Evaluation of Foliar Fertilizer Application on Soybean Yield

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Objective
To determine what affect of foliar fertilizer has on soybean yield.

Background
Crop Year: 2011
Cooperator: Morrow SWCD/County Home Farm
County/Town: Morrow/Mt. Gilead
Soil Type: Centerburg Silt Loam
Drainage: Random subsurface
Previous Crop: Corn
Variety: Pioneer 93M42
Tillage: No-Till

Soil Test
pH = 6
OM = 3.5%
P = 60 ppm
K = 140 ppm
CEC = 9.9

Planting Date: June 2,
Seeding Rate: 210,000 seeds/ac
Row Width: 7.5 inches
Herbicide: June 6, 3.5 oz Canopy and 1 qt Buccaneer Plus w/Array
Harvest Date: November 8

Methods
The study consisted of three replications in a randomized complete block experimental design. One treatment of 14-0-4-0.2Mg was applied on August 2, 2011 at a rate of 2 gal per acre. A non-treated control was also used. The treatments were made with a Case Patriot sprayer using a 90 foot boom. The center 50 feet of each treatment were harvested with an IH 1480 combine and weighed with a weigh wagon. Harvest area did not include wheel tracks. Row length averaged 972 feet. Yields were adjusted to 13% grain moisture.

Results

<table>
<thead>
<tr>
<th>Soybean Yield (bu/ac) Response to Foliar Fertilizer</th>
<th>Yield (bu/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fertilizer</td>
<td>Yield (bu/A)</td>
</tr>
<tr>
<td>Yes</td>
<td>47</td>
</tr>
<tr>
<td>None</td>
<td>48.8</td>
</tr>
<tr>
<td></td>
<td>NS</td>
</tr>
</tbody>
</table>

Summary
There was not a significant difference in yields between the treatments. Rainfall for June to October was 2.46 inches above the 30 year average. Yields were typical for most years at this location. Thus for this one year study, the foliar fertilizer and no fertilizer treatment had the same yield. No differences in weed control, final plant stand or diseases were observed.
Acknowledgement
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