### Vegetable Insecticide and Acaricide Tests

<table>
<thead>
<tr>
<th>Treatment</th>
<th>kg/ha</th>
<th>% injured tubers following application by*</th>
<th>% damaged tubers following application by*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>furrow</td>
<td>sidedress</td>
<td>postemergence</td>
</tr>
<tr>
<td></td>
<td>broadcast</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dasanit 15G</td>
<td>5.6</td>
<td>3.4</td>
<td>1.1</td>
</tr>
<tr>
<td>Dasanit 6SC</td>
<td>5.6</td>
<td>3.4</td>
<td>4.2</td>
</tr>
<tr>
<td>Furadan 10G</td>
<td>--</td>
<td>3.4</td>
<td>--</td>
</tr>
<tr>
<td>Temik 15G + Dyfonate 10G</td>
<td>--</td>
<td>3.4 + 2.2</td>
<td>--</td>
</tr>
</tbody>
</table>

*Percentages without letters were not included in the analysis. **Means followed by the same small letter within a column are not significantly different (P = 0.05, DMRT). ***Means followed by the same capital letter within a row are not significantly different (P = 0.05, DMRT).

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### Potato

**POTATO: Solanum tuberosum L. 'Kennebec'**

Potato tuberworm: *Phthorimaea operculella* (Zeller)

Tuberous were inspected for potato tuberworm damage. Data was analyzed by Duncan's multiple range test at a level of probability. 'An arcsin transformation was applied to percent values prior to analysis.

- **Untreated check:**
  - Mean no. mines/5 stems: 0.0 a
  - Mean no. larvae/5 stems: 0.1 a
  - Mean % infected white tubers: 0.0 a

- **Nudrin 1.8L:**
  - Mean no. mines/5 stems: 2.2 a
  - Mean no. larvae/5 stems: 0.0 a
  - Mean % infected white tubers: 0.0 a

- **Lorsban 4.0EC:**
  - Mean no. mines/5 stems: 4.8 a
  - Mean no. larvae/5 stems: 3.0 a
  - Mean % infected white tubers: 1.6 a

**Note:** Percentages without letters were not included in the analysis. Means followed by the same small letter within a column are not significantly different (P = 0.05, DMRT). Means followed by the same capital letter within a row are not significantly different (P = 0.05, DMRT).

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### Codling Moth Control in Potatoes, 1980

An experimental potato planting (Kennebec variety) was made on Jun 3 at Moreno Valley Field Station, Riverside, CA. Insecticide treatments were replicated 4 times in a randomized complete block design. The replicates were 8 rows wide (30-inch centers) by 70 ft long with a 5-ft buffer between replicates. Insecticides were applied at 2-wk intervals from Jul 31 through Oct 9 (6 applications). Insecticides were applied by handheld spray equipment (Arimitsu sprayer) with 3 nozzles per row at an operating pressure of 50 psi and delivery rate of 20 gpa/acre. Nozzles were hollow cone, DI orifice, 13 inch and 50 mesh screen. All treatments included 0.04% spreader/sticker (Biofilm). Five stems/replicate were inspected weekly from Aug 6 through Sep 19 for larvae and mines without larvae. The 2 center rows/replicate were harvested on Oct 22.

**Results:**

- **Dasanit 15G:**
  - Mean no. mines/5 stems: 2.2 a
  - Mean no. larvae/5 stems: 0.0 a
  - Mean % infected white tubers: 1.7 a

- **Diazinon 14G:**
  - Mean no. mines/5 stems: 4.2 a
  - Mean no. larvae/5 stems: 0.0 a
  - Mean % infected white tubers: 2.2 a

- **Furadan 10G:**
  - Mean no. mines/5 stems: 6.7 a
  - Mean no. larvae/5 stems: 4.5 a
  - Mean % infected white tubers: 2.2 a

**Note:** Percentages without letters were not included in the analysis. Means followed by the same small letter within a column are not significantly different (P = 0.05, DMRT). Means followed by the same capital letter within a row are not significantly different (P = 0.05, DMRT).

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### Aphid Control with Soil Applied Systemic Insecticides, Grand Rapids, MN, 1980

Systemic insecticides were applied as in-furrow split-banded treatments to 'Russet Burbank' potatoes planted May 9-13 at the North Central Experiment Station, Grand Rapids, MN. Soil type was a loamy sand. The rates were 0.5 lb ai/acre, at 2-wk intervals to reduce the number of aphid natural enemies. Aphid apterae were counted from 35 mid-plant leaves/plot on Jul 17, 18, Aug 10, and 20. Plots were harvested Sep 24-29.

- **Temik:**
  - Applied at 3 lb ai/acre as broadcast plots and at 3 lb ai/acre applied at planting plus 3 lb ai/acre broadcast sidedress.
  - Aphid control with Temik was excellent.

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### Aphid Control with Soil Applied Systemic Insecticides, Grand Rapids, MN, 1980

Systemic insecticides were applied as in-furrow split-banded treatments to 'Russet Burbank' potatoes planted May 9-13 at the North Central Experiment Station, Grand Rapids, MN. Soil type was a loamy sand with low organic matter. A sidedress application of Temik, 1 lb ai/acre, was applied Jul 3 as split bands along the sides of the hill. Plots were 12 rows wide, 625-ft long, with a 40-in row spacing, arranged in a randomized complete block with 4 replications. Beginning Jul 8 all plots were sprayed with azinphosmethyl, 0.5 lb ai/acre, at 2-wk intervals to reduce the number of aphid natural enemies. Aphid apterae were counted from 35 mid-plant leaves/plot on Jul 17, 18, Aug 10, and 20. Plots were harvested Sep 24-29.

**Note:** Temik gave complete season control at the rates tested. Green peach aphid populations on the DiSyston plots approached or exceeded those of the check on all sampling dates. Similarly, Thimet treated plots had aphid numbers approaching or exceeding the check after Jul 26. The aphid populations were highly aggregated in distribution confounding sampling. There were no significant differences in yield and no phytotoxicity was noted.