Timing of Mustang Max for Rice Water Weevil Control  
Beaumont, TX  
2005

Agronomic and Cultural Information

Planting:  
**Drill-planted Cocodrie @ 90 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 Apr 8**  
Plot size = 7 rows, 7 in. row spacing, 18 ft long with metal barriers around plots  
Emergence on Apr 23

Irrigation:  
Flushed blocks (temporary flood for 48 hours, then drain) on Apr 8  
*Note: Plots were flushed as needed from emergence to permanent flood*  
Permanent flood on May 14

Fertilization:  
*All fertilizer (urea) was distributed by hand.*  
56.7 lb N/acre (⅓ of 170) on Apr 8 at planting  
56.7 lb N/acre (⅓ of 170) on May 14 at permanent flood  
56.7 lb N/acre (⅓ of 170) on May 27 at panicle differentiation  
40 lb N/acre on Jun 15 at late boot/heading  
*Total season N/acre = 210 lb N/acre*

Herbicide:  
Stam 80EDF @ 2.0 lb, Basagran @ 0.75 lb, Facet 75DF @ 0.25 lb and Ordram @ 2.0 lb (AI)/acre and Agri-Dex @ 1.0 pt/acre with a 2-person hand-held spray boom (13- 80015 nozzles, 50 mesh screens, 21 gpa final spray volume) on May 12

Treatments:  
All treatments were applied with a hand-held CO₂-pressurized spray boom (3-800067 nozzles, 50 mesh screens, 26 gpa)  
*Treatments were applied as follows:*  
**Preemergence (PRE)** on Apr 8 (soil was dry)  
**At emergence** on Apr 23 (soil was moist)  
7 and 14 days after emergence (**DAE**) on Apr 30 and May 7 (soil was moist)  
**Immediately before blood (BF)** on May 14 (soil was dry)  
3 and 10 days after flood (**DAF**) on May 17 and 24

Sampling:  
**Rice water weevil (RWW) cores** (5 cores per plot, each core 4 in. diameter, 4 in. deep, containing at least one rice plant) were collected on Jun 3 and 15, washed through 40-mesh screen buckets and immature RWW counted.  
*Note: Prior to analysis RWW core data transformed using \( \sqrt{x + 0.5} \)*

Harvest:  
**Harvested plots on Aug 17**  
Size harvested plot = 7 rows, 7 in. row spacing, 18 ft long  
Yields converted to lb/acre adjusted to 12% moisture  
*Note: All data analyzed using ANOVA and LSD*

Discussion

Immature RWW populations in untreated plots exceeded the economic injury level (15 per 5 cores) on both sample dates (Table 1). Best control was achieved with Mustang Max applied near the onset of permanent flood; however, all application timings reduced RWW populations. Best yield response coincided with the early post flood application at 3 days after flood (about 1300 lb/acre yield advantage over the untreated).

Table 1. Timing of Mustang Max [applied at 0.0225 lb (AI)/acre] for control of rice water weevil (RWW). Beaumont, TX. 2005

<table>
<thead>
<tr>
<th>Timing</th>
<th>No. immature RWW/5 cores</th>
<th>Yield (lb/acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jun 3</td>
<td>Jun 15</td>
</tr>
<tr>
<td>Untreated</td>
<td>44 e</td>
<td>34 e</td>
</tr>
<tr>
<td>PRE&lt;sup&gt;a&lt;/sup&gt;</td>
<td>9 b</td>
<td>14 bc</td>
</tr>
<tr>
<td>E&lt;sup&gt;b&lt;/sup&gt;</td>
<td>13 bcd</td>
<td>10 abc</td>
</tr>
<tr>
<td>7 DAE&lt;sup&gt;c&lt;/sup&gt;</td>
<td>11 bc</td>
<td>19 cd</td>
</tr>
<tr>
<td>14 DAE</td>
<td>17 cd</td>
<td>25 de</td>
</tr>
<tr>
<td>BF&lt;sup&gt;d&lt;/sup&gt;</td>
<td>1 a</td>
<td>5 a</td>
</tr>
<tr>
<td>3 DAF&lt;sup&gt;e&lt;/sup&gt;</td>
<td>0 a</td>
<td>8 ab</td>
</tr>
<tr>
<td>10 DAF</td>
<td>21 d</td>
<td>5 a</td>
</tr>
</tbody>
</table>

<sup>a</sup> PRE = preemergence  
<sup>b</sup> E = at emergence  
<sup>c</sup> DAE = days after emergence  
<sup>d</sup> BF = immediately before flood  
<sup>e</sup> DAF = days after flood  
Means in a column followed by the same letter are not significantly different at the 5% level (ANOVA, LSD).