Effect of Re-NforceK on Soybean Yield

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Objective
To evaluate soybean response to the application of Re-NforceK over yield.

Background
Crop Year: 2011
Location: OSU Unger Farm
County/Town: Crawford
Soil Type: Blount
Drainage: Systematic
Previous Crop: corn
Tillage: No – tillage

Soil Test: pH 6.8, P 23 ppm, K 124 ppm
Soybean Planting Date: May 31, 2011
Soybean Variety: Pioneer 93M43
Row width; 10 inches
Fertilizer: 18-46-60 per acre
Soybean Seeding Rate: 165,000 seeds/acre
Soybean Harvest Date: October 17, 2011

Methods
Pioneer 93M43 soybeans were planted May 31, 2011 in 10 inch rows with a Great Plains drill at a rate of 165,000 seeds per acre. Re-NforceK (RK) was applied to soybeans in 15 gallons of water at a rate of 2 quarts to the acre to soybean in reproductive stages 1 to 2. RK as applied (2 quarts to the acre) contained .29 lbs of nitrogen, 1.17 lbs of potash and .76 lbs of sulfur. This study used a randomized complete block design with two treatments replicated 4 times to compare soybean yield over RK and a control. Plot size was 100 by 120 feet. A combine with a 20 foot header was used to harvest plots on Nov. 18, 2011. Two measurements from each plot were made with a weigh wagon and averaged for each single observation.

Treatments
1) RK application to soybean @ 2 qts/acre
2) Control

Results

Table 1. Moisture and Yield of 93M43 Soybeans

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Ave. Moisture</th>
<th>Ave. Yield (bu/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RK on beans</td>
<td>10.6</td>
<td>55</td>
</tr>
<tr>
<td>Control</td>
<td>10.7</td>
<td>53</td>
</tr>
<tr>
<td>LSD (P=0.05)</td>
<td></td>
<td>NS</td>
</tr>
<tr>
<td>CV(%)</td>
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<td>3</td>
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Summary
There was not a significant difference in yield between soybeans treated with RK and the control. This study represented data from one year; a better conclusion of the efficacy of RK may be obtained by repeating the study over additional years and sites.

Acknowledgement
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