Evaluation of Compost Tea Mixture Injected at Planting on Yield and Quality of Organic Yellow Corn - Red Lake County

Cooperator: Bill Langlois  
Nearest Towns: Red Lake Falls  
Soil Type: Clay loam  
Tillage: Tandem Disk, Deep Ripped (summer-fall) and field cultivator (spring)  
Previous Crop: Corn/Summer fallow  
Hybrid: Pioneer 39D81  
Planting Date: 5-31-05  
Row Width: 22 inches  
Fertilizer: Injected at planting  
• Compost Tea (10 gal/a)  
• DRAMM-L (3 gal/a) hydrolyzed fish with lactic acid  
• 1 gal/a Chilean nitrate (15%N)  
• 1 gal/a potassium sulfate  
Herbicide: None  
Harvest Populations: 34,000 plants/a  
Harvest Date: 11-25-05  
Experimental Design: Randomized block with 3 replications

Purpose of study:
To evaluate the effect of injecting compost tea + DRAMM-L and trace nutrients at planting time on yield and quality of organic yellow corn.

Results:
There were no significant differences with respect to yield, test weight, protein %, oil % or starch % with injected compost tea mixture (Table 1). Moisture % was the only variable measured that was statistically different. The corn field went through adverse weather conditions with excess moisture and soil compaction which may have negated any effect of the injected compost tea mixture.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>¹Yield (bu/a)</th>
<th>Moisture (%)</th>
<th>Test wt. (lb/bu)</th>
<th>Protein (%)</th>
<th>Oil (%)</th>
<th>Starch (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tea mixture</td>
<td>49.8</td>
<td>22.1</td>
<td>48.4</td>
<td>8.1</td>
<td>5.6</td>
<td>69.6</td>
</tr>
<tr>
<td>No Tea mixture</td>
<td>45.9</td>
<td>20.7</td>
<td>48.1</td>
<td>8.3</td>
<td>5.8</td>
<td>68.9</td>
</tr>
<tr>
<td>LDS 0.05</td>
<td>NS</td>
<td>1.1</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
</tbody>
</table>

¹Corrected to 15.5% moisture