### Treatment Results

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Rate/acre (lb AI)</th>
<th>Habitat type</th>
<th>Canopy (inches)</th>
<th>No. of grasshoppers/sq yd</th>
<th>27 Jul</th>
<th>29 Jul</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sevin bait 2%</td>
<td>2.0</td>
<td>Roadside</td>
<td>14–20</td>
<td></td>
<td>20.5</td>
<td>10.1a</td>
</tr>
<tr>
<td>Dimilin bait 2%</td>
<td>2.0</td>
<td>Roadside</td>
<td>14–20</td>
<td></td>
<td>20.7</td>
<td>10.2a</td>
</tr>
<tr>
<td>Control</td>
<td>2.0</td>
<td>Roadside</td>
<td>14–20</td>
<td></td>
<td>27.4</td>
<td>17.1a</td>
</tr>
<tr>
<td>Sevin bait 2%</td>
<td>2.0</td>
<td>Field</td>
<td>2–7</td>
<td></td>
<td>9.7</td>
<td>2.2a</td>
</tr>
<tr>
<td>Dimilin bait 2%</td>
<td>2.0</td>
<td>Field</td>
<td>2–14</td>
<td></td>
<td>5.3</td>
<td>3.7a</td>
</tr>
<tr>
<td>Untreated</td>
<td></td>
<td>Field</td>
<td>2–34</td>
<td></td>
<td>9.8</td>
<td>2.7a</td>
</tr>
</tbody>
</table>

Means of roadside treatments within a column (sampling date) sharing a common letter do not differ significantly (P = 0.05, Fisher's protected least significant difference test).

Means of Sevin bait field plots within a row (canopy height range) sharing a common letter do not differ significantly (P = 0.05, Student's t test) before and after treatment.

Means of field treatments within a column (sampling date) sharing a common letter do not differ significantly (P = 0.05, Fisher's protected least significant difference test).

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### RANGELAND

Red imported fire ant; *Solenopsis invicta* Buren

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**INSECTICIDE EVALUATION FOR CONTROL OF THE RED IMPORTED FIRE ANT, 1999:** The study utilized 32 plots of approximately ¼-acre size in a randomized complete block design with 4 replications of 8 treatments. Prior to initiation, fire ant mounds (both single and multiple queen colonies present) were counted and marked with 12-inch garden stakes in each plot. A centrally located ¼-acre circle was designated in each plot for fire ant population monitoring. The study began 15 Aug 1999 in a 30-acre field at the LSU St. Gabriel Research Station in Iverville Parish, LA. Applications were initiated on 1 Sep and were completed on 11 Sep. Tralomethrin and Lorsban were applied to individual mounds using a solo backpack sprayer (14 psi), 1 pt of finished formulation sprayed over the surface of each mound. Amdro and Fortress individual mound treatments were applied using 1-qt "shaker" jars with holes in the lids. Amdro and Dursban broadcast treatments were applied using a cyclone spreader. Bengal Fire Ant Killer (tralomethrin 0.3 EC) broadcast treatments were applied with a tractor-sprayer (40 psi). After treatment, each mound was designated with a painted stake for further monitoring. Counts for population monitoring and % control were made on 12 Oct and 9 Nov.

Based on both a 4-wk and 8-wk post-application evaluation, the Bengal (tralomethrin) and Lorsban individual mound treatments provided significantly the best fire ant control. All treatments other than the Fortress and Amdro individual mound treatments were significantly different from the untreated check (4 wk post-treatment). No broadcast applications provided greater than 52% control of fire ants in this study.

### Treatment Results

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Rate/acre (lb AI)</th>
<th>Rate finished form/mound</th>
<th>Avg no. mounds active/¼ acre</th>
<th>% Control</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>4 wk</td>
<td>8 wk</td>
<td>4 wk</td>
</tr>
<tr>
<td>Bengal Fire Ant Killer</td>
<td>1 pt</td>
<td>2.258a</td>
<td>3.613a</td>
<td>90.6</td>
</tr>
<tr>
<td>(tralomethrin 0.3 EC)-0.05% individual mound</td>
<td>40 gal/A</td>
<td>11.552bc</td>
<td>21.607bcd</td>
<td>51.9</td>
</tr>
<tr>
<td>Amdro broadcast (8.8)</td>
<td></td>
<td>18.715de</td>
<td>16.110b</td>
<td>22.2</td>
</tr>
<tr>
<td>Amdro individual mound</td>
<td>2 tbsp</td>
<td>19.122de</td>
<td>19.359bde</td>
<td>20.5</td>
</tr>
<tr>
<td>Lorsban 4 EC (4 tbsp/gal) individual mound</td>
<td>1 pt</td>
<td>5.194ab</td>
<td>7.399a</td>
<td>78.4</td>
</tr>
<tr>
<td>Dursban 1 G broadcast (0.75)</td>
<td></td>
<td>16.059bcd</td>
<td>15.784d</td>
<td>33.3</td>
</tr>
<tr>
<td>Fortress (DPX 43808) 5 G individual mound</td>
<td>2 tbsp</td>
<td>22.533cd</td>
<td>25.129cd</td>
<td>6.4</td>
</tr>
<tr>
<td>Untreated</td>
<td></td>
<td>24.066c</td>
<td>28.188d</td>
<td></td>
</tr>
</tbody>
</table>

Means within each column followed by the same letter are not significantly different (P = 0.05).

Data were subject to analysis of variance using pre-test fire ant mount counts as a covariate. Differences between least square means were detected by least significant difference.