Yield and Quality of Organically Grown Soybean Treated With a Plant Stimulant—Clay County

Cooperator: Lynn Brakke Organic Farms
Nearest Town: Comstock, MN
Soil Type: Fargo Silty Clay
Spring Tillage: One pass with a field cultivator
Previous Crop: Corn
Planting Date: 5/29/2014
Variety: Sheyenne
Row Width: 22 inches
Planting Population: 200,000
Harvest Date: 10/1/14
Experimental Design: Randomized Complete block with four replicates

Purpose of Study:
Evaluate Dakota REV™ CPF 6000 on soybean yield and quality in an organic production system.

Materials and Methods:
Dakota REV™ CPF 6000 was applied in-furrow to soybean using a John Deere 7300 Vacuum Planter. All plots except untreated check received product at one or two quarts per acre. Field plots were 18 rows wide and 30 feet long. Stand counts were taken on middle two rows (rows 9 and 10) on 11 June and 1 October. Five plants per plot were harvested on 1 October, from row 8 or 11, to determine pod count and 100 seed weight. At harvest, ten feet of row was collected from the middle two rows of each plot and used to determine yield and quality. Soybean yield was adjusted to 13% moisture.

Results:
There was no significant difference between treatments for stand counts taken on 11 June and 1 October (data not shown). There was no significant difference between treatments for yield, protein, oil, pod count, or hundred seed weight (table 1).

Table 1. Yield, quality, pod count, and seed weight from organically grown soybean treated with Dakota REV™ CPF 6000. Comstock, MN, 2014.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yield (bu/ac)</th>
<th>Protein (%)</th>
<th>Oil (%)</th>
<th>Pod count (number/plant)</th>
<th>100 seed weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated check</td>
<td>31.7</td>
<td>33.4</td>
<td>18.2</td>
<td>27.0</td>
<td>13.0</td>
</tr>
<tr>
<td>Dakota REV™ CPF 6000 1 qt/a</td>
<td>32.9</td>
<td>33.2</td>
<td>18.2</td>
<td>22.9</td>
<td>13.4</td>
</tr>
<tr>
<td>Dakota REV™ CPF 6000 2 qt/a</td>
<td>33.7</td>
<td>33.3</td>
<td>18.2</td>
<td>22.9</td>
<td>12.7</td>
</tr>
</tbody>
</table>

LSD 0.05 = NS NS NS NS NS

For Additional Information:
Randy Nelson

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