Livestock Waste Analysis Grower Report
Example 1

Sample Type: Dairy waste collected from spray field.
Crop or Use: Rye, ryegrass, oats, wheat, triticale
Application Equipment: Applied through center pivot
Incorporation: Material will be incorporated within 24 hours
Previous Applications: Manure was applied to field last year

Lagoon is agitated before pumping / sampling
Last pump-out was less than 1 week ago

***Nutrient Content in Manure as Delivered to Laboratory

<table>
<thead>
<tr>
<th>Nutrient Constituent</th>
<th>Raw Sample</th>
<th>Adjusted For Application Losses of N</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen (N):</td>
<td>242</td>
<td>136</td>
<td>lbs/acre-in</td>
</tr>
<tr>
<td>Phosphorus (P2O5):</td>
<td>85</td>
<td>85</td>
<td>lbs/acre-in</td>
</tr>
<tr>
<td>Potassium (K2O):</td>
<td>250</td>
<td>250</td>
<td>lbs/acre-in</td>
</tr>
</tbody>
</table>

pH as Sampled: 7.9
Moisture Content: 98.6%
Total Solids: 1.4%
Total Ash: 0.5%

***Total Nutrient Requirement for:
Rye, ryegrass, oats, wheat, triticale for 3 grazings

<table>
<thead>
<tr>
<th>Nutrient Constituent</th>
<th>lbs N/acre</th>
<th>lbs P2O5/acre</th>
<th>lbs K2O/acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>180</td>
<td>80</td>
<td>80</td>
</tr>
</tbody>
</table>

Totals: 180 80 80

Nitrogen Recommendation Base

***Manure application rate (As Is) to supply crop N requirement:
1 inches/acre

By supplying the crop N requirement at the rate shown above, the following total nutrients will be applied:
180 lbs. N/acre
112 lbs P2O5/acre
331 lbs K2O/acre

Supplemental nutrients needed:
0 lbs. N/acre
0 lbs P2O5/acre
0 lbs K2O/acre

***Economic value of manure at the rate shown above:
N $106 per acre
P2O5 $96 per acre
K2O $57 per acre

***Cost of additional nutrients needed:
$0 N per Acre
$0 P2O5 per acre
$0 K2O per acre

Phosphorus Recommendation Base

***Manure application rate (As Is) to supply crop P requirement:
1 inches/acre

By supplying the crop P requirement at the rate shown above, the following total nutrients will be applied:
129 lbs. N/acre
80 lbs P2O5/acre
236 lbs K2O/acre

Supplemental nutrients needed:
51 lbs. N/acre
0 lbs P2O5/acre
0 lbs K2O/acre

***Economic value of manure at the rate shown above:
N $76 per acre
P2O5 $96 per acre
K2O $57 per acre

***Cost of additional nutrients needed:
$30 N per Acre
$0 P2O5 per acre
$0 K2O per acre

***Assumptions are shown in footnotes on Page 2. Prices Updated on: 1/23/2009
Livestock Waste Analysis Grower Report

Example 1

<table>
<thead>
<tr>
<th>Lab #</th>
<th>Sample Label</th>
<th>Date Collected</th>
<th>Date Delivered</th>
<th>Date of Report</th>
<th>County</th>
<th>Collected By</th>
</tr>
</thead>
<tbody>
<tr>
<td>6487</td>
<td>Sprayfield 1</td>
<td>December 29, 2008</td>
<td>October 7, 2010</td>
<td>Suwannee</td>
<td>GM</td>
<td></td>
</tr>
</tbody>
</table>

PHONE: 386-362-0

Sample Type: Dairy waste collected from spray field
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Application Equipment: Applied through center pivot
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**Sample T**

<table>
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<tr>
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<th>Incorporation</th>
<th>Previous Applications</th>
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</table>

**Laboratory Results** (All weights are based on sample weight as received)

<table>
<thead>
<tr>
<th>Component</th>
<th>Value</th>
<th>%</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Solids</td>
<td>13900 mg/l</td>
<td>1.4%</td>
<td>3149 lbs/acre-inch</td>
</tr>
<tr>
<td>Total Ash</td>
<td>4500 mg/l</td>
<td>0.5%</td>
<td>1019 lbs/acre-inch</td>
</tr>
<tr>
<td>Total Kjeldahl N*</td>
<td>1068 mg/l</td>
<td>0.11%</td>
<td>242.1 lbs/acre-inch</td>
</tr>
<tr>
<td>Ammonia Nitrogen</td>
<td>622 mg/l</td>
<td>0.06%</td>
<td>141.0 lbs/acre-inch</td>
</tr>
<tr>
<td>Total Elemental P</td>
<td>165 mg/l</td>
<td>0.02%</td>
<td>37.3 lbs/acre-inch</td>
</tr>
<tr>
<td>Total Elemental K</td>
<td>916 mg/l</td>
<td>0.09%</td>
<td>207.6 lbs/acre-inch</td>
</tr>
<tr>
<td>Moisture</td>
<td>98.61%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>7.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Total Kjeldahl Nitrogen is equivalent to Total N for manure and high organic samples

**Estimated Nitrogen Losses:**

<table>
<thead>
<tr>
<th>Loss Category</th>
<th>N-Content of Sample as Tested</th>
<th>Estimated Nitrogen Loss</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N-losses during application:</strong></td>
<td>25%</td>
<td>242.1 lbs/acre-inch</td>
<td></td>
</tr>
<tr>
<td><strong>N-losses while awaiting incorporation:</strong></td>
<td>25%</td>
<td>141.0 lbs/acre-inch</td>
<td></td>
</tr>
<tr>
<td><strong>Other N-Losses:</strong></td>
<td>0%</td>
<td>45.4 lbs</td>
<td></td>
</tr>
</tbody>
</table>

Estimated Available N: 56.3% 136.2 lbs/acre-inch

**Footnotes:**

**Fertilizer Equivalent in Manure** - The nitrogen value is an estimate based on inherent losses from using animal manures.

Total Nutrient Requirement For - This is the total N-P2O5-K2O recommended for the crop for a growing season assuming low P2O5 and K2O sc tests. Split applications of N and K2O result in more efficient nutrient use. For assistance in determining individual application rates, see your County Extension Agent, nutrient management specialist or Soil and Water Conservation District Technician.

Manure application rate - The maximum application rate that should be applied if it is split applied at least three times during this crop, and liquor applied in each application adjusted to crop intake. If single applications are used, then manure should be applied at 50% of the above rate with the remaining N requirement being met by supplemental fertilization. Sprayfields with frequent applications may also need an adjusted rate.

Economic Value - This is by nature a rough approximation meant for comparative purposes only. Since the value of N and P2O5 are by far the most important in determining economic value of manure, only these are considered in the calculations. The commercial values of N and P2O5 are estimated using ammonium nitrate at $580/ton, concentrated superphosphate (0-46-0) at $1120/ton, and potassium chloride (0-0-60) at $800/ton.

N-Losses during application - A loss of 25% is assumed for liquid samples with a pH above 7 and for situations where sprinklers are used for application. A standard loss of 5% is assumed for all other materials and situations.

N-Losses while awaiting incorporation - It is assumed there will be no N loss to volatilization if solid or slurry manures are incorporated within hours and a 25% loss if they are not. Liquid applications are considered to have an additional 25% volatilization loss before stabilization in soil.

Other N-Losses - A 50% reduction in N availability is calculated whenever a manure having an ammonia to organic nitrogen ratio less than or equal 1 is applied to a field where manure was not applied the previous year.

Regular soil testing is recommended where manures are applied offsite.