WHAT ALTERNATIVES DO YOU HAVE FOR FIGHTING NEMATODES IN YOUR SOYBEANS?

Albaugh’s BIOst® Nematicide 100 seed treatment provides you with a flexible and proven “alternative” for enhanced nematode protection.

Albaugh’s Goal is to Deliver Value:
1. BIOst® Nematicide 100 averages a 3.2 bu/acre increase over the fungicide and insecticide seed treatment control.
2. BIOst® Nematicide 100 provides nematode protection against the most important nematodes in soybeans, not just Soybean Cyst Nematode.
3. University studies indicate that BIOst® Nematicide 100 provides better control of nematode eggs and juveniles than competitive seed treatment nematicides.
4. OMRI certified product and does not require a closed system for seed treatment application.

For more information on the BIOst® Nematicide 100 contact a member of the Albaugh Seed Treatment Technology Team. Jay Stroh @ Jays@albaughllc.com, David Winston @ Davidw@albaughllc.com or Lee Stewart @ Lees@albaughllc.com

Soybeans

BIOst® Nematicide 100 is an innovative broad spectrum seed treatment nematicide for soybeans with activity on Soybean Cyst, Root-knot and Reniform nematodes.

What is BIOst® Nematicide 100?
- It is a seed treatment nematicide that kills nematodes within 24 to 72 hours.
- It has activity on eggs and juveniles of the most important nematodes in soybeans.
- BIOst® Nematicide 100 is a bio-nematicide derived from heat-killed Burkholderia rinojensis and its spent fermentation media – non-living.
- It is a nematicide with multiple modes of action via enzymes and toxins.
- It is a concentrated liquid formulation with 3 year shelf-life stability.
- Use rate on soybeans – 3 fl oz/cwt.
- It also provides additional protection on soil dwelling insects (wireworms/seed corn maggot).

Proven Field Performance (Yield Data)

124 SCN Field Trials (bu/A)

- BIOst® Nematicide 100 yields equal-to or greater than Clariva 62% of the time + 1.24 bu/A

- Field Sites were identified as having a history of Soybean Cyst Nematodes (SCN)
- University and contract research field trials - 124 trials in 12 soybean growing states in 2016-2017

BIOst® Nematicide 100 is a broad spectrum nematicide.
In 2017, 3 Field Sites were identified as having a history of Soybean Cyst Nematodes (SCN). In 2017, 21 SIU trials blends out yields 22 Field Sites were identified as having a history of Soybean Cyst Nematodes (SCN) blends out yields. In 2017, BIOST™ 17 Clariva Dr. Greg Tylka blends by an average of 4.0648 by 3.77 improvements root health by significantly increasing root volume, surface area and the number of root tips over roots protected with Avicta® and Clariva®. Similar letters indicate no significant differences between treatments - (delta = 0.15) 100 was 3 times more effective on reducing Soybean Cyst and Root Knot Nematodes per gram of root than -2 ILeVo® used at commercial nematicide rates. +1.16 bu/A in 3 trials conducted in IA. In 2017, BIOst® Nematicide 100 yields equal to or greater than ILeVo® 75% of the time. 62.19 bu/A in 3 trials conducted in IA. • In 2017, BIOst® Nematicide blends out yields ILeVo® by an average of 1.23 bu/A in 3 trials conducted in IA. • In 2017, BIOst® Nematicide blends out yields ILeVo® by an average of 1.23 bu/A in 3 trials conducted in IA. • In 2017, BIOst® Nematicide blends out yields ILeVo® by an average of 1.23 bu/A in 3 trials conducted in IA. • In 2017, BIOst® Nematicide blends out yields ILeVo® by an average of 1.23 bu/A in 3 trials conducted in IA. • In 2017, BIOst® Nematicide blends out yields ILeVo® by an average of 1.23 bu/A in 3 trials conducted in IA. • In 2017, BIOst® Nematicide blends out yields ILeVo® by an average of 1.23 bu/A in 3 trials conducted in IA.

Proven Technology Supported by Science
Ph.D. Graduate Student Research - Mississippi State University

Roots challenged with Soybean Cyst Nematode for 60 Days

<table>
<thead>
<tr>
<th></th>
<th>F&amp;I Control</th>
<th>BIOst® Nematicide 100</th>
<th>Avicta</th>
<th>Clariva</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5304 ± 0.134</td>
<td>9.4846 c</td>
<td>4.0648 b</td>
<td>2.9810 ab</td>
<td></td>
</tr>
<tr>
<td>226.6175 ± 4.094</td>
<td>315.7823 b</td>
<td>315.7823 b</td>
<td>322.2248 b</td>
<td></td>
</tr>
<tr>
<td>708.5 ± 16.72</td>
<td>14911.6 d</td>
<td>14911.6 d</td>
<td>25216.4 e</td>
<td></td>
</tr>
</tbody>
</table>

- BIOst® Nematicide blends out yields the F&I Check by 3.27 bu/A (graphs)
- In 2017, BIOst® Nematicide blends out yield ILeVo® by 1.3 bu/A (pictures)

Southern Illinois University

2017 SCN trial

<table>
<thead>
<tr>
<th></th>
<th>41.28 bu/A</th>
<th>42.58 bu/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Jason Bond - SIU trials (2016/2017)</td>
<td>51.96</td>
<td>52.56</td>
</tr>
<tr>
<td>F&amp;I Check</td>
<td>49.29</td>
<td>50.56</td>
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- In 2017, BIOst® Nematicide blends out yields ILeVo® by an average of 1.23 bu/A in 6 trials conducted in AR, MS, LA, NC, VA and IA.

Iowa State University – Dr. Greg Tylka

Root-knot and Reniform Protection – Southern U.S.

Proven Field Performance (Yield Data)

24 SCN Field Trials (bu/A)

- Field Sites were identified as having a history of Soybean Cyst Nematodes (SCN)
- University and contract research field trials - 24 trials in 8 soybean growing states in 2016-2017

- BIOst® Nematicide 100 yields equal to or greater than ILeVo® 75% of the time
Proven Technology Supported by Science

**Ph.D. Graduate Student Research - Mississippi State University**

Roots challenged with Soybean Cyst Nematode for 60 Days

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<tr>
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<th>Root Tips</th>
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</thead>
<tbody>
<tr>
<td>Stillwater</td>
<td>2,530.4</td>
<td>5,181.4</td>
<td>4,084.6</td>
<td>2.9818</td>
<td>ab</td>
</tr>
<tr>
<td>Delta</td>
<td>226,617.5</td>
<td>490,3604</td>
<td>315.7023</td>
<td>122.2248</td>
<td>b</td>
</tr>
<tr>
<td>Mississippi State</td>
<td>16472.6</td>
<td>14391.6</td>
<td>25216.4</td>
<td>c</td>
<td></td>
</tr>
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- **BIOSt® Nematicide** improves root health by significantly increasing root volume, surface area and the number of root tips per root protected with Avicta® and Clariva®.
- Similar letters indicate no significant differences between treatments (alpha = 0.10)

- **ILeVo®** blends out yields **23 bu/A** with **Avicta®** by **an average of 1.23 bu/A in 3 trials conducted in IA**

**Southern Illinois University**

- **BIOSt® Nematicide** 100 was **3 times more effective** on reducing Soybean Cyst and Root-knot Nematodes per gram of root than ILeVo® used at commercial nematicide rates.

**Iowa State University – Dr. Greg Tylka**

- **In 2017, BIOSt® Nematicide blends out yields Clariva® by 3.27 bu/A – Ames, IA (GU)**

**Proven Field Performance (Yield Data)**

**24 SCN Field Trials (bu/A)**

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**Root-knot and Reniform Protection – Southern U.S.**

- **BIOSt® Nematicide blends out yields ILeVo® by an average of 1.25 bu/A in 6 trials conducted in AR, MS, AL, NC, VA and LA**

**Southern Soybean Nematicide Trials – (bu/A)**

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**Soybeans**

F&I Control | BIOSt® Nematicide 100 | Avicta | Clariva |
---|---|---|---|
2.5394 c | 5.1814 c | 4.0846 b | 2.9818 ab |
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**Ph.D. Graduate Student Research - Mississippi State University**

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Always read and follow label instructions. BIOSt® is a registered trademark of Albaugh, LLC. Avicta® is a registered trademark of Bayer. Clariva® is a registered trademark of Bayer.®

Albaugh and ILevo® are registered trademarks of Bayer.
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