



AGRICULTURE



SOIL

FEE

SOIL TEST PACKAGES

S1A (Basic): Organic Matter, Available Phosphorus, (P1 Weak Bray and P2 Strong Bray) Exchangeable Potassium, Magnesium, Calcium and Hydrogen, Soil pH, Buffer Index, Cation Exchange Capacity, Percent Base Saturation of Cation Elements

With Recommendations:	\$10.50
Without Recommendations:	\$9.30

S1AN: Same as test S1A with carryover Nitrogen as Nitrate

With Recommendations:	\$13.20
Without Recommendations:	\$11.50

Subsoil Nitrate-N:

With Recommendations:	\$6.00
Without Recommendations:	\$5.50

S1B: Same as test S1A with Olsen Bicarbonate Phosphorus in place of P2 Strong Bray Phosphorus

With Recommendations:	\$10.50
Without Recommendations:	\$9.30

S1C: Same as test S1A plus Olsen Bicarbonate Phosphorus

With Recommendations:	\$11.50
Without Recommendations:	\$10.30

S1AEC: Same as test S1A with Soluble Salts

With Recommendations:	\$12.22
Without Recommendations:	\$11.00

S1ANEC: Same as test S1AN with Soluble Salts

With Recommendations:	\$14.92
Without Recommendations:	\$13.22

S2: Test S1A plus Soluble Salts, Sodium, and Excess Lime

With Recommendations:	\$13.40
Without Recommendations:	\$12.30

S2N: Same as test S2 with Nitrate Nitrogen

With Recommendations:	\$15.90
Without Recommendations:	\$14.70

S3C: A complete analysis including S1A, S2N and S3

With Recommendations:	\$26.50
Without Recommendations:	\$25.50

LAWN & GARDEN: Organic Matter, Available Phosphorus (P1 Weak Bray and P2 Strong Bray), Exchangeable Potassium, Magnesium, Calcium and Hydrogen, Soil pH, Buffer Index, Cation Exchange Capacity, Percent Base Saturation of Cation Elements, Nitrate Nitrogen, Excess Lime, Soluble Salts, Sodium (Recommendations given in pounds per acre, 1000 square feet and 100 square feet)

\$25.00



SOIL HEALTH COMPLETE

\$65.00

is comprised of three components:

1. An in-depth soil analysis that will address the chemical aspects of the soil
2. The Solvita 1-day CO₂C (S3C) test.
3. The Haney test with a Soil Health Calculation.

SOIL HEALTH BASIC

\$55.00

is comprised of three components:

1. A basic soil analysis (S1AN) that will address the chemical aspects of the soil.
2. The Solvita 1-day CO₂C test.
3. The Haney test with a Soil Health Calculation.

The following packages must be combined with one of the previous packages:

S3: Sulfur, Zinc, Manganese, Iron, Copper, Boron

With Recommendations: **\$14.20**

Without Recommendations: **\$13.00**

S4: Zinc Manganese, Iron, Copper

With Recommendations: **\$9.20**

Without Recommendations: **\$8.40**

S5: Sulfur, Zinc

With Recommendations: **\$6.80**

Without Recommendations: **\$6.00**

S6: Sulfur, Zinc, Manganese, Boron

With Recommendations: **\$12.80**

Without Recommendations: **\$11.80**

**Recommendations include up to three crops or three yields on request.*

CONTAINER MEDIA EXTRACT pH, Conductivity, Available Nitrogen, Phosphorus, Potassium, Magnesium, Calcium, Sodium

\$22.50

RECOMMENDATIONS ONLY

New recommendations on old reports (per sample)

\$3.00

SAMPLE SIZE

1 soil sample bag filled to the FILL LINE (approximately 2 cups)

Contact Midwest Laboratories shipping department to order soil bags and boxes.

SPECIALIZED SOIL REPORTING

First Form Option (per sample)

\$0.50

FIRST FORM

First Form reports include soil data, graphics, and maintenance + build recommendation format. Many options may be made automatically standard for your account. Contact the laboratory for details.

REPORTING OPTIONS

Standard Recommendations are made for as many as three crops or three yields, or a combination of different crops and yields. You must supply the crop and yield goal information.



TEST PACKAGE SUGGESTIONS

If a field has never been sampled before, we recommend the complete test S3C. For grain crops that will require nitrogen, we recommend tests S1AN or S2N, which include nitrate nitrogen. In low rainfall areas, we also recommend a subsoil nitrate test. For legume crops, we recommend a test including Boron analysis (tests S3, S3C, or S6). In areas of high soil pH (over 7.1), we recommend test S1B (with Bicarbonate Phosphorus) and/or S2. For soil where manure has been applied frequently or heavily, we recommend test S2N. For determining optimum herbicide application rate, we recommend adding a Texture analysis to any of the above.

INDIVIDUAL SOIL ANALYSIS-OTHER CHEMICAL SOIL ANALYSIS

Aluminum (Extractable)	\$18.00
Ammonacal Nitrogen	\$7.50
Amino Sugar Nitrate Test	\$28.00
Chloride	\$6.50
C:N Ratio	\$24.00
Electrical Conductivity (Soluble Salts)	\$6.00
Electrical Conductivity (Soluble Salts) with paste extract	\$16.00
Humic Matter	\$15.00
Mehlich Phosphorus (Colorimetric)	\$3.00
Mehlich Phosphorus (ICP)	\$3.00
Mehlich Complete	F.O.R.
Morgan Extract	\$6.00
Molybdenum (Extractable)	\$25.00
Nitrate Nitrogen	With Recommendations: \$6.00 Without Recommendations: \$5.50
Olsen Bicarbonate Phosphorus	\$1.00
Organic Matter (Combustion) (LOI)	\$6.20
Organic Matter (Walkley Black Titration)	\$35.00
pH	\$6.00
pH with paste extract	\$16.00
PT2	\$22.00
Quantitative CaCO ₃	\$27.00
Resistivity by saturated paste extract	\$20.00
Saturated Paste Extract	\$10.00
Silicon	\$25.00
Sodium Absorption Ratio (SAR) with paste extract	\$20.00
Total Cation Exchange Capacity (EPA 9081)	\$40.00
Total Kjeldahl Nitrogen	\$9.00
Total Nitrogen	\$9.00
Total Carbon	\$18.00
Total Phosphorus	\$12.00
Water Soluble Carbon	\$10.00
Water Soluble Extraction (P, K, Mg, Ca, Na, S)	\$5.50



INDIVIDUAL ANALYSIS OF EXTRACTABLE SOIL NUTRIENTS

Sodium	With Recommendations:	\$2.55
	Without Recommendations:	\$2.15
Sulfur	With Recommendations:	\$4.35
	Without Recommendations:	\$3.95
Zinc, Manganese, Iron, Copper, Boron (each element)	With Recommendations:	\$2.95
	Without Recommendations:	\$2.55

**Recommendations include up to three crops or three yields on request.*

ADDITIONAL SOIL ANALYSIS — SOIL PHYSICAL MEASUREMENTS

Available Moisture (1/3 plus 15 BAR limits measured with membrane apparatus)	\$21.50
Individual BAR	\$16.00
Bulk Density (Disturbed Soil)	\$5.35
Grain size (ASTM D422)	\$65.00
Receiving Moisture	\$3.00
Texture (% Sand, Silt, Clay) by hydrometer	\$11.20

COMPOSITE SAMPLE PREPARATION

Per sample group	\$5.00
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NEMATODE ASSAYS (Ag Soil)

Plant Parasitic Nematode Analysis (Live Parasite ID)	\$58.00
Plant Parasitic Nematode Analysis (Compost) (Live Parasite ID)	\$68.00
Cyst Nematode Identification (Ag Soil) (Egg Count)	\$28.00
Cyst Nematode (Compost) (Egg Count)	\$38.00
Root Tissue Examination (Root-Knot Nematode Only)	\$20.00

PLANT TISSUE

PLANT TEST (COMPLETE)

Nitrogen, Sulfur, Phosphorus, Potassium, Magnesium, Calcium, Sodium, Iron, Manganese, Copper, Boron, Zinc	With Interpretations: \$24.00
	Without Interpretations: \$22.00

MINERAL PACKAGE

Sulfur, Phosphorus, Potassium, Magnesium, Calcium, Sodium, Iron, Manganese, Copper, Boron, Zinc	\$17.00
Total Nitrogen	\$9.00
Nitrate Nitrogen	\$10.00
Mineral Package + Nitrate Nitrogen	\$22.00



OTHER ANALYSIS

Ammoniacal Nitrogen	\$10.00
Carbon	\$10.00
Chloride	\$10.00
Cobalt	\$24.00
Nitrate Nitrogen	\$10.00
Stalk Nitrate	\$16.00
Molybdenum	\$24.00
Molybdenum + Cobalt	\$30.00
Selenium	\$36.00

Note: Discounts are available for multiple samples received dried and ground.

SEED GERMINATION

Barley, Wheat, Corn	1lb	\$20.00
Alfalfa, Clover, Rye, Soybeans	1lb	\$20.00
Fescue, Oats	1lb	\$20.00
Cold Stress (Soybeans & Corn only)	1lb	\$20.00

Please allow a minimum of ten days for germination tests.

GMO DETECTION (ddPCR)

	100g	
	Basic Screen	Event Specific
Corn	\$400.00	\$100.00
Alfalfa	\$175.00	\$100.00
Soy	\$295.00	\$100.00
Flax	\$175.00	\$100.00
Canola	\$175.00	\$100.00
Rice	\$175.00	\$100.00
Sugar Beets	\$175.00	\$100.00

FERTILIZER

SUGGESTED SAMPLE SIZE (MINIMUM) FEE

FERTILIZER AND LIME

Total Nitrogen	50g	\$25.00
Total Nitrogen and Total Phosphate (P ₂ O ₅)	100g	\$50.00
Total Nitrogen, Total Phosphate (P ₂ O ₅), and Total Potash (K ₂ O)	100g	\$60.00
10-34-0: Total Nitrogen, Total Phosphate (P ₂ O ₅), Ortho Phosphorus, Specific Gravity, pH	100g	\$60.00

NITROGEN PROFILE Total Nitrogen, Nitrate, Urea, Ammoniacal \$65.00



MICRONUTRIENT GENERAL ANALYSIS COMPLETE	100g	\$50.00
Boron, Calcium, Copper, Iron, Manganese, Magnesium, Sodium, Phosphorus, Potassium, Sulfur, Zinc (includes sample prep)		
Single Element from above	50g	\$22.00
Single Chelated Mineral	50g	\$25.00
Zinc, Copper, Iron, Manganese	50g	
FORMULATION LEVEL ASSAY	100g	
Boron, Calcium, Copper, Iron, Manganese, Magnesium, Sodium, Phosphorus, Potassium, Sulfur, Zinc (includes sample prep)		
Single Element from above		\$50.00
Any two elements from above		\$80.00
Additional elements from above		\$20.00
PHOSPHORUS (as Phosphate, P ₂ O ₅)		
Total Phosphorus	100g	\$25.00
Ortho Phosphorus	100g	\$25.00
Available Phosphorus (Dry Product Only)	100g	\$25.00
POTASSIUM (as Potash K ₂ O)		
Total Potash	100g	\$25.00
Soluble Potash	100g	\$25.00
HEAVY METALS SCREEN (NON-REGISTRATION)	50g	\$60.00
Arsenic, Lead, Cadmium, Chromium		
HEAVY METALS SCREEN (FOR CALIFORNIA REGISTRATIONS)	50g	\$130.00
Arsenic, Cadmium, Cobalt, Copper, Lead, Molybdenum, Nickel, Selenium.		
HEAVY METALS SCREEN (FOR WASHINGTON REGISTRATIONS)	50g	\$130.00
Arsenic, Cadmium, Cobalt, Lead, Mercury, Molybdenum, Nickel, Selenium and Zinc.		
HEAVY METALS SCREEN (FOR CANADIAN REGISTRATIONS)	50g	\$140.00
Arsenic, Cadmium, Cobalt, Copper, Chromium, Lead, Mercury, Molybdenum, Nickel, Selenium, and Zinc.		



INDIVIDUAL ANALYSIS

Ammoniacal Nitrogen	100g	\$20.00
Chloride	50g	\$20.00
C/N Ratio	100g	\$30.00
Free Ammonia	100g	\$25.00
Fluoride	100g	\$25.00
Humic Acid	100g	\$80.00
Moisture Only	100g	\$10.00
Nitrogen (N), Total		\$25.00
pH	100g	\$10.00
Salt Index	100g	\$15.00
Salt Out Temperature	100g	\$15.00
Specific Gravity	100g	\$12.00
Urea Nitrogen	1 pint	\$25.00
Water Insoluble Nitrogen	100g	\$25.00

LIMESTONE MATERIALS SUGGESTED SAMPLE SIZE (MINIMUM) FEE

BASIC LIME PACKAGE 200g \$60.00

Calcium, Magnesium, Total Neutralizing Value, Sieve 4, Sieve 8, Sieve 60, ECCE, Moisture

KANSAS LIME PACKAGE 200g \$60.00

Calcium, Magnesium, Total Neutralizing Value, Sieve 4, Sieve 8, Sieve 60, Kansas ECC, Moisture

MISSOURI LIME PACKAGE 200g \$60.00

Calcium, Magnesium, Total Neutralizing Value, Sieve 4, Sieve 8, Sieve 40, Sieve 60, ECCE, ENM, Moisture

MINNESOTA LIME PACKAGE 200g \$60.00

Calcium, Magnesium, Total Neutralizing Value, Sieve 8, Sieve 20, Sieve 60, ENP, Moisture

Total Neutralizing Value (CaCO₃ Equivalent) 100g \$20.00

Sieve Analysis (specify sizes) each 100g \$6.00

GYP SUM PACKAGE 200g \$60.00

Calcium, Magnesium, Sulfur, 100 Sieve, pH, Gypsum Purity as CaSO₄: 2H₂O, and Free Moisture



MANURE, BIOSOLIDS AND COMPOST

BASIC MANURE PACKAGE 200g **\$40.00**

Moisture/Total Solids, Total Nitrogen, Phosphate, Potash, Sulfur, Calcium, Magnesium, Sodium, Iron, Manganese, Copper, Zinc, pH, Ammoniacal Nitrogen, Organic Nitrogen

LAGOON WATER PACKAGE 200g **\$40.00**

Conductance, Kjeldahl Nitrogen, Ammoniacal Nitrogen, Organic Nitrogen, pH, Phosphorus, Potassium, Sulfur, Magnesium, Calcium, Sodium, Iron, Manganese, Copper, Zinc

COMPOST PLUS PACKAGE 200g **\$75.00**

Moisture/Total Solids, Total Nitrogen, Organic Nitrogen, Phosphate, Potash, Sulfur, Calcium, Magnesium, Sodium, Iron, Manganese, Copper, Zinc, pH, Total Carbon, Soluble Salts, C/N Ratio, Ammoniacal Nitrogen, Nitrate Nitrogen, Chloride, Organic Matter, Ash

EPA 503 PACKAGE 250g **\$215.00**

Total Solids, Ammoniacal Nitrogen, Total Kjeldahl Nitrogen, Phosphorus, Potassium, Sulfur, Calcium, Magnesium, Sodium, Iron, Manganese, Copper, Zinc, pH, Nitrate Nitrogen, Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Molybdenum, Nickel, Selenium, Silver, Calculated Phosphate, Calculated Potash, Organic Nitrogen

SEAL OF TESTING ASSURANCE (STA) COMPOST COUNCIL PACKAGE 250g **\$375.00**

man-made materials, Boron, Chloride, Total Carbon, Organic Matter, Zinc, Copper, Manganese, Iron, Sodium, Magnesium, Calcium, Sulfur, Potash, Phosphate, Total Nitrogen, Moisture, Ammoniacal Nitrogen, Organic Nitrogen, pH, Nitrate Nitrogen, Arsenic, Cadmium, Chromium, Lead, Mercury, Molybdenum, Nickel, Selenium, Salmonella, 7 Day Germination, Maturity Index, Conductivity, Fecal Coliform, Sieves, % Passing, 10 Day Vigor.

ORGANIC MATERIALS REVIEW INSTITUTE (OMRI) PACKAGE 250g **\$400.00**

E.coli, Fecal Coliform, Salmonella, Total Kjeldahl Nitrogen, Total Phosphate, Potash, Nitrate Nitrogen, Water Soluble Nitrogen, Water Insoluble Nitrogen, Ammoniacal Nitrogen, Humic Acid, pH, Total Organic Carbon, Bulk Density (Packed), Moisture, Sulfur, Calcium, Boron, Cobalt, Copper, Iron, Manganese, Arsenic, Chloride, Lead, Selenium, Cadmium, Chromium, Mercury, Nickel, Sodium, Molybdenum, Zinc



INDIVIDUAL ANALYSIS

Ash	50g	\$15.00
Chloride	100g	\$20.00
C/N Ratio	50g	\$30.00
Cyst Nematode (Compost) (Egg Count)	100g	\$38.00
Moisture	100g	\$10.00
Nitrogen, Ammonia	100g	\$20.00
Nitrate (by IC)	100g	\$20.00
Nitrogen, Total Kjeldahl	100g	\$25.00
Organic Matter (Combustion) (LOI)	100g	\$15.00
pH	100g	\$10.00
Plant Parasitic Identification (Compost)	100g	\$68.00
Solids, Total	100g	\$10.00
Solids, Total Volatile	100g	\$20.00
SOUR (Specific Oxygen Uptake Rate)	100g	\$65.00

CAUTION!

Many manures and sludges are biologically active and will produce gases even after being sealed in a container. These gases produce pressure that can burst the container or pop its lid. Precautions should be taken in shipping manure or sludge samples: Never use a glass container and always tape the lid. One pint of sample is adequate.

MICROBIOLOGY

SUGGESTED SAMPLE SIZE (MINIMUM) FEE

SOIL, SLUDGE AND COMPOST

Aerobic Plate Count	25g	\$20.00
Anaerobic Plate Count	25g	\$20.00
Azotobacter	25g	\$20.00
E. coli (MPN)	25g	\$25.00
Fecal Coliform (EPA 1681)	200g	\$30.00
Fecal Coliform (7 Fecal + % solids)	50g x 7	\$280.00
Salmonella (EPA 1682)	60g solid, 1 L liquid	\$125.00
Total Coliforms (MPN)	25g	\$25.00

LEAFY GREEN PATHOGEN PACKAGE 250g \$270.00

Fecal Coliform, Salmonella, Total Coliform, E. coli (generic), E. coli O157:H7, Listeria, Solids