NOVEL MODE OF ACTION INSECTICIDE GROUP 31 FOR TOBACCO BUDWORM (TBW) AND CORN EARWORM (CEW) MANAGEMENT

EFFECTIVE AND ECONOMICAL CEW MANAGEMENT

NEW IPM TOOL FOR PEANUTS

20 years of lepidopteran pest management
World’s largest Baculovirus research center and manufacturing facility
Strong commitment to provide field technical assistance
Wide network of research partners

Science for sustainable Agriculture

OMRI
LISTED
For Organic Use
NOVEL AND HIGHLY SELECTIVE MODE OF ACTION
Effective Insecticide for the Control of Corn Earworm (CEW)

TARGET PESTS: *Chloridea virescens* AKA Tobacco Budworm (TBW); *Helicoverpa zeas* - AKA Corn earworm (CEW), Soybean podworm (SPW) and Cotton bollworm (CBW).

ACTIVE INGREDIENT (A.I.): *Helicoverpa armigera* Nucleopolyhedrovirus (HearNPV).

FORMULATION: Suspension concentrate (SC)  
RATE: 1.0 to 1.6 floz/acre

NOVEL MODE OF ACTION: Heligen® will control TBW and CEW larvae resistant to chemical insecticides. A unique set of baculovirus proteins (PIF complex) promotes generalized cell infection and ultimately, death. Infected larvae release billions of viral particles after death, leading to continued secondary infection cycles and long persistence in treated fields.

HOW TO USE HELIGEN®:
- Thorough crop coverage is essential, as the A.I. in Heligen® must be ingested by larvae to be effective.
- Heligen® is most effective when applied to small larvae at very early infestation levels.

<table>
<thead>
<tr>
<th>Instar</th>
<th>Age (Days)</th>
<th>Size Category</th>
<th>Length (inches)</th>
<th>Actual Size</th>
<th>Heligen® timing</th>
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</thead>
<tbody>
<tr>
<td>1st</td>
<td>0-2</td>
<td>Very Small</td>
<td>1/2&quot;</td>
<td></td>
<td>🟢 ✓</td>
</tr>
<tr>
<td>2nd</td>
<td>2-4</td>
<td>Small</td>
<td>1/4&quot;</td>
<td></td>
<td>🟢 ✓</td>
</tr>
<tr>
<td>3rd</td>
<td>4-8</td>
<td>Medium (small)</td>
<td>1/2&quot;</td>
<td></td>
<td>✓</td>
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<tr>
<td>4th</td>
<td>8-11</td>
<td>Medium (large)</td>
<td>3/4&quot;</td>
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<td>✘</td>
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<td>11-14</td>
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<td>1&quot;</td>
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<tr>
<td>6th</td>
<td>14-18+</td>
<td>Large (snake)</td>
<td>1 1/4&quot;</td>
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</tr>
</tbody>
</table>

* Do not use Heligen® as a curative treatment. In this situation, alternative control methods should be considered.

WHAT TO EXPECT AFTER APPLICATION:

Up to 3 days after application: Infected larvae continue to feed but become lethargic and move to the upper canopy - becoming more exposed to heat and more vulnerable to predators.

4-6 days after application: Feeding gradually stops and, often, sick larvae hang upside down from the leaves. Their skin bursts open, releasing a liquid containing billions of viral particles onto the plant canopy. These particles are effectively dispersed by wind, rain, and many arthropods, including predators that feed on the infected larvae.

COMPATIBILITY: Heligen® is compatible as a tank mix partner with insecticides, fungicides, herbicides, and fertilizers. Ensure tank mixture solution pH is ≤ 8 prior to adding Heligen® to the tank.

CAUTION: Spray solution pH above 8 may damage the virus and reduce performance of Heligen®. If needed, use a suitable buffer (acidifier).