For determining lime requirements to maintain soil pH at or above permit levels on sludge applied lands.

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>CONTENTS</th>
<th>CODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 mL</td>
<td>Woodruff Buffer</td>
<td>5272-L</td>
</tr>
<tr>
<td>1</td>
<td>Demineralizer Bottle</td>
<td>1152</td>
</tr>
<tr>
<td>1</td>
<td>Soil Measure, 10 g</td>
<td>1164</td>
</tr>
<tr>
<td>1</td>
<td>Beaker, plastic, 50 mL</td>
<td>0944</td>
</tr>
<tr>
<td>1</td>
<td>Graduated Cylinder, 10 mL, glass</td>
<td>0416</td>
</tr>
<tr>
<td>1</td>
<td>Stirring Rod, plastic</td>
<td>0519</td>
</tr>
</tbody>
</table>

To order a complete set of refill reagents, order as R-7491. To order individual reagents or test kit components, use the specified code number.

DEMINERALIZER BOTTLE

The LaMotte Demineralizer Bottle is a plastic bottle with a pour spout and a special filter inside the cap. The bottle is partially filled with an ion exchange resin containing an indicator to show when the exchange resin has been exhausted. The indicator will change from dark green to yellow amber, at which point the resin should be replaced. Use Code R-1152 to order a resin refill package.

INSTRUCTIONS

1. Remove cap and fill bottle with water to be demineralized.
2. Recap, make sure spout is closed, and shake vigorously for 30 seconds.
3. Open spout, invert bottle, and gently squeeze to dispense the demineralized water.

CARE OF THE DEMINERALIZER BOTTLE

A. Do not heat water over 100°F.
B. Keep the resin covered with water at all times.
C. Leave the bottle fairly full when storing.
PROCEDURE

NOTE: A suitable digital or analog pH meter with glass electrode is needed to perform this test (not supplied with reagent tray).

1. Use the 10g plastic soil measure (1164) to add one level measure of soil to the 50 mL beaker (0944). Fill the graduated cylinder to the 10 mL line with deionized water from the demineralizer bottle (1152). Pour into the beaker. Stir thoroughly.

2. Let stand for at least 15 minutes.

3. Use the graduated cylinder (0416) to add 20 mL (two full measures) of Woodruff Buffer (5772). Mix well. Let stand for at least 20 minutes, stirring two or three times.

4. Determine the pH using a glass electrode pH meter. Stir mixture while making the reading.

5. Each 0.1 pH unit drop from pH 7.0 indicates a lime requirement equivalent to 1000 lbs. Calcium Carbonate (CaCO$_3$) per acre.
LIME REQUIREMENT OF SLUDGE APPLIED SOILS

MODEL LS • CODE 7491

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