Gypsum Application to Organic Soybeans—Clay County

Cooperator: Lynn Brakke
Nearest Town: Comstock
Soil Type: Fargo Clay
Tillage: Fall chiseled, spring cultivated
Previous Crop: Wheat
Variety: NK S 08-80
Planting Date: June 2, 2003
Seeding Rate: 237,600 seeds per acre
Row Width: 22 inches
Fertilizer: nothing applied
Weed Control: Plots were cultivated June 20, July 3, and July 17 and hand weeded July 24.
Populations: See table
Harvest Date: October 6, 2003
Experimental Design: Randomized complete block with 4 replications

Purpose of Study:
To evaluate yield, test weight, crop height and population response of organic soybean to the application of different rates of gypsum per acre.

Results:
In this experiment no effects of application of gypsum were found on yield, test weight, height or population of NK S 08-80 organic soybeans.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yield (bu/a)</th>
<th>Oil (%)</th>
<th>Protein (%)</th>
<th>Test Weight (lb/bu)</th>
<th>Height (inches)</th>
<th>Population (plants/a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 (lb/a)</td>
<td>30.2</td>
<td>19.7</td>
<td>33.3</td>
<td>58.3</td>
<td>25.9</td>
<td>203,000</td>
</tr>
<tr>
<td>500</td>
<td>28.7</td>
<td>20.2</td>
<td>33.9</td>
<td>58.4</td>
<td>26.1</td>
<td>217,000</td>
</tr>
<tr>
<td>1000</td>
<td>29.6</td>
<td>19.7</td>
<td>33.7</td>
<td>58.3</td>
<td>25.4</td>
<td>214,000</td>
</tr>
<tr>
<td>1500</td>
<td>29.3</td>
<td>19.6</td>
<td>33.0</td>
<td>58.2</td>
<td>25.1</td>
<td>220,000</td>
</tr>
<tr>
<td>LSD (0.05)</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
</tbody>
</table>

1 Stand counts were taken June 18, 2003.

Funding:
NDSU and Northwest Regional Partnership

For additional information:
Hans Kandel
Paul Porter