



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

DEC - 5 2011

Mr. Timothy Wilson
Syngenta Crop Protection LLC
P.O. Box 18300
Greensboro, NC 27419

Dear Mr. Wilson:

Subject: Revised labeling
Voliam Xpress
EPA Registration Number 100-1320
Your submission dated October 4, 2011

Revised labeling to remove unacceptable statements from directions for use, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, is acceptable. This information has been ^{Added} to our files for this product.

If you have any questions, please contact Rita Kumar at (703) 308-8291 or kumar.rita@epa.gov.

Yours Sincerely,

A handwritten signature in cursive script, appearing to read "Venus Eagle", is written over the typed name.

Venus Eagle
Acting Product Manager I
Insecticide-Rodenticide Branch
Registration Division (7505P)

RESTRICTED USE PESTICIDE
DUE TO TOXICITY TO FISH AND AQUATIC ORGANISMS

FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS, OR PERSONS UNDER THEIR DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S CERTIFICATION.

Not for sale, sale into, distribution and/or use in Nassau, Suffolk, Kings, and Queens Counties of New York State.

Voliam Xpress®

GROUP 3 28 INSECTICIDES

Insecticide

For control of listed insect pests infesting specified crops

Active Ingredient:

Lambda-cyhalothrin^{1,2} 4.63%

Chlorantraniliprole³ 9.26%

Other Ingredients: 86.11%

Total: 100.00%

¹CAS No. 91465-08-6

²Synthetic pyrethroid

³CAS No. 500008-45-7

Voliam Xpress contains 0.835 lb. of chlorantraniliprole and 0.417 lb. of lambda cyhalothrin per gallon.

KEEP OUT OF REACH OF CHILDREN.

WARNING/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional precautionary statements and directions for use in booklet.

EPA Reg. No. 100-1320

EPA Est. XXXX

SCP 1320A-M(draft)

Net Contents

ACCEPTED

DEC - 5 2011

**Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended, for the
pesticide registered under:**

EPA. Reg. No: 100-1320

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Do not give any liquid to the person. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none"> • 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 center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • 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 center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<p align="center">HOT LINE NUMBER</p> <p align="center">For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call 1-800-888-8372</p>	

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING/AVISO

May be fatal if swallowed. Causes moderate eye irritation. Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals. 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.

Skin exposure may also result in a sensation described as a tingling, itching, burning, or prickly feeling. Onset may occur immediately to 4 hrs. after exposure and may last 2-30 hours., without damage. Wash exposed areas once with soap and water. Relief from the skin sensation may be obtained by applying an oil-based cream.

Personal Protective Equipment (PPE)

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical resistance category selection chart.

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves, Category C, such as barrier laminate; butyl rubber ≥ 14 mils; nitrile rubber ≥ 14 mils; neoprene rubber ≥ 14 mils; polyvinyl chloride (PVC) ≥ 14 mils; or Viton[®] ≥ 14 mils
- Shoes plus socks

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

Engineering Control Statements

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic organisms and toxic to wildlife.

This pesticide is toxic to aquatic invertebrates, oysters and shrimp.

For terrestrial uses: do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are foraging in/or adjacent to the treatment area.

- **Surface Water Advisory**

This product may impact surface water quality due to spray drift and runoff of rain water.

This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having high potential for reaching surface water via runoff for several months after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of chlorantraniliprole water from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours. (See manual at the following internet address: <http://www.wsi.nrcs.usda.gov/products/W2Q/pest/core4.html>).

- **Ground Water Advisory**

This product has properties and characteristics associated with chemicals detected in ground water. This chemical may leach into the ground water if used in areas where soils are permeable, particularly where the water table is shallow.

- **Spray Drift Advisory**

Do not allow this product to drift.



CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions, presence of other materials or other influencing factors in the use of the product, which are beyond the control of SYNGENTA CROP PROTECTION, LLC or Seller. To the extent permitted by applicable law, Buyer and User agree to hold SYNGENTA and Seller harmless for any claims relating to such factors.

SYNGENTA warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. To the extent permitted by applicable law: (1) this warranty does not extend to the use of the product contrary to label instructions or under conditions not reasonably foreseeable to or beyond the control of Seller or SYNGENTA, and, (2) Buyer and User assume the risk of any such use. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, SYNGENTA MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS WARRANTED BY THIS LABEL.**

To the extent permitted by applicable law, in no event shall SYNGENTA be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT PERMITTED BY APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SYNGENTA AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SYNGENTA OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

SYNGENTA and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of SYNGENTA.

DIRECTIONS FOR USE

RESTRICTED USE PESTICIDE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

RESTRICTIONS

Do not treat plants grown for transplanting. Not for use in nurseries, plant propagation houses, or greenhouses by commercial transplant producers on plants being grown for transplanting.

- Use this product only in commercial and farm plantings.
- Not for use in home plantings.
- Not for use on ornamental plants or plants being grown for ornamental purposes.
- Do not apply through any irrigation system (chemigation) unless specified in the Crop Use Directions section of this label or in supplemental labeling.
- Use of adjuvants is only allowed on certain crops – see specific crop instructions for adjuvants in the **Crop Use Directions** section of this label.
- Voliam Xpress is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply Voliam Xpress or allow it to drift to blooming crops or weeds while bees are foraging in/or adjacent to the treated area.

The following restrictions are required to permit use of Voliam Xpress in the State of New York:

- This product may not be applied within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch).
- Aerial application of this product is prohibited.
- Not for sale, sale into, distribution and/or use in Nassau, Suffolk, Kings, and Queens counties of New York State.

SHAKE WELL BEFORE USING.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

This labeling must be in the possession of the user at the time of application.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls
- Chemical-resistant gloves, Category C, such as barrier laminate; butyl rubber ≥ 14 mils; nitrile rubber ≥ 14 mils; neoprene rubber ≥ 14 mils; polyvinyl chloride (PVC) ≥ 14 mils; or Viton[®] ≥ 14 mils
- Shoes plus socks

FAILURE TO FOLLOW THE DIRECTIONS FOR USE AND PRECAUTIONS ON THIS LABEL MAY RESULT IN POOR INSECT CONTROL, CROP INJURY, OR ILLEGAL RESIDUES.

INFORMATION

Voliam Xpress is a foliar insecticide providing 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.

For best performance, always follow these directions:

- Apply Voliam Xpress when insect pest populations begin to build, but before populations reach economically damaging levels. Economic thresholds for pests controlled by Voliam Xpress may be available from your local agricultural authorities.
- Thorough spray coverage is essential for optimal performance. Apply Voliam Xpress in sufficient water to ensure good coverage. See specific application

information in the **Crop Use Directions** section of this label. 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.

- Voliam Xpress is rainfast once the spray solution has dried on treated plants.
- In addition to control of key pests listed on this label, Voliam Xpress may aid in the suppression of other listed pests. Suppression can mean either inconsistent control (good to poor), or consistent control at a level below that generally considered acceptable for commercial control.

RESISTANCE MANAGEMENT

Some insect pests are known to develop resistance to products after repeated use. Because resistance development cannot be predicted, the use of this product should conform to sound resistance management strategies established for the crop and use area. Syngenta encourages responsible product stewardship to ensure effective long-term control of the insects on this label.

Voliam Xpress contains a Group 3 insecticide (Lambda-cyhalothrin, belonging to the pyrethroid class of chemistry) and a Group 28 insecticide (chlorantraniliprole, belonging to the diamide class of chemistry). Insect biotypes with acquired or inherent resistance to Group 3 or Group 28 insecticides may eventually dominate the insect population if Group 3 or Group 28 insecticides are used repeatedly as the predominant method of control for targeted species. This may result in partial or total loss of control of those species by Voliam Xpress or other Group 3 or Group 28 insecticides.

If resistance to this product develops in your area, this product, or other products with a similar mode of action, may not provide adequate control. If poor performance cannot be attributed to improper application or extreme weather conditions, a resistant strain of insect may be present. If you experience difficulty with control and resistance is a reasonable cause, immediately consult your local company representative or agricultural advisor for the best alternative method of control for your area.

In order to maintain susceptibility to these classes of chemistry:

- Avoid using Group 3 and/or Group 28 insecticides exclusively for season long control of insect species with more than one generation per crop season.
- For insect species with successive or overlapping generations, apply Voliam Xpress or other Group 3 and/or Group 28 insecticides using a "treatment window" approach. A treatment window is a period of time as defined by the stage of crop development and/or the biology of the pests of concern. Within the treatment window, depending on the length of residual activity, there may either be single or consecutive applications (soil, foliar, unless otherwise stated in the Directions for Use) of the Group 3 and/or Group 28 insecticides. Do not exceed the maximum Voliam Xpress allowed per growing season.

- Following a treatment window of Group 3 and/or Group 28 insecticides, rotate to a treatment window of effective products with a different mode of action before making additional applications of Group 3 and/or Group 28 insecticides.
- A treatment window rotation, along with other IPM practices for the crop and use area, is considered an effective strategy for preventing or delaying a pest's ability to develop resistance to these classes of chemistry.
- If resistance is suspected, do not reapply Voliam Xpress or other Group 3 or Group 28 insecticides.

Other Insect Resistance Management (IRM) practices include:

- Incorporating IPM techniques into your insect control program.
- Monitoring treated insect populations for loss of field efficacy.
- Using tank-mixtures or premixes with insecticides from a different target site of action group as long as the involved products are all registered for the same crop outlet and effective rates are applied.

For additional information on Insect Resistance Management:

- Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations.
- Visit the Insecticide Resistance Action Committee (IRAC) on the web at: <http://www.irac-online.org/>.

SPRAY DRIFT PRECAUTIONS

Observe the Following Precautions When Spraying in the Vicinity of Aquatic Areas Such as Lakes; Reservoirs; Rivers; Permanent Streams, Marshes or Natural Ponds; Estuaries and Commercial Fish Farm Ponds:

BUFFER ZONES

Vegetative Buffer Strip

Construct and maintain a minimum 10-foot-wide vegetative filter strip of grass or other permanent vegetation between the field edge and down gradient aquatic habitat (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds).

Only apply products containing Voliam Xpress onto fields where a maintained vegetative buffer strip of at least 10 feet exists between the field and down gradient aquatic habitat.

For guidance, refer to the following publication for information on constructing and maintaining effective buffers:

www.in.nrcs.usda.gov/technical/agronomy/newconbuf.pdf

Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. USDA, NRCS. 2000. Fort Worth, Texas. 21 pp.

Buffer Zone for Ground Application (groundboom, or airblast)

Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries, and commercial fish ponds).

Buffer Zone for Aerial Application

Do not apply within 150 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries, and commercial fish ponds).

SPRAY DRIFT REQUIREMENTS

Wind Direction and Speed

Only apply this product if the wind direction favors on-target deposition.

Do not apply when the wind velocity exceeds 15 mph.

Temperature Inversion

Do not make aerial or ground applications into temperature inversions.

Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

Droplet Size

Use only Medium or coarser spray nozzles (for ground and non-ULV aerial application) according to ASAE (S572) definition for standard nozzles. In conditions of low humidity and high temperatures, applicators should use a coarser droplet size.

Additional Requirements for Ground Applications

Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application.

For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy.

Additional Requirements for Aerial Applications

Mount the spray boom on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length must be used and must not exceed 75% of the wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining droplet size.

Spray must be released at the lowest height consistent with pest control and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.

When applications are made with a cross-wind, the swath will be displaced downwind. The applicator must compensate for this displacement at the downwind edge of the application area by adjusting the path of the aircraft upwind.

TANK MIX APPLICATION

Prepare no more spray mixture than is needed for the immediate operation. Thoroughly clean spray equipment before using this product. Maintain agitation throughout the spraying operation. Flush the spray equipment thoroughly following each use and apply the rinsate to a previously treated area. Keep product container tightly closed when not in use.

Voliam Xpress Alone

Add 1/2 of the required amount of water to the mix tank. With the agitator running, add the desired amount of Voliam Xpress to the tank. Continue agitation while adding the remainder of the water. Begin application of the solution after Voliam Xpress has completely dispersed into the mix water. Maintain agitation until all of the mixture has been applied.

Voliam Xpress + Tank Mixtures

When tank mixing with any other agricultural products, always add Voliam Xpress last. Fill the tank with one half to two thirds volume of the mixing diluent. Start the agitator running before adding any tank mix partners. Make sure all other products are fully dispersed in the mixing diluent before adding the specified rate of Voliam Xpress to the tank. Add the remainder of the mixing diluent volume. Maintain continuous agitation of the mixing and spray equipment. Follow the precautions and limitations of the most restricted product in the tank mixture.

Add tank mix partners in this order: products packaged in water-soluble packaging, wettable powders, wettable granules, dry flowables, liquid flowables, liquids, emulsifiable concentrates and surfactants / adjuvants. Always allow each tank mix partner to become fully dispersed before adding the next product. Provide sufficient agitation while adding the remainder of the water. Maintain agitation until all the mixture has been applied.

If using Voliam Xpress in a tank mixture, observe all directions for use, crop/sites, use rates, dilution ratios, precautions, and limitations that appear on the tank mix product label. Do not exceed any label dosage rate, and follow the most restrictive label precautions and limitations. Do not mix Voliam Xpress with any product that prohibits such mixing. Tank mixtures or other applications of products referenced on this label are permitted only in those states in which the referenced products are labeled.

Adjuvants

Use of adjuvants is only allowed on certain crops – see specific crop instructions for adjuvants in the **Crop Use Directions** section of this label.

When an adjuvant is to be used with this product, use an adjuvant that meets the standard of the Chemical Producers and Distributors Association (CPDA) adjuvant certification program.

Voliam Xpress is an aqueous based formulation. Do not use any type of non-emulsifiable oils in combination with Voliam Xpress. If adjuvants are used, use the following types:

- Nonionic Surfactant (NIS) containing at least 75% surface agent
- Non-phytotoxic Crop Oil Concentrate (COC), including once refined Vegetable Oil Concentrate (VOC)
- Methylated Seed Oils (MSO) containing a minimum of 17% emulsifier.

Adjuvants other than NIS or COC may be used providing the product meets all of the following criteria:

- Contains only EPA exempt ingredients.
- Is non-phytotoxic to the target crop.

- Is compatible in mixture. (established through a jar test.)
- Is supported locally for use with Voliam Xpress on the target crop through proven field trials and through university and extension specifications.

Do not use the following in combination with Voliam Xpress as diluents or adjuvants:

- Non-emulsifiable oils
- Diesel Fuel
- Straight Mineral Oil

Compatibility (Jar Test)

Voliam Xpress is compatible with most commonly used pesticides, crop oils, adjuvants, and nutritional sprays. However, since it is not possible to test all possible mixtures, pre-test to assure the physical compatibility and lack of phytotoxic effect of any proposed mixtures with Voliam Xpress. To determine the physical compatibility of Voliam Xpress with other products, use a jar test, as described below.

Using a quart jar, add the proportionate amounts of the products to 1 qt. of water. Add wettable powders and water-dispersible granular products first, then liquid flowables, and emulsifiable concentrates last. After thoroughly mixing, let stand for at least 5 minutes. If the combination remains mixed or can be remixed readily, it is physically compatible. Once compatibility has been proven, use the same procedure for adding required ingredients to the spray tank.

The crop safety of all potential tank mixes on all crops has not been tested. Confirm the safety to the target crop before applying any tank mixture not specified on this label.

CHEMIGATION – POTATOES ONLY

Sprinkler Irrigation Application:

Apply Voliam Xpress at rates and timing described elsewhere in this label. As local specifications differ, consult your local State Extension Service or other local experts for specifications on adjuvant or diluent types, (see **TANK MIX APPLICATION**) rates and mixing instructions. These specifications must be proven, through university and extension field trials, to be effective with Voliam Xpress applied by chemigation.

Check the irrigation system to insure uniform application of water to all areas. Thorough coverage of foliage is required for good control. Maintain good agitation in the pesticide supply tank prior to and during the entire application period.

Apply by injecting the specified rate of Voliam Xpress into the irrigation system using a metering device that will introduce a constant flow and by distributing the product to the target area in 0.1–0.2 acre-inch of water. Use the least amount of water required for proper distribution and coverage. Inject the product into the main irrigation line ahead of a right angle turn in the line to insure adequate dispersion or mixing in the irrigation water. Once the application is completed, flush the entire irrigation and injection system with clean water before stopping the system.

If application is being made during a normal irrigation set of a stationary sprinkler, inject the specified rate of Voliam Xpress for the area covered into the system only during the end of the irrigation set for sufficient time to provide adequate coverage and product distribution.

Do not apply Voliam Xpress through an irrigation system connected to a public water system. Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Use Precautions: Sprinkler Irrigation Application:

- A. Apply this product only through (sprinkler including center pivot, lateral move, end tow, side [wheel] roll, traveler, big gun, solid set, or hand move) irrigation system(s). Do not apply this product through any other type of irrigation system.
- B. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.
- C. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.
- D. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- E. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- F. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from backflow.
- G. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
- H. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
- I. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- J. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
- K. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump, or a Venturi injector) effectively

designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

- L. Any alternatives to the above required safety devices must conform to the list of EPA-approved alternative devices.
- M. Do not apply when wind speed favors drift beyond the area intended for treatment or non-uniform distribution of treated water.
- N. Do not apply through chemigation systems connected to public water systems.

CROP USE DIRECTIONS

Crop	Pests	Rate Per Acre Per Application
Alfalfa and Alfalfa Grown for Seed	Alfalfa Caterpillar Army Cutworm Cutworm species Green Cloverworm Leafhopper species Looper species Threecornered Alfalfa Hopper Velvetbean Caterpillar Webworm species	5.0 – 8.0 fl. oz./A
	Alfalfa Seed Chalcid (Adult) Alfalfa Weevil Armyworm Bean Leaf Beetle (Adult) Blister Beetle species Blue Alfalfa Aphid Clover Leaf Weevil species Clover Root Borer (Adult) Clover Root Curculio species (Adult) Clover Stem Borer (Adult) Corn Earworm Cowpea Aphid Cowpea Curculio (Adult) Cowpea Weevil (Adult) Cucumber Beetle species (Adult) Egyptian Alfalfa Weevil Fall Armyworm ¹ Grape Colaspis (Adult) Grasshopper species Green June Beetle (Adult) Green Peach Aphid ³ Japanese Beetle (Adult) Meadow Spittlebug Mexican Bean Beetle Pea Aphid Pea Weevil (Adult) Plant Bug species including Lygus species ³ Spotted Alfalfa Aphid Stink Bug species Sweet Clover Weevil (Adult) Thrips species ⁴ Western Yellowstriped Armyworm Whitefringed Beetle species (Adult) Yellowstriped Armyworm	6.0 -9.0 fl. oz./A
	Beet Armyworm ^{1,3} Blotch Leafminer ³ Spider Mites ²	9.0 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 31.0 fl. oz. of Voliam Xpress or 0.12 lb. a.i. of lambda-cyhalothrin containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per growing season.
- **Maximum Voliam Xpress Allowed per Cutting:** Do not apply more than 9.0 fl. oz. of Voliam Xpress per acre per cutting.
- **Application Timing:** Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. Apply higher rates within the listed rate range for heavy infestations.
- **Pre-Harvest Interval (PHI):** 1 day for forage and 7 days for hay
- **Water Volume:** Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. Apply in a minimum of 5 gals. per acre by air or 10 gals. per acre by ground. Use higher rates for increased residual control.
- **Bee Precaution** - Make applications when bees are not actively foraging by applying during the early morning or during the evening hours. Be aware of bee hazard resulting from a cool evening and/or morning dew. Remove bee shelters during and for 2-3 days following application. Do not apply directly to bee shelters.

¹ Use higher rates within the listed rate range for large larvae.

² Suppression only.

³ Refer to Resistance Management section.

⁴ Does not include Western Flower Thrips.

Crop	Pests	Rate Per Acre Per Application
<i>Brassica (Cole) Vegetables</i>		
Head & Stem <i>Brassica</i> Broccoli Broccoli, Chinese (gai lon) Brussels sprouts Cabbage Cabbage, Chinese (napa) Cabbage, Chinese mustard (gai choy)	Alfalfa Looper Cabbage Looper Cabbage Webworm Cutworms Imported Cabbageworm Southern Cabbageworm	5.0 – 8.0 fl. oz./A
Cauliflower Cavalo broccolo Kohlrabi	Aphids ^{1,3} Armyworm Beet Armyworm Corn Earworm Diamondback Moth Fall Armyworm Flea Beetles Grasshoppers Japanese Beetle (Adult) Leafhoppers Meadow Spittlebug Plant Bugs ³ Stink Bugs Thrips ^{1,2} Vegetable Weevil (Adult) Whiteflies ^{1,3} Yellowstriped Armyworm	6.0 – 9.0 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 31.0 fl. oz. of Voliam Xpress or 0.24 lb. a.i. of lambda-cyhalothrin containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per growing season.
- **Application Timing:** Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates within the listed rate range for heavy infestations.
- **Pre-Harvest Interval (PHI): 3 days**
- **Minimum Interval between Applications:** 5 days.
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.

¹Suppression only

²Does not include Western Flower Thrips

³Refer to Resistance Management section.

Crop	Pests	Rate Per Acre Per Application
Corn Field Corn Popcorn Seed Corn	Corn Earworm ¹ Cutworm species Green Cloverworm Meadow Spittlebug Western Bean Cutworm ¹	5.0 – 9.0 fl. oz./A
	Armyworm ² Bean Leaf Beetle Bird Cherry-Oat Aphid ³ Cereal Leaf Beetle Corn Leaf Aphid ³ Corn Rootworm Beetle (Adult): Mexican Northern Southern Western English Grain Aphid ³ European Corn Borer ¹ Fall Armyworm ² Flea Beetle species Grasshopper species Hop Vine Borer ¹ Japanese Beetle (Adult) Lesser Cornstalk Borer Sap Beetle (Adult) Seedcorn Beetle Southwestern Corn Borer ¹ Stalk Borer ¹ Stink Bug species Tobacco Budworm ^{1,4} Webworm species Yellowstriped Armyworm ²	6.0 – 9.0 fl. oz./A
	Beet Armyworm ⁴ Chinch Bug Greenbug ^{3,4} Mexican Rice Borer ¹ Rice Stalk Borer ¹ Southern Corn Leaf Beetle ³ Sugarcane Borer ¹	9.0 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 31.0 fl. oz. of Voliam Xpress or 0.12 lb. a.i. of lambda-cyhalothrin containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per year.
- **Do not** apply more than 18.0 fl. oz. of Voliam Xpress per acre after silk initiation.
- **Do not** apply more than 9.0 fl. oz. of Voliam Xpress per acre after corn has reached the milk stage (yellow kernels with milky fluid).
- **Application Timing:** Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds or other locally recommended methods. Apply higher rates within the listed rate range for heavy infestations.
- For chinch bug control, begin applications when bugs migrate from small grains or grass weeds to small corn. Direct spray to the base of corn plants. Repeat applications at 3-5-day intervals if needed. Voliam Xpress may only suppress heavy infestations and/or subsequent migrations.
- For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial applied corn rootworm control program use a minimum of 9.0 fl. oz. of Voliam Xpress per acre.
- **Pre-Harvest Interval (PHI):** 21 days
- **Minimum Interval Between Applications:** 7 days.
- **Water Volume:** Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of target location. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.
- **Do not** allow livestock to graze in treated areas or harvest treated corn forage as feed for meat or dairy animals within 1 day after last treatment. **Do not** feed treated corn fodder or silage to meat or dairy animals within 21 days after last treatment.

¹For control before the larva bores into the plant stalk or ear.

²Use higher rates within the listed rate range for large larvae.

³Suppression only.

⁴Refer to Resistance Management section.

Crop	Pests	Rate Per Acre Per Application
Corn Sweet Corn	Aphid species ^{2,3} Armyworm ¹ Aster Leafhopper Beet Armyworm ^{1,3} Chinch Bug Common Cornstalk Borer Corn Earworm Corn Rootworm Beetle (Adult): Mexican Northern Southern Western Cutworm species European Corn Borer Fall Armyworm ¹ Flea Beetle species Grasshopper species Japanese Beetle (Adult) Sap Beetle (Adult) Southern Armyworm ¹ Southwestern Corn Borer Spider Mite species ² Stink Bug species Tarnished Plant Bug Webworm species Western Bean Cutworm Yellowstriped Armyworm ¹	6.0 – 9.0 fl. oz./A
	Corn Silkfly (Adult) ²	9.0 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 31.0 fl. oz. of Voliam Xpress or 0.48 lb. a.i. of lambda-cyhalothrin containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per year.
- **Application Timing:** Apply as required by scouting, or locally prescribed corn growth stages, usually at intervals of 4 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds or other locally recommended methods and should be targeted for control before insects enter the stalk or ear. Apply higher rates within the listed rate range for heavy infestations.
- For control of adult corn rootworm beetles (*Diabrotica* species) as part of an aerial applied corn rootworm control program use a minimum of 8.0 fl. oz. of Voliam Xpress per acre.

- **Pre-Harvest Interval (PHI):** 1 day
- **Minimum Interval Between Applications:** 1 day
- **Water Volume:** Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage and ears (if present). Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.
- **Do not** allow livestock to graze in treated areas or harvest treated corn forage as feed for meat or dairy animals within 1 day after last treatment. **Do not** feed treated corn fodder or silage to meat or dairy animals within 21 days after last treatment.

¹Use higher rates within the listed rate range for large larvae.

²Suppression only.

³Refer to Resistance Management section.

Crop	Pests	Rate Per Acre Per Application
Cotton	Cutworm species Tobacco Thrips Soybean Thrips	5.0 – 6.0 fl. oz./A
	Bandedwing Whitefly ^{2,3} Beet Armyworm ¹ Boll Weevil Brown Stink Bug Cotton Aphid ² Cotton Bollworm Cotton Fleahopper Cotton Leafperforator Cotton Leafworm European Corn Borer Fall Armyworm Green Stink Bug Lygus Bug species ³ Pink Bollworm Saltmarsh Caterpillar Southern Green Stink Bug Sweetpotato Whitefly ^{2,3} Tobacco Budworm	6.5 – 12.5 fl. oz./A
	Cabbage Looper Soybean Looper	10.0 – 12.5 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 31.0 fl. oz. of Voliam Xpress or 0.2 lb. a.i. of lambda-cyhalothrin containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per year.
- **Do not** make more than a total of 10 synthetic pyrethroid applications (of one product or combinations of products) to a cotton crop in one growing season.
- **Application Timing:** Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates within the listed rate range for heavy infestations.
- When applied according to label directions for control of cotton bollworm and tobacco budworm, Voliam Xpress also provides ovicidal control of unhatched Heliothine eggs.
- **Pre-Harvest Interval (PHI):** 21days
- **Minimum Interval Between Applications:** 5 days.
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications. Do not use less than 5 GPA for aerial applications.
- **Do not** use an adjuvant with applications of Voliam Xpress to cotton.
- **Do not** graze livestock in treated areas.

¹For control of first and second instar only

²Suppression only

³Refer to Resistance Management section.

Crop	Pests	Rate Per Acre Per Application
Cucurbit Vegetables Chayote Chinese waxgourd Citron melon Cucumber Gherkin Gourd, edible (hyotan, cucuzza, hechima, Chinese okra) <i>Momordica</i> species(balsam apple, balsam pear, bittermelon, Chinese cucumber) Muskmelon (hybrids and/or cultivars of <i>Cucumis melo</i>) includes true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon	Armyworms Blister Beetle Cabbage Looper Corn Earworm Crickets Cucumber Beetles (adults) Cutworms Flea Beetles Grasshoppers June Beetles Leaffooted Bug Leafhoppers Leafminers Lygus Bugs species ¹ Melonworm Pickleworm Plant Bugs Rindworm species complex Saltmarsh Caterpillar Squash Beetle Squash Bugs Squash Vine Borers Stink Bugs Thrips ^{1,2} Tobacco Budworm Webworms	6.0 – 9.0 fl. oz./A
Pumpkin Squash: summer (crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini) and winter (butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash) Watermelon (includes hybrids and/or varieties of <i>Citrullus lanatus</i>)	Aphids ^{1,3} Whiteflies ^{1,3}	9.0 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 31.0 fl. oz. of Voliam Xpress or 0.18 lb. a.i. of lambda-cyhalothrin containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per growing season.
- **Application Timing:** Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates within the listed rate range for heavy infestations.
- **Pre-Harvest Interval (PHI):** 1 day
- **Minimum Interval between Applications:** 5 days.
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.
- **Do not** use an adjuvant with applications of Voliam Xpress to Cucurbit Vegetables, except on cucumber, Chinese waxgourd, gherkin and *Momordica* species.

¹Suppression only

²Does not include Western Flower Thrips

³Refer to Resistance Management section.

Crop	Pests	Rate Per Acre Per Application
Fruiting Vegetables Eggplant Groundcherry Pepino Peppers (bell, chili, cooking, pimento, and sweet) Tomatillo Tomato	Cabbage Looper Cutworms Hornworms	5.0 – 8.0 fl. oz./A
	Aphids ^{1,3} Armyworm Beet Armyworm Colorado Potato Beetle ³ Corn Earworm Cotton Leafworm Cucumber Beetle (Adults) Diamondback Moth European Corn Borer ⁴ Fall Armyworm Flea Beetles Grasshoppers Japanese Beetle (Adult) Leafhoppers Leafminers Meadow Spittlebug Melonworm Pepper Weevil (Adult) Plant Bugs Southern Armyworm Stalk Borer ⁴ Stink Bugs Thrips ^{1,2} Tobacco Budworm Tomato Fruitworm Tomato Pinworm Tomato Psyllid ^{1,3} Vegetable Weevil (Adult) Whiteflies ^{1,3} Yellowstriped Armyworm	6.0 – 9.0 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 31.0 fl. oz. of Voliam Xpress or 0.36 lb. a.i. of lambda-cyhalothrin containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per growing season.
- **Application Timing:** Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates within the listed rate range for heavy infestations.
- **Pre-Harvest Interval (PHI):** 5 days
- **Minimum Interval between Applications:** 5 days.
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.

- **Do not** use an adjuvant with applications of Voliam Xpress to chili pepper or pimento.
- Adjuvants may be used with Voliam Xpress applications to eggplant, groundcherry, pepino, bell pepper, cooking pepper, sweet pepper, tomatillo, and tomato.

¹Suppression only

²Does not include Western Flower Thrips

³**Refer to Resistance Management section.**

⁴For control before the larva bores into the plant stalk or fruit

Crop	Pests	Rate Per Acre Per Application
Grass, Forage, Fodder and Hay		
Pasture and Rangeland Grass, Grass Grown for Hay or Silage and Grass Grown for Seed	Army Cutworm Cutworm species Essex Skipper Range Caterpillar Striped Grass Looper	5.0 – 8.0 fl. oz./A
	Beet Armyworm Billbug species ³ Bird Cherry-Oat Aphid ¹ Black Grass Bug Black Turfgrass Beetle (adult) Blue Stem Midge Cereal Leaf Beetle Chinch Bug Crane Fly species Cricket species English Grain Aphid ¹ Fall Armyworm Flea Beetle species Grass Mealybug Grass Sawfly (adult) Grasshopper species Green June Beetle (adult) Greenbug ^{1,2} Japanese Beetle (adult) Katydid species Leafhopper species Mite species ³ Russian Wheat Aphid ¹ Southern Armyworm Spittlebug species Stink Bug species Sugarcane Aphid Thrips species Tick species True Armyworm Webworm species Yellowstriped Armyworm	6.0 – 9.0 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 27.0 fl. oz. of Voliam Xpress or 0.09 lb. a.i. of lambda-cyhalothrin containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per year.

- **Maximum Voliam Xpress Allowed per Cutting:** Do not apply more than 9.0 fl. oz. of Voliam Xpress per acre per cutting for pastures, rangeland and grasses grown for seed. A minimum re-treatment interval (RTI) of 30 days is required for pastures and rangeland receiving 0.03 lb. ai. per acre which have not been cut between applications.
- **Application Timing:** Apply as required by scouting. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. Apply higher rates within the listed rate range for heavy infestations and longer residual.
- For chinch bug control, Voliam Xpress may only suppress heavy infestations and/or migrations. In this situation, a second application using an alternative chemistry may be needed.
- Greenbug is known to have many biotypes. Voliam Xpress may provide suppression only. In this situation, a second application using an alternative chemistry may be needed.
- **Pre-Harvest Interval (PHI):** Pasture and rangeland grass may be used for grazing or cut for forage 0 days after application.
- **Do not** cut grass to be dried and harvested for hay until 7 days after the last application.
- **Grass grown for seed:** Straw, hay and mature seed (seed screenings) may be used as feed 7 days after the last application. Regrowth of grass grown for seed may be used for grazing, cut for forage or cut to be dried and harvested for hay.
- **Minimum Interval Between Applications:** 7 days
- **Water Volume:** Apply with ground or air equipment using sufficient water and application methods to obtain full coverage of foliage. Use higher application volumes and rates within the listed rate range when foliage is dense, pest populations are high, larvae are large and/or weather conditions are adverse. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.

¹Best control is obtained before insects begin to roll leaves.

²Refer to Resistance Management section.

³Suppression only.

Crop	Pests	Rate Per Acre Per Application
Legume Vegetables (Peas and Beans)		
Edible Podded (Only) <i>Canavalia ensiformis</i> -jackbean <i>Canavalia gladiata</i> -sword bean	Cutworm species Green Cloverworm Imported Cabbageworm Mexican Bean Beetle Saltmarsh Caterpillar Velvetleaf Caterpillar	5.0 – 8.0 fl. oz./A
Edible Podded, Succulent Shelled or Dried Shelled <i>Cajanus cajan</i> – Pigeon pea <i>Phaseolus</i> species – includes: field, kidney, lima, navy, pinto, runner, snap, tepary and wax beans <i>Pisum</i> species – includes: dwarf, edible- pod, English, field, garden, green, snow and sugar snap peas <i>Vigna</i> species – includes: adzuki, asparagus, moth, mung, rice, urd and yardlong beans, black-eye pea, catjang, Chinese longbean, cowpea, Crowder pea, and Southern pea	Alfalfa Caterpillar Aphid species ⁴ Armyworm ² Bean Leaf Beetle Bean Leafskeletonizer Blister Beetle species Corn Earworm Corn Rootworm Beetle species (Adult) Cucumber Beetle species (Adult) Curculio and Weevil species ¹ (foliage and pod feeding adults and larvae) European Corn Borer Fall Armyworm ² Flea Beetle species (Adult) Flea Hopper species Grasshopper species Japanese Beetle (Adult) Leafhopper species Leaf-tier species Looper Species Meadow Spittlebug Painted Lady Butterfly (Larva) Plant Bug species including Lygus species ⁴ Stalk Borer ¹ Stink Bug species Threecornered Alfalfa Hopper Thrips species ^{4,5} Tobacco Budworm ⁴ Webworm species Western Bean Cutworm Western Yellowstriped Armyworm ² Yellowstriped Armyworm ²	6.0 – 9.0 fl. oz./A

(continued)

Succulent Shelled or Dried Shelled

Vicia faba. – broadbean
(favabean)

Dried Shelled (Only)

Cicer arietinum –
chickpea
(garbonzo bean)

Cyamopsis
tetragonoloba –
guar

Lablab purpureus –
Lablab bean
(hyacinth bean)

Lupinus species –
includes: grain, sweet,
white and sweet white
lupines

Lens esculata –
Lentils

Beet Armyworm^{3,4}
Leafminer species^{3,4}
Lesser Cornstalk Borer³
Soybean Looper^{3,4}
Spider Mite species³
Whitefly species^{3,4}

9.0 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 31.0 fl. oz. of Voliam Xpress or 0.12 lb. a.i. of lambda-cyhalothrin containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per year.
- **Application Timing:** Apply as required by scouting, usually at intervals of 5 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic thresholds. Apply higher rates within the listed rate range for heavy infestations.
- **Pre-Harvest Interval (PHI):**
 - 7 Days** for edible podded and succulent shelled legume vegetables
 - 21 Days** for dried shelled legume vegetables
- **Minimum Interval Between Applications:** 5 days.
- **Water Volume:** Apply with ground or air equipment using sufficient water to obtain full coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.
- For succulent and dried shelled peas and beans, **do not** graze livestock in treated areas or harvest vines for forage or hay.

¹For control before the larva bores into the plant stalk or pods.

²Use higher rates within the listed rate range for large larvae.

³For suppression only.

⁴Refer to Resistance Management section.

⁵Does not include Western Flower Thrips

Crop	Pests	Rate Per Acre Per Application
Lettuce: Head and Leaf	Alfalfa Looper Beet Armyworm Cabbage Looper Corn Earworm Green Cloverworm Imported Cabbageworm Saltmarsh Caterpillar	5.0 – 8.0 fl. oz./A
	Aphids ^{1,2} Armyworm Cabbage Armyworm Cotton Leafworm Cutworms Diamondback Moth European Corn Borer Fall Armyworm Flea Beetles Grasshoppers Japanese Beetle (Adult) Leafhoppers Leafminers Meadow Spittlebug Plant Bugs ² Southern Armyworm Stink Bugs Tobacco Budworm Vegetable Weevil (Adult) Whiteflies ^{1,2}	6.0 – 9.0 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 31.0 fl. oz. of Voliam Xpress or 0.3 lb. a.i. of lambda-cyhalothrin containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per growing season.
- **Application Timing:** Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates within the listed rate range for heavy infestations.
- **Pre-Harvest Interval (PHI):** 1 day
- **Minimum Interval between Applications:** 5 days.
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.

¹Suppression only

²Refer to Resistance Management section.

Crop	Pests	Rate Per Acre Per Application
Pome Fruit Apples Crabapples Loquat Mayhaw Quince Pear Oriental pear (<i>Pyrus pyrifolia</i>)	Apple Aphid Apple Maggot (Adult) Cherry Fruit Flies (Adult) Codling Moth Green Fruitworm Japanese Beetle Leafhoppers Leafrollers Lesser Appleworm Obliquebanded Leafroller Omnivorous Leafroller Orange Tortrix Oriental Fruit Moth Pear Psylla ¹ Pear Sawfly Periodical Cicada Plant Bugs Plum Curculio Rosy Apple Aphid San Jose Scale (fruit infestations only) Spirea Aphid ¹ Spotted tentiform leafminer Stink Bugs Tent Caterpillars Tentiform Leaf Miners Tree Borers Tufted Apple Budmoth Webworms	6.0 – 12.0 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 31.0 fl. oz. of Voliam Xpress or 0.2 lb a.i. of lambda-cyhalothrin containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per growing season.
- **Application Timing:** Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates within the listed rate range for heavy infestations.
- **Pre-Harvest Interval (PHI):** 21 days
- **Minimum Interval Between Applications:** 10 days.
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. For best results, apply 100-150 gallons water per acre. Do not use less than 30 GPA for ground applications. Do not apply dilute applications of more than 200 GPA. Do not use less than 10 GPA for aerial applications.
- Make no more than 4 applications per season.

¹Suppression only

Crop	Pests	Rate Per Acre Per Application
Stone Fruit Apricot Cherry, sweet & tart Nectarine Peach Plum Plum, Chickasaw Plum, Damson Plum, Japanese Plumcot Prune (fresh)	American Plum Borer Apple Maggot (Adult) Black Cherry Aphid Cherry Fruit Flies (Adult) Codling Moth Green Fruitworm Japanese Beetle June Beetle Leafhoppers Leafrollers Oriental Fruit Moth Peach Twig Borer Peachtree Borers Pear Sawfly Periodical Cicada Plant Bugs Plum Curculio Rose Chafer Stink Bugs Tent Caterpillars Thrips	6.0 – 12.0 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 31.0 fl. oz. of Voliam Xpress or 0.2 lb. a.i. of lambda-cyhalothrin containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per growing season.
- **Application Timing:** Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates within the listed rate range for heavy infestations.
- **Pre-Harvest Interval (PHI):** 14 days
- **Minimum Interval Between Applications:** 7 days.
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. For best results, apply 100-150 gallons water per acre. Do not use less than 30 GPA for ground applications. Do not apply dilute applications of more than 200 GPA. Do not use less than 10 GPA for aerial applications.
- Make no more than 4 applications per season.

Crop	Pests	Rate Per Acre Per Application
Sugarcane	Lesser cornstalk borer ¹ Mexican Rice Borer ¹ Pygmy Mole Cricket Rice Stalk Borer ¹ Sugarcane Aphid ³ Sugarcane Beetle (Adult) ² Sugarcane Borer ¹ West Indian Crane fly Yellow Sugarcane Aphid ³	8.0 – 10.0 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 31.0 fl. oz. of Voliam Xpress or 0.16 lb. a.i. of lambda-cyhalothrin containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per growing season.
- **Application Timing:** Apply as required by scouting, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold. Apply higher rates within the listed rate range for heavy infestations.
- **Pre-Harvest Interval (PHI):** 21 days
- **Minimum interval between applications:** 7 days.
- **Water Volume:** Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage or target area. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.

¹For control before the larva bores into the plant stalk.

²Suppression only of beetles active above ground.

³Refer to Resistance Management section.

Crop	Pests	Rate Per Acre Per Application
Tobacco	Armyworm species ¹ Blister Beetle species Cabbage Looper Corn Earworm Cucumber Beetle species (Adult) Cutworm species Grasshopper species Japanese Beetle (Adult) Katydid species Plant Bug species ³ Potato Tuberworm Salt Marsh Caterpillar Stinkbug species Tobacco Aphid species ^{2,3} Tobacco Budworm ³ Tobacco Flea Beetle (Adult) Tobacco Hornworm Tobacco Thrips species ² Tomato Hornworm Tree Cricket species Vegetable Weevil (Adult) Webworm species	5.0 – 9.0 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 28.0 fl. oz. of Voliam Xpress or 0.09 lb. a.i. of lambda-cyhalothrin containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per growing season.
- **Application Timing:** Apply as required by scouting, usually at intervals of 7 or more days. Timing and frequency of applications should be based upon insect populations reaching locally determined economic threshold. Apply higher rates within the listed rate range for heavy infestations.
- **Pre-Harvest Interval (PHI):** 40 days
- **Minimum interval between applications:** 7 days.
- **Water Volume:** Apply with ground or air equipment using sufficient water to obtain full coverage of the foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.

¹For control of first and second instars only.

²Suppression only.

³Refer to Resistance Management section.

Crop	Pests	Rate Per Acre Per Application
Tree Nuts		
Almond Beech Nut Brazil Nut Butternut Cashew Chestnut Chinquapin Filbert (Hazelnut) Hickory Nut Macadamia Nut(Bush Nut) Pistachio Walnut, Black Walnut, English (Persian)	Ants Chinch Bug Codling Moth Filbertworm Leaffooted Bug Leafroller species Obliquebanded Leafroller Oriental Fruit Moth Navel Orangeworm Peach Twig Borer Plant Bug species Stink Bug species Walnut Aphid Walnut Husk Fly species (Adult)	6.0 – 12.5 fl. oz./A
Pecans	Hickory Shuckworm Pecan Aphid species Pecan Casebearer species Pecan Phylloxera species Pecan Spittlebug Pecan Weevil Stink Bug species	6.0 - 12.5 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 31.0 fl. oz. of Voliam Xpress or 0.16 lb. a.i. of lambda-cyhalothrin containing products (0.12 lb. a.i. of lambda-cyhalothrin containing products post bloom) or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per year.
- **Application Timing:** Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates within the listed rate range for heavy infestations.
- **Pre-Harvest Interval (PHI):** 14 days
- **Minimum Interval Between Applications:** 7 days.
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 30 GPA for ground applications. For best results, apply 100-150 GPA. Do not apply dilute applications of more than 200 GPA. Do not use less than 10 GPA for aerial applications.
- Make no more than 4 applications per season.

Crop	Pests	Rate Per Acre Per Application
Tuberous and Corm Vegetables		
Arracacha Arrowroot Artichoke (Chinese and Jerusalem only) Canna (edible) Cassava (bitter and sweet) Chayote (root)	Cutworms Leafhoppers Saltmarsh Caterpillar Sweet Potato Hornworm Woollybear Caterpillars	5.0 – 8.0 fl. oz./A
Chufa Dasheen Ginger Leren Potato Sweet Potato Tanier Turmeric Yam (bean and true)	Aphids ³ Armyworms Blister Beetles Colorado Potato Beetle ³ Corn Earworm Crickets Cucumber Beetles (adults) European corn borer Flea Beetles (adults) Grasshoppers Loopers Lygus Bugs ³ Plant Bugs Potato Psyllid Potato Tuberworm Stink Bugs Sweet Potato Leaf Beetle (adults) Sweet Potato Vine Borer Thrips ^{1,2,3} Tortoise Beetles Webworms Weevils (adults)	6.0 – 9.0 fl. oz./A
	Leafminers ^{1,3} Whiteflies ^{1,3}	9.0 fl. oz./A

Use Restrictions

- **Maximum Voliam Xpress Allowed per Growing Season:** Do not exceed a total of 27.0 fl. oz. of Voliam Xpress or 0.12 lb. a.i. of lambda-cyhalothrin containing products or 0.2 lb. a.i. of chlorantraniliprole containing products per acre per growing season.
- **Application Timing:** Apply before pests reach damaging levels. Scout fields and treat again if populations rebuild to potentially damaging levels. Apply higher rates within the listed rate range for heavy infestations.
- **Pre-Harvest Interval (PHI):** 14 days
- **Minimum interval between applications:** 7 days.
- **Water Volume:** Use sufficient water volume to ensure thorough coverage of foliage. Do not use less than 10 GPA for ground applications or 5 GPA for aerial applications.

- Chemigation (potatoes only): see "Chemigation-Potatoes Only" in the INFORMATION section of this label.

¹Suppression only

²Does not include Western Flower Thrips

³**Refer to Resistance Management section.**

ROTATIONAL RESTRICTIONS

Any cover crop planted for erosion control or soil improvement may be planted as soon as practical following the last application. For all other rotational crops intended for food or feed, the plant-back intervals listed below must be observed.

Immediate Plant-Back Interval:

Alfalfa and alfalfa grown for seed; *Brassica* (Cole) vegetables; canola; corn (field corn, popcorn; seed corn and sweet corn); cotton; Cucurbit vegetables; fruiting vegetables; grass, forage, fodder and hay; Legume Vegetables (Crop Group 6) except soybean; lettuce (head and leaf); okra; rice; Root and Tuber Vegetables (Crop Group 1); strawberry; sugarcane; tobacco; Tops of Root and Tuber Vegetables (Crop Group 2); and tuberous and corm vegetables.

30- Day Plant Back Interval:

Cereal Grains (Crop Group 15), soybean, garlic, great headed garlic, dry bulb onion, leek, green onion, Welsh onion, shallot, peanut.

12 month Plant-Back Interval:

All other crops.

STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

Pesticide Storage

Store in original containers only. Keep container closed when not in use. Do not store near food or feed. In case of spill or leak on floor or paved surfaces, soak up with sand, earth, or synthetic absorbent. Remove to chemical waste area. **DO NOT ALLOW PRODUCT TO FREEZE.**

Pesticide Disposal

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

For minor spills, leaks, etc., follow all precautions indicated on this label and clean up immediately. Take special care to avoid contamination of equipment and facilities during cleanup procedures and disposal of wastes. In the event of a major spill, fire, or other emergency, call 1-800-888-8372, day or night.

Container Handling

Non-refillable container. Do not reuse or refill this container.

Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container $\frac{1}{4}$ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures allowed by state and local authorities.

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Viton® is a registered trademark of E.I. DuPont de Nemours and Company

For non-emergency (e.g. current product information) call
Syngenta Crop Protection at 1-800-334-9481.

Manufactured for:
Syngenta Crop Protection, LLC
P.O. Box 18300
Greensboro, North Carolina 27419-8300

SCP 1320A-M(draft)

Voliam Xpress 1320A-M(draft)clean-lg-9-28-11 000100-01320.20110928.PDF

(non-detachable container label)

**RESTRICTED USE PESTICIDE
DUE TO TOXICITY TO FISH AND AQUATIC ORGANISMS**

**FOR RETAIL SALE TO AND USE ONLY BY CERTIFIED APPLICATORS, OR PERSONS UNDER THEIR
DIRECT SUPERVISION, AND ONLY FOR THOSE USES COVERED BY THE CERTIFIED APPLICATOR'S
CERTIFICATION.**

Not for sale, sale into, distribution and/or use in Nassau, Suffolk, Kings, and Queens
Counties of New York State.

Voliam xpress®

GROUP 3 28 INSECTICIDES

Insecticide

For control of listed insect pests infesting specified crops

Active Ingredient:

Lambda-cyhalothrin^{1,2} 4.63%

Chlorantraniliprole³ 9.26%

Other Ingredients: 86.11%

Total: 100.00%

¹CAS No. 91465-08-6

²Synthetic pyrethroid

³CAS No. 500008-45-7

Voliam Xpress contains 0.835 lb. of chlorantraniliprole and 0.417 lb. of lambda
cyhalothrin per gallon.

KEEP OUT OF REACH OF CHILDREN.

WARNING/AVISO

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en
detalle. (If you do not understand the label, find someone to explain it to you in detail.)

See additional precautionary statements and directions for use in booklet.

EPA Reg. No. 100-1320

EPA Est. XXXX

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. Refer to supplemental labeling under "Agricultural Use Requirements" in the Directions for Use section for information about this standard.

SCP 1320A-M(draft)

Net Contents

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

WARNING/AVISO

May be fatal if swallowed. Causes moderate eye irritation. Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic skin reactions in some individuals. Avoid contact with eyes, skin, or clothing. 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.

Skin exposure may also result in a sensation described as a tingling, itching, burning, or prickly feeling. Onset may occur immediately to 4 hrs. after exposure and may last 2-30 hrs., without damage. Wash exposed areas once with soap and water. Relief from the skin sensation may be obtained by applying an oil-based cream.

FIRST AID	
If swallowed	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Do not give any liquid to the person. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes	<ul style="list-style-type: none"> • 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 center or doctor for treatment advice.
If on skin or clothing	<ul style="list-style-type: none"> • Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If inhaled	<ul style="list-style-type: none"> • 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 center or doctor for further treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
<p style="text-align: center;">HOT LINE NUMBER</p> <p style="text-align: center;">For 24 Hour Medical Emergency Assistance (Human or Animal) or Chemical Emergency Assistance (Spill, Leak, Fire, or Accident), Call 1-800-888-8372</p>	

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic organisms and toxic to wildlife.

This pesticide is toxic to aquatic invertebrates, oysters and shrimp.

For terrestrial uses: do not apply directly to water or to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater.

This product is highly toxic to bees exposed to direct treatment on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are foraging in/or adjacent to the treatment area.

STORAGE AND DISPOSAL

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Refer to Surface Water Advisory, Ground Water Advisory, Spray Drift Advisory and Chemigation sections in booklet.

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