Helicovex offers highly efficient control of corn earworm and tobacco budworm by preventing feeding damage and controlling larval populations. Due to its unique mode of action, Helicovex is especially valuable as a resistance management tool and can be included in any integrated pest management program (IPM) for growers of both, conventional and organic vegetable crops.

Pest distribution and life cycle
Corn earworm, Helicoverpa zea, is found throughout the United States (US) except Alaska. Corn earworm does not overwinter successfully in the northern states beyond 40 degrees north latitude. However, adult moths are highly dispersive and migrate north. In Northern States there is only one generation, whereas in Southern States 4–7 generations are possible, depending on the location and weather conditions.

Eggs are deposited singly, usually on leaf hairs and corn silk. Individual adult females lay 500 to 3000 eggs. Eggs hatch after about 3–4 days. Larvae usually feed on the reproductive part of the plant, such as corn silks and ears.

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**ADVANTAGES OF HELICOVEX**

- Efficient corn earworm control
- Excellent resistance management tool
- Zero residues
- Minimum pre-harvest interval
- Easy to tankmix
- Harmless to beneficial insects
- For conventional and organic pest management
- Zero PHI, no MRL, 4h REI

See back page for additional useful information about the product >>
**HELICOVEX®**

**Mode of Action**
Larvae need to ingest the virus particles sprayed onto the plant surface in order to get infected. Particles enter the larval midgut, where their DNA is incorporated and replicated in the host cells. Larval organs are infected within a few days; the larva stops feeding, eventually dies, and releases new viruses into the environment, ready to infect other corn earworms.

**General instructions**
For best crop protection, adult flight is monitored and Helicovex is applied as soon as first catches of moths are recorded. Since young larvae consume parts of the egg shell during hatching, they can be infected at the earliest possible stage of their development, when they are most susceptible and not yet hidden inside fruits, flowers or stems. Older instars cause more feeding damage and take a longer time to die.

**Field trial results**

<table>
<thead>
<tr>
<th>Damaged Kernels</th>
<th>Incidence of CEW Damage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated Control</td>
<td>20.3 (a)</td>
</tr>
<tr>
<td>Bifenthrin (ABCDE)</td>
<td>7.3 (ab)</td>
</tr>
<tr>
<td>Helicovex (AC) + Bifenthrin (BDE)</td>
<td>0.8 (b)</td>
</tr>
</tbody>
</table>

*Sweet Corn, WI, USA, 2017*

<table>
<thead>
<tr>
<th>Efficacy</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Untreated Control</td>
<td>17% (a)</td>
</tr>
<tr>
<td>Helicovex (AC) + Spinosad (BD)</td>
<td>5.8% (cd)</td>
</tr>
<tr>
<td>Helicovex (ABCD)</td>
<td>5.5% (cd)</td>
</tr>
<tr>
<td>Helicovex (AC) + Zeta-Cypermethrin (BD)</td>
<td>3% (d)</td>
</tr>
<tr>
<td>Zeta-Cypermethrin (ABCD)</td>
<td>1.5% (d)</td>
</tr>
</tbody>
</table>

*Sweet Corn, WA, USA, 2016 (4 applications, 3 day interval)*

**PRODUCT-FACTS**

**Against**
Larvae of Corn Earworm, also known as Cotton Bollworm (*Helicoverpa zea*) and the Tobacco Budworm (*Heliothis virescens*)

**Active ingredient**
*Helicoverpa armigera* nucleopolyhedrovirus (*HearNPV*)

**Formulation type**
Suspension concentrate

**Concentration**
$7.5 \times 10^{12}$ HearNPV/liter

**Standard dosage**
1–2.5 fl oz/a every 6–8 days
0.5–1.25 fl oz/a every 3 days

**Crops**
Sweet corn, soybean, bean, tomato, sweet pepper, cotton, tobacco, cucurbit, lettuce, sunflower, wheat, and many others

**Compatibility**
Compatible with most insecticides, fungicides and fertilizers. A pH level between 5 and 8.5 has to be respected.

**Storage**
> 2 years at 0 °F, 2 years at 41 °F
1 month at 77 °F. Avoid temperatures above 100 °F.