HELIMAX®

Effective Biological Control of **Bollworm Larvae** on Agricultural Crops



Pest Specific

No Residues

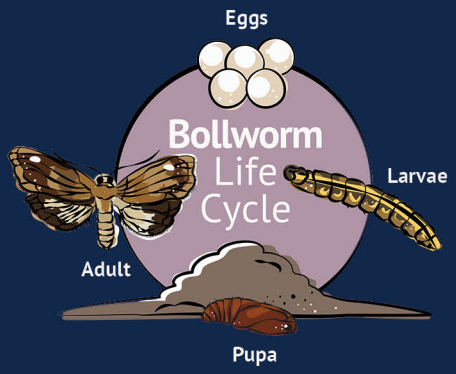
IPM Friendly

River Bioscience

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The Problem:

A wide variety of crops are damaged by the bollworm, a significant pest due to its rapid mobility, high fecundity, and reproductive rate. They are also known to build a resistance to pesticides. Bollworms are less susceptible to insecticides because of their propensity to eat inside the plant's fruiting sections during the majority of their development.



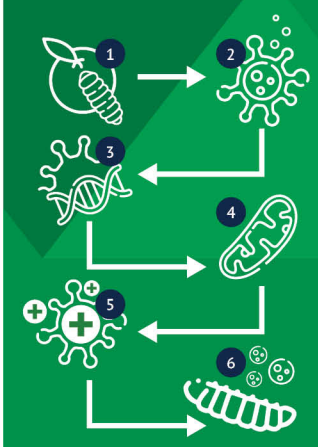
How Do Bollworms Damage Your Crops?

Bollworm consume fruit, flowers, leaves, buds, and growth points. Damaged leaves have less surface area, which hinders plant growth, but the main harm comes from eating the fruit and flowers, which in turn reduces fruit yield. Typically, bollworms drill neat, round holes through fruits or pods. The holes act as entry points for infections that cause secondary infection and fruit rot.
A single bollworm can harm multiple fruits or pods.

The Solution: HELIMAX®

HeliMax® is a suspension concentrate biological insecticide (host-specific baculovirus) for the integrated control of bollworm larvae on agricultural crops.

How Does HeliMax® Work?



1. Bollworm larva feeds on virus sprayed crop and ingests the virus which enters the insect's stomach or gut (fore, mid and hindgut).
2. The virus occlusion bodies (protein coat) are dissolved in the insect's highly alkaline stomach.
3. The virus nucleocapsids (carrying viral DNA) traverse the lining of the midgut (peritrophic membrane).
4. The virus uncoats at the nuclear pore of the insect's cells and infects it.
5. The virus multiplies and infects the insect's cells (primary infection) and moves to its haemocoel as budded viruses (BV). A secondary stage of infection follows whereby the BVs now enters other tissues by endocytosis, replicates and acquires a new protein coat.
6. The bollworm is killed and its tissues, now full of virus particles, disintegrate and the new virus particles are released into the environment for further infection.

HeliMax® Benefits:

IPM Friendly

HeliMax® is fully compatible with an integrated pest management programme, as it is not harmful or disruptive to beneficial insects and other arthropods.

Ease of Use

A ready to use bottled product (virus suspension concentrate) that can be tank mixed.

Pest Specific

Virus can be sprayed at any stage and will not negatively impact bees, the environment or beneficial insects.

Reduced Resistance Development

With the virus being a living, host specific organism, bollworm will not develop resistance to HeliMax®.

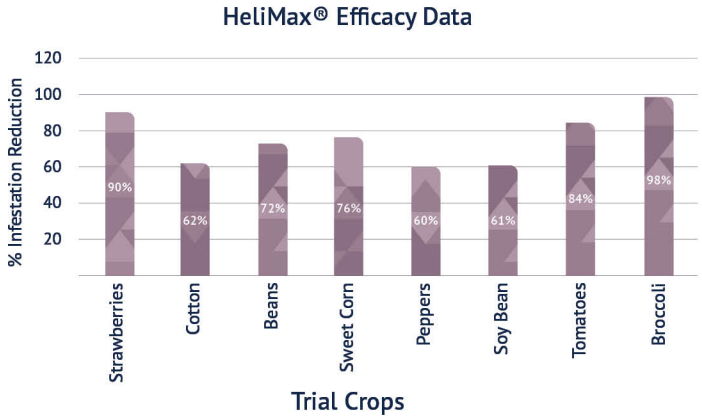
MRL Management

Treated crops may be harvested shortly after application, as the active ingredient in HeliMax™ is a living organism. As a result, there are no maximum residue limits (MRLs) and a zero (0)-day pre-harvest interval (PHI).



HeliMax® Efficacy & Trial Data:

Several field trials have been conducted with HeliMax®, on different crops across different countries and regions, in order to establish its efficacy against bollworm.



HeliMax® should be applied early in the morning when bollworm are active and UV degradation is minimal.



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Scan for more info

HeliMax® - Reg. No. L11133 Act No. 36 of 1947
WARNING | Hazard Statements: May cause an allergic skin reaction. | Active Ingredient: *Helicoverpa armigera* nucleopolyhedrovirus (HearNPV) at least 5 x 10^9 occlusion bodies (OBs)/ml
READ THE LABEL BEFORE USE | Use only as directed
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