FIELD EXPERIMENT HISTORY

Title: Corn response to XiteBio plant growth promoting rhizobacteria

Experiment: 11Biologicals

Personnel: J. G. Lauer, K. D. Kohn, T. H. Diallo

Year: 2016

Trial ID: 6130

Location: Arlington, WI

County: Columbia

Supported By: HATCH, XiteBio

Site Information

Field: ARS 408

Previous Crop: Alfalfa

Soil Type: Plano Silt Loam

Soil Test: Date: 10/01/16  pH: 6.2  OM (%): 3.3  P (ppm): 26  K (ppm): 79

Plot Management

Tillage Operations: Chisel Plow

Field Cultivator

Preplant Analysis: N/A  Rate lbs/A: N/A  Date: N/A

Starter Analysis: 9-23-30  Rate lbs/A: 200 lbs/A  Date: 5/3/16

Post plant Analysis: N/A  Rate lbs/A: N/A  Date: N/A

Fertilizer:

Manure: Manure 1050 gal

Herbicide:

Hornet 5 oz/A

Medal II EC 24 oz/A

Insecticide:

Force 3G 4.4 lbs/A

Hybrid:

Dekalb DKC56-03RIB

Irrigation:

None

Planting Date: 5/3/16  Planting Depth: 1.5"  Row Width: 30"

Target Plant Density: 32000 plants per acre

Planting Method: Almaco Precision Planter

Harvest Date: 10/10/16

Harvest Method: Massey 8XP

Harvest Plot Size: 5' x 23'

Harvest Plant Density: 35085 plants per acre

Notes: XiteBio applied at 250ml/A on 6/16/16 @ V7 Return value for treated plots = Adjusted Gross Income (AGI) - application cost ($10.00/A) - product cost ($10.00/A).

Experimental Design

Design: RCB  Replications: 4

Plot Size Seeded: 10' x 25'  Experiment Size: 0.05 A

Harvest Plot Size: 5' x 23'  Harvest Plant Density: 35085 plants per acre

Factors/Treatments:

Treatment

1) UTC

2) XiteBio

Results: Table 1611-01.
### Table: 1611-01. Corn Grain Yield Response to XiteBio.
**Arlington, WI - 2016.**

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Harvest density</th>
<th>Grain yield</th>
<th>Grain moisture</th>
<th>Test weight</th>
<th>Total</th>
<th>Lodged</th>
<th>Lodged</th>
<th>Lodged</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>plants/A</td>
<td>bu/A</td>
<td>%</td>
<td>lb/bu</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Untreated Check</td>
<td>35606</td>
<td>268</td>
<td>23.7</td>
<td>53</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>815</td>
</tr>
<tr>
<td>XiteBio @ 250ml/A</td>
<td>34564</td>
<td>273</td>
<td>23.3</td>
<td>54</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>833</td>
</tr>
<tr>
<td>Mean</td>
<td>35085</td>
<td>270</td>
<td>23.5</td>
<td>53</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>824</td>
</tr>
</tbody>
</table>

**Probability(%)**
- Treatment (T) 38.2 42.8 32.6 31.6 65.9 100 65.9 41.5

**LSD(0.10)**
- Treatment (T) NS NS NS NS NS NS NS NS
FIELD EXPERIMENT HISTORY

Title: Corn response to XiteBio plant growth promoting rhizobacteria
Experiment: 11Biologicals
Year: 2016
Personnel: J. G. Lauer, K. D. Kohn, T. H. Diallo
Trial ID: 6131
Location: Fond du Lac, WI
County: Fond du Lac
Supported By: HATCH, XiteBio

Site Information
Field: Chisel Plow
Previous Crop: Soybean
Soil Type: Virgil Silt Loam
Soil Test: Date: 10/01/16
pH: 6.6
OM (%): 2.9
P (ppm): 21
K (ppm): 111

Plot Management
Tillage Operations: Chisel Plow
Field Cultivator
Fertilizer:
Preplant Analysis: 46-0-0
Rate lbs/A: 391
Date: N/A
Starter Analysis: 9-23-30
Rate lbs/A: 200 lbs/A
Date: 5/6/16
Post plant Analysis: N/A
Rate lbs/A: N/A
Date: N/A

Herbicide: Acuron 3.0 qt/A
Insecticide: Force 3G 4.4 lbs/A
Hybrid: Dekalb DKC48-12RIB
Irrigation: None

Planting Date: 5/6/16
Planting Depth: 1.5"
Row Width: 30"
Target Plant Density: 32000 plants per acre
Planting Method: Almaco Precision Planter
Harvest Date: 10/11/16
Harvest Method: Massey 8XP

Notes: XiteBio applied at 250ml/A on 6/15/16 @ V6
Return value for treated plots = Adjusted Gross Income (AGI) - application cost ($10.00/A) - product cost ($10.00/A).

Experimental Design
Design: RCB
Replications: 4
Plot Size Seeded: 10' x 25'
Experiment Size: 0.05 A
Harvest Plot Size: 5' x 23'
Harvest Plant Density: 33901 plants per acre
Factors/Treatments:

1) UTC
2) XiteBio

Results: Table 1611-02.
### Table: 1611-02. Corn Grain Yield Response to XiteBio.
Fond du Lac, WI - 2016.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Harvest density</th>
<th>Grain yield</th>
<th>Grain moisture</th>
<th>Test weight</th>
<th>Lodged Total</th>
<th>Lodged Stalk</th>
<th>Lodged Root</th>
<th>AGI $/A</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>plants/A</td>
<td>bu/A</td>
<td>%</td>
<td>lb/bu</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>$/A</td>
</tr>
<tr>
<td>Untreated Check</td>
<td>33712</td>
<td>236</td>
<td>19.9</td>
<td>54</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>737</td>
</tr>
<tr>
<td>XiteBio @ 250ml/A</td>
<td>34090</td>
<td>239</td>
<td>20.1</td>
<td>54</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>744</td>
</tr>
<tr>
<td>Mean</td>
<td>33901</td>
<td>237</td>
<td>20.0</td>
<td>54</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>741</td>
</tr>
</tbody>
</table>

**Probability(%)**

<table>
<thead>
<tr>
<th>Treatment (T)</th>
<th>Probability (%)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Treatment (T)</td>
<td>59.4</td>
<td>35.0</td>
<td>37.6</td>
<td>44.7</td>
<td>39.1</td>
<td>39.1</td>
<td>100</td>
<td>41.9</td>
</tr>
</tbody>
</table>

**LSD(0.10)**

<table>
<thead>
<tr>
<th>Treatment (T)</th>
<th>NS</th>
<th>NS</th>
<th>NS</th>
<th>NS</th>
<th>NS</th>
<th>NS</th>
<th>NS</th>
<th>NS</th>
</tr>
</thead>
</table>
Title: Corn response to XiteBio plant growth promoting rhizobacteria

Experiment: 11Biologicals

Personnel: J. G. Lauer, K. D. Kohn, T. H. Diallo

Location: Janesville, WI

Supported By: HATCH, XiteBio

**Field Information**

### Soil Information

<table>
<thead>
<tr>
<th>Field</th>
<th>Previous Crop</th>
<th>Soil Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plano Silt Loam</td>
<td>Corn</td>
<td>Ph: 6.2</td>
</tr>
<tr>
<td>OM (%): 3.9</td>
<td>K (ppm): 48</td>
<td></td>
</tr>
</tbody>
</table>

**Plot Management**

**Tillage Operations:** Chisel Plow Field Cultivator

**Fertilizer:**
- Preplant Analysis: 46-0-0
- Starter Analysis: 9-23-30
- Post plant Analysis: N/A

**Herbicide:**
- Accent Q 0.9 oz/A
- Lumax 3.0 gal/A

**Irrigation:** None

**Planting Date:** 4/26/16

**Planting Depth:** 1.5"

**Row Width:** 30"

**Hybrid:** Dekalb DKC56-03RIB

**Target Plant Density:** 32,000 plants per acre

**Planting Method:** Almaco Precision Planter

**Harvest Date:** 10/5/16

**Harvest Method:** Massey 8XP

**Harvest Plot Size:** 5' x 23'

**Experimental Design**

**Design:** RCB

**Replications:** 4

**Plot Size Seeded:** 10' x 25'

**Experiment Size:** 0.05 A

**Harvest Plot Size:** 5' x 23'

**Harvest Plant Density:** 34,801 plants per acre

**Factors/Treatments:**

**Treatment:**
1) UTC
2) XiteBio

**Results:** Table 1611-03.
## Table: 1611-03. Corn Grain Yield Response to XiteBio.
### Janesville, WI - 2016.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Harvest density</th>
<th>Grain yield</th>
<th>Grain moisture</th>
<th>Test weight</th>
<th>Total</th>
<th>Lodged</th>
<th>AGI</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>plants/A</td>
<td>bu/A</td>
<td>%</td>
<td>lb/bu</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Untreated Check</td>
<td>34564</td>
<td>255</td>
<td>23.3</td>
<td>55</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>XiteBio @ 250ml/A</td>
<td>35037</td>
<td>263</td>
<td>23.2</td>
<td>55</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Mean</td>
<td>34801</td>
<td>259</td>
<td>23.2</td>
<td>55</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**Probability(%)**

| Treatment (T) | 19.4 | 15.3 | 87.8 | 61.2 | 18.2 | 18.2 | 100  | 16.3 |

**LSD(0.10)**

| Treatment (T) | NS   | NS   | NS   | NS   | NS   | NS   | NS   | NS   | NS   |