



ANIMAL FEED



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SUGGESTED SAMPLE SIZE (MINIMUM) FEE

ANALYSIS CARRIED OUT ARE STANDARD (WET CHEMISTRY) METHODS

F1: GRAIN RATION 250g \$29.00

(Applies to pork and poultry grain rations, shelled corn, small grains)
Moisture, Crude Protein, Calcium, Phosphorus

F2: COMPLETE PROXIMATE 250g \$33.00

(Applies to feed labels, commodities, feedstuffs where fat content is required.)
Moisture, Crude Protein, Crude Fat, Acid Detergent Fiber (ADF), Ash, Total Digestible Nutrients (TDN), Energy (Digestible and Metabolizable), Net Energy (Gain, Lactation, Maintenance)

F3: COMPLETE MINERAL 250g \$27.00

(Applies to all feedstuffs where a complete mineral profile is required.)
[Not applicable to premixes.] Sulfur, Calcium, Magnesium, Sodium, Manganese, Zinc, Potassium, Phosphorus, Iron, Copper

F4: PROTEIN 250g \$17.00

(Applies to all feedstuffs where protein only is needed.)
Moisture, Crude Protein

F5: PROTEIN WITH COMPLETE MINERALS 250g \$36.00

(Applies to all feedstuffs where protein and complete mineral content are required.)
Moisture, Crude Protein, Potassium, Phosphorus, Iron, Copper, Sulfur, Calcium, Magnesium, Sodium, Manganese, Zinc

F6: ROUGHAGE WITH COMPLETE MINERALS \$39.00

(Applies to haylages, mixed hays and silages where protein, energy and complete mineral content are required.)
Moisture, Crude Protein, Acid Detergent Fiber (ADF), Total Digestible Nutrients (TDN), Net Energy (Gain, Lactation, Maintenance), Sulfur, Copper, Sodium, Magnesium, Potassium, Zinc, Iron, Calcium, Manganese, Sodium

F7: ROUGHAGE \$23.00

(Applies to haylages, mixed hays and silages, mixed rations, ear corn, and mixed grains where only protein and energy are required.)
(Does not include fat)

Moisture, Crude Protein, Acid Detergent Fiber (ADF), Total Digestible Nutrients (TDN), Net Energy (Gain, Lactation, Maintenance)

F8: ROUGHAGE WITH Ca AND P \$34.00

(Applies to haylages, mixed hays, silages, mixed rations, bunk samples.)
Moisture, Crude Protein, Acid Detergent Fiber (ADF), Calcium, Phosphorus, Total Digestible Nutrients (TDN), Net Energy (Gain, Lactation, Maintenance)

F9: COMPLETE PROXIMATE WITH MINERALS 250g \$25.00

(Applies to feedstuffs, grains, grain mixtures, especially where fat oil content is required.)
Moisture, Crude Protein, Crude Fat, Acid Detergent Fiber (ADF), Ash, Total Digestible Nutrients (TDN), Energy (Digestible and Metabolizable), Net Energy (Gain, Lactation, Maintenance), Phosphorus, Copper, Iron, Magnesium, Sulfur, Calcium, Sodium, Manganese, Potassium, Zinc



F10: RELATIVE FEED VALUE 250g **\$26.00**
 (Applies to alfalfa hay, mixed hays and silages where RFV and energy values are required.)

Moisture, Crude Protein, Acid Detergent Fiber (ADF), Neutral Detergent Fiber (NDF), Total Digestible Nutrients (TDN), Net Energy (Gain, Lactation, Maintenance), Relative Feed Value (RFV)

F11: CALCIUM AND PHOSPHORUS SCREEN 100g **\$27.00**

F12: MOISTURE AND NITRATE 50g **\$21.00**
 (Applies to Forages)

BASIC INGREDIENT TEST PACKAGES

I1: SOYBEAN MEAL OR HULLS CANOLA MEAL 250g **\$23.00**
 Moisture, Crude Protein, Crude Fiber

I2: MILO 250g **\$17.00**
 Moisture, Crude Protein

I3: DDGS 250g **\$52.00**
 Moisture, Crude Protein, Crude Fat, Crude Fiber, Ash, Calcium, Phosphorus, Sulfur

I4: WHEAT MIDDS 250g **\$34.00**
 Moisture, Crude Protein, Crude Fiber, Calcium, Phosphorus,

I5: SHELLED CORN 250g **\$17.00**
 Moisture, Crude Protein

I6: CORN, HOMINY, WHOLE COTTON SEED, SUNFLOWER MEAL 250g **\$29.00**
 Moisture, Crude Protein, Crude Fat

I7: BAKERY MEAL 250g **\$50.00**
 Moisture, Crude Protein, Acid Hydrolysis Fat, Crude Fiber, Ash Calcium, Phosphorus, Sodium, Salt (Na)

I8: MEAT AND BONE MEAL 250g **\$52.00**
 Moisture, Crude Protein, Crude Fat, Calcium Phosphorus, Chloride, Salt (Cl)

I9: FISH OR POULTRY MEAL 250g **\$46.00**
 Moisture, Crude Protein, Crude Fat, Ash, Calcium, Phosphorus

I10: WHEY, WHEY PERMEATE OR DAIRY LAC 250g **\$36.00**
 Moisture, Crude Protein, Calcium, Phosphorus, Chloride, Salt (Cl)

I14: MIXER TEST 10-250g **\$240.00**
 Ten samples for one of the following elements:
 Sodium, Magnesium, Manganese, Zinc

EACH ADDITIONAL ELEMENT **\$40.00**

PREMIX/BASE MIX GENERAL SCREEN 250g **\$40.00**
 Calcium, Copper, Iron, Magnesium, Manganese, Phosphorous, Potassium, Sodium, Sulfur, Zinc

**FORMULATION ASSAY**

100g

Calcium, Copper, Iron, Magnesium, Manganese, Phosphorous, Potassium, Sodium, Sulfur, Zinc

Any one of the above elements	\$50.00
Any two of the above elements	\$80.00
Each additional element	\$20.00

MIU

4oz

\$55.00

Moisture, Insolubles, Unsaponifiables, Total Fat (Calculated)

LYSINE

20g

\$85.00

AMINO ACID PROFILE (Requires Crude Protein) 20g ground \$285.00

Alanine, Histidine, Proline, Arginine, Isoleucine, Serine, Aspartic Acid, Leucine, Threonine, Cystine, Lysine, Tryptophan, Glutamic Acid, Methionine, Tyrosine, Glycine, Phenylalanine, Valine

FATTY ACID PROFILE (Requires Crude or Acid Fat) 50g \$185.00

Includes individual fatty acids:

Saturated Fat, Monounsaturated Fat, Omega 3 Fatty Acids, Polyunsaturated Fat, Trans Fatty Acid, Omega 6 Fatty Acids

VITAMINS & SUPPLEMENTS

Vitamin A (as Beta Carotene) (natural)	20g	\$100.00
Vitamin A (as Retinol)(added)	20g	\$100.00
Vitamin B1 (Thiamine)	20g	\$110.00
Vitamin B2 (Riboflavin)	250g	\$125.00
Vitamin B3 (Niacin)	250g	\$125.00
Vitamin B4 (Choline Chloride)	250g	\$125.00
Vitamin B5 (Pantothenic Acid)	250g	\$125.00
Vitamin B6 (Pyridoxine)	250g	\$125.00
Vitamin B7 (Biotin)	250g	\$125.00
Vitamin B9 (Folic)	250g	\$125.00
Vitamin B12 (Cyanocobalamin)	250g	\$125.00
Vitamin C (Ascorbic Acid)	20g	\$100.00
Stay C	20g	\$100.00
Vitamin D2 (Ergocalciferol)	250g	\$245.00
Vitamin D3 (Cholecalciferol)	250g	\$245.00
Vitamin E (Alpha)	250g	\$170.00
Vitamin E (Beta)	250g	\$170.00
Vitamin E (Delta)	250g	\$170.00
Vitamin E (Gamma)	250g	\$170.00
Vitamin E (Total Tocopherol)	250g	\$210.00
Glucosamine	20g	\$350.00
L.Carnitine	20g	\$225.00



PESTICIDES

SUGGESTED SAMPLE SIZE (MINIMUM) FEE

ORGANOCHLORINE PESTICIDES 50g **\$165.00**

alpha-BHC, beta-BHC, Lindane (gamma-BHC), delta-BHC, Heptachlor, Aldrin, Heptachlor epoxide, alpha Chlordane, gamma Chlordane, pp-DDE, Endrin, Dieldrin, Endosulfan I (alpha), Endosulfan II (beta), pp-DDD, Endrin Aldehyde, Endosulfan Sulfate, pp-DDT, Endrin Ketone, Methoxychlor

ORGANOPHOSPHORUS PESTICIDES 50g **\$165.00**

Dichlorophos, Mevinphos, Dementon-S, Ethoprop, Naled, Sulfotep, Dimethoate, Phorate, Dementon-O, Diazinon, Disulfoton, Methyl parathion, Ronnel, Malathion, Chlorpyrifos, Fention, Parathion ethyl, TEPP, Trichloronate, Merphos, Tetrachlorvinphos, Tokuthion, Tribufos, Fensulfothion, Sulprofos (Bolstar), EPN, Azinphos-methyl, Coumaphos

NEUTRAL EXTRACTABLE PESTICIDES 50g **\$165.00**

EPTC (Eptam), Butylate, Propachlor, Deisopropylatrazine, Ethalfuralin, Desethyl atrazine, Trifluralin, Benfluralin, Phorate, Prometon, Simazine, Atrazine, Propazine, Terbufos, Fonofos, Triallate, Dimethenamid, Acetochlor, Metribuzin, Alachlor, Ametryn, Prometryn, Bromacil, Metolachlor, Chlorpyrifos, Cyanazine, Pendimethalin, Isophenphos, Butachlor, Oxadiazon, Hexazinone

All three pesticide screens **\$300.00**

GMO DETECTION CATEGORIES (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

INDIVIDUAL FEED ANALYSIS

Acid Detergent Insoluble Protein (Requires ADF)	20g	\$22.00
Ammonia Nitrogen	20g	\$20.00
AOM-Oxidative Stability Index (OSI)	50g	\$85.00
Ash	10g	\$12.00
Calories (BTU)	25g	\$45.00
Chloride	10g	\$12.00
Color (Hunter)	10g	\$16.00
Commercial Sterility	1 can	\$100.00
Fat (Crude)	10g	\$19.00
Fat (with Acid or Alkaline Hydrolysis)	10g	\$26.00
Fiber (Acid Detergent)	10g	\$10.00
Fiber (Crude)	10g	\$10.00
Fiber (Neutral Detergent)	10g	\$10.00
Free Fatty Acids	25g	\$30.00
Glycerol (Glycerin)	50g	\$80.00



Glycoalkaloids (Chaconine & Solanine)	100g	\$150.00
Iodine Value	25g	\$50.00
Total Iodine	25g	\$82.00
KOH Protein Solubility (Soybean meal only)	25g	\$20.00
Lactose	25g	\$90.00
Lignin (Requires ADF)	25g	\$30.00
Lysine	20g	\$85.00
Moisture (Convection Oven)	10g	\$10.00
Moisture (Karl Fisher)	10g	\$50.00
Molybdenum	25g	\$36.00
Molybdenum & Cobalt	25g	\$42.00
Nitrate	10g	\$16.00
Patulin	50g	\$75.00
p-anisidine	25g	\$30.00
Peroxide Value	25g	\$30.00
pH	10g	\$10.00
Protein, Crude	10g	\$15.00
Protein, Pepsin Digestible (Requires Crude Protein)	20g	\$25.00
Prussic Acid	25g	\$50.00
RVA Rapid Visco Analyzer) (requires moisture)	25g	\$80.00
Selenium (Final Product)	25g	\$40.00
Selenium (Se Premixes Only)	25g	\$50.00
Taurine	20g	\$80.00
Total Starch	20g	\$36.00
Total Dietary Fiber	50g	\$175.00
Total Fatty Acids	30g	\$100.00
Urease Activity (Soybean meal only)	25g	\$20.00
Xanthophyll	25g	\$75.00
SUGAR PROFILE	50g	\$100.00
Glucose, Fructose, Sucrose, Maltose, Lactose		
TOTAL DIETARY FIBER PACKAGE (SOLUBLE AND INSOLUBLE)	50-100g	\$300.00
FEED HEAVY METALS SCREEN	25g	\$60.00
Lead, Cadmium, Arsenic, Antimony		
Feed Heavy Metals Screen plus Mercury		\$85.00
Feed Mercury		\$45.00
PERCENT COOK	25g	\$72.00
Total Starch, Gelatinized Starch, and Percent Gelatinization		
MELAMINE & RELATED COMPOUNDS (MARC) (LC/MS/MS)	100g	
Melamine, Cyanuric Acid, Ammeline, Ammelide		\$180.00
Melamine Only		\$120.00
ORGANIC ACIDS PACKAGE (BY HPLC)	25g	\$120.00
Acetic, Butyric, Lactic and Propionic Acids		
MOLD		
Yeast & Mold Count	25g	\$20.00
Mold Count & Identification	25g	\$60.00

**MYCOTOXIN ANALYSIS BY LC/MS/MS (Call for Rush pricing)**

Aflatoxin (B1, B2, G1, G2)	100g	\$75.00
Aflatoxin (M1)	100g	\$75.00
DON (Vomitoxin)	100g	\$75.00
Fumonisin (B1, B2, B3)	100g	\$75.00
Ochratoxin A	100g	\$75.00
T2 Toxin	100g	\$75.00
Zearalenone	100g	\$75.00
Full Screen (except M1)	100g	\$260.00
Patulin (not included in Full Screen)	100g	\$75.00

ANTIBIOTIC RESIDUES (LC/MS/MS)

Chlortetracycline residue, Doxycycline residue, Erythromycin residue, Oxytetracycline residue, Penicillin residue, Streptomycin residue, Tetracycline, residue, Tylosin residue, Virginiamycin residue,	100g	
Any one (1) of the above		\$150.00
Any two (2) of the above		\$220.00
Any three (3) of the above		\$310.00
Full Screen (as many as are available)		\$550.00

LIQUID FEED ANALYSIS

Moisture (Vacuum Oven)	50mL	\$12.00
Moisture (Karl Fischer)	50mL	\$35.00

TALLOW, FAT AND OIL ANALYSIS

Acid Number	50mL	\$60.00
Free Fatty Acids	25mL	\$30.00
Iodine Value	25mL	\$50.00
Moisture (Vacuum Oven)	25mL	\$12.00
MIU (Moisture, Insolubles, Unsaponifiables,		
Total Fat (Calculated))	25mL	\$55.00
p-anisidine	25mL	\$30.00
Peroxide Value	25mL	\$30.00
Phosphorus	25mL	\$75.00
Sulfur	25mL	\$60.00
Total Fatty Acids	30g	\$100.00

ANTIOXIDANT

Ethoxyquin	50g	\$100.00
Propyl Gallate	50g	\$110.00
BHA	50g	\$110.00
BHT	50g	\$110.00
TBHQ	50g	\$110.00
BHA and BHT	50g	\$200.00
BHA, BHT, TBHQ	50g	\$250.00



BIOGENIC AMINES

PACKAGE 1	100g	\$120.00
Putrecine, Cadaverine, Histamine		

PACKAGE 2	100g	\$175.00
Putrecine, Cadaverine, Histamine, Tryptamine, Tyramine, Spermidine, Spermine, 2-phenylethylamine		

MICROBIOLOGY

	SUGGESTED SAMPLE SIZE (MINIMUM)	FEE
Aerobic Plate Count	25g	\$20.00
Bacillus	25g	\$30.00
Clostridium	25g	\$20.00
Enterobacteriaceae	25g	\$20.00
Enterobacteriaceae	125g	\$25.00
Lactic Acid Bacteria (aerobic)	25g	\$20.00
Lactic Acid Bacteria (anaerobic)	25g	\$20.00
Mold Count only	25g	\$20.00
Mold Count and Identification	25g	\$60.00
Pseudomonas	25g	\$20.00
Rhizobium	25g	\$20.00
Streptococcus	25g	\$30.00

SALMONELLA

Lateral Flow	25g	\$20.00
Vidas	25g	\$20.00
PCR	25g	\$35.00
EU Salmonella (125g) Enterobacteriaceae (5g)	5 samples	\$65.00

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► Our Microbiology staff works seven days a week to provide the fastest possible turnaround time available.

CONSIDERATIONS FOR TAKING AND SUBMITTING FEED SAMPLES

1. Sample size required depends on the number and kinds of analyses needed. One-half pound is a practical minimum size and additional samples may be required when vitamin or medication analyses are requested. When in doubt, check with the laboratory before sampling.
2. Forages should be sampled with a core sampler. If this is not done, the sample will not accurately reflect the true quality of the forage.
3. Samples can be sent in a variety of containers, but we recommend a sturdy plastic bag with zip closure. After placing sample in the bag, press out as much air as possible before closing.
4. Label each sample container clearly. Place sample(s) in a mailing box or envelope with instructions for analysis, preferably using a Midwest Laboratories submittal form (available at www.midwestlabs.com). Bags, envelopes, boxes, mailing labels and submittal forms are available from the laboratory.
5. Contact Craig Ebel (402) 590-2962 for more information.