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



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

January 12, 2011

Timothy E. Wilson Syngenta Crop Protection, Inc. P.O. Box 18300 Greensboro, NC 27419

Dear Dr. Wilson:

Subject:

Amended supplemental labeling to extend the expiration date

Voliam Flexi Insecticide EPA Reg. No. 100-1319

Your submission dated December 30, 2010

The proposed supplemental labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act, is acceptable with the following comment:

• Please revise the expiration statement to read, "This label expires July 16, 2012, and must not be used or distributed after that date."

A stamped copy is enclosed for your records. Please submit two copies of your final printed labeling before you release the product for shipment. Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). If you have any questions, please contact Julie Chao by phone at: (703) 308-8735, or by email at: chao.julie@epa.gov.

Regards,

Venus Eagle, Product Manager (01)

Venus Pagle

Insecticide-Rodenticide Branch Registration Division (7505P)

Registration Division (7505P

Enclosure

## SUPPLEMENTAL LABEL

syngenta

SCP 1319A-S1-1 0709

Syngenta Crop Protection, LLC P.O.Box 18300 Greensboro, NC 27419-8300

# SUPPLEMENTAL LABEL FOR VOLIAM FLEXI® INSECTICIDE TO ADD:

- CHEMIGATION APPLICATION PROCEDURES FOR POTATOES ONLY
- DIRECTIONS FOR USE FOR BRASSICA (COLE) LEAFY VEGETABLES, CUCURBIT VEGETABLES, FRUITING VEGETABLES, AND LEAFY VEGETABLES.

Active ingredient:	
Thiamethoxam <sup>1</sup>	20.0%
Chlorantraniliprole <sup>2</sup>	20.0%
Other Ingredients:	60.0%
Total:	100.0%
<sup>1</sup> CAS No. 153719-23-4	
<sup>1</sup> CAS No. 153719-23-4 <sup>2</sup> CAS No. 500008-45-7	ACCEPTED
	With COMMENTS
Voliam Flexi is a water-dispersible granule.	In EPA Letter Dated: JAN 1 2 2011
KEEP OUT OF REACH OF CHILDREN.	Under the Federal Insecticide, Fungicide
	and Rodenticide Act, As amended, for the
CAUTION	pesticide Registered under EPA Reg. No:
	100-1319
EPA Reg. No. 100-1319	

This label expires July 16, 2012.

All applicable directions, restrictions and precautions on the EPA-registered label must be followed.

Before using Voliam Flexi Insecticide, as permitted according to this supplemental label, read and follow all applicable directions, restrictions, and precautions on the EPA registered label on or attached to the pesticide product container. This Supplemental Labeling contains revised use instructions and or restrictions that may be different from those that appear on the container label. This Supplemental Labeling must be in the possession of the user at the time of pesticide application. It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

#### **DIRECTIONS FOR USE**

### APPLICATION THROUGH IRRIGATION SYSTEMS (CHEMIGATION) - POTATOES ONLY

Voliam Flexi alone or in combination with other products which are registered for application through sprinkler irrigation may be applied through irrigation systems. Apply this product only through center pivot, solid set, hand move, or moving wheel irrigation systems. Do not apply Voliam Flexi through any other type of irrigation system. Lack of effectiveness or illegal pesticide residues can result from non-uniform distribution of treated water. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers, or other experts. 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.

Using Water from Public Water Systems: DO NOT APPLY VOLIAM FLEXI THROUGH ANY IRRIGATION SYSTEM PHYSICALLY 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. Voliam Flexi may be applied through irrigation systems, which may be supplied by a public water system only if the water from the public water system is discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. Before beginning chemigation, always make sure that the air gap exists and that there is no blockage of the overflow of the reservoir tank.

Any irrigation system using water supplied from a public water system must also meet the following requirements.

## Operating Instructions for All Specified Types of Irrigation Systems

- 1. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, contact State Extension Service specialists, equipment manufacturers, or other experts.
- 2. 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.
- 3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.
- 4. 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.
- 5. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
- 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.
- 7. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
- 8. Do not apply when wind speed favors drift beyond the area intended.

## **Calibration and Application Instructions**

Voliam Flexi must be applied under the schedule specified in the specific crop use directions, not according to the irrigation schedule unless the events coincide.

Set the equipment to apply the minimum amount of water per acre. Run the system at 85 - 90% of the manufacturer's maximum rated travel speed.

The following calibration and application techniques are provided for user reference, but do not constitute a warranty of fitness for application through sprinkler irrigation equipment. Check with state and local regulatory agencies for potential use restrictions before applying any agricultural chemical through sprinkler irrigation equipment.

## **Center Pivot Irrigation Equipment**

**Notes:** (1) Use only drive systems that provide uniform water distribution. (2) Do not use end guns when chemigating Voliam Flexi through center pivot systems because of non-uniform application. (3) Plug the first nozzle closest to the well-head to protect the water source.

- 1. Determine the size of the area to be treated.
- 2. Determine the time required to apply 0.1 0.25 inches of water over the area to be treated when the system and injection equipment are operated at normal pressures as specified by the equipment manufacturer. Run the system at 80 95% of the manufacturer's rated maximum travel speed.
- 3. Using water, determine the injection pump output when operated at normal line pressure.
- 4. Determine the amount of Voliam Flexi, and any tank mix partners, required to treat the area covered by the irrigation system.
- 5. Add the required amount of Voliam Flexi, any tank mix partners, and sufficient water to meet the injection time requirements to the solution tank. (See **Mixing Procedures** section in booklet.)
- 6. Make sure the system is fully charged with water before starting injection of the Voliam Flexi solution. Time the injection to last at least as long as it takes to bring the system to full pressure.
- 7. Maintain constant agitation in the solution tank during the injection period.
- 8. Inject the specified amount of Voliam Flexi per acre continuously for one complete revolution of the system.
- 9. Stop the injection equipment after treatment is completed. Continue to operate the system until the Voliam Flexi solution has cleared all of the sprinkler heads.
- 10. Allow time for all lines to flush the pesticide through all nozzles before turning off irrigation water.

#### Solid Set, Hand Move, and Moving Wheel Irrigation Equipment

- 1. Determine the acreage covered by the sprinklers.
- 2. Fill injector solution tank with plain water and calibrate the flow rate of the system to deliver the contents of the tank over a 20-40 minute time interval.
- 3. Determine the amount of Voliam Flexi required to treat the area covered by the irrigation system.
- 4. Add the required amount of Voliam Flexi, and any other tank mix partners, into the same quantity of water used to calibrate the injection period. (See **Mixing Procedures** section in booklet.)

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- 5. Operate the system at the same pressure and time interval established during the calibration.
- 6. Inject specified amount of Voliam Flexi per acre for either a 20-40 minute period at the end of a regular irrigation set, or as a 20-40 minute injection as a separate application not associated with a regular irrigation to maximize retention of the insecticide by the foliage.
- 7. Stop injection equipment after treatment is completed. Continue to operate the system until the Voliam Flexi solution has cleared the last sprinkler head. To ensure lines are flushed and free from remaining pesticides, a dye indicator may be injected into the lines to mark the end of the application period.

#### **CROP USE DIRECTIONS**

Crop	Pest	Rate Per Acre Per Application	
Brassica (Cole) Leafy Vegetables			
Head & Stem Brassica	Alfalfa Looper		
Broccoli Broccoli Chinasa	Aphids Beet Armyworm	4.0 – 7.0 oz./A	
Broccoli, Chinese Brussels sprouts	Cabbage Looper	is:	
Cabbage	Cabbage Webworm		
Cabbage, Chinese (napa)	Corn Earworm		
Cabbage, Chinese mustard	Diamondback Moth		
Cauliflower	Fall Armyworm		
Cavalo broccolo	Flea Beetles		
Kohlrabi	Imported Cabbageworm Sugarbeet Armyworm		
Leafy <i>Brassica</i> Greens	Thrips		
Broccoli raab	Whiteflies		
Cabbage, Chinese (bok choy)	Yellowstriped Armyworm		
Collards			
Kale			
Mizuna			
Mustard greens			
Mustard spinach			
Rape greens			

#### **Use Restrictions:**

- Maximum Voliam Flexi Allowed per Growing Season: Do not exceed a total of 14.0 oz. of Voliam
  Flexi or 0.172 lb. a.i. of thiamethoxam 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 for heavy infestations.
- Pre-Harvest Interval (PHI):
  - 3 Days for Head & Stem Brassicas
  - 7 Days for Leafy Brassica Greens
- 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.
- Adjuvants may be used with Voliam Flexi applications to Head and Stem Brassica.

Refer to Pollinator Precautions section in booklet.

Refer to Resistance Management section in booklet.

Crop	Pest	Rate Per AcrePer Application		
Cucurbit Vegetables	Aphids	10.70 //		
Chayote	Cabbage Looper	4.0 – 7.0 oz./A		
Chinese waxgourd	Corn Earworm			
Citron melon Cucumber	Cucumber Beetles <sup>1</sup>			
Gherkin	Flea Beetles Leafminers <sup>1</sup>			
Gourd, edible (hyotan,	Melonworm			
cucuzza, hechima,	Pickleworm	1		
Chinese okra)	Rindworm species complex			
Momordica species (balsam	Tobacco Budworm	1		
apple, balsam pear,	Whiteflies			
bittermelon, Chinese	· ·			
cucumber)		,		
Muskmelon (hybrids and/or				
cultivars of Cucumis				
melo) includes true				
cantáloupe, cantaloupe,		1		
casaba, Crenshaw melon,		1		
golden pershaw melon,				
honeydew melon, honey				
balls, mango melon,				
Persian melon, pineapple				
melon, Santa Claus				
melon, and snake melon)				
Pumpkin				
Squash: summer				
(crookneck squash,		i		
scallop squash, straightneck squash,				
vegetable marrow,				
zucchini) and				
winter (butternut squash,				
calabaza, hubbard				
squash, acorn squash,				
spaghetti squash)	ĺ	ĺ		
Watermelon (includes		[·		
hybrids and/or varieties of				
Ćitrullus lanatus)				
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llea Restrictions:				

# Use Restrictions:

- Maximum Voliam Flexi Allowed per Growing Season: Do not exceed a total of 14.0 oz. of Voliam Flexi or 0.172 lb. a.i. of thiamethoxam 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 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 Flexi to Cucurbit Vegetables, except on cucumber, Chinese waxgourd, gherkin and *Momordica* species.

<sup>1</sup>Suppression

Refer to Pollinator Precautions section in booklet. Refer to Resistance Management section in booklet.

Crop	Pest	Rate Per Acre Per Application
Eggplant Groundcherry Pepino Peppers (bell, cooking, pimento, and sweet) Tomatillo Tomato	Aphids Beet Armyworm Colorado Potato Beetle European Corn Borer Fall Armyworm Flea Beetles Hornworms Leafhoppers Leafminers¹ Loopers Pepper Weevil Southern Armyworm Stinkbugs Tobacco Budworm Tomato Fruitworm Tomato Pinworm Whiteflies Yellowstriped Armyworm	4.0 – 7.0 oz./A

#### **Use Restrictions:**

- Maximum Voliam Flexi WG Allowed per Growing Season: Do not exceed a total of 14.0 oz. of Voliam Flexi or 0.172 lb. a.i. of thiamethoxam 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 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 Flexi to chili pepper or pimento.
- Adjuvants may be used with Voliam Flexi applications to eggplant, groundcherry, pepino, bell pepper, cooking pepper, sweet pepper, tomatillo, and tomato.

<sup>1</sup>Suppression

Refer to Pollinator Precautions section in booklet. Refer to Resistance Management section in booklet.

Crop	Pest	Rate Per Acre Per Application
Leafy Vegetables Amaranth Arugula Cardoon Celery Celery, Chinese Celtuce Chervil Chrysanthemum: edible-leaved & garland Corn Salad Cress: garden and upland (yellow rocket, winter cress) Dandelion Dock (sorel) Endive (escarole) Fennel, Florence (finochio) Lettuce: head & leaf Orach Parsley Purslane: garden & winter Radicchio (red chicory) Rhubarb Spinach: New Zealand & Vine(Malabar, Indian) Swiss chard	Aphids Beet Armyworm Cabbage Looper Corn Earworm Diamondback Moth European Corn Borer Fall Armyworm Flea Beetles Imported Cabbageworm Leafhoppers Southern Armyworm Sugarbeet Armyworm Tobacco Budworm Whiteflies	4.0 – 7.0 oz./A

#### **Use Restrictions:**

- Maximum Voliam Flexi WG Allowed per Growing Season: Do not exceed a total of 14.0 oz. of Voliam Flexi or 0.172 lb. a.i. of thiamethoxam 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 for heavy infestations.
- Pre-Harvest Interval (PHI): 7 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.
- **Do not** use an adjuvant with applications of Voliam Flexi to Spinach: New Zealand & Vine, Amaranth, Arugula, Chervil, Chrysanthemum: edible-leaved & garland, Corn Salad, Cress: Garden & upland, Dandelion, Dock, Endive, Orach, Parsley, Purslane: Garden & Winter.
- Adjuvants may be used with Voliam Flexi applications to Lettuce: Head & Leaf, Celery, Chinese celery, Swiss chard, Cardoon, Celtuce, Fennel, Radicchio, and Rhubarb.

Refer to Pollinator Precautions section in booklet.

Refer to Resistance Management section in booklet.

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Voliam Flexi 1319A-S1-1 0709 lg-1-10-11