**Water Treatment**

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**pHusion Organic Acid**

30% Carbon

Acidifies water.

Destroys bicarbonates.

Frees soil bonded Calcium and Magnesium.

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**Guaranteed Analysis**

<table>
<thead>
<tr>
<th>Calcium (Ca)</th>
<th>1.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sulfur (S)</td>
<td>1.50%</td>
</tr>
</tbody>
</table>

**Non-Plant Food Ingredients**

Calcium Lignosulfonate and Lignosulfonic acid act as a complexing and binding agent.

| Carbon | 30.00% |
| HPLC Sugars | 10.00% |

**pHusion Organic Acid** is a modified organic acid derived from Lignin, a natural and renewable raw material that contains carbon and sugars. It acidifies irrigation water, improves water penetration, helps free up bound nutrients in alkaline soil and supplies Carbon to soil microorganisms.

**pHusion Organic Acid** combines the unique properties of lignin and organic acids. **pHusion Organic Acid** provides the benefits of dissolving Bicarbonates and lowering pH. The lignin complex acts as a buffering agent against corroding metals which allows **pHusion Organic Acid** to be applied with conventional spraying equipment, or injected through an irrigation system. Lignosulphonate molecule displays most of the properties attributed to humus present in soils. It is a source of plant nutrients due to the carbon and sulfur present in the **pHusion Organic Acid** molecule.

**Benefits:**

- Dissolves bicarbonates which release calcium in the soil. Available calcium flocculates tight soil which, in turn, improves soil structure and reduces the incidence of localized dry spots.
- Improves fertilizer efficiency by solubilizing nutrients tied up in alkaline soils.
- Increases water use efficiency (reduces water use) due to the improvement of opening soil structure.
- Improves efficiency of alkaline sensitive pesticides.
- Carbon supplies energy to soil microorganisms.

**Retail Availability:**

- **38 Hightstown-Cranbury Station Road**
- **Cranbury, NJ 08512**
- **800.562.1291**
- **pfc@plantfoodco.com**
- **www.plantfoodco.com**

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**Directions for Use:**

**Greens, Tees and Fine Turf:** Apply 2.0 - 3.0 oz. of **pHusion Organic Acid** with 1.5 - 2 gallons of water per 1,000 sq. ft. (0.7 - 1.0 gallons of **pHusion Organic Acid** with 66-88 gallons of water per Acre) once or twice per month. For best results, irrigate after application to work **pHusion Organic Acid** solution into the soil.

**Fairways & Sports Turf:** Apply 0.5 - 1.0 gallon of **pHusion Organic Acid** with 44-88 gallons of water per Acre (1.5 - 3.0 oz of **pHusion Organic Acid** with 1 - 2 gallons of water per 1,000 sq. ft.) once or twice per month throughout the growing season. Irrigate after applying to move **pHusion Organic Acid** into the soil.

To stabilize irrigation water pH and scale control for continuous injection treatment, inject 12 - 16 oz. of **pHusion Organic Acid** in every 1,000 gallons of irrigation water with hardness of 3,500 ppm and pH of 7.5. Adjust injection rate based on titration test of irrigation water's hardness and water pH.

**Cleaning Drip Irrigation Lines:**

Injection rates are determined by water alkalinity and water pH. Inject sufficient amounts of **pHusion Organic Acid** to reduce irrigation water pH to 3. Maintain water in system for a minimum of 30 minutes. In the absence of a titration test, inject 4 to 8 quarts per acre per hour for one hour once a month.

**Releasing Tied Up Micronutrients (Complexing Agent):** Many cation based, non-chelated micronutrients (i.e. ferrous sulfate, manganese sulfate, magnesium sulfate, etc.) can become tied up in soils. Applications of **pHusion Organic Acid** with these micronutrients “complexes” them, and allows them to be more available to the plant. Apply 12 - 24 oz. of **pHusion Organic Acid** for every pound of micronutrient. (Example: For 10 lbs. of 32% Manganese Sulfate, this represents 3.2 lbs. of actual Manganese. Apply 39 - 78 oz. of **pHusion Organic Acid** to improve availability.)

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**Application Rates for pHusion Organic Acid 30% Carbon**

<table>
<thead>
<tr>
<th>Fluid Oz/1,000 sq. ft.</th>
<th>Gallons/One Acre</th>
<th>ML/100 M²</th>
<th>L/HA Litre/Hectare</th>
<th>Calcium/1,000 sq. ft.</th>
<th>Sulfur/1,000 sq. ft.</th>
<th>Carbon/1,000 sq. ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.5</td>
<td>0.5</td>
<td>48</td>
<td>5</td>
<td>0.0012</td>
<td>0.0018</td>
<td>0.0359</td>
</tr>
<tr>
<td>2.0</td>
<td>0.7</td>
<td>64</td>
<td>6</td>
<td>0.0016</td>
<td>0.0024</td>
<td>0.0485</td>
</tr>
<tr>
<td>3.0</td>
<td>1.0</td>
<td>95</td>
<td>10</td>
<td>0.0024</td>
<td>0.0036</td>
<td>0.0732</td>
</tr>
<tr>
<td>4.0</td>
<td>1.4</td>
<td>127</td>
<td>13</td>
<td>0.0032</td>
<td>0.0048</td>
<td>0.0971</td>
</tr>
<tr>
<td>6.0</td>
<td>2.0</td>
<td>191</td>
<td>20</td>
<td>0.0048</td>
<td>0.0072</td>
<td>0.1434</td>
</tr>
</tbody>
</table>

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**Available Container Sizes:**

- 2 x 2.5 gal (2 x 9.46 L) Case
- 30 gal (113.56 L) Drum
- 55 gal (208.20 L) Drum
- 275 gal (1040.99 L) Tote

**Store above 40° F.** Do not allow to freeze. PHUSOA