COTTON: *Gossypium hirsutum* (L.), ‘DeltaPine 491’

EFFICACY OF TRIMAX PRO COMBINATIONS AGAINST TARNISHED PLANT BUG ON COTTON, 2006

**D. R. Cook, D. R. Burns, and E. Burris**

LSU AgCenter
Northeast Research Station
St. Joseph, LA 71366
Phone: (318) 766-3769
Fax: (318) 766-4278
E-mail: dcook@agcenter.lsu.edu

Tarnished plant bug: *Lygus lineolaris* (Palisot de Beauvois)

Selected insecticide combinations were evaluated for control of tarnished plant bug (TPB) at the LSU AgCenter Northeast Research Station in Tensas Parish, LA. Cottonseed was planted on a Commerce silt loam soil on 11 Jun. Plot size was four rows (centered on 40 inches) by 50 ft. Treatments were replicated four times in a RCB. Treatments were applied on 7 and 15 Aug with a high clearance sprayer and CO₂ charged spray system calibrated to deliver 6 gpa through Teejet TX-8 hollow cone nozzles (2/row). Treatment efficacy was determined by sampling 12 row ft of the center two rows of each plot with a black 3 ft drop cloth at 2, 4, and 7 DAT (app 1) and 2 and 6 DAT (app 2). Data were subjected to ANOVA and means separated according to Fisher’s Protected Least Significant Difference. Between the initial application and the end of sampling, rainfall of 1.93 inches occurred.

There were no significant differences among treatments for densities of TPB adults at 2, 4, or 7 DAT (app 1), at 2 or 6 DAT (app 2), or across sample dates. There were no significant differences among treatment for densities of TPB nymphs at 2 and 7 DAT (app 1) or 2 DAT (app 2). At 4 DAT (app 1), all of the insecticide treatments resulted in significantly lower densities of TPB nymphs compared to the non-treated control. Also plots treated with Trimax Pro plus Orthene or Trimax Pro plus Vydate had significantly fewer TPB nymphs compared to plots treated with Trimax Pro alone. All of the insecticide treatments, except Trimax Pro, significantly reduced densities of TPB nymphs compared to the non-treated control at 6 DAT (app 2). Plots treated with Trimax Pro plus Diamond had significantly fewer TPB nymphs compared to plots treated with Trimax Pro alone. Across all sample dates, all of the insecticide treatments, except Trimax Pro, significantly reduced densities of TPB nymphs compared to the non-treated control. No phytotoxicity was observed with any of the insecticide treatments in this test.

<table>
<thead>
<tr>
<th>Treatment/formulation</th>
<th>Rate/acre lb (Al)</th>
<th>2 DAT (app 1) Adults</th>
<th>2 DAT (app 1) Nymphs</th>
<th>4 DAT (app 1) Adults</th>
<th>4 DAT (app 1) Nymphs</th>
<th>7 DAT (app 1) Adults</th>
<th>7 DAT (app 1) Nymphs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trimax Pro 4.43SC</td>
<td>0.0625</td>
<td>0.25</td>
<td>4.75</td>
<td>0.00</td>
<td>8.00b</td>
<td>0.75</td>
<td>13.25</td>
</tr>
<tr>
<td>Trimax Pro 4.43SC + Bidrin 8E</td>
<td>0.0625 + 0.33</td>
<td>1.25</td>
<td>6.50</td>
<td>0.00</td>
<td>7.75b</td>
<td>0.50</td>
<td>10.25</td>
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<tr>
<td>Trimax Pro 4.43SC + Orthene 90S</td>
<td>0.0625 + 0.33</td>
<td>0.25</td>
<td>4.25</td>
<td>0.25</td>
<td>2.25c</td>
<td>1.75</td>
<td>10.25</td>
</tr>
<tr>
<td>Trimax Pro 4.43SC + Vydate 3.77L</td>
<td>0.0625 + 0.33</td>
<td>0.00</td>
<td>8.00</td>
<td>0.00</td>
<td>3.25c</td>
<td>0.75</td>
<td>11.25</td>
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<tr>
<td>Trimax Pro 4.43SC + Diamond 0.83EC</td>
<td>0.0625 + 0.039</td>
<td>0.50</td>
<td>5.75</td>
<td>0.25</td>
<td>5.75bc</td>
<td>0.25</td>
<td>11.50</td>
</tr>
<tr>
<td>Non-treated</td>
<td></td>
<td>0.75</td>
<td>9.25</td>
<td>0.25</td>
<td>12.00a</td>
<td>0.75</td>
<td>18.50</td>
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</tbody>
</table>

P > F 0.56 0.79 0.68 <0.01 0.32 0.60

Means within columns followed by a common letter are not significantly different (FP LSD; P = 0.05)).
Table 2

<table>
<thead>
<tr>
<th>Treatment/formulation</th>
<th>Rate/acre lb (AI)</th>
<th>2 DAT (app 2) Adults</th>
<th>2 DAT (app 2) Nymphs</th>
<th>6 DAT (app 2) Adults</th>
<th>6 DAT (app 2) Nymphs</th>
<th>Mean¹ Adults</th>
<th>Mean¹ Nymphs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trimax Pro 4.43SC</td>
<td>0.0625</td>
<td>2.75</td>
<td>9.25</td>
<td>0.50</td>
<td>23.00ab</td>
<td>0.85</td>
<td>11.65ab</td>
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<tr>
<td>Trimax Pro 4.43SC + Bidrin 8E</td>
<td>0.0625</td>
<td>0.75</td>
<td>3.50</td>
<td>0.00</td>
<td>13.50bc</td>
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<td>Trimec Pro 4.43SC + Orthene 90S</td>
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<td>10.25bc</td>
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<td>0.25</td>
<td>12.50bc</td>
<td>0.55</td>
<td>7.90b</td>
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<tr>
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<td>0.50</td>
<td>5.00c</td>
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<td>34.75a</td>
<td>0.85</td>
<td>16.65a</td>
</tr>
</tbody>
</table>

*Means within columns followed by a common letter are not significantly different (FP LSD; *P* = 0.05).* ¹*Means across all sample dates.*