

### Layer Key

Boundary
Wells
Setbacks
Streams/Water
Tile Inlets
Residence
Wells
Landowner:

Landowner:

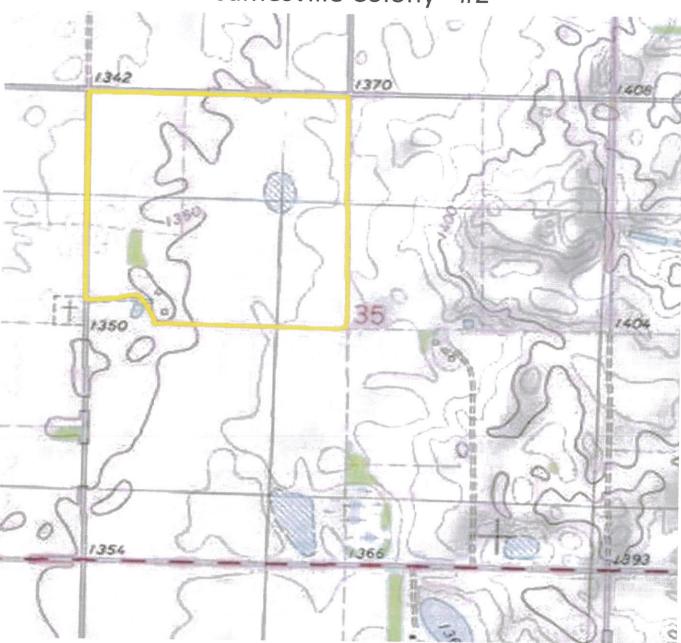
Margaret/Lavern
Kirschenman Family Trusts /
Donald Kirschenman
NW1/4
S35-T96N-R57W

Total Acres: 151.4
Wetlands
Spreadable Acres: 141.8

Yankton County Manure Application Setbacks:

Setback Type	Surface or Irrigation Applied	Incorporated or injected within 24 hours	Setback Source
Lakes, Rivers, and Streams Classified as Waters of the State, Wetlands, Tile Inlets	100 ft unless a 35 ft vegetative buffer exists then buffer is sufficient	100 ft unless a 35 ft vegetative buffer exists then buffer is sufficient	State
Lakes, Rivers, and Streams Classified as Fisheries	660 feet	200 feet	Yankton County
Stream & Lakes classified as Drinking Water supplies	1,000 feet	1,000 feet	State & Yankton County
Public Wells	1,000 feet	1,000 feet	State & Yankton County
Private Wells	250 feet	250 feet	State & Yankton County
Residence (other than the operator)	330 feet (surface) 750 feet (irrigation)	100 feet	Yankton County
Incorporated Communities	1,000 feet (surface) 2,640 feet (irrigation)	660 feet	Yankton County
All Public Road Right-of- ways	10 feet (surface) 100 feet (irrigation)	10 feet	Yankton County

### Jamesville Colony - #2



Boundary

Name: Site 6 Fischer

**Landowner:** Margaret/Lavern Kirschenman Family Trusts / Donald Kirschenman

**Legal:** NW1/4 S35-T96N-R57W

Total Acres: 151.4 Spreadable Acres: 141.8



### Jamesville Colony - #2



Area S	rea Symbol: SD135, Soil Area Version: 26									
Code	Soil Description	Acres	Percent of field	Non-Irr Class *c	Productivity Index	*n NCCPI Soybeans				
CeB	Clarno-Bonilla loams, 1 to 6 percent slopes	22.03	56.9%	lle	84	64				
EnC	Clarno-Ethan-Bonilla loams, 2 to 9 percent slopes	12.30	31.8%	Ille	69	61				
Tb	Tetonka silt foam, 0 to 1 percent slopes	3.69	9.5%	PVw	56	14				
Ca	Chancellor silty clay loam, 0 to 2 percent slopes, frequently flooded	0.68	1.8%	llw	81	62				
		W	eighted Average	2.51	76.5	*n 58.2				

Name: Site 6 Fischer Legal: NW1/4

S35-T96N-R57W

Landowner: Margaret/Lavern Kirschenman Family
Trusts / Donald Kirschenman
Acres: 151.4

County: Yankton Spreadable Acres: 141.8





# 200 com Waypoint W



SOIL ANALYSIS Grower: Jamesville Colony Client Information: Report No: 25-092-0502 Jamesville Colony Helena Agri-Enterprises, LLC Cust No: 05478 656 East Highway 18 Date Printed: 04/03/2025 Menno, SD 57045 Page: 1 of 3 Agronomist Farm: BLK Date Received: 04/02/2025 Field Id Nitrate-N (NO3-N) **Calculated Cation Saturations** OM pH Buffer Ca K Mg S B Cu Fe Zn Sample Id CEC % pH ENR ppm neg/100g %K %Ca %Mg %H %Na LOI 1:1 M3 M3 M3 M3 M3 M3 МЗ M3 M3 M3 M3 ppm 145 By Bo 4.2 128 23.6 7.2 206 □ 3485 86 1.2 1.9 88 123 1.5 24 2.2 73.8 23.4 0.0 0.4 Fische COGO 145 By Bo 2.6 3 Stanley 7.3 3.9 122 25.8 10 159 3988 1.8 88 126 1.5 1.6 77.3 20.8 0.0 0.3 Stanley St 1.9 40 S of Le 3.6 116 22.5 7.3 200 3433 1.8 81 129 1.9 2.3 76.3 21.1 0.0 0.2 40 S of Le 3.1 Levern No 4.1 126 20.2 7.1 212 2850 647 2.7 70.5 26.7 0.0 0.3 Lavern No 1.6 9 South of F 4.9 142 19.5 160 2604 572 2.1 | 66.8 | 24.4 | 6.2 | 0.3 LeverA 10 South of F 4.6 Kevin Hon 4.4 132 22.2 6.9 37 216 3089 127 2.5 | 69.6 | 25.7 | 1.4 | 0.7

"Every acre...Every year.".

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Medium Optimum Very High



### **RUSLE2 Worksheet Erosion Calculation Record**

Info: Site 4,6

Inputs:

Owner name	Location	
Jamesville Colony - #2	USA\South Dakota\Yankton County	

Location	Soil	T value	Slope length (horiz)	Avg. slope steepness, %
USA\South Dakota\Yankton County	SSURGO\Yankton County, South Dakota\CeB Clarno-Bonilla loams, 1 to 6 percent slopes\Bonilla Loam 25%	5.0	150	3.0

R Factor	Annual precip	10-yr 24-hr rainfall	In Req area?
110	23.9	4.0	No

Outputs:

Base management	Description	Contouring	Strips / barriers	Diversion/terrace, sediment basin	Soil loss erod. portion, t/ac/yr	Soil detachment, t/ac/yr	Cons. plan. soil loss, t/ac/yr	Sed. delivery, t/ac/yr
CMZ 04\c.Other Local Mgt Records\JVC2 Corn, soybean, disk, slurry		a. rows up- and-down hill	(none)	(none)	0.87	0.87	0.87	0.87

# AGREEMENT FOR MANURE UTILIZATION BETWEEN LIVESTOCK FACILITY OPERATOR AND LANDOWNER

The undersigned landowner agrees to allow manure from a Livestock Facility operated by

<u>Jamesville Colony</u> and their assigns, to be spread on the undersigned landowners land.

The Landowner/Operator is the owner of the following described Real estate, to wit: Legal Description: E1/2NS35-T96N-R57W Total Acres: Usable Acres: Irrigated Dryland Legal Description: W1/2 NE1/4, S4-T96N-R56W Total Acres: (0) Usable Acres: Irrigated Legal Description: Pt. NW1/4 SE1/4, S4-T96N-R56W Total Acres: O Usable Acres: Irrigated Legal Description: \$1/2 SW1/4, \$4-T96N-R56W Total Acres: (0) Usable Acres: Irrigated Legal Description: W1/2 NE1/4, S11-T96N-R56W Total Acres: This agreement is valid for a period of \_\_\_\_\_\_ years from the date hereof, automatically renewable for additional \_\_\_\_\_1 \_\_\_year periods until terminated as set forth below. Either party may terminate this agreement by giving one-year advance notice of such termination in writing to the other party. No manure from any other source shall be applied to the above-mentioned land. BY: Margaret Kirschenman Trust Landowner Signature of Livestock Operator (Authorized Representative)

### AGREEMENT FOR MANURE UTILIZATION BETWEEN LIVESTOCK FACILITY OPERATOR AND LANDOWNER

The undersigned landowner agrees to allow manure from a Livestock Facility operated by

Tamesville Colony and their assigns, to be spread on the undersigned landowners land. The Landowner/Operator is the owner of the following described Real estate, to wit: Legal Description: W1/2 NW1/4, S35-T96N-R57W Total Acres: Usable Acres: Legal Description: E1/2 NW1/4, S4-T96N-R56W Total Acres: Usable Acres: Irrigated Legal Description: N1/2 SW1/4, S4-T96N-R56W irrigated Total Acres: Usable Acres: Legal Description: Total Acres: Usable Acres: Irrigated This agreement is valid for a period of \_\_\_\_\_\_ years from the date hereof, automatically renewable for additional \_\_\_\_\_1 \_\_\_year periods until terminated as set forth below. Either party may terminate this agreement by giving one-year advance notice of such termination in writing to the other party. No manure from any other source shall be applied to the above-mentioned land. BY: Donald Kirschenman Landowner 5-17-2025 Date: 5-13-25

# AGREEMENT FOR MANURE UTILIZATION BETWEEN LIVESTOCK FACILITY OPERATOR AND LANDOWNER

The undersigned landowner agrees to allow manure from a Livestock Facility operated by

James 1711e Colony, and their assigns, to be spread on the undersigned landowners land.

The Landowner/Operator is the owner of the following described Real estate, to wit: Legal Description: NW1/4 NE1/4, S17-T96N-R56W • Total Acres: 35. Usable Acres: Irrigated Dryland Legal Description: E1/2 NW1/4, S35-T96N-R57W Total Acres: 75. Usable Acres: Legal Description: W1/2 NE1/4, S4-T96N-R56W Total Acres: 01.8 Usable Acres: irrigated Legal Description: Pt. NW1/4 SE1/4, S4-T96N-R56W Total Acres: 2210 Usable Acres: irrigated Legal Description: S1/2 SW1/4, S4-T96N-R56W Total Acres: OR X Usable Acres: Irrigated This agreement is valid for a period of \_\_\_\_\_3 \_\_\_ years from the date hereof, automatically renewable for additional 1 year periods until terminated as set forth below. Either party may terminate this agreement by giving one-year advance notice of such termination in writing to the other party. No manure from any other source shall be applied to the above-mentioned land. BY: Lavern Kirschenman Family Trust Landowner 5-17-25 Date: 5-13-25 Signature of Livestock Operator (Authorized Representative)

### Yankton County Manure Application Setbacks:

Setback Type	Surface or Irrigation Applied	Incorporated or injected within 24 hours	Setback Source
Lakes, Rivers, and Streams Classified as Waters of the State, Wetlands, Tile Inlets	100 ft unless a 35 ft vegetative buffer exists then buffer is sufficient	100 ft unless a 35 ft vegetative buffer exists then buffer is sufficient	State
Lakes, Rivers, and Streams Classified as Fisheries	660 feet	200 feet	Yankton County
Stream & Lakes classified as Drinking Water supplies	1,000 feet	1,000 feet	State & Yankton County
Public Wells	1,000 feet	1,000 feet	State & Yankton County
Private Wells	250 feet	250 feet	State & Yankton County
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Incorporated Communities	1,000 feet (surface) 2,640 feet (irrigation)	660 feet	Yankton County
All Public Road Right-of- ways	10 feet (surface) 100 feet (irrigation)	10 feet	Yankton County

### Owner's Certification:

I have reviewed the above Operation & Maintenance Guidelines for my Nutrient Management Plan and agree to provide the necessary resources to properly implement its provisions.

Owner's Signature	Date	

## **Section 3**

# **Sampling Soils for Nutrient Management**

For information or assistance, contact the local offices of the following entities:



#### **South Dakota Conservation Districts**

www.sdconservation.org (605) 895-4099

#### SD Department of Agriculture

Office of the Secretary
Foss Building, 523 E. Capitol
Pierre, SD 57501
(605) 773-5425 · Fax: (605) 773-5926
http://sdda.sd.gov

### SD Department of Environment and Natural Resources

Surface Water Quality Program
Foss Building, 523 E. Capitol Ave.
Pierre, SD 57501-3182
(800) GET-DENR · (605) 773-3351
Fax: (605) 773-5286
http://denr.sd.gov/



### South Dakota State University Extension Service

Department of Plant Science Box 2207A, SDSU, Brookings, SD 57007 (605) 688-4772 | Fax: (605) 688-4667 Ronald.Gelderman@sdstate.edu http://iGrow.org



Visit your local **USDA NRCS Field Office** or **NRCS Ag Nutrient Management Team** 

1820 North Kimball Street Mitchell, SD 57301-1114 (605) 996-1564 Ext. 5 www.sd.nrcs.usda.gov

### The Importance of Sampling Soil

A soil test is essential to determine soil fertility levels and make good nutrient management decisions. Nutrients applied correctly can increase yields, reduce production costs, and prevent surface and groundwater pollution.

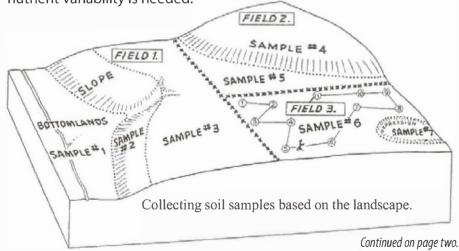
This publication summarizes:

- How often to sample
- Time of sampling
- · Amount of sample
- Sampling tools
- Sampling process
- Drying/freezing samples
- Containers and information sheet
- Sample identification and shipping



### **General Sampling Guidelines**

A critical step in obtaining an accurate soil test is collecting representative samples in the field. Uniform fields should be sampled in a random pattern across the field by collecting at least 15 to 20 equal size soil cores. Avoid, or sample separately, areas such as abandoned farmsteads and feedlot sites, old fence rows, wet or eroded spots, and end rows. Fields with significant landscape or other differences should be divided into separate sample areas. Differences may include soil types, slope, degree of erosion, drainage, crop and/or manure history, or other factors that may influence soil nutrient levels. More intensive sampling should be used where detailed information about within field nutrient variability is needed.



For information about other field sampling methods or special sampling situations, such as fertilizer banding, refer to the SDSU Extension publication "Recommended Soil Sampling Methods for South Dakota" which can be found at <a href="http://pubstorage.sdstate.edu/AgBio Publications/articles/FS935.pdf">http://pubstorage.sdstate.edu/AgBio Publications/articles/FS935.pdf</a>.

### **Tips for Sampling Soils**

Proper collection and handling of soil samples is extremely important. To get accurate soil test results, use the following basic guidelines.

### **How Often to Sample**

Collecting a sample for a nitratenitrogen test should be done every year prior to planting non legume crops. For other nutrients, sampling every 2-4 years is often sufficient. Sampling and testing for both phosphorus and nitrate-nitrogen is required prior to manure application.

### **Time of Sampling**

Collect soil samples after one crop matures and before seeding the next one. Spring sampling prior to planting is ideal, especially for nitrate-nitrogen tests. However, soil sampling is generally done in the fall, which allows more time to collect samples and get results from the laboratory.

Sampling fields at approximately the same time each year is recommended for more consistent results. Samples should be air dried or frozen if they are held for more than a week. As you sample, keep the bags in a cool, dry place versus high temperatures or store the bags with samples in a freezer until shipping to the lab.

### **Sampling Tools**

A soil probe or tube is the best tool for collecting soil samples under normal soil conditions. A soil probe provides a continuous soil core with minimum disturbance to the soil, and the core can easily be divided into the various sampling depths. Hand or vehicle-mounted hydraulic probes are available; the latter is the best choice under adverse soil sampling conditions. Other tools needed are sample bags and submission forms from the lab of your choice, two plastic pails, a cleaning brush, and a lubricant so the soil doesn't stick to the probe and it's easier to remove the sample and the probe stays cleaner. Many people use WD-40 since it has a relatively small impact to the test results.

### **Containers and Information Sheets**

Soil sampling information sheets, hand probes and bags for sending samples are available from several sources. Samples must be securely packaged if shipped by mail. Fill out sampling information sheets to describe the location, past cropping and management history, and proposed crops along with a list of tests requested, for each field or area sampled. Complete information sheets are essential. If possible, use an information sheet from the laboratory that will perform the test. Collecting and bagging samples in non-metallic containers is recommended to avoid contamination.

### **Amount of Sample**

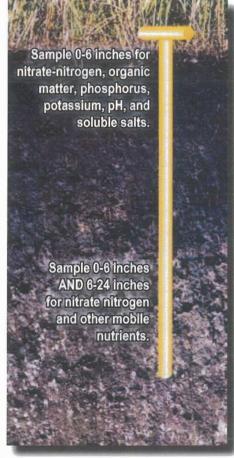
Mixing a large sample uniformly is difficult. Using a soil probe (one-half

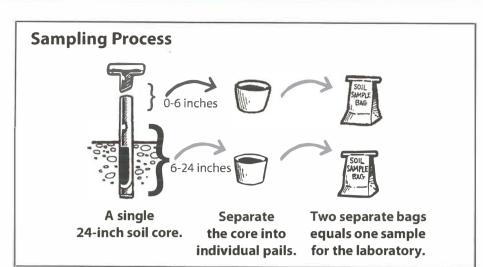
to one inch diameter tube) limits the size of each soil core collected. The soil cores collected for each sampling depth must be thoroughly mixed. A pint of each sample is needed for laboratory testing.

### **Sampling Depth**

Laboratory tests are calibrated to specific depths. It is important to collect samples correctly because a core taken deeper or shallower can produce invalid test results. Both surface and subsurface soil samples are needed to test for available nutrients in the root zone. Separate the core into individual pails.

- Surface soil samples (0-6 inches) are used for conventional tests of organic matter, phosphorus, potassium, pH, and salt levels.
- Subsurface soil samples (6-24 inches) are used to test for mobile nutrients such as nitrate-nitrogen, chloride and sulfur.





### **Sampling Process**

The diagram illustrates the process. To collect an accurate sample:

- (1) Take at least 15-20 representative soil cores to a minimum depth of 24 inches.
- (2) Separate each of the cores into 0-6 and 6-24 inch portions and place each into a separate pail. Separate pails should be used to mix the surface and subsurface samples.
- (3) Mix, dry and bag each portion as a separate sample.

Nitrogen fertilizer recommendations are adjusted based on the deep soil test results. In cases where a field is highly vulnerable to leaching to a shallow aquifer, collecting an additional sample to a depth of 24 to 48 inches is recommended, and in some instances, required.

For soil sampling requirements and/or options for state permitted **Concentrated Animal Feeding Operations (CAFO's)**, contact the South Dakota Department of Environment and Natural Resources.

# Sample Identification and Shipping

- 1. Complete the label on each soil sample bag. Make sure it corresponds to the information sheet.
- 2. Place the information sheet and dry or frozen bagged samples in a sturdy cardboard box or similar container for shipment to the laboratory. If shipping frozen samples, seal the information sheet in a plastic bag.

Ship samples to the soil testing laboratory of your choice. Allow 5-10 days for return of results.

### **Additional Resources:**

- The main site to access the SDSU Extension publications is: <a href="http://www.sdstate.edu/sdces/store/index.cfm">http://www.sdstate.edu/sdces/store/index.cfm</a>,
- "Recommended Soil\_ Sampling Methods for South\_ Dakota" can be found in the SDSU Publications Database http://pubstorage.sdstate. edu/AgBio Publications/ articles/FS935.pdf.
- SDSU Extension Service web site: http://iGrow.org
- SDSU iGrow YouTube channel: <a href="http://www.youtube.com/user/SDSUiGrow">http://www.youtube.com/user/SDSUiGrow</a>. Soil sampling and soil probe videos may be of interest.
- SD NRCS Web page for nutrient management www.sd.nrcs.usda. gov/technical/ NutrientManagementPage. html.
- NRCS Conservation Practice Standard for Nutrient Management (Code 590) http://efotg.sc.egov.usda. gov/references/public/ SD/590 Notice264.pdf.

- · Conservation District.
- Cooperative Extension Service or
- · Natural Resources Conservation Service.

South Dakota Association South Dakota Cooperative P.O. Box 275 Pierre, SD 57501-0275 (800)729-4099 Fax: (605) 895-9424 www.sdconservation.org info@sdconservation org

**USDA Natural Resources** Conservation Service Federal Building

200 Fourth Street SW Huron, Box 2207A. SDSU SD 57501 (605)352-1200 Fax 605-352-1270 www.sd.nrcs.usda.gov publicaffairs@sd usda.gov

of Conservation Districts Extension Service/South Dakota StateUniversity

> Department of Agricultural and Biosystems Engineering Box 2120, SDSU Brookings, SD 57007

(605) 688-5144 Fax (605) 688-6764 charles\_ullery@sdstate.edu

Department of Plant Science Brookings, SD 57007 (605) 688-4772 Fax: (605) 688-4667 iames gerwing@sdstate.edu

South Dakota Department of Agriculture

Office of the Secretary Foss Building 523 E Capitol, Pierre. SD 57501 (800) 228-5254 · (605) 773-3375 · Fax (605) 773-4003 www.state.sd.us/doa

### For information or assistance with regulatory requirements:

South Dakota Department of Environment and Natural Resources Surface Water Quality Program Foss Building, 523 E. Capitol Avenue Pierre, SD 57501-3182 (800) GET-DENR (605) 773-3351 - Fax: (605) 773-5286 www.state.sd.us/denr/DES/surfacewáter/feedlot.htm

Printing of this publication was made possible by a Section 319 Nonpoint Source grant to SD DENR from the U.S. Environmental Protection Agency - Region VIII. Programs and services are available to everyone on a nondiscriminatory basis.

SD-NRCS-FS-36 · Nov. 2002

MANURI AS A RESOURCE SERIES

# Sampling **Manure for Nutrient** Management

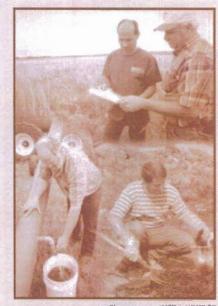


Photo courtes USD-1 NRCS SD

### **Sampling Manure for Nutrient Management**

Nutrients needed for crop production can be supplied by manure, commerical fertilizer, or a combination of the two.

MANURE AS A RESOURCE SERIES

Regardless of the source, nutrients must be applied in the right amount to meet crop production needs and prevent surface and ground water pollution.

By knowing the nutrient content of the manure applied, producers can adjust the amount of commercial fertilizer needed to meet crop requirements.

Producers have two options for determining

the nutrient content of manure produced on their farm:

- 1. Estimate using published values (see table below) or
- 2. Use the results of a laboratory analysis.

An analysis estimates the nutrients in manure from a specific operation. Nutrient values listed in publications are averages from samples tested over a period of several years.

A laboratory analysis is the preferred and most accurate of the two methods. All permitted facilities are required to use a lab analysis.

The nutrient content of manure varies with the type, age, and weight of livestock; feed program; and manure handling system.

At minimum, manure should be tested for total nitrogen. inorganic nitrogen, total phosphorus and total potassium. An analysis for these nutrients provides the information needed to develop a nutrient management plan.

#### Estimated Nutrient Content of Selected Types of Manure<sup>1</sup>

	Nitrogen Content	Phosphorus Content	Potassium Content
Solid Menure (Lbs/ton)			
Beef or Dairy Cattle	5	5	5
Brollers or Turkeys	25	40	30
Liquid Manure (Lb/1,00	0 gallons)		
Dairy	15	10	20
Swine Finishers	40	35	30

Adopted from Ferfizer Recommendations Quide (EC750), South Dakota State University Cooperative Extension Service. For additional estimated nutrient content of manure values see Midwest Plan Service Publication MWPS-18

This publication describes how to collect, handle, and ship manure samples. For information about how to interpret manure test results, refer to "Using Results from a Manure Analysis" (SD-NRCS-FS-38). For information about land application, refer to

"Calibrating Manure Spreader Application Rates" (SD-NRCS-FS-43). Brochures are available online at SD DENR's website. Visit: http://www.state.sd.us/denr/DFTA/ WatershedProtection/WOlnfo.htm.

### **How to Sample Manure**

The accuracy of a laboratory analysis depends on the quality of the manure sample received. A solid manure sample collected as close to the time of land application as possible provides the best information about its fertilizer value. It is important, however, to allow the laboratory time to complete the analysis and return the results. Usually three weeks is sufficient. Liquid manure must be agitated before sampling and is usually land applied after the sample is taken. Therefore, it is suggested that producers handling liquid manure use the average of several years

of nutrient test results to estimate the nutrient level in the manure. When information from past years is not available, cooperative extension and conservation district professionals can provide publications that list the estimated nutrient levels commonly found in liquid manure.

#### SAMPLING SOLID MANURE



Photo courtesy USDA NRCS SD

An accurate lab analysis of solid manure hinges on collecting a representative sample.

- Collect manure from at least 10 different locations in the barnyard or feedlot. The locations selected should be similar in moisture, feed, hay and bedding content. Avoid areas near waterers, drains, and feedbunks where materials other than manure often accumulate. If sampling stockpiled manure, collect manure from several depths. Avoid the exposed outer layer of the pile.
- Dump the manure collected on a hard, flat surface. Use a shovel or pitchfork to mix the manure until the pile looks uniform.
- 3. Take several small samples from the mixture until about a gallon has been collected.
- Place the mixture in a heavy weight plastic freezer bag. Squeeze the bag to remove the air. Place the bag in a second freezer bag to prevent leakage.
- 5. Freeze or store the sample in a cool place until ready to ship. See information at right for sample identification and shipping instructions.

#### SAMPLING LIQUID MANURE



Photo courtesy USDA NRCS SD

Sampling from a loading pipe or tank spreader is the preferred method of collecting a liquid manure sample.

- Agitate the manure in the storage facility thoroughly before loading the tank spreader. If this step is omitted, the sample will not accurately estimate the nutrient value of the manure in the storage pit.
- Collect one quart samples from at least five different tank spreader loads using a clean plastic container.
- 3. Pour the samples into a clean, large plastic pail.
- 4. Thoroughly stir the contents of the pail. Use a long handled dipper to transfer several cups of

- the swirling mixture to a clean, one quart plastic bottle until the liquid is about two inches from the top of the bottle. DO NOT FILL TO THE TOP!
- Place the bottle in a heavy weight resealable plastic freezer bag to prevent leakage.
- 6. Freeze or store the sample in a cool place until ready to ship. See information at right for sample identification and shipping instructions.

### SAMPLE IDENTIFICATION AND SHIPPING

- 1. Attach a label to the bag or bottle of manure. List:
  - Name
  - Mailing address
  - Telephone number
  - · Sample site (feedlot, pit, pond)
  - Type of manure (beef, dairy, swine, chicken, turkey)
  - · Date the sample was collected.
- Complete a laboratory information sheet. If
  possible, use an information sheet from the
  lab that will complete the test. Visit the
  county Cooperative Extension or conservation district office for assistance in obtaining
  forms.\*
- 3. Place the frozen or refrigerated sample and laboratory information sheet in a styrofoam or similar insulated container. Add cold packs and packing materials to protect the sample during shipment.
- 4. Deliver the sample to the lab or ship by overnight mail or courier. If using regular mail, ship the sample early in the week so that it arrives at the lab by Thursday. Samples that arrive on the weekend may warm up and start to decompose. The nitrogen test for these samples will be inaccurate.

#### Ship samples to:

Analytical Services
Olson Biochemistry Labs, ASC 133
South Dakota State University
Box 2170
Brookings, SD 57007-1217
Phone: (605) 688-6171
Fax: (605) 688-6295

\*A form for submitting manure samples to the lab at SDSU is available online. Visit: http://anserv.sdstate.edu/and.ciick.on.\*Submission\_Form\* to download the file, Fees are listed.



# **=WARDguide**

Raymond C. Ward, Ph.D.
Certified Professional Soil Scientist

Bus: 308-234-2418

Fax: 308-234-1940

	Nitrogen	Subsoil
Crop	Requirement	Factor
Corn	1.2 lbs / bu	0.3
Milo	1.15 lbs / bu	0.3
Popcorn	0.031 lbs / lb	0.3
Seed Corn	2 lbs / bu	0.3
Corn Silage	10.5 lbs / ton	0.3
Sorghum Silage	9.5 lbs / ton	0.3
Feed-Hay	27 lbs / ton	0.3
Sudan Hay	27 lbs / ton	0.3
Soybeans	See Footnote	
Pinto Beans	3 lbs / cwt	0.3
Gr. No. Beans	3 lbs / cwt	0.3
Peanuts	See Footnote	
W. Wheat	2.4 lbs / bu	0.3
Sp. Wheat	2.5 lbs / bu	0.3
Oats	1.3 lbs / bu	0.3
Rye	1.9 lbs / bu	0.3
Feed Barley	1.5 lbs / bu	0.3
Malting Barley	1.3 lbs / bu	0.3
Sm. Gr. Silage	13 lbs / ton	0.3
Sm. Gr. Hay	40 lbs / ton	0.3
Alfalfa	0	0
New Alfalfa	See Footnote	
Grass-Alfalfa	20 lbs / ton	0.3
Clover	0	0
Bromegrass	40 lbs / ton	0.3
Bermudagrass	40 lbs / ton	0.3
Fescue	40 lbs / ton	0.3
Native Grass	27 lbs / ton	0.3
Lovegrass	32 lbs / ton	0.3
Cool Grass	40 lbs / ton	0.3
Sugar Beets	8 lbs / ton	0.3
Sunflowers	0.05 lbs / lb	0.3
Potatoes	0.5 lbs / cwt	0.3
Cotton	0.1 lbs / lb	0.3
Millet	1.7 lbs / bu	0.3
Onions	0.25 lbs / cwt	0.3
Melons	14 lbs / ton	0.3
Garden	135 lbs / unit	0.3

Footnote: The nitrogen rate for these legume crops is calculated on the basis of the P2O5 requirement. The N requirement is based on a 1:3 ratio (N:P2O5)



# **=WARDguide**

Raymond C. Ward, Ph.D.
Certified Professional Soil Scientist

### Quantities of Plant Nutrients in Crops (Pounds of Plant Nutrient per Unit Indicated)

	N	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O						
Crop			(Phosphate)			Magnesium	Sulfur	Copper	Manganese	Zinc
Corn (Grain)	per bu	0.75	0.33	0.23	0.01	0.05	0.07	0.0004	0.0006	0.001
	200 bu	150	66	60	46	10	14	0.08	0.12	0.2
Soybeans (Grain)	per bu	3.7	0.77	1.4	0.18	0.18	0.32	0.001	0.0013	0.001
	60 bu	222	46.2	84	10.8	10.8	19.2	0.06	0.078	0.06
Wheat (Grain)	per bu	1.2	0.52	0.26	0.015	0.15	0.12	0.0007	0.002	0.003
	60 bu	72	31.2	15.6	1.5	9	7.2	0.042	0.12	0.18
Cotton (Lint and										
Seed)	per bale	12.5	4.8	5.8	0.67	1.33	0.96	0.02	0.037	0.107
	2 bale	25	9.6	11.6	1.34	2.66	1.34	0.04	0.074	0.214
Sorghum (Grain)	per bu	0.9	0.27	0.2	0.067	0.083	0.083	0.000167	0.0007	0.00067
	100 bu	90	27	20	6.7	8.3	8.3	0.0167	0.07	0.067
Sunflowers (Grain)	per cwt	3.6	1.2	1.1	1.2	0.20	0.22	.002	.002	.005
	20 cwt	72	24	22	2.4	4.0	4.4	0.04	0.04	0.1
Alfalfa (Total)	per ton	55	12	50	28	5.25	5.0	0.015	0.11	0.105
	6 ton	330	72	300	168	31.5	30	0.09	0.66	0.63
Grass (Total)	per ton	30	12	42	8	3.5	3.75	0.01	0.15	0.04
	4 ton	120	48	168	32	14	15	0.04	0.6	0.16
Sugar Beets (Total)	per ton	8	1.4	6.7	2.2	0.50	0.67	0.002	0.05	.002
	25 ton	200	35	160	55	12.5	16.75	0.05	1.25	.05
Oats (Grain)	per bu	0.70	0.25	0.15	0.025	0.0375	0.074	0.0004	0.0015	0.0006
	80 bu	56	20	12	2	3	5.9	0.032	0.12	0.048
Potatoes (Tuber)	per cwt	0.35	0.13	0.60	0.015	0.03	0.03	0.0002	0.0005	0.00025
	100 cwt	35	13	60	1.5	3	3	0.02	0.05	0.025
Peanuts (Nuts)	per cwt	3.7	0.46	0.68	0.6	0.57	0.53	*	*	*
` '	35 cwt	129.5	16.1	23.8	21	19.95	18.55	*	*	*

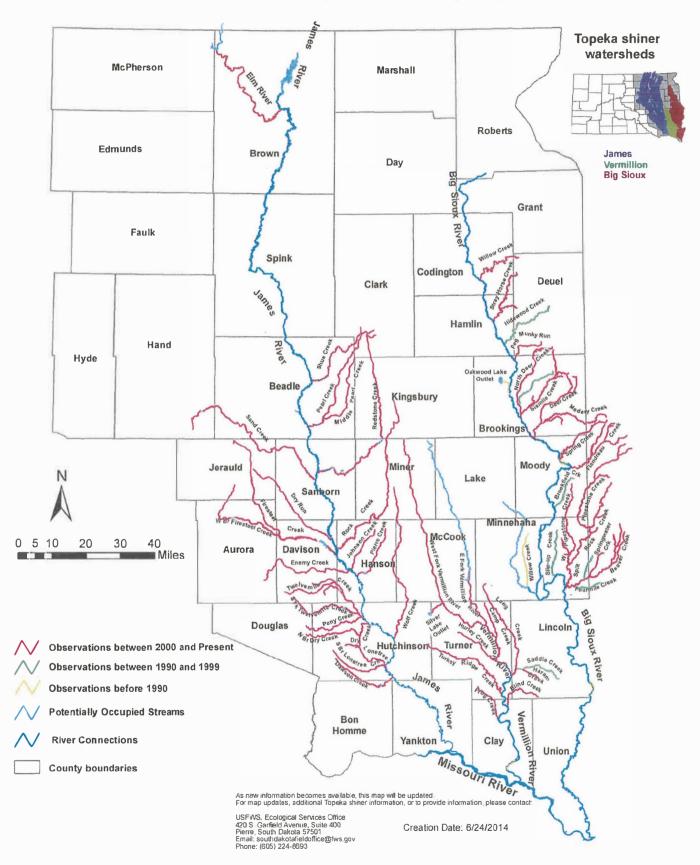
<sup>\*</sup>No data for this nutrient

Bus: 308-234-2418

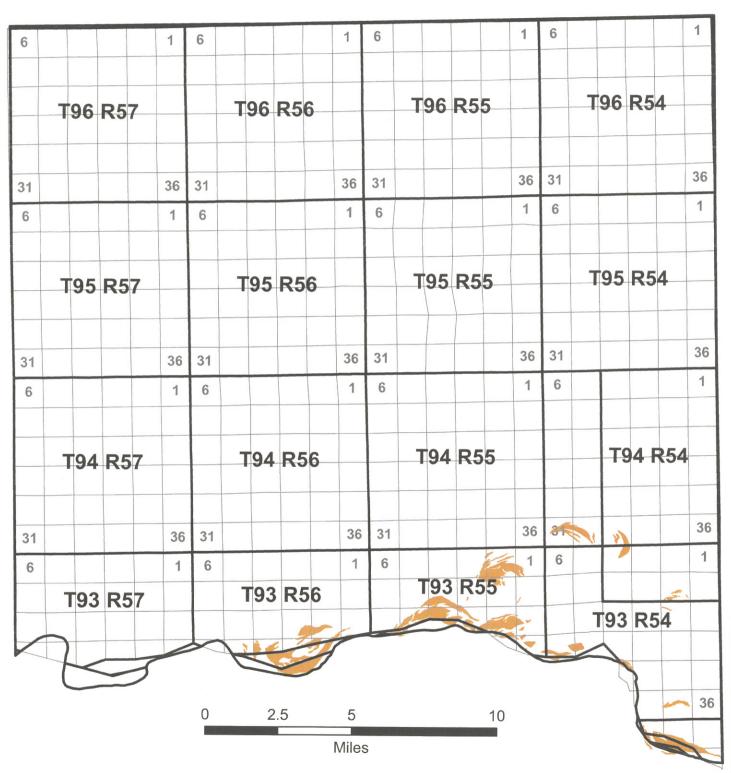
Fax: 308-234-1940

### U.S. Fish and Wildlife Service

### South Dakota Topeka shiner Range Map



### Yankton County WEI 134 or Greater



### Legend

Yankton County WEI 134 or greater

Township boundaries

Sections

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

### Dear Mr. Vetter:

I am aware that Jamesville Colony has proposed to construct a swine confinement barn in the South half of the SW1/4 Section 4, T96N R56W. I am also aware that the proposed structure will require a 5914 foot setback distance from an occupied residence, and that my residence is within this distance.

I hereby acknowledge that I am willing to waive the setback distance requirement between my residence and the proposed structure, thereby allowing Jamesville Colony permission to construct the proposed facility in the proposed location. I am aware that this letter does not constitute such a legal easement, but that I am willing to sign such a document if it is required.

I intend this consent to be specific to this proposed facility only.

Please contact me if there are any questions.

David Rempfer

Lesident Sincerely

5-21-25

### Dear Mr. Vetter:

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Sincerely,

Lavern Kirchenman

Resident of Yankton County

Date

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Sincerely,

Donald Kirchannen

Resident of Yankton County

Date

4-8-2025

Dear Mr. Vetter:

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Please contact me if there are any questions.

Sincerely, Lallen kirchen man

Resident of Yankton County

Date

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Sincerely,

Darwin tirchenman

Resident of Yankton County

Data

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Please contact me if there are any questions.

Sincerely, Munkvold Land & cattle Co Inc.

Resident of Vankton County

Date

3-31-25

Dear Mr. Vetter:

I am aware that Jamesville Colony has proposed to construct a swine confinement barn in the South half of the SW1/4 Section 4, T96N R56W. I am also aware that the proposed structure will require a 5914 foot setback distance from an occupied residence, and that my residence is within this distance.

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Please contact me if there are any questions.

Sincerely, Hunter Holzenge

Resident of Yankton County

Date

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Please contact me if there are any questions.

Sincerely, Fred schultz,

Resident of Yankton County

Date