Submitting Samples

Soil, water and plant samples should be submitted through your County Cooperative Extension Office. They provide sample bags and water bottles and handle mailing of samples to the laboratory. Your County Extension Educators can assist with proper sampling techniques, test result interpretations and recommendations.

Quality Assurance

Accuracy and quality of test results are assured through daily analysis of quality control samples, a three-step internal data review process, and participation in external certification and sample exchange programs. For detailed information regarding our quality assurance practices, call the SWFAL office.

Sample Results

Most samples are processed and analyzed within three to five working days and results are posted on the internet. Forage nitrate results are posted two days after samples are received. Charges for laboratory services are billed monthly from the office through which the sample was submitted.

Learn More:

Soil, Water and Forage Analytical Laboratory
045 Agricultural hall
Oklahoma State University
405-744-6630
soiltesting.okstate.edu
soiltesting@okstate.edu

Visit us at soiltesting.okstate.edu
### Forage and Feed

<table>
<thead>
<tr>
<th>Protein only</th>
<th>$8.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protein &amp; Moisture</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Basic</th>
<th>$14.00</th>
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</thead>
<tbody>
<tr>
<td>Protein &amp; Moisture</td>
<td></td>
</tr>
<tr>
<td>ADF (Acid Detergent Fiber)</td>
<td></td>
</tr>
<tr>
<td>TDN (Total Digestible Nutrients)</td>
<td></td>
</tr>
<tr>
<td>Net Energy for: Gain; Lactation; and Maintenance</td>
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</table>

<table>
<thead>
<tr>
<th>Basic Plus RFV</th>
<th>$20.00</th>
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</thead>
<tbody>
<tr>
<td>Protein, Moisture, ADF, &amp; Energy</td>
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</tr>
<tr>
<td>NDF (Neutral Detergent Fiber)</td>
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<tr>
<td>RFV (Relative Feed Value - for alfalfa only)</td>
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</table>

<table>
<thead>
<tr>
<th>Nitrate Toxicity</th>
<th>$6.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrate</td>
<td></td>
</tr>
<tr>
<td>Moisture</td>
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<table>
<thead>
<tr>
<th>Minerals</th>
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<tbody>
<tr>
<td>Ca, P, K, Mg, S, Cu, Fe and Zn</td>
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</tbody>
</table>

### Plant Tissue

<table>
<thead>
<tr>
<th>TN, P, K, Ca, Mg, S, B, Cu, Fe, Mn, and Zn</th>
<th>$23.00</th>
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</thead>
</table>

### Animal Waste & Compost

<table>
<thead>
<tr>
<th>Test 1</th>
<th>$30.00</th>
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<tbody>
<tr>
<td>pH, EC, Moisture, TN, C, S, P, K, Ca, Mg, Na, Cu, Zn, Mn and Fe</td>
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</table>

<table>
<thead>
<tr>
<th>Test 2</th>
<th>$6.00</th>
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</thead>
<tbody>
<tr>
<td>NH₃-N and NO₃-N</td>
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</table>

<table>
<thead>
<tr>
<th>Test 3</th>
<th>$8.00</th>
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</thead>
<tbody>
<tr>
<td>Water Soluble P</td>
<td></td>
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</tbody>
</table>

### Soil

**Soil Fertility**

**Routine**

- pH and buffer Index (Sikora)
- Available Phosphorus Index (MIII)
- Available Potassium Index (MIII)

**Subsoil Nitrate-Nitrogen**

(with submission of surface soil)

**Nitrate-Nitrogen**

**Secondary Nutrients**

- Sulfate-Sulfur
- Magnesium and Calcium

**Micronutrients**

- Iron, Zinc and Boron

**Organic Matter**

**Greenhouse Media**

(Saturated Media Extraction)

- Sodium Phosphorus pH
- Calcium Sulfur Nitrate-N
- Magnesium Boron Ammonium-N
- Potassium Electrical Conductivity

**Soil Salinity**

**Salinity Management**

(1:1 extraction for diagnostic purposes)

- Sodium Magnesium Potassium Total Dissolved Solids
- Calcium pH Electrical Conductivity
- Boron SAR ESP

**Comprehensive Salinity**

(Saturated paste extraction)

- Sodium Magnesium Potassium Total Dissolved Solids
- Calcium Chloride Nitrate-Nitrogen Electrical Conductivity
- Carbonate Bicarbonate
- pH Total Dissolved Solids
- Boron SAR

**Soil Texture**

Textural Class (Hydrometer Method)

- % sand, silt, clay

### Water

**Homebrewer**

- Sodium Sulfate
- Calcium Phosphorus
- Magnesium Iron
- Potassium Zinc
- Copper Hardness
- Manganese Electrical Conductivity

**Livestock**

- Sodium Sulfate
- Calcium Chloride
- Magnesium Nitrate
- Potassium pH
- Copper Hardness
- Manganese Electrical Conductivity
- Zinc Total Dissolved Solids

**Irrigation**

- Sodium Magnesium
- Calcium Potassium Nitrate
- Chloride pH
- Sulfate Electrical Conductivity
- Boron Total Dissolved Solids
- Carbonate Hardness
- SAR Bicarbonate

## Effective July 1, 2023