



Laboratories, Inc.

Ag Testing - Consulting

FEE SCHEDULE

Laboratory Services

4007 Cherry Avenue
PO Box 788
Kearney, Nebraska 68848-0788

800-887-7645

308-234-2418

308-234-1940 Fax

www.wardlab.com



MISSION STATEMENT

“Guiding Producers Today to Feed the World Tomorrow”

Our mission statement is our statement of purpose and guides the actions of our organization. It spells out our overall goals and guides our decision making. Here are the principles of how we live that every day.

1. Accurate and Timely Sample Preparation
2. Constantly striving toward our goals for the future with economic efficiency and environmental responsibility
3. Preserving the integrity of each sample and reflecting that care in every result
4. Owning our errors and taking steps to eliminate them
5. That every action be for the direct benefit of the customer, helping them to develop the best use of soil and water resources while maintaining environmental quality

OUR PROFESSIONAL PLEDGE

The professionals at Ward Laboratories, Inc. have one goal every time we enter the door of our modern laboratory...Provide the most accurate and reliable agricultural testing available in a timely fashion.

To that end the professionals at Ward Laboratories, Inc.:

- Are thoroughly trained and educated to provide reliable analysis.
- Utilize sophisticated equipment and latest techniques.
- Are active in dozens of professional organizations to ensure constant contact with the industry.
- Are supported by cutting edge university and private research.
- Have the expertise that only experience can offer.

The professionals at Ward Laboratories realize that every test completed provides critical information essential to important production decisions impacting your bottom line. We will go the extra mile and spend a little more time to insure you have the best information possible.

We are proud of our work, proud of our reputation for excellence and dedicated to insuring the Ward Laboratories legacy continues for years to come. Ultimately, we are most proud of the results we provide each and every time.

The Professionals of Ward Laboratories, Inc.



PRICE LIST

Effective May 1, 2016

All Prices Are Subject To Change Without Notice

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Please refer to our website for developments and updates.

POPULAR SOIL ANALYSIS PACKAGES

S-1	NPK.....	\$14.00	
	pH, Buffer pH	Sum of Cations (CEC)	
	Soluble Salts	Potassium	
	Nitrate-Nitrogen	Calcium	
	Phosphorus	Magnesium	
		Sodium	
S-1A	NPK Organic Matter, CEC & S.....	\$16.00	
	pH, Buffer pH	Sum of Cations (CEC)	Sulfur
	Soluble Salts	Potassium	
	Organic Matter	Calcium	
	Nitrate-Nitrogen	Magnesium	
	Phosphorus	Sodium	
S-4	Routine.....	\$19.00	
	pH, Buffer pH	Sum of Cations (CEC)	Sulfur
	Soluble Salts	Potassium	Zinc
	Organic Matter	Calcium	Iron
	Nitrate-Nitrogen	Magnesium	Manganese
	Phosphorus	Sodium	Copper
S-4 CI	Routine plus Chloride.....	\$22.25	
S-5	Complete.....	\$22.25	
	pH, Buffer pH	Sum of Cations (CEC)	Sulfur
	Soluble Salts	Potassium	Zinc
	Organic Matter	Calcium	Iron
	Nitrate-Nitrogen	Magnesium	Manganese
	Phosphorus	Sodium	Copper
	Boron		
S-5 CI	Complete Plus Chloride.....	\$25.00	
S-7	Alfalfa/Clover Special	\$18.00	
	pH, Buffer pH	Sum of Cations (CEC)	Sulfur
	Soluble Salts	Potassium	Boron
	Organic Matter	Calcium	
	Nitrate-Nitrogen	Magnesium	
	Phosphorus	Sodium	
S-8	Corn Belt Special	\$18.00	
	pH, Buffer pH	Sum of Cations (CEC)	Sulfur
	Soluble Salts	Potassium	Zinc
	Organic Matter	Calcium	
	Nitrate-Nitrogen	Magnesium	
	Phosphorus	Sodium	
S-9	Subsoil Nitrate.....	\$4.75	
S-9A	Subsoil Nitrate plus Sulfur	\$5.50	

S-10	Salinity (Saturated Paste Extract).....	\$24.75
	SAR	Saturation % Sulfur
	Electrical Conductivity	Calcium Bicarbonate
	Chloride	Magnesium
	pH	Sodium
S-11	Saturated Paste plus EC.....	\$17.60
	SAR	Saturation %
	Electrical Conductivity	Calcium
		Magnesium
		Sodium

Grid Sample Pricing available upon request. Please contact the lab for prices.

INDIVIDUAL SOIL ANALYSIS

Aluminum (KCL)	\$7.50	pH (pH, BpH, EC).....	\$5.50	Texture by Hydrometer....	\$11.25
Boron	\$5.75	P Bray P1	\$5.75	Total Alkalinity	\$11.00
Cations (K, Ca, Mg, Na)	\$5.75	P Bray P2	\$5.75	Total Carbon.....	\$7.75
Chloride	\$5.50	P Mehlich P3	\$5.75	Total Nitrogen	\$7.75
DTPA (Zn, Fe, Mn, Cu).....	\$5.75	P Olsen P	\$5.75	Total Phosphorus	\$7.75
KCl Ammonium.....	\$6.60	Pre Side-Dress Nitrate.....	\$4.75	Total Sulfur	\$7.75
KCl Nitrate	\$4.75	Salt pH.....	\$5.50	Total Zinc.....	\$7.75
Organic Carbon	\$8.75	Soil Moisture.....	\$5.50	Water Soluble K.....	\$5.50
Organic Matter (LOI).....	\$5.50	Texture by Feel.....	\$5.25		

SOIL HEALTH

We are currently developing and analyzing other tests to add to our Soil Health program so please call the lab or check our website for further developments and pricing.

PLFA **\$59.50**

Soil biological testing at Ward Laboratories is conducted by analyzing phospholipid fatty acids, or PLFA. PLFA gives a representation of living soil microbial biomass and allows us to identify the presence or absence of various functional groups of interest through known PLFA biomarkers. PLFA is a snapshot of soil community structure and abundance at the time of sampling. As environmental conditions such as temperature and moisture change so does the microbial community. This ability of the soil microbial community to change provides producers with a tool to compare agricultural management techniques with respect to overall better microbial community health.

Haney Test **\$49.50**

The Haney Test is a dual extraction procedure that allows the producer to assess overall soil health. The test is used to track changes in soil health based on management decisions. This test examines total organic carbon and total organic nitrogen to determine a C:N ratio used to make general cover crop recommendations. This test also includes the **Solvita CO₂ Burst Test** to look at microbial activity and potentially mineralizable nitrogen. The weak acid (H3A) extraction represents some available plant nutrients.

Solvita CO₂ Burst Test **\$25.00**

The Solvita CO₂ Burst Test is a new tool which easily and accurately measures soil biological CO₂ respiration. (Solvita.com, 2012)

POPULAR FEED PACKAGES

WET CHEMISTRY

F-1 \$11.00		
	Moisture		
	Dry Matter		
	Crude Protein		
F-2 \$17.00		
	Moisture	Crude Fiber (CF)	
	Dry Matter	Calculated TDN	
	Crude Protein	Calculated NEm, NEg, NEI	
F-3 \$16.00		
	Moisture	Acid Detergent Fiber (ADF)	
	Dry Matter	Calculated TDN	
	Crude Protein	Calculated NEm, NEg, NEI	
F-4 \$23.00		
	Moisture	Acid Detergent Fiber (ADF)	Calcium
	Dry Matter	Calculated TDN	Phosphorus
	Crude Protein	Calculated NEm, NEg, NEI	
F-4A	RFV Wet Chemistry \$33.00		
	Moisture	Acid Detergent Fiber (ADF)	Calcium
	Dry Matter	Neutral Detergent Fiber (NDF)	Phosphorus
	Crude Protein	Calculated TDN	Potassium
		Calculated NEm, NEg, NEI	Magnesium
		Calculated RFV	
F-5 \$17.00		
	Moisture		Calcium
	Dry Matter		Phosphorus
	Crude Protein		
F-6	Liquid Protein Supplement \$25.50		
	Moisture (Karl Fischer)		Calcium
	Dry Matter		Phosphorus
	Crude Protein		Non-Protein Nitrogen

F-8	Mineral Test	\$19.25
	Moisture	Potassium
	Dry Matter	Magnesium
	Calcium	Zinc
	Phosphorus	Iron
		Manganese
		Copper
		Sulfur
		Sodium
		Molybdenum

F-9	Nitrate.....	\$11.00
	Moisture	Nitrate-Nitrogen
	Dry Matter	

NIR (NEAR INFRARED REFLECTANCE)

NIR can be run on Forages, Silages, Haylages, and Corn Grain- other sample types please refer to feed packages

	Silages and Corn Grain-RFV	\$15.00
	Moisture	Acid Detergent Fiber (ADF)
	Dry Matter	Neutral Detergent Fiber (NDF)
	Crude Protein	Calculated TDN
		Calculated NEm, NEg, NEI
		Relative Feed Value
		Calcium
		Phosphorus
		Potassium
		Magnesium
		Ash

	Haylages and Hay (Grass, Grass/Legume, Legume)-RFQ.....	\$15.00
	Moisture	Acid Detergent Fiber (ADF)
	Dry Matter	Neutral Detergent Fiber (NDF)
	Crude Protein	NDFD (NDF digestibility)
		Calculated TDN
		Calculated NEm, NEg, NEI
		Relative Feed Value
		Relative Feed Quality
		Calcium
		Phosphorus
		Potassium
		Magnesium
		Lignin
		Fat
		Ash

INDIVIDUAL FEED ANALYSIS WITH FEED OR NIR PACKAGES ABOVE

ADF	\$8.50	Mold Count	\$17.75
Aflatoxin.....	\$24.25	NDF	\$9.00
Ash	\$6.25	Nitrate	\$7.25
Available Starch.....	\$15.00	NPN	\$9.00
Crude Fiber.....	\$9.50	Particle Size.....	\$17.75
Crude Protein	\$7.75	pH.....	\$4.00
Dry Matter-Karl Fischer	\$10.00	Prussic Acid.....	\$11.00
Dry Matter-Oven.....	\$6.00	Salt based on Chloride	\$7.75
Dry Matter-Vacuum Oven.....	\$7.75	Soluble Protein	\$10.00
Fat	\$7.25	Total Starch	\$19.00
Fat, Acid Hydrolysis (Liquid Feeds).....	\$10.45	Total Carbon.....	\$7.75
HDP/ADF insoluble Crude Protein	\$14.50	TSI	\$12.00
Lignin.....	\$14.50		

PLANT ANALYSIS

P-2 Routine \$25.00

Nitrogen	Sulfur	Boron
Phosphorus	Zinc	Molybdenum
Potassium	Iron	
Calcium	Manganese	
Magnesium	Copper	

P-3 Super Complete..... \$32.75

Nitrogen	Sulfur	Boron
Phosphorus	Zinc	Molybdenum
Potassium	Iron	Chloride
Calcium	Manganese	
Magnesium	Copper	

P-4 Stalk Nitrate \$11.00

A corn stalk nitrate sample is taken from 6 inches to 14 inches above the soil surface. A sample should contain 10-8 inch stalks.

INDIVIDUAL PLANT ANALYSIS

Chloride	\$7.75	Nitrate-Nitrogen	\$7.75
Dry Matter.....	\$6.00	Phosphate-Phosphorus.....	\$7.75
Minerals (Routine excluding N)	\$17.25	Total Carbon.....	\$7.75
Nitrogen.....	\$7.75		

Plant analysis provides two approaches to enhancing fertilizer effectiveness. One is the diagnostic approach where plant analysis is made when there is an obvious growth problem in the field. A sample is taken from the poor growing area and compared to a sample from an adjacent normal growing area.

Ward Laboratories, Inc. suggests using this diagnostic approach for researching production problems. The comparative samples are very important for proper interpretation of the analysis. **The testing fee for the normal comparative sample is one-half the regular fee.**

The monitoring approach is used to confirm that the plant had proper nutrition. Plant samples should be taken with the crops at the bloom (reproductive) stage of growth. Samples taken earlier than bloom stage contain higher levels of nutrients. For this reason it is very important to identify the growth stage for proper interpretation.

Packaging Guidelines

Plants: Tissue samples need to be placed in paper bags and submitted to the laboratory. Plant sample bags are available upon request.

PLANT SAMPLING PROCEDURE

Field Crops	Stage of Growth	Plant part to Sample	Number of plants
Corn	Seedling Stage (less than 12")	All above ground portion	20-30
	Prior to tasseling	Top leaf with collar	15-25
	Tasseling to early silking	Ear Leaf	15-25
Soybeans	Seedling Stage (less than 12")	All above ground portion	20-30
	Flowering	Uppermost fully developed trifoliolate leaves	20-30
Small Grain	Seedling Stage (less than 12")	All above ground portion	50-100
	Boot to heading	All above ground portion	20-30
Hay, pasture or forage grasses	Just prior to seed head emergence or 4-6 weeks after clipping	All above ground portion	20-30
Alfalfa	Bud stage to 1/10 bloom	Upper 1/3 of plant	15-25
Milo	Seedling Stage (less than 12")	All above ground portion	20-30
	Very Early heading	2nd leaf from the top	15-25

WATER ANALYSIS

W-1 Irrigation Water Quality \$21.75

Sodium	Nitrate	Total Hardness (Lime)
Calcium	Carbonate	Total Alkalinity
Magnesium	Bicarbonate	Boron
Potassium	Sulfate	Sodium Adsorption Ratio (SAR)
Chloride	Electrical Conductivity	Adj. SAR
pH	Est. Total Dissolved Solids	

W-1A Sub-Surface Irrigation \$61.00

Sodium	Nitrate	Total Hardness (Lime)	Iron
Calcium	Carbonate	Total Alkalinity	Iron Bacteria
Magnesium	Bicarbonate	Boron	Manganese
Potassium	Sulfate	Sodium Adsorption Ratio (SAR)	Acid Titration Curve
Chloride	Electrical Conductivity	Adj. SAR	pHc
pH	Est. Total Dissolved Solids		

W-2 Nitrate Sulfate..... \$8.50

W-3 Nitrate..... \$5.50

W-4 Livestock Suitability \$21.00

Sodium	Nitrate	Total Alkalinity
Calcium	Carbonate	Total Hardness (Lime)
Magnesium	Bicarbonate	
Potassium	Sulfate	
Chloride	Electrical Conductivity	
pH	Est. Total Dissolved Solids	

W-5 Household Complete Mineral Test \$27.25

Sodium	Nitrate	Total Hardness (Lime)
Calcium	Carbonate	Total Alkalinity
Magnesium	Bicarbonate	Iron
Potassium	Sulfate	Fluoride
Chloride	Electrical Conductivity	
pH	Est. Total Dissolved Solids	

W-5A Brewers Test \$27.25

Sodium	Nitrate	Total Hardness (Lime)
Calcium	Carbonate	Total Alkalinity
Magnesium	Bicarbonate	Iron
Potassium	Sulfate	Phosphorus
Chloride	Electrical Conductivity	
pH	Est. Total Dissolved Solids	

W-6	Household Mineral Test	\$21.00
	Sodium Nitrate	Total Hardness (Lime)
	Calcium Carbonate	Total Alkalinity
	Magnesium Bicarbonate	
	Potassium Sulfate	
	Chloride	Electrical Conductivity
	pH	Est. Total Dissolved Solids
W-7	Household Coliform Bacteria*	\$19.25
	Coliform	E. Coli
W-8	Hydroponic Fertilizer Test.....	\$39.75
	Sodium Carbonate	Copper
	Calcium Bicarbonate	Total Nitrogen
	Magnesium Sulfate	Ammonium Nitrogen
	Potassium Electrical Conductivity	Total Phosphorus
	Chloride	Zinc
	pH	Iron
	Nitrate	Manganese

***A special sampling procedure and bottle is required for bacteria testing. Please contact the laboratory for assistance. Bacteria samples can be dropped off Monday-Thursday 8-3pm only.**

INDIVIDUAL WATER ANALYSIS

Aluminum	\$5.50	Hardness	\$6.50	Silica	\$6.00
Ammonium	\$6.50	Iron	\$6.50	Total Dissolved Solids	\$8.00
Boron	\$6.00	Iron Bacteria (8 day)	\$19.25	Total Nitrogen	\$6.50
Carbonate/Bicarbonate.....	\$8.00	Manganese.....	\$6.50	Total Phosphorus	\$6.00
Chloride	\$6.00	Nitrite	\$5.50	Total Suspended Solids.....	\$8.00
Copper.....	\$6.50	Ortho Phosphorus	\$6.00	Zinc.....	\$6.50
Fluoride.....	\$6.00	pH.....	\$5.50		

WATER SAMPLING PROCEDURES

1. Use a clean plastic container for submitting your sample. Water can be sent in any clean plastic container. For volume testing bottles can be obtained from the laboratory.
2. Rinse the container several times with water that is being sampled. Send a full container of at least one half pint water to be tested.
3. Wells should be pumped several hours before sampling. Test wells should be sampled after pipe and screen are in place. Pump well for at least 10 hours before sampling.
4. Samples of lakes, streams, and ponds should be taken from below surface.
5. If it is not possible to send the sample immediately after collection, refrigerate until it is sent.

FERTILIZER ANALYSIS

Fertilizer Analysis..... \$14.75 per element

Nitrogen	Zinc	Calcium
Phosphorus	Iron	Magnesium
Potassium	Manganese	Chloride
Sulfur	Copper	Boron
Specific Gravity Included (Liquids)		

Screening Test (Approximate Fertilizer Analysis)..... \$63.75

Nitrogen	Zinc	Calcium
Phosphorus	Iron	Magnesium
Potassium	Manganese	
Sulfur	Copper	
Specific Gravity Included (Liquids)		

Lime Purity %CaCO₃..... \$21.75

Lime Quality % ECC \$25.50

Effective Calcium Carbonate (%ECC)	Lime Purity (%CaCO ₃)
Moisture	Fineness of grind
Sieve Analysis (on 8-mesh, on 60-mesh, and through 60-mesh sieves)	

LIQUID FERTILIZER SAMPLING PROCEDURE

A critical requirement in getting a representative sample of a liquid fertilizer is to take the sample directly from the main body of the material without contamination. Avoid whenever possible taking samples from lines and valves. Listed below are the preferred points of sampling in order of preference.

1. Directly from mixing vat.
2. From the top opening of storage or transport tank after agitation for 15 minutes.
3. From a delivery or recirculating line after proper recirculation.

***Please submit liquid fertilizer in a plastic container.
Bottles can be obtained from the laboratory.***

MANURE, SLURRY AND WASTEWATER ANALYSIS

Standard		\$36.00
pH	Potassium	Zinc
Soluble Salts	Calcium	Iron
Phosphorus	Magnesium	Manganese
Moisture	Sulfur	Copper
Dry Matter	SAR	Sodium
		Total Nitrogen
		Ammonium-Nitrogen
		Nitrate-Nitrogen
		Organic-Nitrogen
		Boron

Packaging Guidelines

Manure/Slurry: If you are submitting manure samples please place them in a plastic container such as a Ziploc bag. Slurry samples need to be placed in a plastic bottle and then placed inside of a Ziploc bag. Sample containers are available upon request.

INDIVIDUAL MANURE, SLURRY AND WASTEWATER ANALYSIS

Ash	\$6.25	pH & EC.....	\$5.50
Biological Oxygen Demand (5 day)	\$28.75	Total Alkalinity	\$11.00
Bulk Density.....	\$6.75	Total Carbon.....	\$7.75
Chemical Oxygen Demand.....	\$22.00	Total Dissolved Solids	\$9.25
Chloride	\$7.75	Total Suspended Solids.....	\$9.25
Organic Carbon	\$8.75		

Sample Supplies

Before it is time to start sampling contact Ward Laboratories for all your supply needs. We offer soil, feed, water, plant, fertilizer, and manure sampling supplies at no cost to you. We also sell soil probes and hay sampling equipment. Please contact the laboratory for pricing.

Submittal Form

Please send submittal forms with your samples. This allows us to be more efficient and enables us to identify your samples correctly. Submittal forms can be found on our website at www.wardlab.com by clicking on the “submit a sample” link and then your associated sample type. Your customer information may be filled out on these PDF forms before you print them.

Bulk entry is another way to send us your sample submittal information. Bulk entry is a submittal that you generate in an Excel spreadsheet with all pertinent information such as your customer number, grower, field, sample ID, depth and your choice of analysis. If you are interested in this option please contact laboratory for further details.

Turn-Around Time

Your samples are our priority at Ward Laboratories. We typically e-mail, fax or mail results to you within 1-2 working days after samples arrive at the lab. There are certain instances when this may not be possible, however, we strive to give you accurate results in the shortest possible time.

Invoicing and Statements

Invoices are sent with the test reports. Monthly statements will show unpaid invoices and a current balance. Terms are net 30 days. Applicable finance charges will be applied on past due accounts.

Online Result Viewing and Invoice Payment

Create an online account to pay invoices or look at past analytical results via wardlab.com. Customers may setup online access using their account details and email address. Please contact the laboratory with any questions.

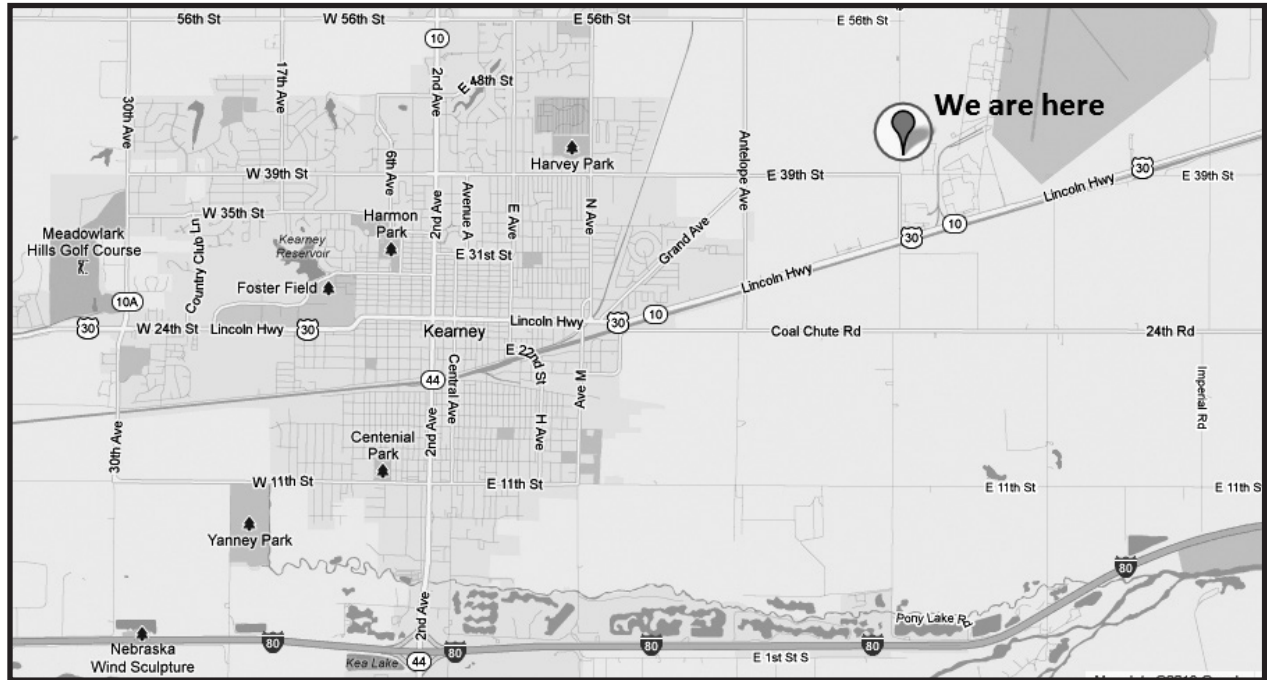
Consulting Services

The professionals at Ward Laboratories, Inc. are available for consultation, whether the questions are in person, via the telephone, or by e-mail. Crop evaluation is available for in-field consultation of problems during the growing season. Our professionals are also available for assistance at seminars and producer meetings. Please contact the laboratory for assistance.

Ward Guide

The Ward Guide is a must if you are looking for a handy reference guide. It is produced from a variety of referenced sources and our forty plus years of experience in providing quality agricultural testing. The Ward Guide is designed to assist you in finding answers to daily production questions. The Ward Guide is available on our website at www.wardlab.com, under the Ward info tab.

Agricultural Laboratory Proficiency: Participant
American Association for the Advancement of Science: Member
American Association of Cereal Chemists: Member
Association of American Feed Control Officials: Participant in Proficiency Testing
American Oil Chemists Society: Member
American Society of Agronomy: Member
American Soybean Association: Member (Nebraska Chapter)
ARCPACS -
 Certified Professional Agronomist
 Certified Professional Soil Scientist
 Certified Crop Advisor
Association of Official Analytical Chemists: Member
Bio Nebraska: Member
Council for Agricultural Science & Technology: Member
Kansas Association of Independent Crop Consultants
Minnesota Department of Agriculture - Manure Testing Laboratory Certification
National Alliance of Independent Crop Consultants: Member
National Corn Growers Association: Member
National Forage Testing Association: Member & Certified
Nebraska Alfalfa Marketing Association: Member
Nebraska Agri Business: Member
Nebraska Independent Crop Consulting Association: Member
NIR Consortium: Member
North American Proficiency Testing Program: Participant
Soil & Plant Analysis Council: Member
Soil & Water Conservation Society of America: Member
Soil Science Society of America: Member
South Dakota Fertilizer & Ag Chemical Association: Member
South Dakota Independent Crop Consultants Association: Member



Soil Sampling Guidelines



Ward Laboratories Website



Soil Login Prep

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