



OBJECTIVES

• Honor Ray and Jolene Ward's founding principal to provide quality results so clients can make informed decisions

• Create an environment where our people can grow personally and professionally to continue to promote the advancement necessary to stay ahead of the curve

• Aim beyond the cutting edge in technology, processes, and services we provide to our current and future customers

• Create opportunities for our organization to foster and build new relationships based on trust, integrity, and passion in and around the communities we serve throughout the world

• Strive for excellence in our results and proactively hold ourselves accountable to accept, resolve, and eliminate errors

• Ensure that the producer can continue to have the necessary information to confidently make decisions that benefit their businesses, families, and communities

• Active involvement in professional organizations to provide support and collaborate while continually learning from other industry leaders

WARD LABRATORIES, INC. PRICE LIST

Effective January 1, 2025. Updated December 31, 2024. All prices are subject to change without notice.

Cover photo submitted by Cody Duitsman - Kansas.

MISSION STATEMENT

To provide accurate and diverse laboratory analysis swiftly and affordably through commitment to advancement and client relationships

VISION Statement

To be the most trusted and proven laboratory resource to guide food producers around the world

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"GUIDING PRODUCERS TODAY THE WORLD TOMORROW"

WARD LABORATORIES, INC.

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 for problems during the growing season. Our soil scientists, certified crop advisor, soil health expert, and professional animal scientist are also available for assistance at seminars and producer meetings. Please contact the laboratory for pricing and availability.

WARD GUIDE

The Ward Guide is a compilation of a variety of referenced sources and our fifty plus years of experience in providing quality agricultural testing. The Ward Guide is designed to assist you in finding answers to daily production questions. It can be accessed by visiting www.wardlab.com.

TURN-AROUND TIME

Sample results will be emailed or mailed typically within 1-3 business days after samples arrive at the lab depending on the desired analysis. Certain procedures do require a longer processing time.

SUBMITTAL FORM

Each sample type has its own submittal form that can be found at www.wardlab.com. When submitting samples, all samples must include your

- Full name
- Address
- Phone number
- Email Address
- Sample ID
- Desired analysis

Email address is highly recommended for rapid return on reports.

If submitting multiple samples, you may also send us your sample submittal information in a spreadsheet. For research samples, a spreadsheet is highly recommend to be sent with samples and emailed to your account manager. If you would like an excel submission sheet, please reach out to an account manager. They will be able to send over a spreadsheet created specifically for large sets of sample submissions.

INVOICING & 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 & INVOICE PAYMENT

Create an online account to pay invoices or look at past analytical results via www.wardlab.com. Customers may setup online access using their account details and email address. Please contact the laboratory with any questions. For new customers, login information is provided upon completion of your first submitted samples.

READY TO GET STARTED?



SCAN THE CODE TO LOGIN TO OUR ONLINE PORTAL!

GENERAL INFORMATION

SAMPLE SUPPLIES

The following sample supplies are available:	The following soil and ha purchased from the lab:	y probes can be
• Soil Sample Bags (paper or cloth)	SOIL PROBES	
Plant Tissue Bags	12" Complete	\$165.00
Water Testing Bottles	18" Complete	\$170.00
Sterilized Water Bottles for Bacteria	JMC Gator Prober	\$250.00
Testing	12" Bucket	\$76.25
Slurry Bottles	18″ Bucket	\$83.00
Manure Bags	30" Extension Rod	\$47.25
Feed/NIR Sample Bags	12" Handle	\$33.50
 Postage Paid Mailers for NIRS and Eeed Samples (may take 8-10 business) 	Tips	\$11.00
days to arrive)	Brush	\$29.75
To order supplies, please visit www. wardlab.com, email customerservice@ wardlab.com, or call (308) 234-2418	Step	\$34.25
While supplies themselves are free, exact	HAY PROBES	
shipping to get the supplies to your door will be charged to your account	Hay Probe	\$175.00
We are also able to offer ARS (LIPS or	Hay Probe Tip	\$25.00
USPS) shipping labels. Please contact the lab for more information.	Drill Adapter	\$29.50

All prices are subject to change without notice.



SOIL ANAYLSIS PACKAGES

S-1	BASIC	\$17.35
	pH, Buffer pH, Sum of Cations (CEC), Base Saturation (%), Soluble Salts, Nitrate-Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sodium	
S-101	BASIC + OM + S	\$19.55
	pH, Buffer pH, Sum of Cations (CEC), Base Saturation (%), Soluble Salts, Organic Matter, Nitrate-Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sodium, Sulfur	
S-4	ROUTINE	\$23.65
	pH, Buffer pH, Sum of Cations (CEC), Base Saturation (%), Soluble Salts, Organic Matter, Nitrate-Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sodium, Sulfur, Zinc, Iron, Manganese, Copper	
S-401	ROUTINE PLUS CHLORIDE	\$28.60
S-5	COMPLETE (ROUTINE PLUS BORON)	\$28.60
	pH, Buffer pH, Sum of Cations (CEC), Base Saturation (%), Soluble Salts, Organic Matter, Nitrate-Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sodium, Sulfur, Zinc, Iron, Manganese, Copper, Boron	
S-501	COMPLETE PLUS CHLORIDE	\$33.30
S-7	ALFALFA/CLOVER SPECIAL	\$22.55
	pH, Buffer pH, Sum of Cations (CEC), Soluble Salts, Base Saturation (%), Organic Matter, Nitrate-Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sodium, Sulfur, Boron	
S-9	SOIL NITRATE	\$7.15
S-901	SUBSOIL NITRATE PLUS SULFUR	\$10.75
S-10	SALINITY (SATURATED PASTE EXTRACT)	\$35.75
	SAR, Electrical Conductivity, pH, Bicarbonate, Calcium, Magnesium, Sodium, Sulfur, Chloride	

INDIVIDUAL SOIL ANAYLSIS

Aluminum (KCl Extractable)	\$9.65
Ammonium (2N KCI)	\$7.15
Boron (Hot Water)	\$7.70
Bulk Density	Call for Details
Cations (pH, K, Ca, Mg, & Na by Summation)	\$9.60
Chloride (0.01M CaNO3 Extract)	\$7.15
Micros (Zn, Fe, Mn, Cu, by DTPA extraction)	\$6.90
Molybdenum (Hot Water)	\$7.70
Organic Matter (LOI)	\$6.60
рН (рН, ВрН, ЕС)	\$7.15
Phosphorus (Bray P1, Bray P2, Mehlich 3 P, or Olsen P)	\$6.90
Pre-Sidedress Nitrate For Corn (When corn is 3-5 leaf stage)	\$7.15
Rocks and Roots (greater than 2mm diameter)	\$50.00
Salt pH (0.01M CaCl2; pH, BpH)	\$7.15
Soil Carbonates (Alkalinity, CaCO3)	\$17.90
Soil Moisture	\$7.15
Texture By Hydrometer	\$16.50
Total Dry Weight of Sample Received	\$13.75
Total Nutrient Digest	\$52.55

Grid Sample Pricing available upon request. Please contact the lab for prices. For information on extracts or items not on this list, please contact the lab. Sample return availabe--inquire for price. Total (Combustion Method)

Nitrogen	\$10.45
Carbon	\$9.50
Total Carbon & Total Nitrogen	\$19.80
Organic Carbon	\$13.00

Total (Digestion Method)

Contact the lab for individual element price.

HEAVY METAL ANALYSIS (TOTAL)

Digest Fee	\$23.65/Sample
Heavy Metals	_ \$23.65/Metal/Sample
Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Nickel, Seleniu	ım, Strontium, Vanadium

*All samples analyzed for heavy metals will be charged a \$23.65 digestion fee per sample regardless of the number of metals analyzed.

NEMATODE ANALYSIS

Soil	\$90.50
Cyst	\$52.25
Root	\$90.50
Soil & Roots	\$103.40
Cyst & Soil	\$103.40
Cyst, Soil & Roots	\$107.00

SOIL HEALTH ANAYLSIS

PLFA*	\$100.95
Total bacteria (Gram (+), Gram (-)), Total Fungi (Arbuscular Mycorrhizae, Saprophytes) Protozoa, Undifferentiated Microorganisms	
SOIL HEALTH ASSESSMENT	\$61.90
BIOLOGICAL: Soil Respiration 24 hour CO2, H20 Extract: ammonium-N, nitrate-N, Total N, Total Organic Carbon, Total Organic N; CHEMICAL: Ammonium acetate extract: K, Ca, Mg, Na; DTPA Extract: Zn, Fe, Mn Cu; Mehlich 3 Extract: P (Olsen P or Bray P-1 also available), S; soil pH, Soluble Salts, OM, Sum of Cations (CEC) and Base Saturation PHYSICAL: Water Stable Aggregates (modified)	
HANEY TEST	CALL
Soil Respiration 24 hour CO2; H2O Extract: Ammonium-Nitrogen, Nitrate-Nitrogen, Total Nitrogen, Total	FOR
Organic Carbon, Total Organic Nitrogen; H3A Extract: Nitrate-Nitrogen, Ammonium-Nitrogen, Inorganic Nitrogen, Total Phosphorus, Inorganic Phosphorus, Organic Phosphorus, Potassium, Calcium, Magnesium, Zinc, Iron, Manganese, Copper, Sulfur, Aluminum	DETAILS
ENZYMES \$29.70/sample/	enzyme
β-glucosidase (BG) - Carbon Cycle, N-Acetyl-β-glucosaminidase (NAG) - Nitrogen Cycle, Phosphodiesterase (PHD) - Phosphorus Cycle, Alkaline Phosphatase (AlkP) - Phosphorus Cycle, Acid Phosphatase (AcP) - Phosphorus Cycle, Arylsulfatase (ARS) - Sulfur Cycle	
POX-C, (PPM) SOIL	\$23.65
Permanganate active labile carbon	
WET AGGREGATE STABILITY	\$35.75
% Aggregate Stability, 0.25-2.0 mm fraction	
AVAILABLE WATER HOLDING CAPACITY	\$30.25
Measured at Field Capacity (0.1 bar) and Wilting Point (15 bar)	

*Certain procedures require a longer processing time. Contact the lab fore more details.

TOTAL NUTRIENT DIGESTION (SOIL)	\$52.55
Carbon, Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sulfur, Zinc, Iron, Manganese, Copper, Boron, Molybdenum, Pounds per acre calculated for depth of sample	
AUTOCLAVED-CITRATE EXTRACTABLE (ACE) SOIL PROTEIN	\$23.65
	¢00 70
SOIL RESPIRATION 24 HR TEST	\$29.70
Measure of soil respiration CO2-C, ppm as an indicator of microbial biomass and potential activity	\$29.70
Measure of soil respiration CO2-C, ppm as an indicator of microbial biomass and potential activity H2O EXTRACT	\$29.70 \$17.90

NOTES

FEED ANALYSIS

FEED ANALYSIS: WET CHEMISTRY

F-1	PROTEIN	\$14.00
	Moisture, Dry Matter, Crude Protein	
F-2	PROTEIN AND BEEF ENERGY	\$22.25
	Moisture, Dry Matter, Crude Protein, Acid Detergent Fiber (ADF) Calculated Beef Cattle Energy Values: TDN, NE _m , NE _g , NE _l Calculated upon request: Horse Energy Value: DE	
F-3	PROTEIN, BEEF ENERGY, AND MINERALS	\$37.25
	Moisture, Dry Matter, Crude Protein, Acid Detergent Fiber (ADF), Calcium, Phosphorus, Potassium, Magnesium, Zinc, Iron, Manganese, Copper, Sulfur, Sodium, Molybdenum Calculated Beef Cattle Energy Values: TDN, NE _m , NE _y , NE ₁ Calculated upon request: Horse Energy Value: DE	
F-4	PROTEIN, RFV, AND MINERALS	\$46.00
	Moisture, Dry Matter, Crude Protein, Acid Detergent Fiber (ADF), amylase-treated Neutral Detergent Fiber (aNDF), Calcium, Phosphorus, Potassium, Magnesium, Zinc, Iron, Manganese, Copper, Sulfur, Sodium, Molybdenum Calculated: Relative Feed Value (RFV) Calculated Beef Cattle Energy Values: TDN, NE _m , NE _y , NE ₁ Calculated upon request: Horse Energy Value: DE	
F-5	PROTEIN AND RFV	\$30.75
	Moisture, Dry Matter, Crude Protein, Acid Detergent Fiber (ADF), amylase-treated Neutral Detergent Fiber (aNDF) Calculated: Relative Feed Value (RFV) Calculated Beef Cattle Energy Values: TDN, NE _m , NE _y , NE ₁ Calculated upon request: Horse Energy Value: DE	
F-6	PROTEIN AND MINERALS	\$29.25
	Moisture, Dry Matter, Crude Protein, Calcium, Phosphorus, Potassium, Magnesium, Zinc, Iron, Manganese, Copper, Sulfur, Sodium, Molybdenum	
F-7	LIQUID FEED SUPPLEMENT	\$40.50
	Moisture (Karl Fischer), Dry Matter, Crude Protein, Calcium, Phosphorus, Potassium, Magnesium, Zinc, Iron, Manganese, Copper, Sulfur, Sodium, Molybdenum	

F-8	MINERAL PACKAGE	\$23.75
	Moisture, Dry Matter, Calcium, Phosphorus, Potassium, Magnesium, Zinc, Iron, Manganese, Copper, Sulfur, Sodium, Molybdenum	
F-9	NITRATE	\$13.75
	Moisture, Dry Matter, Nitrate-Nitrogen (NO ₃ -N)	
F-10	BEEF RATIONS	\$43.50
	Recommended for Beef Rations Moisture, Dry Matter, Crude Protein, Acid Detergent Fiber (ADF), Fat, Calcium, Phosphorus, Potassium, Magnesium, Zinc, Iron, Manganese, Copper, Sulfur, Sodium, Molybdenum Calculated Beef Cattle Energy Values: TDN, NE _m , NE _g , NE ₁ Calculated upon request: Horse Energy Value: DE	
F-11	PROXIMATE ANALYSIS	\$37.50
	Recommended for poultry feeds and novel/unique feedstuffs Moisture, Dry Matter, Crude Protein, Crude Fiber, Fat, Ash, Calculated: Nitrogen Free Extract Calculated Beef Cattle Energy Values: TDN, NE _m , NE _g , NE ₁ Calculated Upon Request Poultry Energy Value: ME _n Calculated Upon Request Pet Food Energy Value: ME _n	
F-12	SWINE INGREDIENTS	\$35.75
	Recommended for swine ingredients Moisture, Dry Matter, Crude Protein, amylase-treated Neutral Detergent Fiber (aNDF), Fat, Ash Calculated Upon Request Swine Energy Values: GE, DE, ME	
F-13	SWINE RATION	\$61.25
	Recommended for swine ingredients or rations Moisture, Dry Matter, Crude Protein, Acid Detergent Fiber (ADF), amylase-treated Neutral Detergent Fiber (aNDF), Fat, Ash, Starch Calculated Beef Cattle Energy Values: TDN, NE _m , NE _g , NE ₁ Calculated Upon Request Swine Energy Values: GE, DE, ME, NE	
F-14	PET FOOD GURANTEED ANALYSIS	\$34.75

Recommended for pet food and treats to meet AAFCO minimum labeling requirements Dry Matter, Crude Protein, Crude Fiber, Crude Fat

NEAR INFRARED SPECTROSCOPY (NIRS)

LEGUME, GRASS, MIXED SPECIES HAY, FRESH FORAGES & HAYLAGE ____ \$19.50

Moisture, Dry Matter, Crude Protein, Acid Detergent Fiber (ADF), amylase-treated Neutral Detergent Fiber (aNDF), Ash, NDFD48, IVTDMD48, Fat, Lignin, Non-Fiber Carbohydrates (NFC), Starch, Ethanol Soluble Carbohydrates (ESC), Water Soluble Carbohydrates (WSC) Calculated: Relative Feed Value (RFV) Relative Forage Quality (RFQ) Calculated Beef Cattle Energy Values: TDN, NEm, NEg, NEl Calculated upon request: Horse Energy Value: DE

CORN SILAGE _____

_____ \$19.50

Moisture, Dry Matter, Crude Protein, Acid Detergent Fiber (ADF), amylase-treated Neutral Detergent Fiber (aNDF), Ash, NDFD48, IVTDMD48, Fat, Lignin, Non-Fiber Carbohydrates (NFC), Starch, Ethanol Soluble Carbohydrates (ESC), Water Soluble Carbohydrates (WSC) Calculated Beef Cattle Energy Values: TDN, NE_, NE,

SAMPLES SUBMITTED REQUIRING HAND SHEERING OR CHIPPER SHREDDING WILL INCUR A \$5.00 HANDLING CHARGE.

All Calibrations from the NIRS Forage and Feed Testing Consortium.

COMMON NIRS+WET CHEMISTRY PACKAGES

NIRS + NITRATES	\$26.50
Recommended for nitrate accumulating species (Ex. Cane, Sorghum, Oats, etc.) NIRS package with Nitrate (NO ₃ -N) added	
NIRS + MINERALS	\$34.50
Recommended for designing mineral supplementation programs NIRS package with F-8 Minerals added	
NIRS + PH	\$23.00
Recommended for ensiled forages to ensure proper fermentation NIRS package with pH added	

Any wet chemistry analysis can be added to NIRS packages.

MYCOTOXIN TESTING OFFERINGS

FEED TYPE	ΜΥCOTOXIN	INDIVIDUAL PRICE	PANEL PRICE
CORN	Aflatoxin Vomitoxin (DON) Fumonisin Ochratoxin Zerelanone Trichothecene (T2)	\$26.25	\$140.00
SORGHUM (MILO) GRAIN	Aflatoxin	\$26.25	NA
SOYBEANS	Aflatoxin	\$26.25	NA
WHEAT	Aflatoxin Vomitoxin (DON) Ochratoxin Trichothecene (T2)	\$26.25	\$94.00
DDGS	Aflatoxin Vomitoxin (DON) Fumonisin	\$26.25	\$70.00
FEED (POULTRY/PIG)	Aflatoxin Vomitoxin (DON)	\$26.25	\$47.00

INDIVIDUAL FEED ANALYSIS

Acid Detergent Fiber (ADF)	\$10.25	Amylase-Treated Neutral Detergent Fiber (aNDF)	\$10.75
Aflatoxin	\$26.25	3	
Ash	\$8.75	Neutral Detergent Insoluble Crude Protein (NDICP)	\$16.25
Available Starch	\$16.25	Nitrate (NO3-N)	\$8.75
Cobalt	\$32.50	Non-Protein Nitrogen (NPN)	\$13.00
Crude Fiber	\$13.00	Particle Size	\$21.50
Crude Protein	\$8.75	рН	\$4.25
Dry Matter-Karl Fischer	\$13.00	Prussic Acid*	\$11.00
Dry Matter-Oven	\$8.75	Salt based on Chloride	\$8.75
Dry Matter-Vacuum Oven	\$10.50	Selenium	\$32.50
Crude Fat	\$7.75	Soluble Protein	\$10.75
Fat-Acid Hydrolysis	\$11.25	Soy-Chek	\$8.00
Heat Damaged Protein	\$15.75	Test Weight (Grains)	\$8.75
Crude Protein (ADICP)		Total Starch	\$21.50
Lignin	\$17.25	Total Carbon	\$8.75
Minerals Digest	\$19.00	Total Sugars Invert (TSI)	\$13.00

*20 leaves must be shipped to the lab overnight or dropped off . Only accepted Monday-Thursday as this is a time sensitive analysis.

PLANT ANALYSIS

PLANT ANALYSIS

P-2	ROUTINE	\$31.65
	Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sulfur, Zinc, Iron, Manganese, Copper, Boron, Molybdenum	
P-12	ROUTINE MINUS NITROGEN	\$21.45
	Phosphorus, Potassium, Calcium, Magnesium, Sulfur, Zinc, Iron, Manganese, Copper, Boron, Molybdenum	
P-205	ROUTINE + TOTAL CARBON	\$42.90
	Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sulfur, Zinc, Iron, Manganese, Copper, Boron, Molybdenum, Total Carbon	
P-3	SUPER COMPLETE	\$41.55
	Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sulfur, Zinc, Iron, Manganese, Copper, Molybdenum, Boron, Chloride	
P-405	CARBON:NITROGEN RATIO	\$19.80
	Nitrogen, Total Carbon	
P-4	CORN STALK NITRATE	\$15.15
	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.	
P-419	COVER CROP NUTRIENT CONTENT PER ACRE	\$52.25
	Nitrogen, Phosphorus, Potassium, Calcium, Magnesium, Sulfur, Zinc, Iron, Manganese, Copper, Molybdenum, Boron, Total Carbon, C:N Ratio, Dry Matter (%), Forage Yield (ton/ ac), Biomass Weight As Is	,
	Please include harvest area to ensure proper cover crop nutrient area calculation.	
P-420	COVER CROP SUPER COMPLETE PER ACRE	\$66.00
	P-419 plus Chloride	
HEAV	Y METAL ANALYSIS (TOTAL)	
Digest F	ee\$23.	65/Sample
Heavy M	etals \$23.65/Metal	/Sample

Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Nickel, Selenium, Strontium, Vanadium

PLANT ANALYSIS

INDIVIDUAL PLANT ANALYSIS

ALUMINUM	<u>\$9</u> .35
with P-2, P-221, P-205, or P-3	
CHLORIDE	\$9.65
DRY MATTER	\$9.65
NITROGEN	\$10.45
NITRATE-NITROGEN	\$9.65
PHOSPHATE-PHOSPHORUS	\$9.35
SODIUM with P-2, P-212, P-205, or P-3	<u>\$4</u> .70
TOTAL CARBON	\$10.45

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 has proper nutrition. Plant samples should be taken while the crops are 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.

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WATER ANALYSIS

AGRICULTURAL WATER ANALYSIS

W-1	IRRIGATION WATER QUALITY	
	Bicarbonate, Boron, Calcium, Carbonate, Chloride, Magnesium, Nitrate, Potassium, Sodium, Sulfate, Total Hardness (CaCO3), Total Alkalinity (CaCO3), Sodium Adsorption Ratio (SAR), Electrical Conductivity, Adj. SAR, pH, Est. Total Dissolved Solids, Cation/Anion Balance	
W-101	SUB-SURFACE IRRIGATION	\$79.50
	Bicarbonate, Boron, Calcium, Carbonate, Chloride, Magnesium, Nitrate, Potassium, Sodium, Sulfate, Iron, Manganese, Total Hardness (CaCO3), Total Alkalinity (CaCO3), Sodium Adsorption Ratio (SAR), Electrical Conductivity, Adj. SAR, pH, Est. Total Dissolved Solids, Iron Bacteria, Acid Titration Curve, pHc, Cation/Anion Balance	
W-2	NITRATE AND SULFATE	\$14.00
W-3	NITRATE (NO3 & NO2)	\$8.25
W-4	LIVESTOCK SUITABILITY	\$27.50
	Bicarbonate, Calcium, Carbonate, Chloride, Magnesium, Nitrate, Potassium, Sodium, Sulfate, Total Hardness (CaCO3), Total Alkalinity (CaCO3), Electrical Conductivity, pH, Est. Total Dissolved Solids, Cation/Anion Balance	

HOUSEHOLD & COMMERICAL WATER ANALYSIS

W-5	HOUSEHOLD MINERAL TEST	\$35.75
	Bicarbonate, Calcium, Carbonate, Chloride, Fluoride, Iron, Magnesium, Nitrate, Potassium, Sodium, Sulfate, Total Hardness (CaCO3), Total Alkalinity, (CaCO3), Electrical Conductivity, pH, Est. Total Dissolved Solids, Cation/Anion Balance	
W-7	HOUSEHOLD COLIFORM BACTERIA*	\$23.65

W-703 HOUSEHOLD MINERAL + COLIFORM BACTERIA* _____ \$59.40

Be sure to submit two separate samples for this anlaysis, with one sample in a regular bottle and the other in a coliform bacteria bottle.

*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. Samples submitted on Friday will be charged an after hours fee.

HOUSEHOLD & COMMERICAL WATER ANALYSIS (CONTINUED)

W-501 BREWERS TEST

Bicarbonate, Calcium, Carbonate, Chloride, Iron, Magnesium, Nitrate, Phosphorus, Potassium, Sodium, Sulfate, Total Hardness (CaCO3), Total Alkalinity (CaCO3), Electrical Conductivity, pH, Est. Total Dissolved Solids, Cation/Anion Balance

W-810 HYDROPONIC FERTILIZER TEST______\$68.50

Ammonium Nitrogen, Bicarbonate, Boron, Calcium, Carbonate, Chloride, Copper, Iron, Magnesium, Manganese, Molybdenum, Nitrate, Potassium, Sodium, Sulfate, Total Nitrogen, Total Phosphorus, Zinc, Electrical Conductivity, pH, Cation/Anion Balance

W-903 WINE WATER TEST _____

_____ \$59.40

______\$35.75

Iron, Manganese, Aluminum, Silica, Chloride & Calcium, Magnesium, Total Harndess (CaCO3), Turbidity, pH

INDIVIDUAL WATER ANALYSIS

Aluminum	\$8.25
Ammonium	\$8.25
Boron	\$8.25
Calcium & Magnesium (Hardness) _	\$16.50
Carbonate/Bicarbonate	\$9.65
Chloride	\$8.25
Copper	\$8.25
Fecal Bacteria	\$22.85
Fluoride	\$8.25
Iron	\$8.25
Iron Related Bacteria	\$22.85
Manganese	\$8.25
Molybdenum	\$8.25
Nitrite	\$8.25
Ortho Phosphorus	\$8.25
рН	\$8.25
Potassium	\$8.25

Silica	\$8.25
Sodium	\$8.25
Sulfur	\$8.25
Total Dissolved Solids (Gravimetric)	\$11.85
Total Organic Carbon	\$9.65
Total Nitrogen	\$9.65
Total Phosphorus	\$8.25
Total Suspended Solids (Gravimetric)	\$11.85
Turbidity	\$8.25
Zinc	\$8.25

HEAVY METAL ANALYSIS (TOTAL)

Heavy Metals	\$23.65
Price per metal per sample	
Arsenic, Barium, Cadmium,	
Chromium, Cobalt, Lead, Nickel,	
Selenium, Strontium, Vanadium	

FERTILIZER ANALYSIS

FERTILIZER & LIME ANALYSIS

FERTILIZER ANALYSIS \$17.60 per	element
Boron, Calcium, Chloride, Copper, Iron, Nitrogen, Magnesium, Manganese, Potassium, Phosphorus, Sulfur, Zinc, Specific Gravity Included (Liquids)	
SCREENING TEST	\$150.00
Calcium, Copper, Iron, Magnesium, Manganese, Nitrogen, Phosphorus, Potassium, Sulfur, Zinc, Specific Gravity Included (Liquids)	
LIME PURITY %CaCO3	\$25.85
LIME QUALITY %ECC	\$33.30
Effective Calcium Carbonate (%ECC), Lime Purity (%CaCO3), Moisture, Fineness of grind, Sieve Analysis (on 8-mesh, on 60-mesh, and through 60-mesh sieves)	

MANURE, SLURRY, COMPOST & WASTEWATER ANALYSIS

MANURE & COMPOST STANDARD _

\$46.20

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

	MANURE & COMPOST STANDARD + ASH	\$55.85
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MANURE & COMPOST STANDARD + TOTAL CARBON ______ \$56.40

Routine plus Total Carbon and C:N Ratio

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 ANALYSIS

Ash	\$9.35
Biological Oxygen Demand (5 day)	\$46.20
Bulk Density	\$8.25
Chemical Oxygen Demand	\$46.20
Chloride	\$9.35
Dissolved Oxygen	\$9.35
Dry Matter	\$9.35
Organic Carbon	\$11.85
Partial Alkalinity	\$14.30
Percent Dirt	\$13.20
pH & EC	\$9.35
Total Alkalinity	\$14.30
Total Carbon	\$10.10
Total Dissolved Solids	\$11.85
Total Suspended Solids	\$11.85
Total Solids	\$9.35

HEAVY METAL ANALYSIS (TOTAL)

Digest Fee	\$23.65/Sample

Heavy Metals _____

______\$23.65/Metal/Sample

Arsenic, Barium, Cadmium, Chromium, Cobalt, Lead, Nickel, Selenium, Strontium, Vanadium

*All samples analyzed for heavy metals will be charged a \$23.65 digestion fee per sample regardless of the number of metals analyzed.

NOTES

Not finding what you're looking for? Contact us for special projects and contract pricing.

SAMPLING PROCEDURES

All sample submissions must include:

- Name
- Address
- Phone number
- Sample ID
- Desired analysis
- Email address highly recommended for rapid return on reports

SOIL SAMPLING PROCEDURES

- To take a soil sample, you will need a soil probe, soil auger, or shovel and a clean plastic bucket.
- Collect 10 to 15 cores (if using a probe or auger) or furrow slices (if using a spade) 0 to 8 inches deep from a representative area. Composite samples of 10 to 15 cores at 0 to 8 inches can be used to represent an area up to 40 acres. If soil types vary greatly within a field, we recommend using zone sampling to isolate differences in soil types.
- 3. Surface soil samples should be taken to an 8-inch depth.
- Subsoil samples should be taken from 8 to 36 inches or 8 to 24 inches and 24 to 36 inches to test for residual nitrate.
- 5. If cropping, fertilizing, and/or liming has not been applied uniformly in a field, then a separate sample should be taken from each management or soil area. If soil areas within a field are different in appearance (slope, drainage, color, or texture) each area should be sampled separately. Small areas may not need to be sampled, but they will give some indication of the variation within the field.

- Composite surface soil samples should consist of a mixture of about 10 to 15 soil cores. Composite subsoil samples for the nitrate test should consist of 8 to 10 cores. Mix these cores thoroughly and fill the sample bag. Label the bag correctly and use this same identification on the soil information sheet.
- 7. Sample separately to avoid such areas as dead furrows, alkali spots, and terrace channels.
- Cloth or paper soil test bags or a quart size zip lock bag may be used. Include soil sample information sheets with all necessary information.
- Samples can be mailed to PO Box 788, Kearney, NE, 68848 or shipped to or dropped of at 4007 Cherry Ave., Kearney, NE 68847.

SOIL HEALTH SAMPLING PROCEDURES

- Collect all your samples for comparison on the same day if possible. Samples may be collected on different days but try to keep sampling events to one week or less if comparisons are to be made between the samples. This reduces changes that may take place if moisture or temperature fluctuates between sampling times.
- Use a standard soil core sampler. DO NOT use any form of lubricants on the soil core sampler.
- Take 10 to 15 cores 0 to 6 inches or 0 to 8 inches deep next to the plants or near the rooting structures. You may also choose the same depth that is normally used for a topsoil sample if it is consistent. Composite samples of 10 to 15 cores at 0 to 6 or 0 to 8 inches can be used to represent an area up to 40 acres. If soil types vary greatly within a field, we recommend using zone sampling to isolate differences in soil types.
- Combine all the cores, preferably in a zip lock freezer bag or plastic-lined paper soil bag. DO NOT use cloth bags for submitting soil health samples.
- 5. Add all sample identification information you need to the sample bag and place in a cooler (a Styrofoam cooler with a lid works fine) or a regular box if shipment times are relatively quick.

- Mark each sample and the shipping container with the specific soil health test(s) you wish to run to ensure proper handling once the sample arrives at the lab.
- 7. If sampling for PLFA analysis when temperatures are above 85 degrees Fahrenheit, freeze samples prior to shipping and use dry ice/ice packs unless shipping overnight.
- 8. Samples should remain near original soil temperature if left unfrozen. Dry ice/ice packs can be used if sampling during hot weather. Remember to treat all samples equally for individual sampling periods.
- Samples may be frozen in a standard freezer for storage prior to shipment. This is especially useful and should be done if samples are being taken at different times.
- 10. Samples can be mailed to PO Box 788, Kearney, NE, 68848 or shipped to or dropped off at 4007 Cherry Ave., Kearney, NE 68847. When mailing samples, it is best to send them overnight in a cooler if not previously frozen. However, samples can be sent frozen in a cooler by regular mail in mild or cold weather.

FEED SAMPLING PROCEDURES

It is important to provide a representative feed sample to produce accurate nutritional information for livestock management. Before retrieving samples, consult with Ward Laboratories, Inc. personnel and/or follow procedures from a reliable source such as extension resources or the National Forage Testing Association (www.foragetesting.org). Several staff members at Ward Laboratories, Inc. are Certified Hay Samplers and can guide you through the sampling process.

- Define 'lots' of feed to obtain a representative sample. A lot can consist of hay baled from a specific field, a stall of corn silage, a shipment of distiller's grains or a ration mix. Group your feeds as similarly as possible to distinguish each lot. For example, if you have one alfalfa field and another grass hay field you intend to bale, each field will represent a 'lot' and should be sampled separately. Do not mix them.
- Each sample should be composed of several subsamples to properly represent the lot due to variation in all feeds. The National Forage Testing Association recommends a combination of 20 sub-samples as the sample for laboratory testing of hays and forages. For other feeds that are less variable in nature such as corn grain or distillers' by-products, 5 to 10 sub samples maybe acceptable.

Always use a hay probe when sampling baled feeds and a scoop of some type for other feed samples to avoid missing fine materials with hand grabbed sub samples. Subsamples should be taken randomly. Do not target "good looking spots" or avoid "bad looking spots".

- 3. Ensure samples are taken from the outside of the bale or feed pile as well as from 12 to 18 inches inside the lot.
- If sampling baled hay, it is best to use a hay probe, which can be purchased from Ward Laboratories, Inc. Producers located near Ward Laboratories, Inc. may borrow a hay probe free of charge.
- 5. Once you have obtained your sample place it in a quart size zip lock bag and send it to the laboratory for testing.





HAY

BALES: Sample 20 bales from each lot. Core all rectangular bales from the end and all round bales from the twine surface. Mix the samples thoroughly and use the alternate shoveling or quartering procedure to obtain a representative sample for analysis.

LOOSE HAY STACKS: Select 4 stacks from each cutting for sampling. Collect at least 3 core samples from the side of each stack, mix thoroughly and take a representative sample for analysis using the alternate shoveling or quartering procedure.

SILAGE

UPRIGHT SILO: Take random scoops of silage while unloading. Mix the samples thoroughly and take a representative sample for analysis using the alternate shoveling or quartering procedure.

HORIZONTAL SILO: Remove a column 6 inches by 12 inches wide on the open end of the silo. Mix the sample thoroughly and take a representative sample for analysis using the alternate shoveling or quartering procedure.

BUNK SAMPLE: Take 6 - 8 scoop samples from the bunk(s) as the ration is being unloaded. Mix the sample thoroughly and take a representative sample for analysis using the alternate shoveling or quartering procedure.

GRAIN SAMPLE: Take 5 random scoop samples from the bin or truck. Mix the sample thoroughly and take a representative sample for analysis using the alternate shoveling or quartering procedure.



ALTERNATE OR FRACTIONAL SHOVELING PROCEDURE

- 1. Mix the sample.
- 2. Pour into a pile on a clean paper or plastic sheet.
- 3. Further mix the sample by pulling the corners of the sheet diagonally allowing the sample to tumble. Then turn the sheet a quarter turn. The lower right corner should be the upper right corner. Repeat the mixing process 8 times.
- 4. Arrange sample into a row.
- 5. Use a scoop such as a flat spatula to transfer scoops into sample bag.
- 6. Collect increments randomly along the row of feed and transfer into sample bag.
- 7. Repeat until the quart size zip lock bag is full.

QUARTERING PROCEDURE

Sometimes when forages and feeds are sampled, the total of the aggregate samples is too large and bulky to send into the laboratory. The total sample size can be properly reduced and still maintain a representative sample.

- 1. Mix the entire sample thoroughly.
- 2. Pour it into a pile on clean paper or plastic.
- 3. Divide the sample into four equal parts (quarters), saving the opposite two quarters.
- If the sample is still too large, repeat the procedure until the proper sample size of one pint to a quart is obtained.
- 5. All samples should be placed in an airtight plastic bag and submitted to the laboratory for analysis.





DISCARD

LEAF & PLANT TISSUE SAMPLING PROCEDURES

- Refer to the table below for proper sample timing, plant part to sample, and number of plants to sample.
- 2. Place samples in a paper bag, not plastic, and return to the lab with a completed submission form.

Field Crop	Stage of Growth	Plant Part to Sample	No. of Plants to Sample	
CORN Sampling after	Seedling stage (Less than 12")	All the above ground portion	20 - 30	
silks brown is not recommended.	Prior to tasseling	The top leaf with collar	15 - 25	
	From tasseling to early silking	The entire leaf at the ear (or immediately below it)	15 - 25	
SOYBEANS OR OTHER BEANS	Seedling stage (Less than 12")	All the above ground portion	20 - 30	
Sampling after pods begin to fill is not recommended.	Initial flowering	Two or three fully developed leaves at the top of the plant	20 - 30	
SMALL GRAIN Sampling after pods	Seedling stage (Less than 12")	The above ground portion	50 - 100	
begin to fill is not recommended.	Boot to heading	The above ground portion	20 - 30	
HAY, PASTURE OR FORAGE GRASSES	Just prior to seed head emergence or 4 to 6 weeks after clipping	Whole tops	20 - 30	
ALFALFA	Bud stage to 1 st flower	The upper 1/3 of the plant 15 - 25		
MILO	IILO Very early heading Second leaf from top of plant		15 - 25	



CORN

Prior to tasseling The top leaf with collar



MILO Second leaf from top of plant



ALFALFA Bud stage to 1st flower The upper 1/3 of the plant



SOYBEANS OR OTHER BEANS

Two or three fully developed leaves at the top of the plant

STALK NITRATE SAMPLING PROCEDURE

- Samples should be taken one to three weeks after black layer on 80% of the kernels on most ears.
- 2. Cut 8 inches of the stalk 6 inches above the soil surface.
- 3. Remove all leaves from the stalk.
- Include 10 to 15 stalks from a representative area. Sample areas should be determined based on differences in management or soil type.
- Wrap the bundle of stalks in duct tape.
 Write your name and sample ID on the tape using a permanent marker. The following information should be included on a separate sheet with the samples: Name, Physical Address, Sample ID, Phone Number, Email.
- 6. Samples can be mailed to or dropped off at the lab.
- 7. Analysis will be reported in 2-3 business days upon arrival to the lab.

Sample 8 inches of the stalk (remove leaf sheaths from sample)



WATER SAMPLING PROCEDURES

AGRICULTURAL WATER SAMPLING PROCEDURE

- Use a clean plastic container for submitting your sample. Bottles can be obtained from the laboratory.
- Rinse the container several times with water that is being sampled. Send at least one-half pint of water to be tested.
- 3. For irrigation water sampling, 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. For livestock suitability water sampling, let the water run for ten minutes 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 to the lab immediately after collection, refrigerate until it is sent.

HOUSEHOLD WATER SAMPLING PROCEDURE

- Use a clean plastic container for submitting your sample. Bottles can be obtained from the laboratory.
- 2. Let water run for five minutes.
- 3. Rinse the container several times with water that is being sampled and then fill the sample bottle. Send at least one-half pint of water to be tested.
- 4. If it is not possible to send the sample to the lab immediately after collection, refrigerate until it is sent.

NOTES

BACTERIA WATER SAMPLING PROCEDURE

Please read carefully to insure accurate results. If you have any questions please call the lab at (308) 234-2418 prior to taking samples.

- Samples will be accepted MONDAY THROUGH THURSDAY ONLY between the hours of 8 a.m. to 3 p.m.
- 2. Samples need to be received by the lab within 24 hours after sampling. Samples should be kept cool during transport.
- The enclosed sterilized bottle contains a small amount of preservative. If analysis is required in addition to Coliform, a separate sampling bottle is required. (Please request a Water Testing Bottle).
- 4. Collect sample from an indoor water tap. Remove screen or strainer from spigot, (if one is present), and sterilize by flaming briefly with a match or lighter. You can also swab with rubbing alcohol. Allow water to run freely for FIVE MINUTES before collecting sample.
- 5. Avoid contaminating your sample. Carefully remove lid from enclosed sample bottle without touching the inside of the cap or threaded area of bottle.
- 6. **DO NOT** rinse bottle. Fill bottle to line. Replace lid at once.

FERTILIZER SAMPLING PROCEDURES

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 agitating 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.

NOTES

MANURE/COMPOST SAMPLING PROCEDURE

- Due to the volatile organic compounds and ammonium present in manure, samples should be taken within 1 to 2 weeks of application. Composts have already partially decomposed and often contain more stable compounds, so they may be tested 1 to 2 months prior to application.
- 2. Select piles that are most representative of your sample.
- Collect 8 manure subsamples to a depth of 12" at eight spots throughout the pile. Samples should be moist and contain manure and plants. Compost only requires 6 subsamples due to uniformity.
- 4. Thoroughly mix subsamples and place in labeled bags. A gallon sized zip lock bag filled approximately half full is enough.
- Samples should be shipped to the laboratory as soon as possible. Keep samples cool (not frozen) until delivery to the laboratory.
- 6. Place sealed samples in a second or even third plastic bag to prevent spillage and odor.
- 7. Please clearly mark sample bags with a waterproof pen. The use of felt-tip pens or pencils can smear if exposed to water or during shipping.

SL	URRY SAMPLING PROCEDURE	NOTES
1.	Agitate the manure mixture for 2 to 4 hours before sampling.	
2.	Sub-samples can be dipped from the agitated storage using a bucket on a rope, thrown into the manure storage, taken from spreader tank loads, or taken from transfer pipe.	
3.	Samples also may be taken at the time of application. Place 3 to 6 small buckets (plastic coffee cans) at several locations in the field(s).	
4.	Place all sub-samples in a larger clean plastic pail and stir the contents thoroughly.	
5.	Use a long-handled dipper to take several cups of mixture into a clean one-quart plastic bottle until the liquid is about 2 to 3 inches from the top of the bottle.	
6.	Put a piece of tape over the lid and place sealed samples in a second or even third plastic bag to prevent spillage and odor.	
7.	Clearly mark sample bags with a waterproof pen. The use of felt-tip pens or pencils can smear if exposed to water or during shipping.	
8.	Samples should be shipped to the laboratory as soon as possible. Keep samples cool (not frozen) until delivery to the laboratory.	

PROFICIENCY PROGRAMS & MEMBERSHIPS

PROFICIENCY PROGRAMS

Agricultural Laboratory Proficiency (Soil, Water, Plant) Association of American Feed Control Officials Distillers Grains Technology Council Proficiency Program National Forage Testing Association North American Proficiency Testing Program (Soil, Water, Plant) Magruder Fertilizer Check Sample Program

MEMBERSHIPS

Agricultural Laboratory Testing Association Alliance for the Future of Agriculture in Nebraska American Association for the Advancement of Science American Chemical Society American Oil Chemists Society American Registry of Professional Animal Scientists American Society of Agronomy American Soybean Association American Registry of Certified Professionals in Agronomy, Crops, and Soils (ARCPACS) -**Certified Professional Agronomist Certified Professional Soil Scientist** Certified Crop Advisor American Registry of Professional Animal Scientists -Professional Animal Scientist Association of Official Analytical Chemists Bio Nebraska Life Sciences Association Colorado Cattlemen's Association Colorado Craft Brewers Association Council for Agricultural Science & Technology Independent Agricultural Consultants of Colorado

Kansas Agribusiness Retailers Association Kearney Area Chamber of Commerce Missouri Agribusiness Association National Alliance of Independent Crop Consultants National Cattlemen's Beef Association National Corn Growers Association Nebraska Alfalfa Marketing Association Nebraska Agri-Business Association Nebraska Craft Brewers Guild Nebraska Cattlemen Nebraska Chamber of Commerce Nebraska Diplomats Inc. Nebraska Farm Bureau Nebraska Independent Crop Consulting Association Nebraska Poultry Industries New York Craft Brewers Association Ohio Craft Brewers Association Oklahoma Cattlemen's Association NIRS Forage and Feed Testing Consortium Practical Farmers of Iowa Rocky Mountain Agribusiness Association Sigma Xi Soil and Plant Analysis Council Soil and Water Conservation Society of America Soil Science Society of America South Dakota Agribusiness Association South Dakota Cattlemen Association South Dakota Independent Crop Consultants Association South Dakota Soil Health Coalition Texas Ag Industries Association Texas Craft Brewers Association Wyoming Craft Brewers Association Wyoming Stock Growers Association





MAILING ADDRESS PO BOX 788 KEARNEY, NEBRASKA 68848

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SHIPPING ADDRESS 4007 CHERRY AVENUE KEARNEY, NEBRASKA 68847







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