Technical information

Target pests
Helicoverpa spp. such as Helicoverpa armigera, Helicoverpa zea, Helicoverpa virescens, Helicoverpa punctigera. Common names: cotton bollworm, corn earworm, tobacco budworm.

Crops
Soybean, tomato, sweet pepper, sweetcorn, maize, beans, lettuce, strawberry, tobacco, fruits, cotton, sorghum, and others.

Formulation
Suspension concentrate containing $> 7.5 \times 10^{12} \text{ PIB}$ of HearNPV (Helicoverpa armigera nucleopolyhedrovirus) per liter.

Standard dosage
Depending on crop and infestation 50 to 200 ml/ha

Timing
On eggs, at hatching of first larvae.

Water volume
200 – 1600 l/ha. Volume should be adjusted according to the leaf area index and standard practice.

Standard interval between sprays
Generally repeat application at 8 day intervals. This may be adjusted depending on the specific pest control strategy.

Pre-harvest and re-entry interval (PHI, REI)
Leaves no residues. Minimum PHI and REI are defined according to national registration regulations.

Toxicity profile
Product contains no chemical ingredients and complies with organic farming. No chemical residues on the crop. No side effects on mammals, beneficial insects, bees, aquatic organisms and other non-target organisms. No maximum residue levels (MRLs) are defined for Helicovex®.

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

Storage
Excellent storage stability: $> 2$ years at $-18$ °C, 2 years at 5 °C, 1 month at 25 °C. Avoid temperatures above 40 °C.

Rainfastness
Good rain resistance as soon as product has dried on the leaves.
**HELICOVEX® efficacy trials**

**Control of Helicoverpa armigera in Green Beans, France 2011**
Helicovex®, Delfin: 3 applications (7 – 11 days interval)

![Graph showing efficacy trials for green beans.](image1)

**Control of Helicoverpa armigera in Sweet Corn, Aquitaine, France 2011**
Helicovex®, Delfin, Helicovex®/ Delfin: 3 applications each (11 and 8 days interval), Steward: 2 applications (19 days interval)

![Graph showing efficacy trials for sweet corn.](image2)
Control of *Helicoverpa armigera* in open field Tomato, Italy 2007
Helicovex®, Bt: 3 applications (8 and 6 day interval), Indoxacarb: 2 applications (14 days interval)

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Efficacy</th>
<th>Nr. of attacked fruits at harvest (100 fruits per plot)</th>
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</thead>
<tbody>
<tr>
<td>untreated control</td>
<td></td>
<td>O 5 10 15 20 25 30</td>
</tr>
<tr>
<td>2 × 0.125 l/ha Indoxacarb</td>
<td>c</td>
<td>Efficacy 68%</td>
</tr>
<tr>
<td>3 × 1.25 l/ha B.t. kurstaki</td>
<td>abc</td>
<td>Efficacy 81%</td>
</tr>
<tr>
<td>3 × 0.2 l/ha Helicovex</td>
<td>a</td>
<td>Efficacy 89%</td>
</tr>
<tr>
<td>3 × 1 l/ha B.t. kurstaki</td>
<td>bc</td>
<td>Efficacy 77%</td>
</tr>
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**HELICOVEX® Swiss quality**

Helicovex® is produced by Andermatt Biocontrol in Switzerland. The company Andermatt Biocontrol is certified according to ISO 9001:2008.

Andermatt Biocontrol is committed to highest quality of its products. Every produced batch of Helicovex® undergoes a systematic bioassay process. The virulence of each batch is tested on cotton bollworm larvae against the standard reference batch within the Andermatt Biocontrol laboratories. Only batches that fulfill the high quality standard criteria will be released into the market.

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