RB CODLMAX®

A Novel **Patented Virus-based Biopesticide** Providing **Effective Biological Control** of **Codling Moth** on Pome Fruit



Proven Efficacy | **No Residues** | **IPM Friendly**

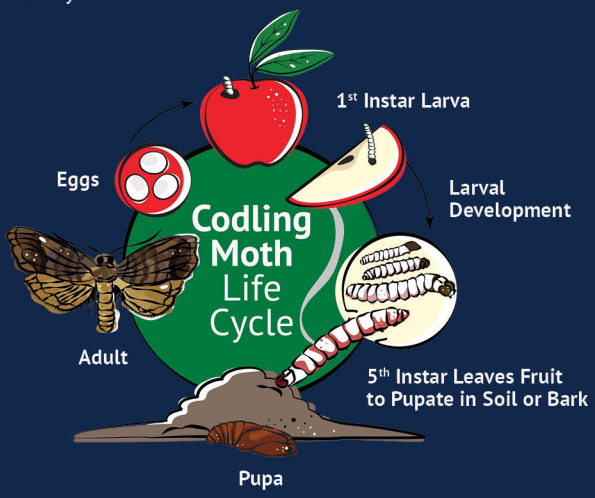
Patent No. ZA2019/00791 | Reg. No. L11359

River Bioscience

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The Problem:

Cydia pomonella, also known as the codling moth, is a key pest of fruit in both local and international markets. This moth belongs to the family Tortricidae and the species is particularly well known for the damage they inflict to pome fruit, such as apples and pears. Injury to the crops is caused by larval feeding, which can render the fruit unmarketable. If left untreated, codling moth infestations can lead to significant losses in yields within the pome fruit industry.



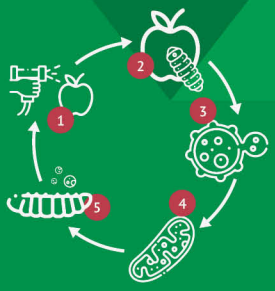
How Does Codling Moth Damage Your Crops?

- Adult moths lay eggs on fruit, which typically hatch in 5-12 days. Eggs are difficult to detect and can only be found through a thorough inspection.
- There are two types of damage caused by codling moth larvae: stings and deep entries.
- Stings are caused by newly hatched larvae, which feed on the surface of the fruit. This initial feeding results in shallow excavated areas. Stings are often caused by larvae that have fed but have subsequently died due to natural enemies or insecticidal sprays.
- Stings can be unsightly and lead to secondary infections.
- Deep entries are caused by larvae that have successfully bored into fruit. Larvae tunnel toward the core of the apple, where they feed on the pulp and seeds.
- Fruit flesh around the deep entries breaks down due to bacteria and tunnels are often plugged by excreta (frass), which can be seen exuding from the entry hole.
- In ripe fruit, penetration holes eventually become sunken and brown as damaged tissue decays. Internal injury can lead to premature ripening and fruit drop.
- Larvae often enter via the calyx in the early season. These entries are difficult to detect without cutting the fruit, making fruit sanitation challenging. Side entries in the later season are easier to identify.

The Solution: RB CODLMAX®

RB CodlMax® is a novel patented biopesticide that is effective against codling moth larvae in pome fruit orchards. It provides growers with a low-risk, environmentally friendly, and effective virus-based pesticide for population control.

How Does RB CodlMax® Work?



1. RB CodlMax® is sprayed onto crops.
2. CM larvae ingest the virus from the surface of the fruit.
3. Protective protein layer of virus is digested by high pH of midgut.
4. The virus is absorbed by microvilli. The virus replication begins in nuclei of midgut cells.
5. The virus spreads throughout larvae and secondary replication occurs.

   The larvae dies and releases virus particles into the surrounding environment causing secondary infection.

RB CodlMax® Benefits:

IPM Friendly

RB CodlMax® can be incorporated into an integrated pest management programme.

Effective

An excess of 80% efficacy rate has been observed during product trials.

Reduced Risk of Resistance Development

RB CodlMax® is a naturally occurring nucleopolyhedrovirus within South Africa. Hence, there is reduced risk of larvae developing resistance to the biopesticide.

MRL Management

RB CodlMax® can be used up to harvest for control of codling moth larvae as there are no residues.

Environmentally Friendly

No impact on beneficial insects and other life forms.

No Phytotoxicity

In all field trials, no phytotoxicity was observed for any rates of RB CodlMax®.

RB CodlMax® Efficacy & Trial Data:



During efficacy trials an excess of

80%

control of codling moth

at a rate of 100ml/ha was achieved.

The nucleopolyhedrovirus, RB CodlMax®, is proven to have a similar level of efficacy against codling moth in comparison to standard granulovirus sprays. In addition to this, the reduced risk of resistance makes it an excellent choice for codling moth control and integrated resistance management.

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Scan for more info

RB CodlMax® - Reg. Nr. L11359 Wet Nr. 36 van 1947 | Patent Nr. ZA2019/00791
NOT CLASSIFIED AS HAZARDOUS UNDER GHS | Active Ingredient: *Cryptophlebia peltastica* nucleopolyhedrovirus (CrpeNPV) at least 5 x 10^{10} occlusion bodies (OBs)/ml
READ THE LABEL BEFORE USE | Use only as directed
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