Valent Seed Treatments (V-10170) for Chinch Bug Control

Beaumont, TX
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M.O. Way, C. Menegaz (Lamar University Intern Student), M. Nunez and R. Pearson

**Experimental design:** Randomized complete block with 4 treatments and 4 replications; experiment conducted in the greenhouse at the Beaumont Center

**Planting:** Pots (4 inches square x 4 inches deep) filled with sifted League soil and each pot planted on Jun 19 with 8 Cocodrie seeds (V-10170 treated or untreated) provided by Valent; soil in pots fertilized with urea at 56.7 lb N/A and incorporated with forceps; pots with holes in bottom placed in partially flooded rubber tub to ensure moist soil in pots

**Emergence:** Rice emerged Jun 23; 3-8 plants/pot

**Cages:** Cylindrical transparent, plastic cages (3 inches diameter x 8 inches tall) placed over rice in each pot; cages ventilated with 2 mesh windows; bottom of cages forced into moist soil; top of cages covered with mesh cloth

**Infestation:** Each cage infested with 5 adult chinch bugs on Jul 1 (8 days after emergence); bugs collected from an untreated Foundation Seed field at the Beaumont Center

**Sampling:** Jul 3 (2 days after infestation) cages inspected for live and dead insects (insects not found considered dead); some of the dead insects difficult to find in moist soil

**Data analysis:** % mortality transformed using arc sine; data analyzed by ANOVA and means separated by LSD

**Discussion**

Only 10% chinch bug (*Blissus leucopterus leucopterus*) mortality was detected in the untreated which indicates handling and other procedures affected test insects minimally (Table 1). All rates of V-10170 effectively controlled chinch bugs. Recently, farmers have complained about lack of chinch bug control in seedling rice (levee rice is particularly vulnerable to chinch bug attack) (Figures 1 and 2). Icon 6.2 FS as a seed treatment provided good control of chinch bugs but since withdrawal of this pest management tool, Texas rice farmers have experienced increased chinch bug problems.
Valent Seed Treatments for Chinch Bug Control


<table>
<thead>
<tr>
<th>Treatment</th>
<th>Rate (g ai/hkg seed)</th>
<th>% mortality&lt;sup&gt;a&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated</td>
<td>---</td>
<td>10 b</td>
</tr>
<tr>
<td>V-10170</td>
<td>25</td>
<td>87 a</td>
</tr>
<tr>
<td>V-10170</td>
<td>100</td>
<td>95 a</td>
</tr>
<tr>
<td>V-10170</td>
<td>150</td>
<td>90 a</td>
</tr>
</tbody>
</table>

<sup>a</sup> % mortality based on 5 chinch bugs/cage after 48h exposure and all missing insects considered dead

Means in a column followed by the same letter are not significantly different (P = 0.05, ANOVA and LSD)