

CYD-X[®]
Insecticidal Virus

An Aqueous Suspension Biological Insecticide for Control of Codling Moth

Live organism
COMMERCIAL

**ACTIVE INGREDIENT :*Cydia pomonella* Granulovirus strain M > 3x 10¹³ occlusion bodies
(OB)/L (equivalent to 0.06% w/w)**

REGISTRATION NO.:30120 PEST CONTROL PRODUCTS ACT

READ THE LABEL BEFORE USING

POTENTIAL SENSITIZER
CAUTION EYE IRRITANT
CAUTION DERMAL IRRITANT

KEEP OUT OF REACH OF CHILDREN

NET CONTENTS: 946 mL

Date of manufacture

Certis USA LLC
9145 Guilford Road, Suite 175
Columbia MD 21046
1-800-847-5620

GENERAL INFORMATION:

CYD-X[®] contains an insecticidal baculovirus (*Cydia pomonella* granulovirus) that is specific to larvae of the codling moth (*Cydia pomonella*). Because of this specificity, CYD-X[®] provides a unique opportunity for biological control of codling moth without harmful effects to humans, domestic animals, wildlife, beneficial insects and plants.

CYD-X[®] is a biological insecticide which must be ingested by larvae in order to be effective. Upon ingestion, the viral occlusion bodies (OB's) dissolve in the larval midgut and release infectious virions. These enter the cells lining the digestive tract and replicate in the nuclei of those cells. The resulting progeny virus infects other tissues within the larvae, which stop feeding and eventually die from a massive viral infection. After death, the larvae disintegrate; releasing billions of new OB's which may infect other codling moth larvae upon ingestion. Codling moth death occurs 3 to 7 days after ingestion of CYD-X[®], depending on ambient temperature. Death may occur more quickly at higher temperatures.

Baculoviruses have been found only in invertebrates. No member of this family is known to infect vertebrates or plants. CYD-X[®] does not reproduce in mammalian cells. No adverse effect to fish, wildlife or beneficial organisms has been observed.

DIRECTIONS FOR USE:

As this product is not registered for the control of pests in aquatic systems, **DO NOT** use to control aquatic pests.

DO NOT contaminate irrigation or drinking water supplies or aquatic habitats by cleaning of equipment or disposal of wastes.

DO NOT apply by air.

To reduce runoff from treated areas into aquatic habitats, avoid application to areas with a moderate to steep slope, compacted soil or clay. Avoid application when heavy rain is forecast. Contamination of aquatic areas as a result of runoff may be reduced by including a vegetative strip between the treated area and the edge of the water body.

DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** direct spray above plants to be treated. Turn off outward pointing nozzles at row ends and outer rows. **DO NOT** apply when wind speed is greater than 16 km/h at the application site as measured outside of the treatment area on the upwind side.

Application rates

CROP	APPLICATION RATE	COMMENTS
Apple trees	100 to 250 mL per hectare	Use low rates (100 mL/ha) if monitoring indicates light codling moth pressure. Use higher rates (100 to 250 mL/ha) if monitoring indicates high codling moth pressure. Apply in sufficient water for thorough coverage of the tree canopy.

		<p>Make at least two (2) applications per codling moth larval generation. Target small larvae early in their life cycle. Frequent applications at low rates may be more effective than one or two applications at high rate.</p> <p>Repeat applications every 7 to 14 days may be required for control. CYD-X[®] breaks down under direct exposure to sunlight. If codling moths are still flying and laying eggs, reapply after 7 - 8 sunny days.</p>
--	--	---

Application timing should target small larvae just after egg hatch, and prior to entering fruit. Larvae must ingest CYD-X[®] to be infected, which is the case when they consume sprayed fruit. Some damage to the fruit may occur before the larvae die.

Use clean water at pH near 7.0 in the spray tank.

Apply using conventional ground application equipment.

CYD-X[®] can be applied up to and including the day of harvest and storage.

PRECAUTIONS:

KEEP OUT OF REACH OF CHILDREN. May cause sensitization. May cause eye irritation. May cause dermal irritation. Avoid contact with skin, eyes or clothing. Avoid breathing spray mist.

Wear a long-sleeved shirt, long pants, shoes plus socks, water-proof gloves, eye goggles and a dust/mist filtering respirator (MSH/NIOSH approval number prefix TC-21C) or a NIOSH approved respirator with any N-95, R-95, P-95 or HE filter for biological products when handling, mixing/loading or applying the product and during all clean-up/repair activities. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

FIRST AID:

If swallowed: Call a poison control centre or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor for treatment advice.

If inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control centre or doctor for further treatment advice.

If in eyes: Hold eye open and rinse slowly and gently with water for 15–20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION

Treat symptomatically.

STORAGE:

DO NOT contaminate food/feed when storing this product. Store unused product in original container away from children and direct sunlight. Store refrigerated at 4°C for up to one year from the date of manufacture.

DISPOSAL:

DO NOT reuse this container for any purpose. This is a recyclable container, and is to be disposed of at a container collection site. Contact your local distributor/dealer or municipality for the location of the nearest collection site. Before taking the container to the collection site.

1. Triple- or pressure-rinse the empty container. Add the rinsings to the spray mixture in the tank.
2. Make the empty, rinsed container unsuitable for further use.

If there is no container collection site in your area, dispose of the container in accordance with provincial requirements.

For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

NOTICE TO USER:

This pest control product is to be used only in accordance with the directions on the label. It is an offense under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label.