SOYBEAN: *Glycine max* (L.) Merrill, ‘NK 4606’

EFFICACY OF SELECTED FOLIAR-APPLIED INSECTICIDES AGAINST STINK BUG IN VIRGINIA SOYBEAN, 2009

D.A. Herbert, Jr., S. Malone, & M. Arrington
Virginia Tech
Tidewater Agric. Res. & Ext. Ctr.
6321 Holland Road
Suffolk, VA 23437
Phone: (757) 657-6450
Fax: (757) 657-9333
E-mail: herbert@vt.edu

Green stink bug (GSB): *Acrosternum hilare* (Say)
Brown stink bug (BSB): *Euschistus servus* (Say)

Selected insecticides applied as foliar broadcasts were evaluated for control of GSB and BSB in Virginia soybean. ‘NK 4606’ soybean was planted 12 May on a commercial grower’s field in Chesapeake, VA, using 15-inch row spacing. Treatments were applied on 17 Aug with a CO2 pressurized backpack sprayer as a broadcast at 14.3 gpa and 18 psi through 8002VS nozzles spaced 18 inches apart on the spray boom. A RCB design was used with 4 replicates; plots were 7 rows by 40 ft. The number of GSB and BSB adults and nymphs were determined at 2 and 7 DAT using a 15-sweep sample. At plant maturity, two 3-ft sections of row were hand-harvested in the Orthene and untreated check plots. Plants were bundled and returned to the laboratory where they were allowed to air-dry; pods were removed and shelled by hand. Dry seed weight and the number of plants, pods, and seed per 3 row ft were recorded. Data were analyzed using ANOVA and LSD procedures.

At 2 DAT (19 Aug), all treatments had significantly fewer GSB and total stink bugs than the untreated control, with no differences between treatments; BSB numbers were not significantly different. At 7 DAT (24 Aug), there were no differences between GSB numbers and all treatments had significantly fewer BSB and total stink bugs than the untreated control. There were no differences in dry seed weight or the number of plants, pods, or seed per 3 row ft.
<table>
<thead>
<tr>
<th>Treatment/formulation</th>
<th>Rate/oz formulation</th>
<th>GSB adults</th>
<th>GSB nymphs</th>
<th>BSB adults</th>
<th>BSB nymphs</th>
<th>Total stink bugs</th>
<th>GSB adults</th>
<th>GSB nymphs</th>
<th>BSB adults</th>
<th>BSB nymphs</th>
<th>Total stink bugs</th>
<th>Plants/3 ft</th>
<th>Pods/3 ft</th>
<th>Seed/3 ft</th>
<th>Dry seed weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endigo 2.06SC</td>
<td>3.5</td>
<td>0.00b</td>
<td>0.00b</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00b</td>
<td>1.25</td>
<td>0.50</td>
<td>0.00b</td>
<td>0.00b</td>
<td>1.75b</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Voliam Xpress 2.4ZC</td>
<td>7.0</td>
<td>0.50b</td>
<td>0.00b</td>
<td>0.00</td>
<td>0.00</td>
<td>0.50b</td>
<td>0.25</td>
<td>0.25</td>
<td>0.00b</td>
<td>0.00b</td>
<td>0.50b</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Karate Z 2.08CS</td>
<td>1.9</td>
<td>0.25b</td>
<td>0.25b</td>
<td>0.00</td>
<td>0.00</td>
<td>0.50b</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00b</td>
<td>0.00b</td>
<td>0.00b</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Centric 40WG</td>
<td>2.0</td>
<td>0.75b</td>
<td>0.00b</td>
<td>0.00</td>
<td>0.50</td>
<td>1.25b</td>
<td>0.50</td>
<td>0.25</td>
<td>0.25b</td>
<td>0.25b</td>
<td>1.00b</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Orthene 97 ST</td>
<td>8.0</td>
<td>0.00b</td>
<td>0.25b</td>
<td>0.00</td>
<td>0.00</td>
<td>0.25b</td>
<td>0.00</td>
<td>0.25</td>
<td>0.00b</td>
<td>0.00b</td>
<td>0.25b</td>
<td>13.5</td>
<td>565.9</td>
<td>1401</td>
<td>194.3</td>
</tr>
<tr>
<td>Check</td>
<td>2.75a</td>
<td>2.25a</td>
<td>0.00</td>
<td>0.75</td>
<td>5.75a</td>
<td>1.00</td>
<td>1.25</td>
<td>1.00a</td>
<td>1.25a</td>
<td>4.50a</td>
<td>15.1</td>
<td>573.5</td>
<td>1354</td>
<td>191.5</td>
<td>--</td>
</tr>
<tr>
<td>LSD</td>
<td>0.76</td>
<td>0.72</td>
<td>NS</td>
<td>NS</td>
<td>1.30</td>
<td>NS</td>
<td>0.54</td>
<td>0.31</td>
<td>1.98</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
<td>NS</td>
</tr>
</tbody>
</table>

Means within a column followed by the same letter(s) are not significantly different (Protected LSD; P=0.05).