



LITCHFIELD ANALYTICAL SERVICES

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Feeds Forages Mycotoxins Soils Plant Tissues Manure Fertilizers Lime Water

Quick Turnaround

Quality Testing

Personalized Service

Competitive Rates

Litchfield Analytical Services was founded in 1982 to provide feed and forage analysis services for livestock producers, nutritionists, feed dealers, and feed manufacturers. We have offered both Wet Chemistry and Near Infrared Reflectance Spectrophotometry (NIRS) procedures since 1984. The agronomy department was added in 1998. Our staff is trained and experienced in feed, mycotoxin, soil, plant tissue, manure, greenhouse media, fertilizer, lime, and water analysis which ensures you of accurate and reliable results. We use modern, well-maintained, and daily-calibrated equipment to perform valid analytical procedures as prescribed by the Association of Official Analytical Chemists (AOAC). Standard Operating Procedures include precautions to prevent contamination and provide a safe work environment. Litchfield Analytical Services is accredited by The National Forage Testing Association (NFTA), The National Hay Association (NHA), The American Forage and Grassland Council (AFGC), and The North American Proficiency Testing Program (NAPT) for laboratory testing proficiency. Located in Southern Michigan, Litchfield Analytical Services has built a solid reputation in Michigan, Ohio, and Indiana for quality testing, personalized service, and quick turn-around. We are committed to maintain this reputation as we grow our business.

Schedule of Fees

March 1, 2017

Turnaround Time for Routine Testing

Turnaround time for non-routine analysis is dependent upon the test being performed. RUSH results may be available when prior arrangements are made. An additional RUSH fee of up to \$400 per sample will be charged.

Individual Consultation & Clerical Fees

Individual consultation is available for an hourly rate of \$120 per hour plus travel expenses if any. Clerical services performed by a lab technician to search and retrieve records is available for \$60 per hour.

Sample Supplies / Mailers

For your convenience, postage-paid mailers are provided for feed samples. Mailers returned with a multiple samples will be charged \$3 per sample when received. Mailers returned with a single sample will be charged \$6

Postage-paid feed mailers, soil sample bags, 125ml bottles (fertilizer), and 500ml bottles (water & manure samples), sample information forms & mailing labels are provided at no additional charge for submitting samples to Litchfield Analytical Services.

Reporting Procedures

Sample results can be mailed, faxed, or emailed to two recipients at no additional charge. A \$2 per sample fee will be added for mailing or faxing to a third recipient. Phone results are available for \$5.00 per sample.

Terms of Sale

All prices are subject to change without notice. Payment is due within 30 days from the date of invoice with approved credit. New customers must include payment with their first set of samples to aid in account set-up. A finance charge of 2% per month (24% per annum) of the outstanding invoice amount is added to past due invoices. The minimum finance charge is \$2 per past due invoice per semi-monthly statement period.

Discounts

Discounts may be available for large volumes of samples or contract work. Contact the laboratory for more information. No discounts will be allowed on overdue accounts.

Re-Assay Policy

Results questioned by the client will be re-assayed upon request. No charge will be made unless the re-assay confirms the original results.

Sample Holding & Disposal

Samples are held for varying lengths of time, depending on their stability and the amount of storage space required. All samples will be held a minimum of two weeks after results are reported. If longer storage is necessary, a storage fee will be charged based on the type of sample being held. Samples that require special disposal will be returned after analysis at the client's expense. There will be a \$10 minimum charge for returning samples and / or containers.

Unusual Samples

Fees are quoted based on standard sample preparation procedures. . Oversized samples (samples weighing more than 320 grams) may be charged for additional sample prep. We reserve the right to assess additional preparation fees for samples with unusually high concentrations of the analyte, or those requiring special handling, special preparation, or non-standard analytical methods. Samples arriving in unusual packaging and / or without completed test request forms may be assessed a special handling charge for repackaging and / or filling out test request forms.

Confidentiality

All work is performed in confidence. Results are released only to the client or his / her designated agent. Confidentiality agreements will be provided upon request.

Warranty & Limits of Liability

Warranty is limited to the accuracy of analysis of the sample as received. We assume no responsibility for the purposes for which the client uses the test results, nor liability for any other warranties, expressed or implied, including warranties of fitness for a particular purpose or for merchantability made by the client. These terms and conditions shall supersede any conflicting terms and conditions stated on any purchase order, or other order of work submitted by the client.

NIR Feed & Forage Test Packages (1 to 2 day turn-around)

| | | |
|------|---|-------|
| NIR: | Moisture, Crude Protein, ADF, NDF, ADFIN (forages), Ca, P, Mg, K, PSU Energy Values, RFV (forages), Non-Fiber Carbohydrates (forages), & Protein Solubility (forages). | \$ 13 |
| NIRd | Moisture, Crude Protein, ADF, NDF, ADFIN, NDFIN, Lignin, Ash, Fat, Starch & Starch digestibility (corn & corn silage) Sugar, 30hr, 120hr, & 240hr IVNDFd (forages), VFA Screen (silages), Ca, P, Mg, K, S, OSU Energy Values, RFV, RFQ, NFC, & Protein Solubility (forages). A "Milk 2006" (lbs of milk / acre) report is available for corn silage upon request. | \$ 22 |

NW Feed & Forage Test Packages (1 to 2 day turn-around)

| | | |
|------|--|-------|
| NW: | Test NIR with wet chemistry minerals (Ca, P, K, Mg, Na, Cu, Fe, Mn, & Zn) | \$ 22 |
| NWd: | Test NIRd with wet chemistry minerals (Ca, P, K, Mg, Na, Cu, Fe, Mn, & Zn) | \$ 31 |

Wet Chemistry Feed & Forage Test Packages (1 to 5 day turn-around)

| | | |
|----------------|---|--------|
| DM: | Moisture & Dry Matter. | \$ 10 |
| 1: | Moisture & Crude Protein (<i>No mineral mixes</i>). | \$ 14 |
| 2: | Moisture, Crude Protein, Ca, P, K, Mg, Na, Cu, Fe, Mn, & Zn. (<i>No mineral mixes</i>). | \$ 19 |
| 3: | Moisture, Crude Protein, Ca, P, K, Mg, Na, Cu, Fe, Mn, Zn, ADF & Energy Values. (<i>No mineral mixes</i>). | \$ 24 |
| 4: | Moisture, Crude Protein, Ca, P, K, Mg, Na, Cu, Fe, Mn, Zn, ADF, Energy Values, NDF, RFV & NFC. (<i>No mineral mixes</i>). | \$ 30 |
| 5: | Moisture, Crude Protein, Ca, P, K, Mg, Na, Cu, Fe, Mn, Zn, ADF, Energy Values, NDF, RFV, NFC, Sulfur & Chlorides. DCAD calculations available upon request. (<i>No mineral mixes</i>). | \$ 40 |
| ProxEE: | Moisture, Crude Protein, Fat (Ether Extract), Ash, Crude Fiber, Ca, P, K, Mg, Na, Cu, Fe, Mn, Zn, TDN & Energy Values. (<i>No mineral mixes</i>). | \$ 40 |
| ProxAH: | Moisture, Crude Protein, Fat (Acid Hydrolysis), Ash, Crude Fiber, Ca, P, K, Mg, Na, Cu, Fe, Mn, Zn, TDN & Energy Values. (<i>No mineral mixes</i>). | \$ 75 |
| MinMix: | Mineral analysis for mineral concentrates including Crude Protein, Ca, P, K, Mg, Na, Cu, Fe, Mn, & Zn. (<i>Note: Mineral mixes must be run with the MinMix package.</i>) | \$ 40 |
| OSU Pkg: | Add Lignin, Fat, Ash, ADFIN, NDFIN & OSU Energy Values to Test 4 or 5. (<i>No mineral mixes</i>) | \$ 25 |
| CPM30 Pkg: | Add Lignin, Fat, Ash, ADFIN, NDFIN, Starch, Sugar, 30IVDMd & OSU Energy Values to Test 4 or 5. A Milk 2006 report with Schwab – Shaver Energy Values & Milk / Ton is available upon request for corn silage. (<i>No mineral mixes</i>). | \$ 60 |
| Ferm: | Fermentation Analysis. Includes Moisture, pH, Titratable Acidity, Lactic Acid, Acetic Acid, Propionic Acid, Iso-butyric Acid, Butyric Acid, Total Volatile Fatty Acids, and Ammonia. | \$ 30 |
| NSC: | Non-Structural Carbohydrates. Includes Moisture, Starch and Sugar (Water Soluble CHO) | \$ 40 |
| Sugar Profile: | Fructose, Glucose, Sucrose, Maltose, and Lactose | \$ 150 |

Equus Is For Horses (1 to 3 day turn-around)

| | | |
|------------|--|-------|
| Equus: | Moisture, DM, Crude Protein, Digestible Energy, ADF, NDF, Estimated Crude Fiber, Non-Fiber Carbohydrates, P, Ca, K, Mg, Na, Cu, Fe, Zn, & Mn. | \$ 30 |
| EquusPlus: | Moisture, DM, Crude Protein, Digestible Energy, ADF, NDF, Estimated Crude Fiber, Non-Fiber Carbs., Starch., Sugars (WSC), Non-Structural Carbs., P, Ca, K, Mg, Na, Cu, Fe, Zn, & Mn. | \$ 49 |
| EquusPro: | Moisture, DM, Crude Protein, Digestible Energy, ADF, NDF, Estimated Crude Fiber, Non-Fiber Carbs., Starch, Sugars (WSC), Non-Structural Carbs, Fat, Ash, Lignin, P, Ca, K, Mg, Na, Cu, Fe, Zn, & Mn. | \$ 89 |

Additional Feed & Forage Test Procedures (with NIR, NW, DM, Test 1, 2, 3, 4, 5, or Prox)

| | | | |
|---|--------|---|--------|
| Ammonia, Water Extractable (NH ₄) | \$ 15 | Methanol | \$ 250 |
| Aluminum (Al) | \$ 15 | Mold & Yeast Count (Mold Cnt) | \$ 30 |
| Ash (Ash) | \$ 7 | Mold Identification (Mold ID) | \$ 50 |
| Boron (B) | \$ 15 | Molybdenum (Mo) | \$ 30 |
| Brix (Brix) | \$ 40 | Nitrate, Water Extractable (NO ₃) | \$ 12 |
| Calcium (Ca) | \$ 10 | Nitrite, Water Extractable (NO ₂) | \$ 15 |
| Chlorides (Cl) | \$ 10 | Nitrogen, Non Protein (NPN) | \$ 20 |
| Cobalt (Co) | \$ 25 | Nitrogen, Total (TI N) | \$ 15 |
| Copper (Cu) | \$ 10 | Nitrogen, Urea (Urea-N) | \$ 30 |
| CS Processing Score (includes NIRd) | \$ 45 | Penn State Particle Length (M) | \$ 15 |
| Ethanol | \$ 150 | Pepsin Digestibility | \$ 50 |
| Falling Numbers | \$ 30 | pH (pH) | \$ 7 |
| Fat, Acid Hydrolysis (AHFat) | \$ 50 | Phosphorus (P) | \$ 10 |
| Fat, Ether Extract (Fat) | \$ 10 | Potassium (K) | \$ 10 |
| Fiber, Acid Detergent (ADF) | \$ 7 | Prolamin | \$ 25 |
| Fiber, Crude (CF) | \$ 10 | Protein, Crude (CP) | \$ 10 |
| Fiber, Neutral Detergent (NDF) | \$ 7 | Protein, ADF Insoluble-ADF Required (H) | \$ 7 |
| Fiber, Physically Effective NDF (peNDF) | \$ 30 | Protein, NDF Insoluble-NDF Required | \$ 7 |
| Fiber, Total Dietary | \$ 180 | Protein Dispersibility Index (PDI) | \$ 50 |
| Fluoride (F) | \$ 40 | Protein, Rumen Undegradable (RUP) | \$ 40 |
| Glycerin / Glycerol | \$ 150 | Protein Solubility (S) | \$ 7 |
| InSitu CPd (16 hr) | \$ 120 | Prussic Acid / Cyanide (HCN) | \$ 70 |
| InSitu DMd (30 or 48 hr) | \$ 85 | Salt, Calculated from Chloride | \$ 12 |
| InSitu Starch (2 or 7 hr) | \$ 120 | Selenium (Se) | \$ 38 |
| InVitro DMd (24, 30, or 48 hr) | \$ 25 | Starch, Enzyme Available (Ungelatinized) | \$ 20 |
| InVitro Starchd (2, 7, or 24 hr w/Starch) | \$ 65 | Starch, Total (Starch) | \$ 20 |
| Iodine (I) | \$ 180 | Sodium (Na) | \$ 10 |
| Iron (Fe) | \$ 10 | Sugars, Total (Ethanol Soluble CHO) | \$ 17 |
| Kansas State Micron Analysis | \$ 30 | Sugars, Total (Water Soluble CHO) | \$ 17 |
| Lignin (L) * | \$ 7 | Sulfur (S) | \$ 10 |
| Magnesium (Mg) | \$ 10 | Test Weight | \$ 10 |
| Manganese (Mn) | \$ 10 | Urea | \$ 30 |
| Melamine & Analogs by LC4422 | \$ 350 | Viscosity (Brookfield) | \$ 70 |
| Melamine by GC | \$ 250 | Zinc (Zn) | \$ 10 |

Feed & Forage Vitamin Tests (10 to 15 day turn-around)

| | | | |
|---|--------|--|--------|
| Choline | \$ 240 | Vitamin B ₉ (Folic Acid) | \$ 200 |
| Vitamin A (Beta Carotene) | \$ 175 | Vitamin B ₁₂ (Cyanocobalamin) | \$ 300 |
| Vitamin A (True, Retinol) | \$ 175 | Vitamin C (Ascorbic Acid) | \$ 160 |
| Vitamin A (Total) | \$ 200 | Vitamin D, (Calciferiols) High Level | \$ 175 |
| Vitamin B ₁ (Thiamine) | \$ 175 | Vitamin D, (Calciferiols) Low Level | \$ 260 |
| Vitamin B ₂ (Riboflavin) | \$ 175 | Vitamin E, (Tocopherol), High Level | \$ 175 |
| Vitamin B ₃ (Niacin) | \$ 175 | Vitamin E (Tocopherol), Low Level | \$ 260 |
| Vitamin B ₅ (Pantothenic Acid) | \$ 200 | Vitamin K ₃ (Menadione), High Level | \$ 175 |
| Vitamin B ₆ (Pyridoxine) | \$ 200 | Vitamin K ₃ (Menadione), Low Level | \$ 260 |
| Vitamin B ₇ (Biotin) | \$ 200 | Xanthophyll | \$ 160 |

Feed & Forage Amino Acid Tests (10 to 15 day turn-around)

| | | | |
|---|--------|---------------|--------|
| Amino Acid Profile (AAPProfile): All 18 Amino Acids listed below. | | | \$ 325 |
| Alanine | \$ 120 | Lysine | \$ 150 |
| Arginine | \$ 120 | Methionine | \$ 120 |
| Aspartic Acid | \$ 120 | Phenylalanine | \$ 120 |
| Cystine | \$ 120 | Proline | \$ 120 |
| Glutamic Acid | \$ 120 | Serine | \$ 120 |
| Glycine | \$ 120 | Threonine | \$ 120 |
| Histidine | \$ 120 | Tryptophan | \$ 150 |
| Isoleucine | \$ 120 | Tyrosine | \$ 120 |
| Leucine | \$ 120 | Valine | \$ 120 |

Feed & Forage Mycotoxin Tests (1 to 3 day turn-around)

| <u>Mycotoxin</u> | <u>Method</u> | <u>MDL</u> | <u>1 - 3</u> | <u>4 - 6</u> | <u>7 - 10</u> | <u>11 +</u> |
|--------------------|---------------|------------|--------------|--------------|---------------|-------------|
| Aflatoxin (A) | ELISA | 1.7 ppb | \$ 32 | \$ 29 | \$ 27 | \$ 26 |
| Citrinin (C) | ELISA | 15.0 ppb | \$ 34 | \$ 31 | \$ 29 | \$ 28 |
| Fumonisin (F) | ELISA | 0.1 ppm | \$ 34 | \$ 31 | \$ 29 | \$ 28 |
| Ochratoxin A (O) | ELISA | 5.0 ppb | \$ 34 | \$ 31 | \$ 29 | \$ 28 |
| T-2 Toxin (T2) | ELISA | 50.0 ppb | \$ 34 | \$ 31 | \$ 29 | \$ 28 |
| Vomitoxin, DON (V) | ELISA | 0.2 ppm | \$ 34 | \$ 31 | \$ 29 | \$ 28 |
| Zearalenone (Z) | ELISA | 50.0 ppb | \$ 34 | \$ 31 | \$ 29 | \$ 28 |
| A, T2, V, Z Screen | ELISA | See Above | \$ 127 | \$ 115 | \$ 108 | \$ 104 |

Feed & Forage Mycotoxin Tests (24 Hour Rush turn-around)

| <u>Mycotoxin</u> | <u>Method</u> | <u>MDL</u> | <u>1 - 3</u> | <u>4 - 6</u> | <u>7 - 10</u> | <u>11 +</u> |
|--------------------|---------------|------------|--------------|--------------|---------------|-------------|
| Aflatoxin (A) | ELISA | 1.7 ppb | \$ 132 | \$ 63 | \$ 46 | \$ 36 |
| Citrinin (C) | ELISA | 15.0 ppb | \$ 134 | \$ 65 | \$ 48 | \$ 38 |
| Fumonisin (F) | ELISA | 0.1 ppm | \$ 134 | \$ 65 | \$ 48 | \$ 38 |
| Ochratoxin A (O) | ELISA | 5.0 ppb | \$ 134 | \$ 65 | \$ 48 | \$ 38 |
| T-2 Toxin (T2) | ELISA | 50.0 ppb | \$ 134 | \$ 65 | \$ 48 | \$ 38 |
| Vomitoxin, DON (V) | ELISA | 0.2 ppm | \$ 134 | \$ 65 | \$ 48 | \$ 38 |
| Zearalenone (Z) | ELISA | 50.0 ppb | \$ 134 | \$ 65 | \$ 48 | \$ 38 |
| A, T2, V, Z Screen | ELISA | See Above | \$ 527 | \$ 248 | \$ 185 | \$ 140 |

Feed & Forage Mycotoxin Tests (3 to 5 day turn-around)

| <u>Mycotoxin</u> | <u>Method</u> | <u>MDL</u> | <u>1 - 3</u> | <u>4 - 6</u> | <u>7 - 10</u> | <u>11 +</u> |
|---|---------------|------------|--------------|--------------|---------------|-------------|
| Aflatoxin B ₁ G ₁ B ₂ G ₁ | TLC/HPLC | 5.0 ppb | \$ 104 | \$ 92 | \$ 83 | \$ 80 |
| Citrinin (C) | TLC/HPLC | 50.0 ppb | \$ 104 | \$ 92 | \$ 83 | \$ 80 |
| Fumonisin B ₁ B ₂ B ₃ | TLC/HPLC | 0.2 ppm | \$ 104 | \$ 92 | \$ 83 | \$ 80 |
| Ochratoxin A (O) | TLC/HPLC | 10.0 ppb | \$ 104 | \$ 92 | \$ 83 | \$ 80 |
| T-2 Toxin (T2) | TLC/HPLC | 100.0 ppb | \$ 104 | \$ 92 | \$ 83 | \$ 80 |
| Vomitoxin, DON (V) | TLC/HPLC | 0.4 ppm | \$ 104 | \$ 92 | \$ 83 | \$ 80 |
| Zearalenone (Z) | TLC/HPLC | 100.0 ppb | \$ 104 | \$ 92 | \$ 83 | \$ 80 |
| A, T2, V, Z Screen | TLC/HPLC | See Above | \$ 310 | \$ 280 | \$ 255 | \$ 245 |
| A, F, O, T2, Z Screen | TLC/HPLC | See Above | \$ 325 | \$ 290 | \$ 265 | \$ 255 |
| A, C, O, T2, Z Screen | TLC/HPLC | See Above | \$ 350 | \$ 315 | \$ 290 | \$ 280 |
| Toxin Binder Efficiency | HPLC Study | | \$ 475 | \$ 425 | \$ 390 | \$ 375 |

Feed & Forage Micro-Biology Tests (10 to 15 day turn-around)

| | | | |
|---------------------------------------|--------|---|--------|
| Clostridium perfringens, qualitative | \$ 35 | Iron Bacteria, qualitative | \$ 45 |
| Clostridium perfringens, quantitative | \$ 100 | Listeria, qualitative | \$ 35 |
| Coliform-Fecal, qualitative | \$ 50 | Listeria, quantitative | \$ 50 |
| Coliform-Fecal, quantitative | \$ 200 | Plate Count, Total | \$ 60 |
| Coliform-Total, quantitative | \$ 45 | Plate Count ID (Per Species identified) | \$ 60 |
| Cryptosporidium, quantitative | \$ 475 | Pseudomonas Bacteria, quantitative | \$ 45 |
| E. coli, quantitative | \$ 50 | Salmonella, qualitative | \$ 45 |
| E. coli 0157:H7, quantitative | \$ 75 | Salmonella, quantitative | \$ 100 |
| Endophyte, Ergovaline | \$ 75 | Shigella | \$ 50 |
| Endophyte, Lolitrem B | \$ 75 | Staphylococcus | \$ 35 |
| Enterobacter | \$ 50 | Streptococcus-Fecal, quantitative | \$ 85 |
| Gossypol in Cottonseed | \$ 120 | Streptococcus-Total | \$ 85 |
| Gram Negative Bacteria | \$ 35 | Sulfate-Reducing Bacteria, qualitative | \$ 45 |
| Heterotrophic Plate Count | \$ 45 | | |

Fat & Oil Tests (10 to 15 day turn-around)

| | | | |
|---|--|---------------------------------|--------|
| MIU: | Moisture by Distillation, Insoluble Impurities, & Unsaponifiable Matter. | \$ 100 | |
| Antioxidant Profile: | BHA,BHT, TBHQ, Propyl Gallate | \$ 250 | |
| Active Oxygen Method (A.O.M. Stability) | \$ 70 | Neutral Oil Loss (NOL) | \$ 100 |
| Butylated Hydroxyanisol (BHA) | \$ 150 | Omega Fatty Acids-Total | \$ 200 |
| Butylated Hydroxytoluene (BHT) | \$ 150 | Omega 3 Fatty Acid (DHA 20:5) | \$ 250 |
| Fatty Acid Profile (Includes EE Fat) | \$ 150 | Omega 6 Fatty Acid (EHA 22:6) | \$ 250 |
| Free Fatty Acids | \$ 50 | Omega 9 Fatty Acid | \$ 200 |
| Glycerol / Glycerine | \$ 100 | Peroxide Value | \$ 50 |
| Hydroxyl Value | \$ 90 | Polyethelene | \$ 120 |
| Insoluble Impurities | \$ 50 | Saponification Value | \$ 80 |
| Iodine Value | \$ 80 | Sulfur by X-Ray | \$ 100 |
| Linoleic Acid | \$ 170 | Tert-Butylhydroquinone (TBHQ) | \$ 150 |
| Melting Point | \$ 50 | Thiobarbituric Acid Value (TBA) | \$ 150 |
| Methanol | \$ 250 | Total Fatty Acids (TFA) | \$ 85 |
| Moisture by Distillation | \$ 50 | Trans Fatty Acids | \$ 200 |
| Mono, Di, & Triglycerides | \$ 200 | Unsaponifiable Matter | \$ 50 |

Drug Testing

Animal Health Product Tests (10 to 15 day turn-around)

| | | | |
|-------------------------------------|--------|-------------------------------------|--------|
| Ampicillin (AMP) | \$ 495 | Nitrofurazone (NFZ) | \$ 190 |
| Amprolium | \$ 190 | Ormetoprim | \$ ASK |
| Apramycin | \$ 220 | Oxytetracycline (OTC) | \$ 190 |
| Arsenic Acid (Pro-Gen) | \$ 190 | Penicillin | \$ 190 |
| Bacitracin (BAC) (BMD) | \$ 350 | Phytase | \$ 140 |
| Bamermycin | \$ 280 | Piperazine | \$ 190 |
| Carbadox | \$ 190 | Poloxalene | \$ 350 |
| Cephapirin (CEPH) | \$ ASK | Pyrantel Tartrate (Continuex) | \$ 190 |
| Chloramphenicol | \$ ASK | Ractopamine (Paylean) | \$ 275 |
| Chlortetracycline (CTC) | \$ 190 | Robenidine | \$ 170 |
| Ciprofloxacin (CIP) | \$ ASK | Rumensin (Coban, Monensin) | \$ 190 |
| Cloxacillin (CLOX) | \$ ASK | Salinomycin | \$ 190 |
| Coban (Monensin, Rumensin) | \$ 190 | Sarafloxacin (SAR) | \$ ASK |
| Decoquinatate (Deccox) | \$ 250 | Semduramicin | \$ 210 |
| Doxycycline (DC) | \$ ASK | Stenorel (Halofuginone) | \$ 220 |
| Emanmectin (Benzoate) | \$ 400 | Streptomycin | \$ 170 |
| Erythromycin | \$ 250 | Sulfa Residue | \$ 200 |
| Fenbendazole (Panacur) (Safeguard) | \$ 400 | Sulfachloropyridazine (SPC) | \$ ASK |
| Flavomycin | \$ 290 | Sulfadiazine (SDZ) | \$ 495 |
| Florfenicol | \$ 300 | Sulfadimethoxine (SDM) | \$ 250 |
| Flunixin-Flunixinhydroxide (FLU) | \$ ASK | Sulfamerazine (SMR) | \$ 250 |
| Gentamycin | \$ ASK | Sulfamethazine (SMZ) | \$ 190 |
| Laidlomycin | \$ 440 | Sulfaquinoxaline (SQX) | \$ ASK |
| Lasalocid (Avatech, BovaTech) | \$ 360 | Sulfathiazole (STZ) | \$ 190 |
| Lincomycin | \$ 300 | Tetracycline (TC) | \$ ASK |
| Monensin (Coban, Rumensin) | \$ 190 | Thiabendazole (THBZ) | \$ ASK |
| Morantel | \$ 360 | Tilmicosin in type B Fd (> 600 ppm) | \$1450 |
| Narasin | \$ 200 | Tilmicosin in type C Fd (< 600 ppm) | \$ 320 |
| Neomycin Sulfate | \$ 190 | Tulathromycin | \$ ASK |
| Nicarbazin | \$ 295 | Tylosin (TYL) | \$ 190 |
| 3-Nitro-4-Hydroxyphenylarsonic Acid | \$ 120 | Virginiamycin (VIR) | \$ 170 |

* * * At least 150 grams of dry matter is required and must be submitted with an estimated detection level.

Agronomic Testing Services

Soil & Greenhouse Media Test Packages (2 to 7 day turn-around)

| | | <u>1 - 3</u> | <u>4 - 6</u> | <u>7 - 10</u> | <u>11 +</u> | <u>Dealer</u> |
|-------------|---|--------------|--------------|---------------|-------------|---------------|
| S1: | pH, buffer pH, P, K, Ca, Mg, Na, S, CEC, % Base & Fertility Rx | \$ 16 | \$ 12 | \$ 10 | \$ 9 | \$ 7 |
| S2: | Test S1 <i>plus</i> % Organic Matter | \$ 18 | \$ 14 | \$ 12 | \$ 11 | \$ 9 |
| S3: | Test S1 <i>plus</i> % Organic Matter, B, Mn & Zn | \$ 19 | \$ 17 | \$ 16 | \$ 15 | \$ 13 |
| S4: | Test S1 <i>plus</i> % Organic Matter, B, Mn, Zn, Cu, & Fe | \$ 20 | \$ 18 | \$ 17 | \$ 16 | \$ 14 |
| PSNT: | Pre-Sidedress Soil Nitrate Level & Rx for Nitrogen credit | \$ 15 | \$ 13 | \$ 11 | \$ 10 | \$ 10 |
| AvailableN: | Total Available Nitrogen, includes NO ₃ & NH ₄ | \$ 28 | \$ 23 | \$ 21 | \$ 20 | \$ 20 |
| SatPaste: | pH, Soluble Salts, NO ₃ -N, P, K, Ca, Mg, Na, Cl, Cu, Fe, Mn, & Zn | \$ 44 | \$ 39 | \$ 35 | \$ 32 | \$ 32 |

Manure / Compost / Sludge Test Packages (4 to 7 day turn-around)

| | | | | | | |
|----------|--|--|--|--|--|-------|
| M1: | Moisture, Total N, NH ₄ -N, P ₂ O ₅ , & K ₂ O | | | | | \$ 30 |
| M2: | Moisture, Total N, NH ₄ -N, P ₂ O ₅ , K ₂ O, Ca, Mg, Na, & Nutrient Dollar Value Calculation (Using prevailing N-P-K Fertilizer Costs) | | | | | \$ 40 |
| M3: | Moisture, Total N, NH ₄ -N, P ₂ O ₅ , & K ₂ O, Ca, Mg, Na, Nutrient Dollar Value Calculation (Using prevailing N-P-K Fertilizer Costs), Cu, Fe, Mn, & Zn | | | | | \$ 50 |
| AppCalc: | Maximum Manure or Sludge Application Rate Based on Limiting Nutrient, Crop Nutrient Uptake, & Tri-State Recommended Fertility Rates | | | | | \$ 2 |

Plant Tissue Test Packages (1 to 7 day turn-around)

| | | | | | | |
|-----|--|--|--|--|--|-------|
| T1: | N, P, K, Ca & Mg, Cu, Fe, Mn, & Zn | | | | | \$ 25 |
| T2: | N, P, K, Ca, Mg, S, B, Cu, Fe, Mn & Zn | | | | | \$ 45 |

Water Test Packages (5 to 10 day turn-around)

| | | | | | | |
|-----|---|--|--|--|--|-------|
| W1: | pH, Alkalinity, EC, NO ₃ -N, P, K, Ca, Mg, SO ₄ -S, B, Cu, Fe, Mn, Zn, Cl, & Na (Greenhouse Water) | | | | | \$ 65 |
| W2: | pH, Hardness, Salt Concentration, NO ₃ -N, P, K, Ca, Mg, SO ₄ -S, Cl, Na, CO ₃ , HCO ₃ , B, Cu, Fe, Mn, Zn & Al (Livestock Water) | | | | | \$ 65 |
| W3: | NO ₃ -N, P, K, Ca, Mg, SO ₄ -S, Cl, Na, B, Cu, Fe, Mn, Zn, Al, pH, EC, Hardness, CO ₃ , HCO ₃ , Salt Concentration & SAR (Irrigation Water) | | | | | \$ 65 |

Fertilizer & Lime Test Packages (1 to 7 day turn-around)

| | | | | | | |
|------|---|--|--|--|--|--------|
| DF1: | Total N, Available P ₂ O ₅ , Soluble K ₂ O (Dry Fertilizer) | | | | | \$ 60 |
| DF2: | Total N, Available P ₂ O ₅ , Soluble K ₂ O, Ca, Mg, S, Cu, Fe, Mn, Zn & Na (Dry Fertilizer) | | | | | \$ 120 |
| LF1: | Total N, pH & Specific Gravity (Liquid Fertilizer) | | | | | \$ 25 |
| LF2: | Total N, Available P ₂ O ₅ , Ortho P ₂ O ₅ , Poly P ₂ O ₅ , pH and Specific Gravity (Liquid Fertilizer) | | | | | \$ 42 |
| LF3: | Total N, Available P ₂ O ₅ , Soluble K ₂ O, pH & Specific Gravity (Liquid Fertilizer) | | | | | \$ 50 |
| LF4: | Ammonical N, Nitrate N, Total N, Available P ₂ O ₅ , Soluble K ₂ O, pH, Specific Gravity, Conductivity, Ca, Mg, S, Co, Cu, Fe, Mn, Mo, Zn, Al & Na (Liquid Fertilizer) | | | | | \$ 120 |
| L1: | Particle Size Distribution: 8, 20, 60, 100 mesh sieves (Lime) | | | | | \$ 25 |
| L2: | Moisture, Ca & Mg (Lime) | | | | | \$ 26 |
| L3: | Moisture, Ca, Mg & NV (Lime) | | | | | \$ 50 |
| L4: | Moisture, Ca, Mg, NV, ECCE & Particle Size Distribution (Lime) | | | | | \$ 60 |
| G1: | Moisture, Ca, S & Purity (Gypsum) | | | | | \$ 60 |

Additional Agronomic Test Procedures (7 to 10 day turn-around)
 (May be requested w/ S1 – S2, SME, M1 – M3, T1 – T2, W1 – W3, DF1 - DF2, LF1 - LF4, L1 - L4 or G1)

| | <u>Soil</u> | <u>Sludge/ Manure</u> | <u>Plant Tissue</u> | <u>Water</u> | <u>Fert & Lime</u> |
|---|-------------|---------------------------|-------------------------|--------------|----------------------------|
| Aluminum (Al) | \$ 10 | \$ 20 | \$ 20 | \$ 20 | \$ 15 * |
| Ash | \$ 10 | \$ 10 | \$ 10 | ----- | \$ 15 |
| Bicarbonate (HCO ₃) | \$ 15 | ----- | \$ 15 | \$ 15 | \$ 15 |
| BioChemical Oxygen Demand (BOD) | ----- | ----- | ----- | \$ 48 | ----- |
| Boron (B) | \$ 15 | \$ 20 | \$ 20 | \$ 20 | \$ 20 * |
| BTUs (British Thermal Units) | ----- | \$175 | \$175 | ----- | ----- |
| Bulk Density (lbs / ft ³) | \$ 25 | ----- | ----- | ----- | \$ 25 |
| Calcium (Ca) | \$ 10 | \$ 10 | \$ 10 | \$ 10 | \$ 15 * |
| Calcium Carbonate Equivalent (CCE) | \$ 15 | \$ 20 | ----- | ----- | \$ 20 |
| Carbon (C) | \$ 15 | \$ 20 | \$ 20 | ----- | \$ 25 |
| Carbon : Nitrogen Ratio | \$ 30 | \$ 30 | \$ 30 | ----- | \$ 35 |
| Carbonate (CO ₃) | ----- | ----- | ----- | \$ 15 | ----- |
| Chemical Oxygen Demand (COD) | ----- | ----- | ----- | \$ 48 | ----- |
| Chloride (Cl) | \$ 10 | \$ 10 | \$ 10 | \$ 10 | \$ 20 |
| Cobalt (Co) | \$ 16 | \$ 35 | \$ 35 | \$ 35 | \$ 35 * |
| Conductivity / Soluble Salts (EC) | \$ 10 | \$ 15 | ----- | \$ 15 | \$ 15 * |
| Copper (Cu) | \$ 15 | \$ 15 | \$ 15 | \$ 15 | \$ 15 * |
| Dissolved Oxygen (DO) | ----- | ----- | ----- | \$ 25 | ----- |
| Fluoride (F) | ----- | \$ 15 | \$ 15 | \$ 15 | \$ 25 |
| Formeldehyde | ----- | ----- | ----- | ----- | \$ 50 |
| Free Acid | ----- | ----- | ----- | ----- | \$ 50 |
| Hardness | ----- | ----- | ----- | \$ 20 | ----- |
| Iron (Fe) | \$ 10 | \$ 10 | \$ 10 | \$ 10 | \$ 15 * |
| Magnesium (Mg) | \$ 10 | \$ 10 | \$ 10 | \$ 10 | \$ 15 * |
| Manganese (Mn) | \$ 10 | \$ 10 | \$ 10 | \$ 10 | \$ 15 * |
| Moisture, Oven (DM) | \$ 9 | \$ 10 | \$ 9 | ----- | \$ 9 |
| Molybdenum (Mo) | \$ 20 | \$ 35 | \$ 35 | \$ 35 | \$ 35 |
| Nematode, Complete | \$ 75 | ----- | ----- | ----- | ----- |
| Nematode, Soybean Cyst (SCN) or Sugar Beet (SBN) | \$ 50 | ----- | ----- | ----- | ----- |
| Nitrogen-Ammonium (NH ₄ ⁺) | \$ 15 | \$ 15 | \$ 15 | \$ 15 | \$ 15 |
| Nitrogen-Nitrate (NO ₃ ⁻) | \$ 15 | \$ 15 | \$ 15 | \$ 15 | \$ 15 |
| Nitrogen-Nitrite (NO ₂) | ----- | \$ 15 | \$ 15 | \$ 15 | \$ 15 |
| Nitrogen-Slow Release (N) | ----- | ----- | ----- | ----- | \$ 40 |
| Nitrogen-Total (N) | \$ 15 | \$ 15 | \$ 15 | \$ 15 | \$ 15 |
| Nitrogen-Water Soluble / Insoluble (N) | ----- | \$ 35 | ----- | ----- | \$ 35 |
| Organic Matter | \$ 7 | \$ 10 | ----- | ----- | ----- |
| Particle Size (% sand, silt, clay) | \$ 50 | ----- | ----- | ----- | ----- |
| Particle Size (each screen) | \$ 12 | \$ 20 | ----- | ----- | \$ 10 |
| pH | \$ 7 | \$ 7 | \$ 10 | \$ 7 | \$ 7 |
| Phosphate (P ₂ O ₅) | ----- | \$ 10 | ----- | ----- | \$ 15 |
| Phosphate-Ortho & Poly (P ₂ O ₅) | ----- | ----- | ----- | ----- | \$ 25 |
| Phosphorus (P) | \$ 10 | ----- | \$ 10 | \$ 10 | \$ 15 |
| Potassium (K) | \$ 10 | ----- | \$ 10 | \$ 10 | \$ 15 |
| Potassium Oxide (K ₂ O) | ----- | \$ 10 | ----- | ----- | \$ 20 |
| Salt Index | ----- | ----- | ----- | ----- | \$ 15 |
| Selenium (Se) | \$ 38 | \$ 38 | \$ 38 | \$ 38 | \$ 38 |
| Size Guide Number (SGN) | ----- | ----- | ----- | ----- | \$ 50 |
| Specific Gravity | ----- | \$ 10 | ----- | \$ 10 | \$ 10 |
| Sodium (Na) | \$ 10 | \$ 10 | \$ 10 | \$ 10 | \$ 18 * |
| Solvita Biological Respiration Index | \$ 75 | \$ 75 | ----- | ----- | ----- |
| Starch, Total | ----- | \$ 20 | \$ 20 | ----- | ----- |
| Sugars, Total | ----- | \$ 17 | \$ 17 | ----- | ----- |
| Sulfur (S) | \$ 10 | \$ 10 | \$ 10 | \$ 10 | \$ 20 * |
| Sulfur, Sulfate (SO ₄ -S) | \$ 10 | \$ 20 | \$ 12 | \$ 10 | \$ 30 * |
| Total Dissolved Solids / Salt Conc. (TDS) | ----- | ----- | ----- | \$ 15 | ----- |
| Total Organic Carbon (TOC) | \$ 30 | ----- | ----- | \$ 50 | ----- |
| Total Solids | ----- | ----- | ----- | \$ 20 | ----- |
| Total Suspended Solids (TSS) | ----- | ----- | ----- | \$ 20 | ----- |
| Total Volatile Solids (TVS) | ----- | \$ 28 | ----- | \$ 28 | ----- |
| Zinc (Zn) | \$ 10 | \$ 10 | \$ 10 | \$ 10 | \$ 15 * |

* The Cost is \$35 per element if concentration exceeds 5.0%.

Environmental Testing Services

Heavy Metal Scans (10 to 15 day turn-around)

| | |
|--|--------|
| ICP Scan # 1, Not for Low Detection Level - Aluminum, Beryllium, Boron, Calcium, Cobalt, Copper, Iron, Magnesium, Manganese, Molybdenum, Phosphorus, Potassium, Sodium, Sulfur, & Zinc. | \$ 275 |
| ICP Scan # 2, Not for Low Detection Level - Arsenic, Barium, Cadmium, Chromium, Lead, Nickel, & Selenium. | \$ 110 |
| ICP Scan # 3, Not for Low Detection Level - Cadmium, Chromium, Copper, Lead, Nickel, Silver, & Zinc. | \$ 120 |
| ICP Scan # 6, For Low Detection Level - Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Nickel, & Selenium. | \$ 300 |
| Resource Conservation & Recovery Act (RCRA) Metals - Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, & Silver. | \$ 325 |
| Priority Pollutant (PP) Metals - Antimony, Arsenic, Beryllium, Cadmium, Chromium, Copper, Lead, Mercury, Nickel, Selenium, Silver, Thallium, & Zinc. | \$ 450 |
| Target Analyte List (TAL) Metals - Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, & Zinc | \$ 475 |
| CFR Part 503 Metals, Not for Low Detection Level - Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, and Zinc. | \$ 260 |
| MCL (IOC) Package, For Low Detection Level - Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Fluoride, Mercury, Nickel, Selenium, & Thallium. | \$ 420 |

Metals (10 to 15 day turn-around)

| | | | |
|------------------------|-------|----------------------------|--------|
| Aluminum (Al) | \$ 30 | Mercury (Hg) | \$ 80 |
| Antimony (Sb) | \$ 30 | Mercury (Hg) LDL 1631 | \$ 240 |
| Arsenic (As) | \$ 30 | Molybdenum (Mo) | \$ 30 |
| Barium (Ba) | \$ 30 | Nickel (Ni) | \$ 30 |
| Beryllium (Be) | \$ 30 | Phosphate (PO4) | \$ 30 |
| Boron (B) | \$ 30 | Phosphate-Ortho as P | \$ 40 |
| Cadmium (Cd) | \$ 30 | Phosphorus-Dissolved (P) | \$ 40 |
| Calcium (Ca) | \$ 30 | Phosphorus-Total (P) | \$ 30 |
| Chromium (Cr) | \$ 30 | Potassium (K) | \$ 30 |
| Chromium, Hexavalent | \$ 50 | Selenium (Se) | \$ 70 |
| Cobalt (Co) | \$ 30 | Silica (SiO ₂) | \$ 50 |
| Copper (Cu) | \$ 30 | Silicon (Si) | \$ 70 |
| Iron (Fe) | \$ 15 | Silver (Ag) | \$ 40 |
| Iron-Soluble (Fe) | \$ 40 | Sodium (Na) | \$ 30 |
| Lead (Pb) | \$ 30 | Strontium (Sr) | \$ 30 |
| Lead & Copper Rule | \$ 70 | Sulfur-Total (S) | \$ 30 |
| Lead-Soluble (Pb) | \$ 40 | Thallium (Tl) | \$ 30 |
| Lithium (Li) | \$ 30 | Tin (Sn) | \$ 30 |
| Magnesium (Mg) | \$ 30 | Titanium (Ti) | \$ 30 |
| Magnesium-Soluble (Mg) | \$ 40 | Vanadium (V) | \$ 30 |
| Manganese (Mn) | \$ 30 | Zinc (Zn) | \$ 30 |
| Manganese-Soluble (Mn) | \$ 40 | Zinc-Soluble (Zn) | \$ 40 |

Environmental Testing

Volatile Organics (10 to 15 day turn-around)

EPA 524.2 Drinking Water Volatiles **\$ 300**

Regulated VOC's: Benzene, Carbon Tetrachloride, o-Dichlorobenzene, p-Dichlorobenzene, 1,2-Dichloroethane, cis-1,2-Dichloroethylene, 1,1-Dichloroethylene, trans-1,2-Dichloroethylene, Dichloromethane, 1,2-Dichloropropane, Ethylbenzene, Monochlorobenzene, Styrene, Tetrachloroethylene, Toluene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethylene, Vinyl Chloride, and Xylenes (total).

Unregulated VOC's: Bromobenzene, Bromodichloromethane, Bromoform, Bromomethane, Chlorodibromomethane, Chloroethane, Chloroform, Chloromethane, o-Chlorotoluene, p-Chlorotoluene, Dibromomethane, m-Dichlorobenzene, 1,1-Dichloroethane, 1,3-Dichloropropane, 2,2-Dichloropropane, 1,3-Dichloropropene, 1,1-Dichloropropene, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, 1,2,3-Trichloropropane.

Discretionary VOC's: Bromochloromethane, n-Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, Dichlorodifluoromethane, Hexachlorobutadiene, Isopropylbenzene, p-Isopropyl toluene, Naphthalene, n-Propylbenzene, 1,2,3-Trichlorobenzene, Trichlorofluoromethane, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Trichlorofluoromethane, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, MTBE.

EPA 8260 Groundwater VOA Volatiles **Water, Soil, or Sediments: \$ 500**

Acetone, Acrolein, Acrylonitrile, Benzene, Bromodichloromethane, Bromoform, Bromomethane, 2-Butanone, Carbon Disulfide, Carbon Tetrachloride, Chlorobenzene, Chlorodibromomethane, Chloroethane, 2-Chloroethyl Vinyl Ether, Chloroform, Chloromethane, Dibromomethane, 1,4-Dichlorobutene (total), Dichlorodifluoromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethene (total), 1,2-Dichloropropane, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, Ethanol, Ethylbenzene, Ethyl Methacrylate, 2-Hexanone, Isomethane, Methylene Chloride, 4-Methyl-2-Pentanone, Styrene, 1,1,2,2-Tetrachloroethane, Tetrachloroethene, Toluene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethene, Trichlorofluoromethane, 1,2,3-Trichloropropane, Vinyl Acetate, Vinyl Chloride, and Xylenes (total).

EPA Method 624 – Purgeable VOC's **Waste Water: \$ 400**

Benzene, Bromobenzene, Bromochloromethane, Bromoform, Bromodichloromethane, Bromomethane, n-Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, Carbon Tetrachloride, Chlorobenzene, Chlorodibromomethane, Chloroethane, Chloroform, Chloromethane, 2-Chlorotoluene, 4-Chlorotoluene, 1,2-Dibromo-3-Chloropropane, 1,2-Dichlorobenzene, 1,4-Dichlorobenzene, Dichlorodifluoromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethene, cis-1,2-Dichloropropane, 1,3-Dichloropropane, 2,2-Dichloropropane, 1,1-Dichloropropene, cis-1,3-Dichloropropane, trans-1,3-Dichloropropene, Ethylbenzene, Hexachlorobutadiene, Isopropylbenzene, p-Isopropyltoluene, Methylene Chloride, Naphthalene, n-Propylbenzene, Styrene, 1,1,2,2-Tetrachloroethane, 1,1,1,2-Tetrachloroethane, Tetrachloroethene, Toluene, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethene, Trichlorofluoromethane, 1,2,3-Trichloropropane, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Vinyl Chloride, o-Xylene, m-Xylene, and p-Xylene.

Semi-Volatile Organics (10 to 15 day turn-around)

EPA 525.2 Group A – Alachlor, Atrazine, Butachlor, Metalachlor, Metribuzin, Propachlor, & Simazine **Water: \$ 290**

EPA 531.1 Group B – Aldicarb, Aldicarb Sulfone, Aldicarb Sulfoxide, Carbaryl, Carbofuran, 3-Hydroxycarbofuran, Methomyl, Oxamyl (Vydate) **Water: \$ 375**

EPA 508 Group C/K – Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Toxaphene, & Polychlorinated Biphenyls (PCB's) **Water: \$ 260**

EPA 515.1 Group E – Dalapon, Dicamba, 2,4,D, Dinoseb, Pentachlorophenol, Pichloram, & 2,4,5-TP **Water: \$ 320**

EPA 504.1 Group F – Dibromochloropropane (DBCP) & Ethylenedibromide (EDB) **Water: \$ 200**

EPA 525.2 Group G – Di(2-Ethylhexyl) Adipate, & Di(2-Ethylhexyl) phthalate **Water: \$ 290**

EPA 549.1 Group H – Diquat **Water: \$ 290**

EPA 548.1 Group I – Endothall **Water: \$ 320**

EPA 547 Group J – Glyphosate (Roundup) **Water: \$ 290**

EPA 508A Group K- Polychlorinated Biphenyls (PCB's) **Water: \$ 240**

EPA 1613 Group L – 2,3,4,8-TCDD (Dioxin) **Water: \$ 800**

Environmental Testing

Semi-Volatile Organics (10 to 15 day turn-around)

Base / Neutral / Acid / Extractable Semi-Volatiles (EPA Method 625 & 8270) - Water: \$ 800

1,2,4-Trichlorobenzene, 1,2-Dichlorobenzene, 1,2-Diphenylhydrazine, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 2,4,6-Trichlorophenol, 2,4-Dichlorophenol, 2,4-Dimethylphenol, 2,4-Dinitrophenol, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, 2-Chloronaphthalene, 2-Chlorophenol, 2-Nitrophenol, 3,3-Dichlorobenzidine, 4,6-Dinitro-o-cresol, 2-Methyl-4,6-Dinitrophenol, Naphthalene, Nitrobenzene, 4-Bromophenyl Phenyl Ether, 4-Chloro-3-Methyl Phenol, 4-Chlorophenyl Phenyl Ether, 4-Nitrophenol, Acenaphthene, Acenaphthylene, Anthracene, Benzidine, Benzo (a) Anthracene, Benzo (a) Pyrene, Benzo (ghi) Perylene, Benzo (k) Fluoranthene, Bis (2-Chloroethoxy) Methane, Bis (2-Chloroethyl) ether, Bis (2-Chloroisopropyl) Ether, Bis (2-Ethylhexyl) Phthalate, Butyl Benzyl Phthalate, Chrysene, Dibenzo (a,h) Anthracene, Diethyl Phthalate, Dimethyl Phthalate, Di-N-Butyl Phthalate, Di-N-Octyl Phthalate, Fluoranthene, Fluorene, Hexachlorobenzene, Hexachlorobutadiene, Hexachlorocyclopentadiene, Hexachloroethane, Ideno (1,2,3-ch) Pyrene, Isophorone, N-Nitrosodimethylamine, N-Nitrosodi-N-Propylamine, N-Nitrosodiphenylamine, Pentachlorophenol, Phenanthrene, Phenol, and Pyrene.

Polynuclear Aromatic Hydrocarbon Semi-Volatiles (Methods EPA 610, 8100, 8270, & 8310) Water: \$ 400

Acenaphthylene, Anthracene, Benzo (a) Anthracene, Benzo (a) Pyrene, Benzo (b) Fluoranthene, Benzo (ghi) Perylene, Benzo (k) Fluoranthene, Chrysene, Dibenzo (a,h) Anthracene, Fluoranthene, Fluorene, Indeno (1,2,3-cd), Naphthalene, Phenanthrene, & Pyrene.

Various Environmental Tests (10 to 15 day turn-around)

| | | | |
|---|----------|--------------------------------------|----------|
| Alkalinity, Bicarbonate | \$ 28 | Oil & Grease | \$ 85 |
| Alkalinity, Carbonate | \$ 28 | Organic Matter (OM) | \$ 35 |
| Alkalinity, Total | \$ 50 | Paint Filter Test | \$ 32 |
| Asbestos (Plm Bulk) | \$ 76 | PCB's, Total | \$ 200 |
| Ash | \$ 50 | PCB Conigers (1668A) | \$ 1,800 |
| BOD (BioChemical Oxygen Demand) | \$ 56 | pH | \$ 28 |
| BOD Soluble | \$ 60 | Phenolics, Total | \$ 100 |
| Bromide (EPA 300.1) | \$ 85 | Phosphorus, Dissolved Reactive Ortho | \$ 50 |
| Bromate (EPA 300.1) | \$ 210 | Phosphorus, Water Soluble | \$ 25 |
| BTEX | \$ 200 | Potassium, Water Soluble | \$ 25 |
| BTEX & MTBE | \$ 240 | Redox Potential in Soils | \$ 60 |
| BTU's (British Thermal Units) | \$ 175 | Resistivity @ 75 degress F | \$ 25 |
| Carbonaceous BOD | \$ 56 | Solids, Total | \$ 20 |
| Carbonaceous BOD, Soluble | \$ 60 | Solids, Total Disolved (TDS) | \$ 20 |
| Chloride | \$ 40 | Solids, Total Suspended (TSS) | \$ 20 |
| Chloride, Total Residual | \$ 22 | Solids, Total Volatile (TVS) | \$ 28 |
| COD (Chemical Oxygen Demand) | \$ 56 | Specific Gravity | \$ 45 |
| Conductivity / Reactivity | \$ 24 | Sulfate (SO ₄) | \$ 50 |
| Corrosivity, Langelier Index | \$ 200 | Sulfide (H ₂ S) | \$ 50 |
| Cyanide (HCN), Free or Amendable | \$ 80 | Sulfite (HO ₃) | \$ 100 |
| Cyanide (HCN), Total | \$ 80 | TPH-(8015) c4-34 | \$ 550 |
| Dioxin (2,3,7,8,-TCDD) | \$ 800 | TPH-(8015M) Gasoline Range Organics | \$ 135 |
| Dioxins / Furans (1613B) | \$ 1,900 | TPH-(8015M) Diesel Range Organics | \$ 135 |
| Dissolved Organic Carbon (DOC) | \$ 100 | TPH-(8015M) Lube Range Organics | \$ 135 |
| Dissolved Oxygen (DO) | \$ 25 | TPH-Hexane Extractables (1664) | \$ 185 |
| Extractable Organic Halides (EOX) | \$ 200 | TCLP, Acid Compounds | \$ 285 |
| Flashpoint | \$ 70 | TCLP, Base Neutral Compounds | \$ 285 |
| Fluoride | \$ 45 | TCLP, Bottle Extraction | \$ 150 |
| Haloacetic Acids (HAA5) | \$ 395 | TCLP, ZHE Volatile Extraction | \$ 150 |
| Halogens, Total (TOX) | \$ 220 | TCLP, Herbicides | \$ 310 |
| Hardness | \$ 45 | TCLP, Metals | \$ 200 |
| Melamine & Analogs by LC4422 | \$ 350 | TCLP, Pesticides | \$ 310 |
| Melamine by GC | \$ 250 | TCLP, Volatiles | \$ 295 |
| Moisture, Karl Fischer | \$ 150 | TCLP, Complete Package | \$ 1,800 |
| Nitrogen, Ammonium (NH ₄ -N) | \$ 22 | TOC (Total Organic Carbon) | \$ 85 |
| Nitrogen, Nitrate (NO ₃ -N) | \$ 28 | TriHaloMethanes, Total (TTHM) | \$ 160 |
| Nitrogen, Nitrite (NO ₂ -N) | \$ 28 | Turbidity | \$ 30 |
| Nitrogen, Total Kjeldahl (TKN) | \$ 45 | UV @ 254nm Water Quality | \$ 45 |

TCLP = Toxicity Characteristic Leaching Procedure

TPH = Total Petroleum Hydrocarbons

Pesticide Testing (10 to 15 day turn-around)

| <u>Chemical Name (Trade Name)</u> | <u>Cost</u> | <u>Chemical Name (Trade Name)</u> | <u>Cost</u> |
|--------------------------------------|-------------|--|-------------|
| 2,4,5-T (2,4,5-T) | \$ 245 | Ethoprop (Ethoprop) | \$ 245 |
| 2,4,5-TP (Silvex) | \$ 245 | Ethylene Dibromide (EDB) | \$ 160 |
| 2,4-D (2,4-D) | \$ 245 | Etridiazole (Etridiazole) | \$ 145 |
| 2,4-DB (Butyrac 200, Butoxone 200) | \$ 245 | Fenoxaprop-Ethel (Acclaim) | \$ 270 |
| 4,4-DDD (4,4-DDD) | \$ 210 | Gesatamin (Atraton) | \$ 245 |
| 4,4-DDE (4,4-DDE) | \$ 245 | Glyphosate (Roundup) | \$ 200 |
| 4,4-DDT (4,4-DDT) | \$ 210 | Heptachlor (Heptachlor) | \$ 210 |
| a-BHC | \$ 210 | Heptachlor Epoxide (Heptachlor metabolite) | \$ 210 |
| Acetochlor (Harness, Surpass) | \$ 245 | Hexazinone (Velpar) | \$ 245 |
| Alachlor (Lasso) | \$ 220 | Imazapyr (Arsenal) | \$ 245 |
| Aldrin (Aldrin) | \$ 210 | Imazaquin (Scepter) | \$ 245 |
| Ametryn (Evik) | \$ 335 | Imazethapyr (Pursuit) | \$ 245 |
| Atrazine (Aatrex) | \$ 210 | Iprodione (Chipco) | \$ 270 |
| Azinphos Methyl (Guthion) | \$ 245 | Isopropalin (Paarlan) | \$ 245 |
| b-BHC | \$ 210 | Lindane (g-BHC) | \$ 210 |
| Benfluralin (Benefin, Balan, Balfin) | \$ 210 | Linuron (Lorox) | \$ 245 |
| Bensulide (Bromacil) | \$ 210 | Malathion (Malathion) | \$ 245 |
| Bentazon (Basagran) | \$ 245 | MCPA (MCPA) | \$ 245 |
| Bromacil (Bromacil) | \$ 245 | MCPP (MCPP) | \$ 245 |
| Bromoxynil (Buctril) | \$ 350 | Metalaxyl (Apron, Ridomil) | \$ 245 |
| Butachlor (Butachlor) | \$ 245 | Methoxychlor (Methoxychlor) | \$ 245 |
| Butylate (Sutan) | \$ 270 | Metolachlor (Dual) | \$ 245 |
| Captan (Captan) | \$ 245 | Metribuzin (Lexone, Sencor) | \$ 160 |
| Carbazole (Carbazole) | \$ 245 | Molinate (Molinate, Ordram) | \$ 245 |
| Carbofuran (Carbofuran) | \$ 245 | Oxadiazon (Ronstar) | \$ 245 |
| Chlordane (Chlordane) | \$ 220 | Oxyfluorfen (Goal) | \$ 245 |
| Chlorimuron ethyl (Classic) | \$ 220 | Oryzalin (Surflan) | \$ 270 |
| Chloroneb (Terraneb) | \$ 220 | Paraquat (Gramoxone) | \$ 300 |
| Chlorothalonil (Bravo, Daconil) | \$ 245 | Parathion (Parathion) | \$ 245 |
| Chlorpyrifos (Lorsban, Dursban) | \$ 245 | Pendimethalin (Prowl) | \$ 220 |
| Clopyralid (Stinger) | \$ 245 | Pentachloronitrobenzene (PCNB) | \$ 245 |
| Cyanazine (Bladex) | \$ 220 | cis-Permethrin | \$ 245 |
| Cycloate (Ro-Neet) | \$ 220 | trans-Permethrin | \$ 245 |
| Dalapon (Dalapon) | \$ 245 | Phorate (Thimet) | \$ 245 |
| d-BHC | \$ 210 | Pichloram (Tordon K) | \$ 245 |
| DCPA (Dacthal) | \$ 245 | Prodiamine (Barricade) | \$ 245 |
| DEF | \$ 245 | Profluralin (Tolban) | \$ 245 |
| Demeton (Systox) | \$ 245 | Prometon (Pramitol) | \$ 245 |
| Dibromochloropropane (DBCP) | \$ 160 | Prometryn (Prometryn) | \$ 245 |
| Dichloroprop (2,4-DP) | \$ 245 | Propachlor (Propachlor) | \$ 245 |
| Dicamba (Banvel) | \$ 245 | Propazine (Propazine) | \$ 245 |
| Dieldrin (Dieldrin) | \$ 210 | Propiconazole (Banner) | \$ 270 |
| Dimethoate (Dimethoate) | \$ 210 | Simetryn (Simetryn) | \$ 245 |
| Dinoseb (DNBP) | \$ 245 | Simazine (Princep) | \$ 245 |
| Disulfoton (Disulfoton) | \$ 245 | Sulfometuron Methyl (Oust) | \$ 410 |
| Dithiocarbamates | \$ 245 | Tebuthiuron (Spike) | \$ 245 |
| Dithiopyr (Dimension) | \$ 270 | Terbacil (Sinbar) | \$ 245 |
| Diuron (Karmex) | \$ 245 | Terbutryn (Terbutryn) | \$ 245 |
| Endosulfan I | \$ 210 | Terbutylazine (Gardoprim) | \$ 245 |
| Endosulfan II | \$ 210 | Thifensulfuron-Methyl | \$ 270 |
| Endosulfansulfate | \$ 210 | Thiophanate Methyl (Topsin) | \$ 300 |
| Endrin (Hexadrin) | \$ 210 | Thiram (Thiram) | \$ 310 |
| Endrin aldehyde | \$ 210 | Toxaphene (Toxaphene) | \$ 220 |
| Endrin Ketone | \$ 210 | Triadimefon (Bayleton) | \$ 270 |
| EPTC (Eptam) | \$ 270 | Triclopyr (Crossbow, Garlon) | \$ 410 |
| Ethalfuralin (Sonalan) | \$ 245 | Trifluralin (Treflan) | \$ 220 |
| Ethion (Ethion) | \$ 245 | Vernolate (Vernam) | \$ 245 |

Pesticide Testing (10 to 15 day turn-around)

| <u>Pesticide Pkg</u> | <u>Pesticides Included</u> | <u>Media</u> | <u>Cost (\$)</u> |
|----------------------|--|--------------|------------------|
| EPA 504.1 List | Dibromochloropropane (DBCP), Ethylene Dibromide (EDB) | Water | \$ 150 |
| EPA 507 List | Alachlor, Atrazine, Metolachlor, Metribuzin, Simazine | | \$ 335 |
| EPA 508 List | Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Heptachlor Epoxide, Hexachlorobenzene, Hexachlorocyclopentadiene, Lindane, Methoxychlor, Toxaphene | Water | \$ 200 |
| EPA 508A List | Polychlorinated Biphenyls (PCB) | Water | \$ 180 |
| EPA 515.1 List | 2,4-D, 2,4,5-TP, Acidfluorfen, Bentazon, DCPA, Dalapon, Dicamba, Dichloroprop, Dinoseb, Pentachlorophenol, Picloram | | \$ 395 |
| EPA 525.2A List | Alachlor, Atrazine, Butachlor, Metolachlor, Metribuzin, Propachlor, Simazine | Water | \$ 250 |
| EPA 525.2G List | Di (2-Ethylhexyl) Adipate, Di (2-Ethylhexyl) phthalate | Water | \$ 130 |
| EPA 531.1 List | Aldicarb, Aldicarb Sulfone, Aldicarb Sulfoxide, Carbaryl Carbofuran, 3-Hydroxycarbofurn, Methomyl, Oxamyl (Vydate) | Water | \$ 390 |
| EPA 547 List | Glyphosate | Water | \$ 200 |
| EPA 548.1 List | Endothall | Water | \$ 225 |
| EPA 549.1 List | Diquat | Water | \$ 200 |
| EPA 550.1 List | Benzo (a) Pyrene | Water | \$ 400 |
| EPA 1613 List | 2,3,4,8-TCDD (Dioxin) | Water | \$ 800 |
| EPA 8081 List | Aldrin, a-BHC, b-BHC, d-BHC, Lindane, DDD, DDE, DDT, Dieldrin, Endosulfan I, Endosulfan II Endosulfan Sulfate, Endrin, Endrin Aldehyde Endrin Ketone, Heptachlor, Heptachlor Epoxide, Methoxychlor, Toxaphene, PCB's - 1242, 1254, 1221, 1232, 1248, 1260, 1016, Chlordane | | \$ 445 |
| EPA 8141 List | Agricultural Pesticides: Azinphos Methyl, Chlorpyrifos, Demeton, Diazinon, Disulfoton, Ethoprop, Malathion, Parathion Methyl, Phorate | | \$ 550 |
| Neutral Extractables | Alachlor, Ametryn, Atrazine, Benfluralin, Butachlor, Butylate, Chlorpyrifos, Cyanazine, EPTC, Ethafluralin, Metolachlor, Metribuzin, Pendimethaline, Phorate, Prometon, Prometryn, Propachlor, Propazine, Simazine, Trifluralin | | \$ 395 |
| Acid Extractables | 2,4-D, 2,4-DB, 2,4-DP, 2,4,5-T, 2,4,5-TP, Dicamba, Bentazon, Dalapon, Dacthal, MCPA, MCPP, Pentachlorophenol, Picloram, Triclopyr | | \$ 370 |
| EPA 625 / 8270 | Trizines: Ametryn, Atrazine, Atraton, Cyanazine, Metribuzin, Prometon, Prometryn, Propazine, Simazine, Simetryn, Terbutylazine, Terbutryn | | \$ 270 |
| EPA 625 / 8270 | Trinzines Plus: Alachlor, Ametryn, Atrazine, Atraton, Bromacil, Butylate, Cyanazine, Metholachlor, Metribuzin, Prometon, Prometryn, Propachlor, Propazine, Simazine, Simetryn, Terbutylazine, Terbutryn, Trifluralin | | \$ 335 |
| EPA 625 / 8270 | Herbicide Short Scan: Alachlor, Bromacil, Butachlor, Butylate, Dachal, Dithiopyr, EPTC, Hexazinone, Metolachlor, Metribuzin, Oxadiazon, Propachlor, Propanil, Terbacil, Vernolate | | \$ 270 |
| EPA 615M / 8270 | Acid Herbicides: Bentazon, DCPA, Dicamba, MCPA, MCPP, Picloram, Triclopyr, 2,4-D, 2,4-DB, 2,4-DP | | \$ 445 |
| EPA 625 / 8270 | DNA Herbicides: Benefluralin, Ethafluralin, Pendamethalin, Prodiamine, Trifluralin | | \$ 335 |

Pesticide Testing (10 to 15 day turn-around)

| <u>Pesticide Pkg</u> | <u>Pesticides Included</u> | <u>Cost (\$)</u> |
|-------------------------------------|---|------------------|
| Herbicide Screen #1 | Imazapyr, Imazaquin, Imazethapyr | \$ 335 |
| Full Herbicide Screen (EPA 8270) | Alachlor, Ametryn, Atraton, Atrazine, Benfluralin, Bromacil, Butylate, Cyanazine, Butachlor, DCPA, Propanil, Dichlobonil, Dithiopyr, EPTC, Hexazinone, Ethalfluralin, Linuron, Metolachlor, Metribuzin, Oxadiazon, Prometon, Prometryn, Propachlor, Propazine, Propyzamide (Kerb), Pendimethalin, Simazine, Simetryn, Terbacil, Terbutylazine, Terbutryn, Trifluralin, Vernolate. | \$ 495 |
| Full Insecticide Screen | Aldrin, a-BHC, b-BHC, d-BHC, g-BHC, Chlordane, Chlorpyrifos, Demeton, 4,4-DDD, 4,4-DDE, 4,4-DDT, Diazinon, Dieldrin, Disulfoton, Endosulfan I, Endosulfan II, Endosulfan Sulfate, Endrin, Endrin Aldehyde, Ethion, Ethoprop, Ethyl Parathion, Fenamiphos (Nemacur), Guthion, Heptachlor, Heptachlor Epoxide, Kepone, Malathion, Methoxychlor, Methyl Paration, Mirex, cis-Permethrin, trans-Permethrin, Phorate | \$ 495 |
| Full Fungicide Screen | Banner, Captan, Chloroneb (Terraneb), Chlorothalonil, Flutolanil, Hexachlorobenzene, Methalaxyl, Pentachloronitrobenzene, Propiconazole, Rubigan, Vinclozolin (Uralan) | \$ 275 |
| Any 2 Full Screens | | \$ 675 |
| All 3 Full Screens | | \$ 775 |

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