLE ID
FIELD NAME **Field 46**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879878** BOX # **3546**
LAB # **BN22029**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**23 ppm**	******	******	******	******
Potassium	**372 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**3.55 ppm**	******	******	******	******
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**3.9 %**	******	******	***	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.42 mmho/cm**	*******	****		

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**0**		Zn	**0**		Zn	**0**	
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.1**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

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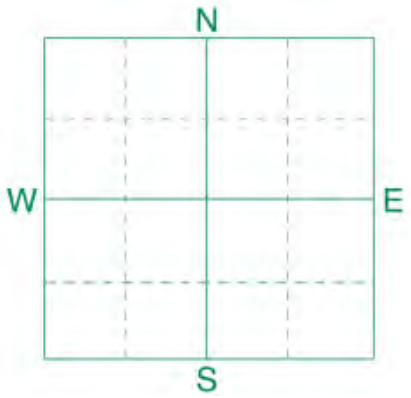
CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 47**
SAMPLE ID
FIELD NAME **Field 47**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879879** BOX # **3547**
LAB # **BN22268**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**7 ppm**	******	******		
Potassium	**206 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**0.65 ppm**	******	******	*	
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.6 %**	******	******	******	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.28 mmho/cm**	*******			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**65**	**Broadcast**	P_2O_5	**80**	**Broadcast**	P_2O_5	**90**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**3**	**Broadcast**	Zn	**4**	**Broadcast**	Zn	**4**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **7.0**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

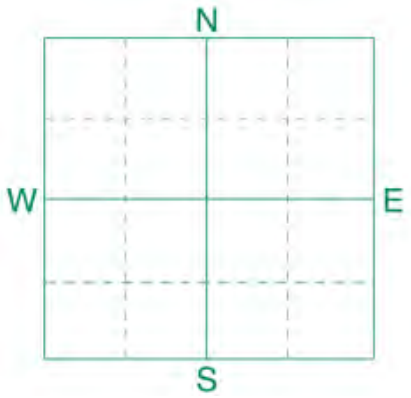
Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

CENTROL® CROP CONSULTING

Soil Analysis by Agvise Laboratories
(http://www.agvise.com)
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **Field 48**
SAMPLE ID
FIELD NAME **Field 48**
COUNTY
TWP RANGE
SECTION QTR ACRES **0**
PREV. CROP **Soybeans**



SUBMITTED FOR:
Pleasant Dutch

SUBMITTED BY: **EI0849**
CENTROL CROP CONSULTING
351 BURLINGTON CIRCLE
PO BOX 236
MARSHALL, MN 56258

REF # **2879880** BOX # **3546**
LAB # **BN22028**

Date Sampled Date Received **04/29/2020** Date Reported **5/18/2020**

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate					
Phosphorus **Olsen**	**21 ppm**	******	******	******	******
Potassium	**307 ppm**	******	******	******	******
Chloride					
Sulfur					
Boron					
Zinc	**1.80 ppm**	******	******	******	*****
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	**4.1 %**	******	******	****	
Carbonate(CCE)					
Sol. Salts **0-6"**	**0.3 mmho/cm**	*******			

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Corn-Grain			Corn-Grain			Corn-Grain		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
150 BU			180 BU			200 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Centrol			Centrol			Centrol		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	**110**		N	**130**		N	**145**	
P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**	P_2O_5	**20**	**Broadcast**
K_2O	**0**		K_2O	**0**		K_2O	**0**	
Cl			Cl			Cl		
S			S			S		
B			B			B		
Zn	**1**	**Broadcast**	Zn	**2**	**Broadcast**	Zn	**2**	**Broadcast**
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	**0**		Lime	**0**		Lime	**0**	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **6.6**							

Crop 1: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 56 K2O = 35

Crop 2: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 67 K2O = 41

Crop 3: Soil nitrate for 0-24 inch depth is estimated 40 lb/acre nitrate-N. Previous crop nitrogen credit: 30 lb/acre N. Previous crop nitrogen credit may be adjusted for local conditions. No nitrate-nitrogen test requested; nitrogen guideline based on crop use only. May respond to starter P & K, even on high soil tests. Crop nutrient removal: P2O5 = 74 K2O = 46

UNITED STATES DEPARTMENT OF AGRICULTURE
NATURAL RESOURCES CONSERVATION SERVICE

INITIAL NUTRIENT MANAGEMENT PLAN
FOR
SOUTH DAKOTA ANIMAL FEEDING OPERATIONS

SD-CPA-63A
Rev. 1/18

1. **Operator:** Pleasant Dutch Dairy 2. **County:** Clark 3. **Prepared By:** Matt Eich 4. **Date:** 10-Feb-20

Total Nitrogen And Phosphorus Produced From Livestock Operation(s)

5.	6.	7.	8.	9.		10.		11.	12.	13.		14.	15.		16.	
Animal Type:	No. of animals	Avg. weight (lbs.)	Days of Confine-ment	N Total solid/liquid Manure as Excreted (lbs.)	P_2O_5	N retained Handling/Storage	%	Total N available for application (lbs.)	Time of applic-ation	N Retained Application Method	%	Total N retained in field (lbs.)	3-Yr. Mineralization Rate Manure Handling	%	N Available for the crop (lbs.)	P_2O_5
Dairy	3,495	1,400	365	803,675	285,751	Liquid - lagoon	25	200,919	ALL	Injection	98	196,900	Aerobic liquid	45	88,605	285,751
Other Animals																

Total Manure as Excreted: 391,440 **OR** 142,875,600 **lbs/year** **Total lbs. of N and P2O5 available for the crop:** 88,605 285,751

Developed by SD-DENR, SD-NRCS, and SDSU.

NUTRIENT MANAGEMENT PLAN
FOR
SOUTH DAKOTA ANIMAL FEEDING OPERATIONS

Field Information

Operator: Pleasant Dutch Dairy **County:** Clark **Date:** 02/10/20

17.			18.	19.	20.	21.	22.						23.	24.	25.		26.	27.	28.	29.									
																				Current Soil Test Levels									
																				N lb/ac		Phosphorus (ppm)					Electric Conductivity (EC)		
Line #	Field ID (Include maps to illustrate location) Name or Tract	Field #	Date added to Plan	Beginning acres in field	County	Soil map unit symbol	Field Location: (1/4 Section, Township, Range)						Predicted soil loss - Wind/Water (T/ac/yr)	Control of Land	100' Vegetated Buffer	Excluded acres	Irrigated	Winter Application	No-Till	0-2'	2-4'	0-6"	P Test	K (ppm)	Organic Matter	Soil PH	Surface	Sub-surface	Soil Sample Date
1	Field 1	1	2/10/20	26.5	Clark	PwB	SW 1/4	Sec.	28	, T	114	, R	56	0.7	Owned		1.0		X				40	Olsen	479	4.8%	7.1			04/29/20
2	Field 2	2	2/10/20	129.4	Clark	PrB	NW 1/4	Sec.	28	, T	114	, R	56	0.7	Leased		20.0		X				24	Olsen	404	4.4%	7.0			04/29/20
3	Field 3	3	2/10/20	143.6	Clark	PwB	SE 1/4	Sec.	27	, T	114	, R	56	0.7	Leased		13.4		X				20	Olsen	215	4.4%	5.7			04/29/20
4	Field 4	4	2/10/20	106.1	Clark	PrB	SE 1/4	Sec.	29	, T	114	, R	56	0.7	Leased		19.9		X				10	Olsen	431	5.0%	7.1			04/29/20
5	Field 5	5	2/10/20	131.0	Clark	PrB	NW 1/4	Sec.	32	, T	114	, R	56	0.7	Leased		6.0		X				14	Olsen	392	3.9%	7.3			04/29/20
6	Field 6	6	2/10/20	121.2	Clark	PrB	NE 1/4	Sec.	33	, T	114	, R	56	0.7	Leased		9.5		X				12	Olsen	206	4.1%	6.9			04/29/20
7	Field 7	7	2/10/20	131.8	Clark	PwA	SE 1/4	Sec.	33	, T	114	, R	56	0.3	Leased		0.5		X				15	Olsen	324	5.1%	6.7			04/29/20
8	Field 8	8	2/10/20	139.9	Clark	PwB	NW 1/4	Sec.	4	, T	113	, R	56	0.7	Leased		18.0		X				10	Olsen	281	4.8%	7.2			04/29/20
9	Field 9	9	2/10/20	56.6	Clark	PwB	NE 1/4	Sec.	5	, T	113	, R	56	0.7	Leased		0.0		X				8	Olsen	216	4.0%	7.5			04/29/20
10	Field 10	10	2/10/20	210.1	Clark	PwB	SE 1/4	Sec.	5	, T	113	, R	56	0.7	Leased		12.8		X				14	Olsen	356	4.5%	6.4			04/29/20
11	Field 11	11	2/10/20	127.9	Clark	HmA	NW 1/4	Sec.	5	, T	113	, R	56	0.4	Leased		13.4		X				9	Olsen	211	4.7%	5.6			04/29/20
12	Field 12	12	2/10/20	152.3	Clark	PwB	NW 1/4	Sec.	16	, T	113	, R	56	0.7	Leased		13.8		X				17	Olsen	234	4.7%	6.3			04/29/20
13	Field 13	13	2/10/20	159.4	Clark	PwB	SW 1/4	Sec.	36	, T	114	, R	56	0.7	Leased		13.3		X				7	Olsen	207	4.2%	7.3			04/29/20
14	Field 14	14	2/10/20	110.4	Clark	PwB	SW 1/4	Sec.	27	, T	114	, R	56	0.7	Leased		7.5		X				14	Olsen	253	4.2%	5.9			04/29/20
15	Field 15	15	2/10/20	148.1	Clark	PwB	NE 1/4	Sec.	34	, T	114	, R	56	0.7	Leased		8.2		X				15	Olsen	277	4.6%	5.7			04/29/20
16	Field 16	16	2/10/20	137.5	Clark	PrB	NW 1/4	Sec.	33	, T	114	, R	56	0.7	Leased		3.2		X				11	Olsen	274	4.0%	6.7			04/29/20
17	Field 17	17	2/10/20	138.3	Clark	PrB	SW 1/4	Sec.	33	, T	114	, R	56	0.7	Leased		11.0		X				17	Olsen	399	4.6%	7.2			04/29/20
18	Field 18	18	2/10/20	264.7	Clark	PwA	S 1/2	Sec.	32	, T	114	, R	56	0.3	Leased		32.6		X				6	Olsen	188	4.4%	5.7			04/29/20
19	Field 19	19	2/10/20	85.7	Clark	PrB	SE 1/4	Sec.	6	, T	113	, R	56	0.7	Leased		11.7		X				5	Olsen	144	3.8%	6.4			04/29/20
20	Field 20	20	2/10/20	139.4	Clark	PwB	NE 1/4	Sec.	3	, T	113	, R	56	0.7	Leased		4.2		X				23	Olsen	328	5.0%	6.3			04/29/20
21	Field 21	21	2/10/20	35.1	Clark	PrB	SW 1/4	Sec.	6	, T	113	, R	56	0.7	Leased		3.5		X				38	Olsen	204	3.9%	6.2			04/29/20
22	Field 22	22	2/10/20	160.1	Clark	PrB	NW 1/4	Sec.	31	, T	114	, R	56	0.7	Leased		9.3		X				16	Olsen	282	4.9%	5.8			04/29/20
23	Field 23	23	2/10/20	94.8	Clark	PwB	SE 1/4	Sec.	15	, T	113	, R	56	0.7	Leased		13.8		X				34	Olsen	620	5.4%	6.9			04/29/20
24	Field 24	24	2/10/20	139.1	Clark	PwB	NE 1/4	Sec.	28	, T	114	, R	56	0.7	Leased		15.5		X				8	Olsen	316	4.3%	6.4			04/29/20
25	Field 25	25	2/10/20	130.9	Clark	PrB	NE 1/4	Sec.	31	, T	114	, R	56	0.7	Leased		18.6		X				13	Olsen	299	3.9%	6.1			04/29/20
26	Field 26	26	2/10/20	130.2	Clark	PwB	SE 1/4	Sec.	28	, T	114	, R	56	0.7	Leased		15.6		X				13	Olsen	260	4.7%	6.6			04/29/20
27	Field 27	27	2/10/20	119.1	Clark	PwA	SW 1/4	Sec.	16	, T	114	, R	56	0.7	Leased		6.3		X				17	Olsen	296	4.7%	6.0			04/29/20
28	Field 28	28	2/10/20	105.2	Clark	PwB	NE 1/4	Sec.	17	, T	114	, R	56	0.7	Leased		5.4		X				12	Olsen	349	4.8%	6.2			04/29/20
29	Field 29	29	2/10/20	64.6	Clark	PwB	SW 1/4	Sec.	29	, T	114	, R	56	0.7	Leased		9.7		X				10	Olsen	493	4.3%	7.3			04/29/20
30	Field 30	30	2/10/20	65.6	Clark	PwA	SW 1/4	Sec.	29	, T	114	, R	56	0.7	Leased		9.5		X				12	Olsen	360	4.4%	6.1			04/29/20
31	Field 31	31	2/10/20	58.6	Clark	PwA	SE 1/4	Sec.	30	, T	114	, R	56	0.3	Leased		11.0		X				8	Olsen	329	4.2%	7.2			04/29/20
32	Field 32	32	2/10/20	132.0	Clark	PwA	NE 1/4	Sec.	30	, T	114	, R	56	0.3	Leased		12.8		X				15	Olsen	265	4.4%	6.9			04/29/20

NUTRIENT MANAGEMENT PLAN
FOR
SOUTH DAKOTA ANIMAL FEEDING OPERATIONS

Field Information

Operator: Pleasant Dutch Dairy **County:** Clark **Date:** 02/10/20

Line #	17. Field ID (Include maps to illustrate location) Name or Tract	Field #	18. Date added to Plan	19. Beginning acres in field	20. County	21. Soil map unit symbol	22. Field Location: (1/4 Section, Township, Range)						23. Predicted soil loss - Wind/Water (T/ac/yr)	24. Control of Land	25. 100' Vegetated Buffer	Excluded acres	26. Irrigated	27. Winter Application	28. No-Till	29. Current Soil Test Levels: N lb/ac 0-2'	N lb/ac 2-4'	Phosphorus (ppm) 0-6"	Phosphorus (ppm) P Test	K (ppm)	Organic Matter	Soil PH	Electric Conductivity (EC) Surface	Electric Conductivity (EC) Sub-surface	Soil Sample Date
33	Field 33	33	2/10/20	151.5	Clark	Cw	SW 1/4	Sec.	4	, T	113	, R	56	1.0	Leased		0.5		X					6	Olsen	377	5.0%	7.4			04/29/20
34	Field 34	34	2/10/20	151.7	Clark	PrB	SW 1/4	Sec.	9	, T	113	, R	56	0.7	Leased		16.3		X					6	Olsen	196	4.3%	6.8			04/29/20
35	Field 35	35	2/10/20	75.9	Clark	PwB	SW 1/4	Sec.	28	, T	114	, R	56	0.7	Leased		5.2		X					16	Olsen	382	5.1%	6.8			04/29/20
36	Field 36	36	2/10/20	141.9	Clark	PwB	NW 1/4	Sec.	27	, T	114	, R	56	0.7	Leased		11.2		X					15	Olsen	394	4.6%	6.3			04/29/20
37	Field 37	37	2/10/20	148.2	Clark	PwB	NE 1/4	Sec.	27	, T	114	, R	56	0.7	Leased		3.7		X					13	Olsen	274	4.4%	6.9			04/29/20
38	Field 38	38	2/10/20	130.6	Clark	PwB	W 1/2	Sec.	34	, T	114	, R	56	0.7	Leased		42.4		X					6	Olsen	221	4.1%	7.0			04/29/20
39	Field 39	39	2/10/20	123.4	Clark	PrB	W 1/2	Sec.	34	, T	114	, R	56	0.7	Leased		26.9		X					6	Olsen	251	3.9%	6.4			04/29/20
40	Field 40	40	2/10/20	112.1	Clark	PwB	NW 1/4	Sec.	3	, T	113	, R	56	0.7	Leased		23.8		X					19	Olsen	265	5.0%	5.5			04/29/20
41	Field 41	41	2/10/20	107.7	Clark	PrB	NE 1/4	Sec.	4	, T	113	, R	56	0.7	Leased		4.2		X					8	Olsen	319	4.7%	7.3			04/29/20
42	Field 42	42	2/10/20	208.5	Clark	PwB	S 1/2	Sec.	35	, T	113	, R	56	0.7	Leased		15.7		X					11	Olsen	168	4.0%	6.2			04/29/20
43	Field 43	43	2/10/20	154.3	Clark	PwB	N 1/2	Sec.	35	, T	114	, R	56	0.7	Leased		10.5		X					13	Olsen	249	4.8%	5.5			04/29/20
44	Field 44	44	2/10/20	79.5	Clark	PwB	NW 1/4	Sec.	36	, T	114	, R	56	0.7	Leased		3.7		X					15	Olsen	302	4.4%	6.6			04/29/20
45	Field 45	45	2/10/20	194.9	Clark	PwB	E 1/2	Sec.	24	, T	114	, R	57	0.7	Leased		34.4		X					13	Olsen	304	4.9%	7.1			04/29/20
46	Field 46	46	2/10/20	168.1	Clark	PrB	NE 1/4	Sec.	25	, T	114	, R	57	0.7	Leased		9.2		X					23	Olsen	372	3.9%	7.1			04/29/20
47	Field 47	47	2/10/20	124.3	Clark	PwB	SE 1/4	Sec.	9	, T	113	, R	56	0.7	Owned		36.2		X					7	Olsen	206	4.6%	7.0			04/29/20
48	Field 48	48	2/10/20	39.0	Clark	PwA	SW 1/4	Sec.	31	, T	114	, R	56	0.3	Leased		0.0		X					21	Olsen	307	4.1%	6.6			04/29/20
49								Sec.		, T		, R																			
50								Sec.		, T		, R																			
51								Sec.		, T		, R																			
52								Sec.		, T		, R																			
53								Sec.		, T		, R																			
54								Sec.		, T		, R																			
55								Sec.		, T		, R																			
56								Sec.		, T		, R																			
57								Sec.		, T		, R																			
58								Sec.		, T		, R																			
59								Sec.		, T		, R																			
60								Sec.		, T		, R																			

Total: 6,006.8

Comments:

NUTRIENT MANAGEMENT PLAN
FOR
SOUTH DAKOTA ANIMAL FEEDING OPERATIONS

Estimated Nutrient Requirement

17. 30.

○ Actual or Yield Goal
◉ Yields indexed by soil productivity (Productivity Index)
○ County Average Yields (SD Agricultural Statistics Service)

Line #	Field ID (Include maps to illustrate location) Name or Tract	Field #	Previous Year Crop	Previous Year PI Yield	Previous Year Actual Yield	Year 1 Crop	Year 1 PI Yield	Year 1 Yield Goal	Year 2 Crop	Year 2 PI Yield	Year 2 Yield Goal	Year 3 Crop	Year 3 PI Yield	Year 3 Yield Goal	Year 4 Crop	Year 4 PI Yield	Year 4 Yield Goal	Year 5 Crop	Year 5 PI Yield	Year 5 Yield Goal
1	Field 1	1	Corn Silage (ton)	16		Corn Silage (ton)	16		Corn Silage (ton)	16		Corn Silage (ton)	16		Corn Silage (ton)	16		Corn Silage (ton)	16	
2	Field 2	2	Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46	
3	Field 3	3	Fallow			Soybean (bu)	49		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182	
4	Field 4	4	Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171	
5	Field 5	5	Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46	
6	Field 6	6	Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171	
7	Field 7	7	Soybean (bu)	51		Corn (bu)	190		Soybean (bu)	51		Corn (bu)	190		Soybean (bu)	51		Corn (bu)	190	
8	Field 8	8	Fallow			Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182	
9	Field 9	9	Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182	
10	Field 10	10	Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49	
11	Field 11	11	Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49	
12	Field 12	12	Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49	
13	Field 13	13	Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49	
14	Field 14	14	Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49	
15	Field 15	15	Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49	
16	Field 16	16	Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171	
17	Field 17	17	Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171	
18	Field 18	18	Soybean (bu)	51		Corn (bu)	190		Soybean (bu)	51		Corn (bu)	190		Soybean (bu)	51		Corn (bu)	190	
19	Field 19	19	Alf (T) >1 plant/sf	4		Alf (T) >1 plant/sf	4		Alf (T) >1 plant/sf	4		Alf (T) >1 plant/sf	4		Alf (T) >1 plant/sf	4		Alf (T) >1 plant/sf	4	
20	Field 20	20	Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49	
21	Field 21	21	Alf (T) >1 plant/sf	4		Alf (T) >1 plant/sf	4		Alf (T) >1 plant/sf	4		Alf (T) >1 plant/sf	4		Alf (T) >1 plant/sf	4		Alf (T) >1 plant/sf	4	
22	Field 22	22	Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171	
23	Field 23	23	Corn (bu)	182		Corn (bu)	182		Corn (bu)	182		Corn (bu)	182		Corn (bu)	182		Corn (bu)	182	
24	Field 24	24	Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182	
25	Field 25	25	Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171	
26	Field 26	26	Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182	
27	Field 27	27	Soybean (bu)	51		Corn (bu)	190		Soybean (bu)	51		Corn (bu)	190		Soybean (bu)	51		Corn (bu)	190	
28	Field 28	28	Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182	
29	Field 29	29	Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49	
30	Field 30	30	Soybean (bu)	51		Corn (bu)	190		Soybean (bu)	51		Corn (bu)	190		Soybean (bu)	51		Corn (bu)	190	
31	Field 31	31	Soybean (bu)	51		Corn (bu)	190		Soybean (bu)	51		Corn (bu)	190		Soybean (bu)	51		Corn (bu)	190	
32	Field 32	32	Corn (bu)	190		Soybean (bu)	51		Corn (bu)	190		Soybean (bu)	51		Corn (bu)	190		Soybean (bu)	51	

NUTRIENT MANAGEMENT PLAN
FOR
SOUTH DAKOTA ANIMAL FEEDING OPERATIONS

Estimated Nutrient Requirement

17. 30.

○ Actual or Yield Goal
◉ Yields indexed by soil productivity (Productivity Index)
○ County Average Yields (SD Agricultural Statistics Service)

Line #	Field ID (Include maps to illustrate location)		Previous Year			Year 1			Year 2			Year 3			Year 4			Year 5		
	Name or Tract	Field #	Crop	PI Yield	Actual Yield	Crop	PI Yield	Yield Goal	Crop	PI Yield	Yield Goal	Crop	PI Yield	Yield Goal	Crop	PI Yield	Yield Goal	Crop	PI Yield	Yield Goal
33	Field 33	33	Corn (bu)	145		Soybean (bu)	39		Corn (bu)	145		Soybean (bu)	39		Corn (bu)	145		Soybean (bu)	39	
34	Field 34	34	Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46	
35	Field 35	35	Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182	
36	Field 36	36	Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49	
37	Field 37	37	Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49	
38	Field 38	38	Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182	
39	Field 39	39	Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171	
40	Field 40	40	Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182	
41	Field 41	41	Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46	
42	Field 42	42	Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182	
43	Field 43	43	Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49	
44	Field 44	44	Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49	
45	Field 45	45	Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49	
46	Field 46	46	Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46		Corn (bu)	171		Soybean (bu)	46	
47	Field 47	47	Fallow			Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182		Soybean (bu)	49		Corn (bu)	182	
48	Field 48	48	Corn (bu)	190		Soybean (bu)	51		Corn (bu)	190		Soybean (bu)	51		Corn (bu)	190		Soybean (bu)	51	
49																				
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NUTRIENT MANAGEMENT PLAN
FOR
SOUTH DAKOTA ANIMAL FEEDING OPERATIONS

Part 3: Planned Nutrient Application

Date: 02/10/20 **Operator:** **County:** Clark **Date:** 02/10/20

17.				31.	32.			33.	34.	35.	36.									37.
Line #	Field ID (Include maps to illustrate location) Name or Tract	Field #	**Alternative crops for years 1 through 5**	Initial Nutrient Mgt. Plan - N based fields (acres)	Nutrient Recommendation - *SDSU Extension Service EC-750*			Manure application based on:	Phosphorus Risk Assessment	Nitrogen Risk Assessment	Nutrients Applied									Estimated years to reapplication based on P_2O_5 rate
											Commercial lbs/acre			Manure lbs/acre			Total lbs/acre			
					N	P_2O_5	K_2O				N	P_2O_5	K_2O	N	P_2O_5	K_2O	N	P_2O_5	K_2O	
1	Field 1	1		25.5		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
2	Field 2	2		109.4		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
3	Field 3	3		130.2		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
4	Field 4	4		86.2		44	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
5	Field 5	5		125.0		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
6	Field 6	6		111.7		29	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
7	Field 7	7		131.3		8	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
8	Field 8	8		121.9		47	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
9	Field 9	9		56.6		63	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
10	Field 10	10		197.3		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
11	Field 11	11		114.5		14	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
12	Field 12	12		138.5		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
13	Field 13	13		146.1		28	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
14	Field 14	14		102.9		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
15	Field 15	15		139.9		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
16	Field 16	16		134.3		37	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
17	Field 17	17		127.3		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
18	Field 18	18		232.1		83	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
19	Field 19	19		74.0		51	4	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
20	Field 20	20		135.2		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
21	Field 21	21		31.6		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
22	Field 22	22		150.8		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
23	Field 23	23		81.0		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
24	Field 24	24		123.6		63	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
25	Field 25	25		112.3		22	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
26	Field 26	26		114.6		23	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
27	Field 27	27		112.8		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
28	Field 28	28		99.8		31	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
29	Field 29	29		54.9		7	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
30	Field 30	30		56.1		33	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
31	Field 31	31		47.6		66	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
32	Field 32	32		119.2		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A

NUTRIENT MANAGEMENT PLAN
FOR
SOUTH DAKOTA ANIMAL FEEDING OPERATIONS

Part 3: Planned Nutrient Application

Date: 02/10/20 **Operator:** **County:** Clark **Date:** 02/10/20

17.				31.	32.			33.	34.	35.	36.									37.
Line #	Field ID (Include maps to illustrate location) Name or Tract	Field #	**Alternative crops for years 1 through 5**	Initial Nutrient Mgt. Plan - N based fields (acres)	Nutrient Recommendation - *SDSU Extension Service EC-750* N	P_2O_5	K_2O	Manure application based on:	Phosphorus Risk Assessment	Nitrogen Risk Assessment	Nutrients Applied: Commercial lbs/acre N	Commercial P_2O_5	Commercial K_2O	Manure lbs/acre N	Manure P_2O_5	Manure K_2O	Total lbs/acre N	Total P_2O_5	Total K_2O	Estimated years to reapplication based on P_2O_5 rate
33	Field 33	33		151.0		28	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
34	Field 34	34		135.4		33	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
35	Field 35	35		70.7		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
36	Field 36	36		130.7		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
37	Field 37	37		144.5		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
38	Field 38	38		88.2		79	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
39	Field 39	39		96.5		75	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
40	Field 40	40		88.3		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
41	Field 41	41		103.5		20	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
42	Field 42	42		192.8		39	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
43	Field 43	43		143.8		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
44	Field 44	44		75.8		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
45	Field 45	45		160.5		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
46	Field 46	46		158.9		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
47	Field 47	47		88.1		71	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
48	Field 48	48		39.0		0	0	Nitrogen need	Low	Low	0	0	0	0	0	0	0	0	0	N/A
49											0	0	0	0	0	0	0	0	0	
50											0	0	0	0	0	0	0	0	0	
51											0	0	0	0	0	0	0	0	0	
52											0	0	0	0	0	0	0	0	0	
53											0	0	0	0	0	0	0	0	0	
54											0	0	0	0	0	0	0	0	0	
55											0	0	0	0	0	0	0	0	0	
56											0	0	0	0	0	0	0	0	0	
57											0	0	0	0	0	0	0	0	0	
58											0	0	0	0	0	0	0	0	0	
59											0	0	0	0	0	0	0	0	0	
60											0	0	0	0	0	0	0	0	0	

		N	P_2O_5
	5,411.9		
Total lbs of N and P2O5 available for crops:		**88,605**	**285,751**
Total lbs of N and P2O5 required by fields:		**975,977**	**270,555**

Comments:

Adequate acres are available based on Nitrogen analysis

However, P2O5 is in excess of removal. At this rate, it will take more than 40 years to build all listed fields up to 50 ppm P (Olsen).

Possible Alternative Crops Included in Crop Rotation

Producer/Operation: Pleasant Dutch Dairy

Check if applicable	Crop	Yield
x	Alfalfa (T)	4
x	Barley (bu)	75
	Barley, Malting (bu)	
	Buckwheat (bu)	
	Canola (cwt)	
	Chickpea	
x	Corn (bu)	200
x	Corn Silage (ton)	25
	Cover Crops (T)	
	Edible Beans (lbs)	
	Fallow	
	Field Pea	
	Flax (bu)	
x	Grass (Ton)	4
	Grass, Sudan (ton)	
	Lentil	
	Melons	
	Millet (lbs)	
	Mustard (cwt)	
x	Oats (bu)	85
	Potatoes (cwt)	
	Rapeseed (cwt)	
	Rye (bu)	
x	Rye Forage (T)	5
	Safflower (lbs)	
	Sorghum (bu)	
	Sorghum, Forage (T)	
x	Soybean (bu)	55
	Sunflowers (lbs)	
	Triticale (T)	
x	Wheat, Sp. (bu)	55
x	Wheat, W. (bu)	65

Check if applicable	Crop (list others)	Yield

Possible Alternative Manure Application Methods

Producer/Opera Pleasant Dutch Dairy

Animal Type: (circle those that apply)	Dairy Cattle, Beef Cattle, Cow, Nursey Pig, Growing Pig, Gestating Sow, Sow and litter, Boar, Sheep, Poultry Layer, Poultery Broiler, Turkey, Duck, Horse

Manure Type: (circle those that apply)	**Solid**: daily scrape and haul, manure pack, open lot, manure stacking, deep pit poultry, liter (birds), separator system **Liquid:** Anaerobic pit, above-ground (covered), above-ground (uncovered), earth storage holding pond, lagoon, separator system

Check if applicable	Method	Solid (S) Liquid (L)
x	Injection	L
x	Flood Irrigation	L
x	Sprinkling	L
x	Sprinkling (partial incorp.)	L
x	Sprinkling (incorp. within 24 hrs.)	L
x	Broadcast (no incorp.)	S
x	Broadcast (incorp. within 24 hrs.)	S
x	Broadcast (incorp. 1 - 5 days)	S
x	Broadcast (incorp. after 5 days)	S
x	Broadcast w/ partial incorporation	S

Possible Alternative Manure Application Methods

Producer/Opera Pleasant Dutch Dairy

Animal Type: (circle those that apply)	Dairy Cattle, Beef Cattle, Cow, Nursey Pig, Growing Pig, Gestating Sow, Sow and litter, Boar, Sheep, Poultry Layer, Poultery Broiler, Turkey, Duck, Horse

Manure Type: (circle those that apply)	**Solid**: daily scrape and haul, manure pack, open lot, manure stacking, deep pit poultry, liter (birds), separator system **Liquid:** Anaerobic pit, above-ground (covered), above-ground (uncovered), earth storage holding pond, lagoon, separator system

Check if applicable	Method	Percent Nitrogen Retained
x	Injection	98
x	Flood Irrigation	70
x	Sprinkling	70
x	Sprinkling (partial incorp.)	80
x	Sprinkling (incorp. within 24 hrs.)	90
x	Broadcast (no incorp.)	80
x	Broadcast (incorp. within 24 hrs.)	90
x	Broadcast (incorp. 1 - 5 days)	85
x	Broadcast (incorp. after 5 days)	80
x	Broadcast w/ partial incorporation	80