Fungicides and Rice Stink Bug Peck
Block 9N
Beaumont, TX
2015

TREATMENT DESCRIPTIONS, RATES AND TIMINGS

<table>
<thead>
<tr>
<th>Treatment #</th>
<th>Flag color</th>
<th>Treatment</th>
<th>Rate (fl oz/A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Light green</td>
<td>Untreated</td>
<td>---</td>
</tr>
<tr>
<td>2</td>
<td>Blue</td>
<td>Tilt</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Red</td>
<td>Quadris</td>
<td>15.5</td>
</tr>
</tbody>
</table>

Agronomic and Cultural Information

Experimental design: Complete randomized block with 3 treatments and 4 replications

Planting: Drill-planted test (Antonio @ 80 lb/A) into League soil (pH 5.5, sand 3.2%, silt 32.4%, clay 64.4%, and organic matter 3.8 - 4.8%) on Jul 20
Plot size = 4 ft x 100 ft
Emergence on Jul 26

Irrigation: Flushed blocks (temporary flood for 48 hours, then drain) on Jul 20
*Note: Plots were flushed as needed from emergence to permanent flood*
Permanent flood (PF) on Aug 26 (31 days after emergence)

Fertilization: *All fertilizer (urea) was distributed by hand.*
34 lb N/A on Jul 20 at planting
85 lb N/A on Aug 26 at PF
51 lb N/A on Sep 25

Herbicide: RiceBeaux @ 2 qt/A; Permit @ 1 oz/A, and Command 3ME @ 0.8 pt/A applied with a 2-person hand-held spray boom (13- 80015 nozzles, 50 mesh screens, 16 gpa final spray volume) on Jul 20 for early season weed control

Treatments: Treatments 2 and 3 applied with a 3-nozzle spray boom (800067 nozzles, 50 mesh screens, 19.2 gpa final spray volume) on Oct 14

Sampling: Cages set out (1 cage/treatment/replication) and infested with 8 adult RSB each on Oct 14; rice heading – milk
Cages removed on Oct 28
Panicles removed on Nov 13

Data analysis: Count data transformed using $\sqrt{x+0.5}$; yields converted to 12% moisture; all data analyzed by ANOVA and means separated by LSD
Discussion

Glenn Crane, Crop Consultant, suggested we conduct an experiment to see if typical foliar fungicide treatments applied at panicle differentiation to heading may decrease peck caused by the rice stink bug (RSB). So, in the fall, we set up a preliminary experiment to answer this query.

The experiment was planted very late—-we were not very interested in yield data; mainly peck data in fungicide-treated vs untreated plots.

Treatments were applied, then after treatment sprays dried, cages made of wire mesh screen (small enough to prevent adult RSB movement in or out of cages) were placed over rice plants in the heading stage. Cages were in the shape of cylinders 44 inches tall and 15 inches in diameter. Eight adult RSB were placed in each cage; cages were removed 14 days later.

Rice within cages was hand-harvested and threshed. Grain was hulled and brown rice was inspected for peck.

Although no. of grains with peck was not significantly different among treatments, data suggest peck may have been reduced when rice was sprayed with Tilt or Quadris (Table 1). The possibility exists that the fungicides affected RSB feeding behavior or may have caused RSB mortality. However, another possible explanation is the fungicides decreased populations of common fungi on the grains. These fungi may be associated with peck.

Results are very preliminary, but we plan to expand this research in 2016---more replications, earlier planting date, more treatments, etc.

Table 1. Mean data for fungicide and rice stink bug peck study. Beaumont, TX. 2015.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Rate (fl oz/A)</th>
<th>Wt. of 100 grains</th>
<th>No. grains with peck</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated</td>
<td>---</td>
<td>1.9</td>
<td>1.6</td>
</tr>
<tr>
<td>Tilt</td>
<td>10</td>
<td>1.8</td>
<td>1.0</td>
</tr>
<tr>
<td>Quadris</td>
<td>15.5</td>
<td>1.8</td>
<td>0.7</td>
</tr>
</tbody>
</table>

Means in a column are not significantly different ($P = 0.05$, ANOVA and LSD).