### LEPIDOPTEROUS LARVAE CONTROL ON COLLARDS, 1988:

‘Vates’ collards were transplanted 3 May near Benson, NC. Single row plots, 10 ft long on 60 inch centers were replicated 4 times in a randomized complete block design. Alleys of 5 ft were used between replicates. Black plastic mulch and trickle irrigation were used in all plots. Treatments were applied with a CO₂ pressurized backpack sprayer using a single hollow cone nozzle (18 x). Application rate was 54 gal/acre delivered at 60 psi, and Triton B-1956 spreader-sticker was used with all treatments. Applications were made 22 Jun, 1, 6, 14, 21 Jul, 3, 10, 17, and 25 Aug. Foliar damage ratings were made 12, 19, 26 Jul, 9, 16, 22, and 30 Aug. Counts of larvae on 3 plants/plot were made in the untreated check on all sampling dates after 12 Jul.

Cabbage looper pressure was moderate to heavy and diamondback moth and imported cabbageworm pressure was light. On 19 and 26 Jul, few worms (<1/plot) were seen in the untreated check, and they were predominantly imported cabbageworm (50 and 100%, respectively). On 9 Aug and all wk following, populations increased (>8 larvae/plot) and >80% of the larvae were cabbage loopers. The untreated plots showed significantly more larval damage than treated plots on all sampling dates. No phytotoxicity was observed.

### Table: Damage Rating

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Rate (AI)/acre</th>
<th>12 J</th>
<th>19 J</th>
<th>26 J</th>
<th>9 A</th>
<th>16 A</th>
<th>22 A</th>
<th>30 A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Javelin</td>
<td>0.50</td>
<td>0.2a</td>
<td>0.0a</td>
<td>0.2a</td>
<td>0.5a</td>
<td>0.6b</td>
<td>0.5a</td>
<td>0.4a</td>
</tr>
<tr>
<td>Assna XL</td>
<td>0.03</td>
<td>0.5a</td>
<td>0.4a</td>
<td>0.5a</td>
<td>0.4a</td>
<td>0.2a</td>
<td>0.8a</td>
<td>0.4a</td>
</tr>
<tr>
<td>Assna XL + Butacide</td>
<td>0.03 + 0.5</td>
<td>0.1a</td>
<td>0.1a</td>
<td>0.5a</td>
<td>0.5a</td>
<td>0.1a</td>
<td>0.2a</td>
<td>0.1a</td>
</tr>
<tr>
<td>Dipel 4 L</td>
<td>0.50</td>
<td>0.5a</td>
<td>0.5a</td>
<td>0.7a</td>
<td>0.8a</td>
<td>0.8b</td>
<td>1.2b</td>
<td>0.5a</td>
</tr>
<tr>
<td>Larvin 3.2 EC</td>
<td>0.60</td>
<td>0.2a</td>
<td>0.1a</td>
<td>0.2a</td>
<td>0.8a</td>
<td>0.9b</td>
<td>1.0b</td>
<td>0.5a</td>
</tr>
<tr>
<td>Untreated Check</td>
<td>—</td>
<td>2.5b</td>
<td>2.2b</td>
<td>3.0b</td>
<td>1.5b</td>
<td>3.0c</td>
<td>3.25c</td>
<td>3.0b</td>
</tr>
</tbody>
</table>

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

1Damage rating: 12 Jul: 1–5, 1 = 0–15%, 5 = 85–100% defoliation. 19 Jul–30 Aug: 1–10; 1 = 10, 10 = 100% defoliation.