Targeted Protection Against the Threats that Matter Most

Avicta® Bion® Cotton seed treatment, an on-seed application of separately registered products, is an economical way to defend your cotton crop with targeted protection from the yield-robbing factors that matter most. Designed specifically for the needs of West Texas growers, Avicta Bion Cotton offers best-in-class protection from nematodes and Western flower thrips and brings proven efficacy against black root rot. Use Avicta Bion Cotton to help safeguard your cotton investment where it counts.

### Features and Benefits
- University-recommended protection against black root rot (*Thielaviopsis basicola*)
- A step change in protection against black root rot
- Provides early-season disease protection against *Rhizoctonia* and *Fusarium*
- Reduces the reproduction of root knot nematodes
- Offers multiple modes of action for superior insect and nematode control
- Protects cotton from all important nematode species
- Broad-spectrum protection against insect pests, including Western flower thrips and aphids

### Disease Protection
- Black root rot
- *Fusarium* wilt
- Fungi that cause pre- and post-emergent damping-off

### Insect Protection
- Cotton aphids
- Cotton fleahoppers (suppression)
- Tobacco thrips
- Western flower thrips

### Nematode Protection
- Root knot nematode
- Lance nematode
- Reniform nematode
Avicta Bion Cotton takes early-season seed protection to a new level. Avicta Bion Cotton-treated seed gives growers a head start in their battle against many pests, including Western flower thrips, black root rot, *Fusarium* wilt and nematodes. Growers can expect higher yield potential and greater return on investment potential.

- Research shows Gaucho® insecticide and thiodicarb are not very effective on Western flower thrips
- Cruiser® 5FS seed treatment insecticide provided the best protection against Western flower thrips compared to Gaucho in Syngenta and third party trials
- Based on historical Syngenta trials, Avicta Complete Cotton (abamectin) is 470 times more active on root knot nematode than Aeris® insecticide (thiodicarb)
- Bion® plant activator induces host plant resistance which reduced the incidence of black root rot-related root necrosis by 42 percent in a Texas trial

### Fusarium Wilt Control (110 DAP)

<table>
<thead>
<tr>
<th>Plants Wilted/140 Row Foot</th>
<th>Avicta Complete Cotton Plus Bion</th>
<th>Avicta Complete Cotton</th>
<th>Untreated Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>2.75</td>
<td>7.3</td>
<td>1</td>
</tr>
</tbody>
</table>

All treated with Cruiser® at 0.34 mg a.i./seed
TX – USSC0100109391 – Uvalde
West Texas – 2009
DAP = days after planting

### Black Root Rot Control

<table>
<thead>
<tr>
<th>Percent Infection (%)</th>
<th>Root</th>
<th>Hypocotyl</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4</td>
<td>6.5</td>
<td>11.5</td>
</tr>
<tr>
<td>35.1</td>
<td>31.2</td>
<td>35.2</td>
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</tbody>
</table>

Dr. Harun Toksoz and Dr. Craig Rothrock - data from
Dr. Toksoz Ph.D. thesis - University of Arkansas

### Yield Protection with Avicta Complete Cotton

<table>
<thead>
<tr>
<th>Lint Yield (lbs/A)</th>
<th>1111</th>
<th>1078</th>
<th>1020</th>
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</thead>
</table>

Five years of evaluations – 14 trials and 44 replicated direct comparisons; Texas