



**NATURE LED INNOVATION**

f @GronicCo



**BE ORGANIC**



# About us

We are a customer-oriented company with over 10 years of experience in developing, producing and supplying safe green solutions for agriculture. We specialize in supplying Baculoviruses semi-chemical lures and traps to monitor insect pests and promote sustainable Integrated Pest Management (IPM) within agricultural, horticultural, storage and urban setting. Our goal is to promote a more effective, economical and environmentally friendly approach to pest management by incorporating sound IPM principles and science in the monitoring systems that we offer. We are also able to offer our customers help with pest identification, advice on suitable control strategies and effective practices that can be carried out to minimize outbreaks.







We are able to offer our customers the full package required to carry out an efficient pest monitoring program. In addition to our wide range of pheromone lures and Baculoviruses, we offer the most suitable traps for each pest species and supply our customer with all the relevant information, advice and documentation needed to manage their pest problems. Management decisions are only as good as the data that they are based upon. If a well- designed monitoring program is carried out the information recovered will be accurate and the decision on when to time a spray to catch exposed pests, for example, will be correct





# Why use our products?

All the products that we offer are based upon research, trial results, and customer feedback. We are constantly striving to develop products and solutions for new and emerging pests while also improving upon our current range when the opportunity arises. As we begin to see more evidence of regional that we remain abreast of those knowledges and offer the most suitable lure for a species in a particular region to the benefit of our customers. We use feedback and trails from across the globe to determine the best solution for a particular pest.

	Conventional pesticides	Gronic solutions
 Safety	Poisonous& possibly toxic, ahuman health concerns.	Completely nontoxic; safe for humans pets and environment.
 Residue	Spray 100% of crop high residue risk	Contacts < 1% of crop –zero residue risk
 Approach	Reactive – chasing after pests	Proactive – control pests before they become a problem
 Collateral damage	Kills beneficial insects (e.g. bees, ladybugs)	Species-specific –only affects target pest
 Environmental footprint	Risk to soil & water systems	Soil & water systems unaffected
 Efficacy	Short field life, high of resistance	Long field life, no risk of resistance.





# BIOSAFE

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# BIOSAFE

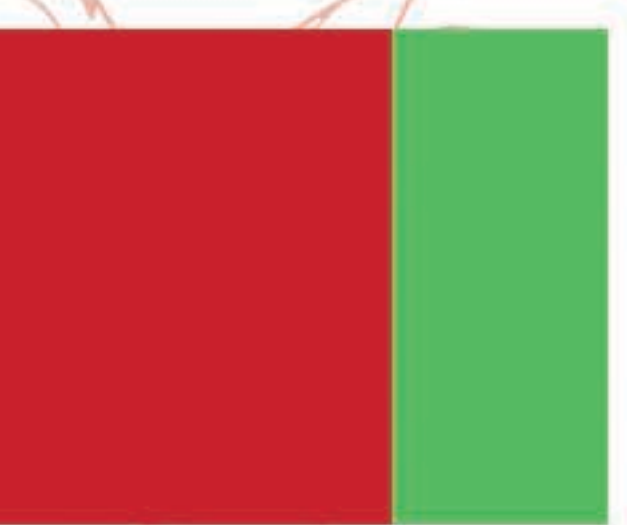
Biological control with beneficial insects makes dollars and sense, even in chemically sprayed fields. Growers using Rincon-Vitova's *Trichogramma* and other beneficials (all natural, none genetically engineered) to augment indigenous natural enemies can expect to improve profits by reducing or eliminating pesticide use.

Residue problems, costs of sprays, scheduling sprays around irrigations and when workers are not present, health and safety liability risks, even insurance costs, may be reduced when beneficial insects assume more pest management chores.

In many cases, crop yield and quality improve as previously unrecognized adverse pesticide effects on plant physiology disappear. Resistance problems, and outbreaks of secondary pests like spider mites, whiteflies and leafminers are avoided. There are also public relations and marketing benefits from using this "green", environmentally-friendly alternative to conventional chemical control.







## Section 2- ViroSafe

### *Natural pathogens for lepidopteran species*

Baculoviruses are natural pathogens of insects, mainly lepidopteran species. It consists of one or several virions, that contain the viral DNA.

These virions are encapsulated in a protein occlusion body, which protects the virus from destructive influences in the environment. Baculoviruses can be separated into two genera: granulovirus (GV) and nucleopolyhedrovirus (NPV), both of which may be used as natural insecticides.

To spread Trichogramma the product is available Powder form:

▪ **ViroSafe.**



## Baculoviruses are safe

Due to the narrow host range of baculoviruses, beneficial insects such as bees, bumble bees, predatory mites, and parasitoids are not harmed. Baculoviruses are safe for the environment and do not affect aquatic species, birds, mammals, and humans. Baculoviruses do not produce any toxins or secondary compounds.





# How do baculoviruses work?

Baculoviruses must be ingested by the insect larvae. Once in the midgut of the host, the protein capsules of the baculoviruses are dissolved and release virions, which infect the insect's midgut cells. The multiplication of virions within infected cells cause the infection to spread inside the host. A few days later, the larvae die and release millions of new viruses into the environment.

death of the larvae and releasing of occluded viruses to the environment

ingestion of occluded viruses by the larvae

dissolving of protein capsule in the midgut, releasing of virions

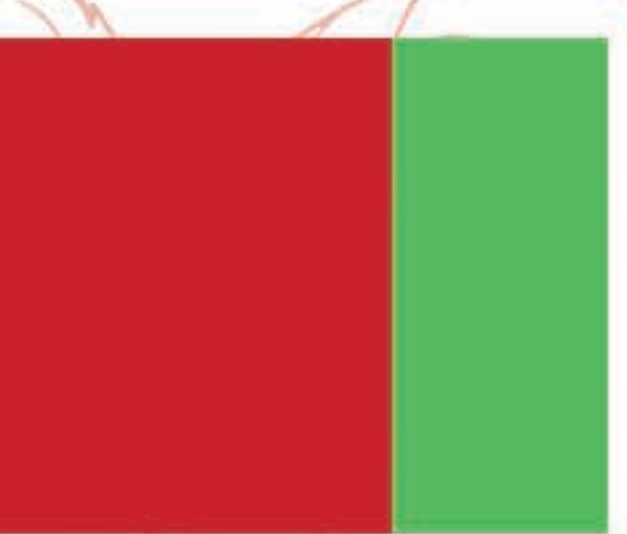
virions infect the larvae through the midgut cells

forming of new occluded viruses

virus replication inside the host and infection of new host cells







# Our ViroSAFE product

Application of baculoviruses takes place using ViroSAFE product, Our ViroSAFE are formulated into a stable and highly concentrated product, which is ready to use and can easily be combined with other plant protection products.

The structure of ViroSAFE works against – Lepidoptera: *Virachola liviar*, cotton bollworm (*Helicoverpa armigera*), corn earworm (*Helicoverpa zea*) and other *Helicoverpa* species, Beet armyworm (*Spodoptera exigua*), Tomato leafminer (*Tuta absoluta*), Egyptian cotton leafworm (*Spodoptera littoralis*).



## Optimum Protection

Well suited for conventional and organic production focusing on resistance management and integrated pest control



## Target the Right Insects

Safe for non-target organisms, such as beneficial insects



## Reliable Quality

Good storage stability







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