

GROUP 3 | 28 INSECTICIDES

VOLIAM XPRESS® Insecticide

INSECTICIDE

SUSPENSION

COMMERCIAL

For control of listed insect pests infesting various crops.

ACTIVE INGREDIENTS:

Lambda-cyhalothrin 50 g/L
Chlorantraniliprole..... 100 g/L

Contains 1,2-benzisothiazolin-3-one at 0.044% OR 5-chloro-2-methyl-4-isothiazolin-3-one at 0.00082% and 2-methyl-4-isothiazolin-3-one at 0.00027% as preservatives.

**READ THE LABEL AND THIS PAMPHLET BEFORE USING
KEEP OUT OF REACH OF CHILDREN**

DANGER**POISON****POTENTIAL SKIN SENSITIZER**

REGISTRATION NO: **30325**
PEST CONTROL PRODUCTS ACT

NET CONTENTS: **1 L to 1000 L**

Syngenta Canada Inc.
140 Research Lane, Research Park
Guelph, Ontario N1G 4Z3
Telephone: 1-877-964-3682

Label

NOTICE TO USER

This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

FIRST AID

IF POISONING IS SUSPECTED, IMMEDIATELY contact a doctor or a poison control centre. Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

If swallowed, call a poison control centre or doctor **IMMEDIATELY** for treatment advice. Do not induce vomiting unless told to do so by a poison control centre or doctor. Do not give **any** liquid to the person. 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 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.

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.

TOXICOLOGICAL INFORMATION

In case of poisoning, treat symptomatically. This product contains petroleum distillate. Vomiting may cause aspiration pneumonia. In case of exposure to skin of face or other sensitive areas, some individuals may feel a tingling or numbness. This is a transitory effect and does not cause harm to skin.

PRECAUTIONS

KEEP OUT OF REACH OF CHILDREN AND ANIMALS.

Keep unused product in original container tightly closed, locked up and away from food.

Fatal or poisonous if swallowed. **DO NOT INGEST**. Avoid contact with eyes, skin, or clothing. Potential skin sensitizer. Wear long-sleeved shirt, long pants and chemical resistant gloves during mixing, loading, applications, clean up and repair. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI) of

24 hours unless otherwise noted in the Directions for Use. Workers shall be given oral warning of the re-entry interval. For entry no sooner than 4 hours after application and during the REI refer to provincial guidance on early entry.

If this pest control product is to be used on a commodity that may be exported to other countries in the world and you require information on acceptable residue levels in these countries, please contact Syngenta Canada Inc. at 1-87-SYNGENTA / 1-877-964-3682.

ENVIRONMENTAL PRECAUTIONS

This product is TOXIC to aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE. This product contains active ingredients and aromatic petroleum distillates that are TOXIC to aquatic organisms. Observe buffer zones specified under DIRECTIONS FOR USE. Toxic to certain beneficial insects. Minimize spray drift to reduce harmful effects on beneficial insects in habitats next to the application site such as hedgerows and woodland.

This product is toxic to bees when exposed to direct treatment, drift, or residues on flowering crops or weeds. **DO NOT** apply this product to flowering crops or weeds if bees are visiting the treatment area. Minimize spray drift to reduce harmful effects on bees in habitats close to the application site. Spray deposits should be dry before bees commence foraging in treated crop.

Chlorantraniliprole is persistent and may carry over. It is recommended that any products containing chlorantraniliprole not be used in areas treated with this product during the previous season.

The use of this product may result in contamination of groundwater, particularly in areas where soil is permeable (e.g. sandy soil) and/or the depth to the water table is shallow.

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 this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, and wetlands), estuarine/marine habitats.

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

STORAGE

Store above 0°C in the original container to prevent freezing. If solids are present, return to room temperature and agitate until solids are dissolved. Keep in closed container when not in use. Avoid contamination of seed, feed and foodstuffs.

SPILL CLEANUP

Wear appropriate protective equipment when attempting to clean up the spill. If the container is leaking, secure leak and place the container into a drum or heavy gauge plastic bag. Contact Syngenta Canada Inc. (See EMERGENCY NUMBER) for further information.

For spills and leaks - contain the liquid with dikes of inert material (soil, clay, kitty litter, etc.). Absorb the spill onto inert material and shovel into a sealable waste container.

On hard surfaces - sprinkle spill area with detergent and scrub in a small quantity of water with a coarse broom. Let stand 10 minutes then absorb onto an inert material and shovel into the waste container. Dispose of all waste, including broom, in accordance with provincial requirements.

On soil - remove the top 15 cm of soil in the spill area and replace with fresh soil. Dispose of all waste in accordance with provincial requirements. For more information on the disposal of waste and the clean-up of spills, contact the provincial regulatory agency and the manufacturer.

DISPOSAL

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.

For Recyclable Container

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.

***IN CASE OF EMERGENCY INVOLVING A MAJOR SPILL, FIRE OR POISONING,
CALL 1-800-327-8633 (FASTMED)***

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Avoid application when heavy rain is forecast.

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DO NOT apply this product directly to freshwater habitats (such as lakes, rivers, sloughs, ponds, prairie potholes, creeks, marshes, streams, reservoirs, and wetlands), estuarine/marine habitats.

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PRODUCT INFORMATION

VOLIAM XPRESS® Insecticide is a foliar insecticide providing both rapid knockdown and long lasting residual control of Lepidopteran insects and listed sucking and chewing insects. After a foliar application, most of the compound stays on the leaf surface and a small amount penetrates into the leaf tissue. Initial and residual control is contingent upon thorough crop coverage.

DIRECTIONS FOR USE

Apply VOLIAM XPRESS Insecticide when listed insect pest populations begin to build, but before populations reach economically damaging levels. Economic thresholds for listed pests controlled by VOLIAM XPRESS Insecticide may be available from your local agricultural authorities.

Thorough spray coverage is essential for optimal performance. Apply VOLIAM XPRESS Insecticide in sufficient water to ensure good coverage. The use of higher water volumes will generally result in better coverage, especially under adverse conditions (e.g., hot, dry) or where a dense plant canopy exists.

Control of some insect species with pyrethroid insecticides decreases as temperature rises. For best results, apply VOLIAM XPRESS Insecticide during the early morning before temperatures rise, and during the evening, past the heat of the day.

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

Optimum application timing for the control of specific listed pest species is best determined by monitoring pest development and populations. In general, VOLIAM XPRESS Insecticide will be most effective against early developmental stages of surface feeding pests and against adults of pests that deposit eggs within plant parts. Follow recommendations provided by local pest monitoring services regarding appropriate application timing for your area. Follow provincial spray calendars for optimum timing of programmed spray applications.

Localized populations of some insect pests have developed resistance to other synthetic pyrethroid insecticides. Consult regional extension specialists regarding the susceptibility of local populations. Follow Integrated Pest Management (IPM) techniques to minimize the need for insecticide applications and ensure that needed applications are timed for optimum effectiveness.

GROUND APPLICATION

General Precautions

DO NOT apply during periods of dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply with spray droplets smaller than the American Society of Agricultural and Biological Engineers medium classification (ASABE Standard S-572.1). Boom height must be 60 cm or less above the crop or ground. Clean protective clothing and application equipment regularly.

MIXING INSTRUCTIONS:

1. Ensure that the sprayer interior is clean, then fill the spray tank with $\frac{1}{2}$ the required amount of water and engage gentle agitation. Good agitation is indicated by a rippling or rolling action on the surface of the water.
2. Add any WG or DF formulation mix partners and agitate to ensure complete mixing.
3. Add VOLIAM XPRESS Insecticide (SC) and agitate to ensure complete mixing.
4. Add any additional SC formulation mix partners and agitate to ensure complete mixing.
5. Add any EC formulation mix partners and agitate to ensure complete mixing.
6. Fill the tank to $\frac{3}{4}$ the required amount of water.
7. Add any solution (SN or SL) formulation mix partners and agitate to ensure complete mixing.
8. Finish filling the sprayer with water, maintaining good agitation.

9. After any break in spraying operations, agitate thoroughly before spraying again.
10. Spray the pesticide suspension the same day as mixing.
11. Do not mix, load or clean spray equipment where there is a potential to contaminate wells or aquatic systems.

SPRAYER CLEAN-UP:

Before Spraying:

- Prior to using VOLIAM XPRESS Insecticide, ensure that the spray tank, lines and filter are thoroughly clean.

After Spraying:

- Thoroughly clean application equipment immediately after spraying. Do not allow VOLIAM XPRESS Insecticide residue to dry within the spray tank
- When using tank mixes, consult the tank-mix partner label for additional cleanup instructions.
- The following recommendations are provided:
 1. Drain and flush tank walls, boom and all hoses for ten minutes with a clean water/detergent mixture. Rinse with clean water. **Do not** clean the sprayer near desirable vegetation, flowering crops or weeds, wells or other water sources.
 2. Remove all nozzles and screens and wash separately.
 3. Dispose of all rinsate in accordance with provincial regulations.

SPRAYING INSTRUCTIONS:

1. Water Volume: Apply in a minimum spray volume of 100 L/ha or as directed in the crop and pest specific instructions below, whichever is LARGER. Appropriate water volumes aid good coverage.
2. Spray Nozzles: 80° or 110° drift reducing flat fan (e.g. those with a pre-orifice or turbulence chamber) or air induction nozzles are recommended. Do not use flood type nozzles, controlled droplet application equipment, spray foils or hollow cone nozzles.
3. Pressure: As recommended by the nozzle manufacturer to achieve ASABE medium sized droplets.
4. Apply at uniform speed and avoid overlapping. Shut off spray boom while starting, turning, slowing or stopping to avoid potential crop injury from over application.

AERIAL APPLICATION

General Precautions

Apply only by fixed-wing or rotary aircraft equipment which have been functionally and operationally calibrated for the atmospheric conditions of the area and the application rates and conditions of this label. Apply only when meteorological conditions at the treatment site allow for complete and even crop coverage, and only under conditions of good practice specific to aerial application as outlined in the *National Aerial Pesticide Application Manual* developed by the Federal/Provincial/Territorial Committee on Pest Management and Pesticides.

Label rates, conditions, and precautions are product specific. Read and understand the entire label before opening this product. Apply only at the rate recommended for aerial application on this label. When no rate for aerial application appears for the specific use, this product cannot be applied by any type of aerial equipment.

Ground Crew Precautions

Do not allow the pilot to mix chemicals to be loaded onto the aircraft. Loading of premixed chemicals with a closed system is permitted. It is desirable that the pilot have communication capabilities at each treatment site at the time of application.

All ground crew and the mixer/loaders must wear chemical resistant gloves, coveralls and goggles or face shield during mixing/loading, cleanup and repair. Follow the more stringent label precautions in cases where the operator precautions exceed the generic label recommendations on the existing field sprayer label.

All personnel on the job site must wash hands and face thoroughly before eating and drinking. Protective clothing, aircraft cockpit and vehicle cabs must be decontaminated regularly.

MIXING INSTRUCTIONS:

Mixing this product directly in the aircraft hopper **IS NOT** recommended. The use of chemical handling or managing equipment to load the hopper **IS** recommended. This product **MAY BE** inducted into a hopper which is pre-filled with water or when the product and water are mixed prior to entering the hopper. This product **MAY BE** batch mixed and pumped into the hopper. In all cases the chemical handling equipment and hopper interior must be clean prior to use.

NOTE: WG and DF formulations are preferentially batch mixed.

NOTE: SC, SN, and SL formulations may be inducted or batch mixed.

NOTE: EC formulations are preferentially batch mixed.

It is **NOT** recommended to combine WG or DF formulations with tank mix partners within a single batch. Batch mix WG or DF formulations first, pump into the hopper, and then add tank mix partners by induction or as an additional batch mix.

1. Pump water into the hopper to at least $\frac{1}{4}$ to $\frac{1}{2}$ of the desired spray volume. Engage hopper circulation, if possible.
2. Thoroughly batch mix any WG or DF formulation mix partners and agitate to ensure complete mixing. Pump into the hopper
3. Induct or thoroughly batch mix VOLIAM XPRESS Insecticide and any additional SC formulations.
4. Thoroughly batch mix any EC formulation mix partners. EC formulations may be added the batch from Step 2, if desired.
5. Induct or thoroughly batch mix any solution (SN or SL) formulation mix partners. SN/SL formulations may be added to the batch from Step 2, if desired.
6. Pump batch mixed SC, EC, and/or SN/SL products into the hopper.
7. Finish filling the hopper with water.
8. If it was not possible to engage hopper agitation in Step 1, do so as soon as possible once airborne.
9. Spray the pesticide suspension the same day as mixing.
10. Do not mix, load or clean equipment where there is a potential to contaminate wells or aquatic systems.

EQUIPMENT CLEAN-UP:

Before Spraying:

- Prior to using VOLIAM XPRESS Insecticide, ensure that the hopper, chemical handling equipment, lines and filter are thoroughly cleaned.

After Spraying:

- Thoroughly clean application equipment immediately after spraying. Do not allow VOLIAM XPRESS residue to dry within application equipment.
- When using tank mixes, consult the tank-mix partner label for additional cleanup instructions.
- The following recommendations are provided:
 1. Drain and flush tank walls, boom and all hoses for ten minutes with a clean water/detergent mixture. Rinse with clean water. **Do not** clean application equipment near desirable vegetation, flowering crops or weeds, wells or other water sources.
 2. Remove all nozzles and screens and wash separately.
 3. Dispose of all rinsate in accordance with provincial regulations.

Pilot Precautions

Read and understand the entire label before using this product. Ensure uniform application and a uniform spray with minimum potential for drift. Suggested conditions for good aerial application are moderate temperatures (less than 25 °C), moderate relative humidity (greater than 40%), and light winds (3 to 9 kph). To avoid streaked, uneven or overlapped application, use appropriate marking technology. GPS based marking is preferred.

DO NOT apply during atmospheric conditions of thermal inversion which are characterized by dead calm. Avoid application of this product when winds are gusty. **DO NOT** apply when wind speed is greater than 16 km/h at flying height at the site of application. **DO NOT** apply spray droplets which are smaller than the American Society of Agricultural and Biological Engineers medium classification (ASABE Standard S-572.1). The nozzle distribution along the spray boom length **MUST NOT** exceed 65% of the wing or rotor span in order to reduce drift caused by turbulent wingtip vortices.

SPRAYING INSTRUCTIONS

1. Water Volume: Apply in a minimum spray volume of 40 L/ha. Appropriate water volumes aid good coverage.
2. Spray Nozzles: Use only ASABE medium or coarse nozzles rated as delivering droplets of volume median diameter of 300 microns or greater.
3. Pressure: As recommended by the nozzle manufacturer to achieve ASABE coarse or medium sized droplets.
4. Ensure hopper agitation is engaged whenever possible during flight.

BUFFER ZONES

Use of the following spray methods or equipment **DO NOT** require a buffer zone: hand-held or backpack sprayer and spot treatment.

The buffer zones specified in the table below are required between the point of direct application and the closest downwind edge of sensitive freshwater habitats (such as lakes, rivers, sloughs,

ponds, prairie potholes, creeks, marshes, streams, reservoirs and wetlands) and estuarine/marine habitats.

Method of application	Crop		Buffer Zones (metres) Required for the Protection of:			
			Freshwater Habitat of Depths:		Estuarine/Marine Habitats of Depths:	
			Less than 1 m	Greater than 1 m	Less than 1 m	Greater than 1 m
Field sprayer	Corn, CG 1C Tuberous and corm vegetables, CG 5A Head and stem brassica, CG 6 Legumes, CG 8-09 Fruiting vegetables, CG 9 Cucurbit vegetables, CG 20A Rapeseed and CG 20B sunflower		15	15	15	15
Aerial	Corn and CG 1C Tuberous and corm vegetables	Fixed wing	225	25	800	800
		Rotary wing	200	20	800	700
	CG 5A Head and stem brassica, CG 6 Legumes, CG 9 Cucurbit vegetables,	Fixed wing	100	15	800	700
		Rotary wing	85	10	800	425
	CG 20A Rapeseed and CG 20B sunflower	Fixed wing	45	10	800	125
		Rotary wing	35	5	800	125

The spray drift buffer zones for this product can be modified based on weather conditions and spray equipment configuration by accessing the Buffer Zone Calculator on the Pest Management Regulatory Agency web site. For tank mixes, consult the labels of the tank-mix partners and observe the largest (most restrictive) buffer zone of the products involved in the tank mixture and apply using the coarsest spray (ASABE) category indicated on the labels for those tank mix partners.

CROP DIRECTIONS FOR USE

CROPS	Crop Group 1C Tuberous and Corm Vegetables Arrowroot, Chinese Artichoke, Jerusalem Artichoke, Edible Canna, Chufa, Dasheen (taro), Potato, Sweet Potato, True Yam
PEST	Diamondback moth, cabbage looper, black cutworm, imported cabbageworm, swede midge, corn earworm, tobacco hornworm, tomato hornworm, variegated cutworm, fall armyworm, beet armyworm, <i>Liriomyza</i> leafminers, psyllids
PRODUCT RATE (mL/ha)	500
APPLICATION METHOD	Ground or aerial application
APPLICATION INTERVAL	7 days
PRE-HARVEST INTERVAL (PHI)	7 days
APPLICATION TIMING	<p>Timing of applications should be based on the presence of vulnerable pest developmental stages and significant populations as determined by local monitoring. Consult provincial guidelines and local extension experts for monitoring protocols and thresholds for treatment.</p> <p>Black cutworm - Apply to foliage when rain is not expected in the next 24 hours. For optimal control, apply to smaller plants or when lower portions of the plant can receive adequate coverage.</p>
NOTES	<p>Do not apply more than 2 applications per year.</p> <p>DO NOT apply VOLIAM XPRESS Insecticide, which contains a Group 28 insecticide, following a seed piece, in-furrow, or soil application of any Group 28 insecticide.</p> <p>Water Volume: <u>Ground Application:</u> Apply in a minimum of 150 L of water per hectare. <u>Aerial Application:</u> Apply in a minimum of 40 L of water per hectare.</p>

CROPS	Crop Group 5A – head and stem brassica Broccoli, Chinese broccoli (gai lon), Brussels Sprouts, Cabbage, Chinese Cabbage (napa), Chinese cabbage mustard (gai choy), Cauliflower, Cavolo Broccolo, Kohlrabi
PEST	Onion thrips, black cutworm, armyworm, fall armyworm, beet armyworm, corn earworm, Liriomyza leafminers
PRODUCT RATE (mL/ha)	500
APPLICATION METHOD	Ground application
APPLICATION TIMING	Timing of applications should be based on the presence of vulnerable pest developmental stages and significant populations as determined by local monitoring. Consult provincial guidelines and local extension experts for monitoring protocols and thresholds for treatment. Black cutworm - apply to foliage when rain is not expected in the next 24 hours. For optimal control, make application to smaller plants or when lower portion of the plant can receive adequate spray coverage.
APPLICATION INTERVAL	7 days
PRE-HARVEST INTERVAL (PHI)	3 days for mechanical harvesting 8 days for hand harvesting
RE-ENTRY INTERVAL (REI)	DO NOT enter or allow worker entry into treated areas during the restricted entry interval (REI): 6 days for scouting, hand pruning, irrigation, thinning and tying/training 7 days for hand weeding and topping 24 hours is required for all other activities
NOTES	Apply by foliar broadcast spray. DO NOT apply more than 3 applications per growing season. Do not make a foliar application of VOLIAM XPRESS Insecticide for a minimum of 60 days following an in-furrow or soil application or planting of seed treated with any Group 28 insecticide. DO NOT apply by air. Apply in sufficient water to ensure thorough coverage. Use sufficient water thorough coverage, 100 to 200 L/ha is recommended.

CROPS	Crop Group 6 - Legumes (Succulent or Dried) Bean (Lupinus spp.), bean (Phaseolus spp.), bean (Vigna spp.), Broadbean (fava bean), chickpea (garbanzo bean), guar, jackbean, lablab bean, lentil, pea (pisum spp), pigeon pea, soybean, soybean (immature seed), sword bean
PEST	Grasshopper, lygus bug, pea leaf weevil, potato leaf hopper
PRODUCT RATE (mL/ha)	225
PEST	Soybean aphid, pea aphid, bean aphid, bean leaf beetle
PRODUCT RATE (mL/ha)	225 - 550
PEST	Western bean cutworm, cabbage looper, armyworm, fall armyworm, beet armyworm, corn earworm, European corn borer
PRODUCT RATE (mL/ha)	500
APPLICATION METHOD	Ground or aerial application
APPLICATION INTERVAL	7 days
PRE-HARVEST INTERVAL (PHI)	7 days for succulent shelled and edible-podded peas and beans 14 days of harvest of dry peas and beans (including lupins, lentils, chickpeas and fava beans) 21 days of harvest for soybean
APPLICATION TIMING	DO NOT use more than 3 applications per season by ground application. DO NOT use more than 1 application per season by aerial application. Do not make a foliar application of VOLIAM XPRESS Insecticide for a minimum of 60 days following an in-furrow or soil application or planting of seed treated with any Group 28 insecticide. DO NOT graze or harvest treated forage, straw or hay for livestock feed. Apply no later than when the first feeding is seen on foliage. Reapply after 7 days depending on the presence of significant populations as determined by local monitoring.
NOTES	Water Volume: <u>Ground Application:</u> Apply in a minimum of 100-200 L of water per hectare. <u>Aerial Application:</u> Apply in a minimum of 40 L of water per hectare. Do not exceed 225 g chlorantraniliprole per hectare per year (by ground or aerial application), and 75 g lambda-cyhalothrin per hectare per year (by ground application) or 25 g lambda-cyhalothrin per hectare per year (by aerial application). This includes the use of VOLIAM XPRESS Insecticide as well as additional Group 3 and/or Group 28 insecticides. Consult the label of other products containing these active ingredients prior to treatment to ensure that the annual maximum is not exceeded.

CROPS	Crop Group 8-09 – Fruiting vegetables Eggplant, African eggplant, pea eggplant, scarlet eggplant, garden huckleberry, goji berry, groundcherry, martynia, okra, pepino, bell pepper, non-bell pepper, sunberry, tomatillo, tomato, currant tomato, bush tomato, cocona, naranjilla, roselle, tree tomato and cultivars, varieties and hybrids of these commodities
PEST	Armyworm, fall armyworm, beet armyworm, variegated cutworm, tobacco hornworm, tomato hornworm, tomato fruitworm, corn earworm, European corn borer, cabbage looper, black cutworm, potato psyllid
PRODUCT RATE (mL/ha)	500
APPLICATION METHOD	Ground application
APPLICATION INTERVAL	7 days
PRE-HARVEST INTERVAL (PHI)	7 days
APPLICATION TIMING	Timing of applications should be based on the presence of vulnerable pest developmental stages and significant populations as determined by local monitoring. Black cutworm - Apply to foliage when rain is not expected in the next 24 hours. For optimal control, make application to smaller plants or when lower portion of the plant can receive adequate spray coverage.
NOTES	DO NOT apply more than 2 applications per year. Do not make a foliar application of VOLIAM XPRESS Insecticide for a minimum of 60 days following an in-furrow or soil application or planting of seed treated with any Group 28 insecticide. Water Volume: Ground Application: Apply in a minimum of 150 L of water per hectare

CROPS	Crop Group 9 – Cucurbit Vegetables Chinese waxgourd, citron melon, cucumber, gherkin, edible gourd (includes hyotan, cucuzza, hechima, Chinese okra), momordica spp., muskmelon, pumpkin, summe squash, winter squash, watermelon
PEST	Striped cucumber beetle, squash bug, cabbage looper, black cutworm, armyworm, fall armyworm, corn earworm, leafminers
PRODUCT RATE (mL/ha)	500
APPLICATION METHOD	Ground application
APPLICATION INTERVAL	7 days
PRE-HARVEST INTERVAL (PHI)	1 day
APPLICATION TIMING	<p>Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. Reapply after a minimum of 5 days if monitoring indicates it is necessary.</p> <p>Black cutworm - apply to foliage when rain is not expected in the next 24 hours. For optimal control, make application to smaller plants or when lower portion of the plant can receive adequate spray coverage.</p>
NOTES	<p>DO NOT apply more than 3 applications per growing season.</p> <p>Do not make a foliar application of VOLIAM XPRESS Insecticide for a minimum of 60 days following an in-furrow or soil application or planting of seed treated with any Group 28 insecticide.</p> <p>Water Volume: Use sufficient water for thorough coverage. 100 to 200 L/ha is recommended.</p>

CROPS	CORN (including field, pop and sweet types, and crops grown for seed production)
PEST	European corn borer, corn earworm, western bean cutworm, armyworm
PRODUCT RATE (mL/ha)	500
APPLICATION METHOD	Ground or aerial application
APPLICATION INTERVAL	7 days
PRE-HARVEST INTERVAL (PHI)	1 day of harvest for sweet corn 14 days if the crop is being harvested for silage 21 days for harvest of field corn, pop corn and corn grown for seed
APPLICATION TIMING	Apply no later than when the first feeding is seen on foliage. Reapply after 7 days depending on the presence of significant populations as determined by local monitoring. Where there are two generations of pests, late plantings of sweet corn will require sprays from the late whorl stage until close to harvest. This treatment will not prevent internal cob damage if the insect has penetrated the ear.
NOTES	<p>DO NOT apply more than 2 applications per year.</p> <p>Do not make a foliar application of VOLIAM XPRESS Insecticide for a minimum of 60 days following an in-furrow or soil application or planting of seed treated with any Group 28 insecticide.</p> <p>Water Volume: <u>Ground Application:</u> Apply in a minimum of 150 L of water per hectare. <u>Aerial Application:</u> Apply in a minimum of 40 L of water per hectare.</p> <p>Do not exceed 225 g chlorantraniliprole per hectare per year (by ground or aerial application), and 69 g lambda-cyhalothrin per hectare per year (by ground application) or 50 g lambda-cyhalothrin per hectare per year (by aerial application), to all types of corn. This includes the use of VOLIAM XPRESS Insecticide as well as additional Group 3 and/or Group 28 insecticides. Consult the label of other products containing these active ingredients prior to treatment to ensure that the annual maximum is not exceeded.</p>

CROPS	<p>Crop Group 20A Rapeseed Subgroup – Borage, crambe, echium, flax seed, gold of pleasure, hare's ear mustard, lesquerella, lunaria, meadowfoam, milkweed, mustard seed and condiment mustard, oil radish, poppy seed, rapeseed (including canola), sesame, sweet rocket, and cultivars and/or hybrids of these</p> <p>Crop Group 20B Sunflower Subgroup – Calendula, Castor oil plant, euphorbia, evening primrose, niger seed, rose hip, safflower, stokes aster, sunflower</p>
PEST	Flea beetle, lygus bug, cabbage seedpod weevil, imported cabbageworm, diamondback moth, cabbage looper, bertha armyworm, grasshoppers, sunflower beetle
PRODUCT RATE (mL/ha)	225
APPLICATION METHOD	Ground or aerial application
APPLICATION INTERVAL	7 days
PRE-HARVEST INTERVAL (PHI)	7 days
APPLICATION TIMING	<p>Timing of applications should be based on the presence of vulnerable pest developmental stages and significant populations as determined by local monitoring.</p> <p>Cabbage Seedpod Weevil (adults) - Apply at the bud to early flowering stage of crop development. Timing of applications should also be based on the presence of significant populations of adults, as determined by local monitoring. Application prior to adult migration into the field will not be effective. It is recommended to apply prior to egg laying. Make only 1 application per season by either ground or aerial application equipment.</p> <p>Flea beetle - To prevent migration of overwintering adults throughout the field, ground spray a 15 m strip around the field at the first sign of flea beetle feeding.</p> <p>Grasshoppers – Treat for grasshoppers up to but not including winged adults (up to 2.5 cm in length). If insect pressure is high apply a spray to a 15 m strip around the field. Avoid environmentally sensitive areas and unregistered crops.</p> <p>Sunflower beetle - Apply when insects appear.</p>
NOTES	<p>DO NOT use more than 3 applications per season by ground application.</p> <p>DO NOT make more than 1 application per season by aerial application.</p> <p>Do not make a foliar application of VOLIAM XPRESS Insecticide for a minimum of 60 days following an in-furrow or soil application or planting of seed treated with any Group 28 insecticide.</p> <p>Water Volume: <u>Ground Application:</u> Apply in a minimum of 100 - 200 L of water per hectare. <u>Aerial Application:</u> Apply in 40 L of water per hectare.</p>

RESISTANCE-MANAGEMENT RECOMMENDATIONS

For resistance management, please note that VOLIAM XPRESS Insecticide contains a Group 3 insecticide (lambda-cyhalothrin) and a Group 28 insecticide (chlorantraniliprole). Any insect population may contain individuals naturally resistant to VOLIAM XPRESS Insecticide and other Group 3 or 28 insecticides. The resistant individuals may dominate the insect population if these groups of insecticides are used repeatedly in the same fields. Other resistance mechanisms that are not linked to site of action but are specific for individual chemicals, such as enhanced metabolism, may also exist. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance:

Where possible, rotate the use of VOLIAM XPRESS Insecticide or other Group 3 or 28 insecticides with different groups that control the same pests.

Make no more than 2 successive applications per generation to the same insect species on a crop. The following application to the target pest(s) must be with registered product with a different mode of action.

Use tank mixtures with insecticides from a different group when such use is permitted.

Insecticide use should be based on an IPM program that includes scouting and record keeping, and considers cultural, biological and other chemical control practices.

Monitor treated pest populations for resistance development. If resistance is suspected, do not reapply VOLIAM XPRESS Insecticide or other Group 3 or Group 28 insecticides.

Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.

For further information or to report suspected resistance, contact Syngenta Canada Inc. company representatives at 1-87-SYNGENTA (1-877-964-3682) or at www.syngenta.ca.

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