EVALUATION OF CONFIRM, CONSERVE, AND SEVIN FOR CONTROL OF LATE INSTAR LARVAE OF BAGWORM, *THYRIDOPTERYX EPHEMERAEFORMIS*, 2001

Stanton A. Gill and Rondalyn Reeser
Central Maryland Research and Education Center
University of Maryland Cooperative Extension
11975 Homewood Road
Ellicott City, MD 21042
Phone: (301) 596-9413
Fax: (301) 596-9632
E-mail: sg10@umail.umd.edu
E-mail: rr121@umail.umd.edu

Michael Raupp
Department of Entomology
University of Maryland
4112A Plant Science Building
College Park, MD 20742
Phone: (301) 405-8478
Fax: (301) 314-9290
E-mail: mr7@umail.umd.edu

Bagworm: *Thyridopteryx ephemeraeformis* (Haworth)

The objective of this trial was to evaluate the efficacy of two rates of Confirm, Conserve, and Sevin for control of late instar larvae of the bagworm, *Thyridopteryx ephemeraeformis*. The trial was performed at the Central Maryland Research and Education Center in Ellicott City, MD.

On 27 Jul, 35 Leyland cypress approximately 1 m tall growing in pots were used in our trial. Ten late instar bagwrmrs were placed on each of the 35 plants. The bagworms started feeding 5-60 min after being placed on their new host plants. The treatments were made to seven blocks, each block having randomly assigned treatments. All plants were treated to runoff applying 2 liters for each treatment to seven plants between 4:00 p.m. and 5:15 p.m. on 27 Jul. Temperature at the time of treatment was 81°F with a relative humidity of 46%. When a treatment was applied, all treated plants were removed and placed in an area 7 m from the growing area to avoid contamination through drift. After the pesticide dried, plants were replaced into their blocks. Evaluations were made on 5 Aug. The bagworms were removed from the plants, their bags cut open, and the larvae examined. Darkened, shriveled larvae were counted as dead. Live larvae were removed and probed. Those responding were counted as living. In Blocks 1 to 4, 10 bags were retrieved per plant for each of the five treatments. In Blocks 5, 6, and 7, the number of bags retrieved was less than 10 per plant. Some of the bagworms had emigrated. An examination of the data indicated that assumptions for a parametric analysis were not met. Therefore, differences among treatments were evaluated with a Kruskal-Wallis test followed by a Nemenyi test to separate treatments (Zar 1999).

All materials provided significant and excellent reductions in the number of living larvae found on each plant. Sevin gave 70-80% control. Confirm at the low rate gave 95-100% control. Confirm at the high rate gave 98-100% control. Conserve gave 98-100% control. Results of the Kruskal-Wallis test indicated that the number of living larvae remaining on treated trees differed significantly ($P < 0.0001$). The average numbers of living larvae found in each treatment can be found in Table 1.
<table>
<thead>
<tr>
<th>Treatment/formulation</th>
<th>Rate (with 1.6 ml of Latron B)</th>
<th>No. dead bagworms/plant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confirm (low rate)</td>
<td>1.6 ml</td>
<td>0.42 ab</td>
</tr>
<tr>
<td>Confirm (high rate)</td>
<td>3.33 ml</td>
<td>0.14 bc</td>
</tr>
<tr>
<td>Conserve</td>
<td>0.95 ml</td>
<td>0.14 bc</td>
</tr>
<tr>
<td>Sevin</td>
<td>1.6 ml</td>
<td>2.29 ab</td>
</tr>
<tr>
<td>Check</td>
<td>---</td>
<td>8.29 a</td>
</tr>
</tbody>
</table>

Means that share a common letter do not differ by the results of a Nemenyi test.