Sugar Application in Corn

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Objective
To determine the yield response and economic impact of applying sugar to corn at V5.

Background
Crop Year: 2017
Location: Williams Farms
County/Town: Ross/Chillicothe
Soil Type: Gessie-Eldean-Ross
Drainage: Surface only
Previous Crop: Soybeans
Tillage: Conventional
Planting Date: 4/30/2017
Application Date: 6/5/2017
Nitrogen: 180 lbs/acre
Seeding Rate: 36,500
Harvest Date: 10/31/2017

Methods
This was a block design with three replications. Each plot was 90 ft wide and 450 ft long with the center 30 ft being harvested. Holding all other variables consistent, the treatments consisted of a control and a 2 lbs/acre table sugar application tank mixed with round-up herbicide application applied at V5. This is being promoted locally by a seed dealer as a method to increase yields with Seed Consultant varieties.

Results
Corn Yield Response to Sugar Application at V5

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Yield (lbs/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>192.42</td>
</tr>
<tr>
<td>Sugar</td>
<td>199.74</td>
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</tbody>
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ANOVA p=0.10 Not Significant LSD 23.32

Summary
There was no consistency in yield response in the field trial. Even though there was an observed increase in mean yield of 7.32 bushels per acre in the treatments receiving sugar application, the increase was not statistically significant and field data showed in one replication the untreated plot yielded higher that the treated plot. More research needs to be conducted to determine if this was a field variation problem, or an ineffective treatment issue.

Acknowledgement
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