Seed Treatments to Manage Insect and Nematode Pests in Cotton: A Focus on Thrips

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Efficacy of Seed Treatments Against Thrips

- Thrips occurrence in untreated plots
- Thrips efficacy changes due to rate increases
- Thrips efficacy changes due to the addition of a nematicide
- Using GreenSeeker NDVI for plant vigor ratings
Fig. 1 Thrips Occurrence In Untreated Plots
Fig. 2  Efficacy of Cruiser Rates and AVICTA Complete PAC
Example 2) GreenSeeker NDVI

- Improves plot data management
  - 1) handheld
  - 2) mobile
GreenSeeker NDVI
Example – handheld at cottons pre-bloom stage

![Bar chart showing NDVI values for different treatments at 38 and 48 DAP.](chart.png)
Use of NDVI To evaluate plots
Test - SJ08CT03a, on light soil with high nematodes

- Geo-referenced tiers on the Northeast Res. Sta.
- .shp point data, 40 DAP represents GreenSeeker NDVI
- Mobile mount, RTK GPS
- Darker blue equal higher NDVI due to Temik 15G sidedress treatments.
- Back ground is Veris ec_α
Other considerations for the use of seed treatments

• Implications for resistance in other pests
  – mites, aphids and plant bugs

• Pest status
  – expect changes in species due shifts in crop status on farms

• Management recommendations
  – plan for soil type variability and nematode pest status
### LSU Analysis - McCarter

<table>
<thead>
<tr>
<th>Effect</th>
<th>DF</th>
<th>F Value</th>
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<td>Ec_zone</td>
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![Bar chart showing Seed Treatment X N Rate](chart.png)
• Seeding pests
  – thrips
  – aphids
  – mites
  – fungi
  – nematodes