



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Registration Division (7505T)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

71085-78

Date of Issuance:

2/11/26

NOTICE OF PESTICIDE:

☒ Registration  
☐ Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

CH-BIF-3053

Name and Address of Registrant (include ZIP Code):

Chemagco LLC  
15401 Weston Parkway, Suite 170  
Cary, NC 27513

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

*Continues page 2*

Signature of Approving Official:

Jacquelyn Herrick, Product Manager 03

Invertebrate-Vertebrate Branch 1, Registration Division (7505T)

Date:

2/11/26

2. You are required to comply with the data requirements described in the generic data call-in (GDCI) identified below:
  - a. Bifenthrin GDCI-128825-902
  - b. Bifenthrin GDCI-128825-1159

You must comply with all of the data requirements within the established deadlines. If you have questions about the GDCI listed above, you may contact the Chemical Review Manager in the Pesticide Re-Evaluation Division: <http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1>

3. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No. 71085-78."
4. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance. If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

The record for this product currently contains the following CSF(s):

- Basic CSF dated 08/01/2025

If you have any questions, please contact Jamey Shuler by phone at (202) 566-2898, or via email at [Shuler.Jamey@epa.gov](mailto:Shuler.Jamey@epa.gov).

Enclosure

# RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms.

For retail sale to and use only by certified applicators, or persons under their direct supervision and only for the uses covered by the certified applicator's certification.

Bifenthrin GROUP 3A INSECTICIDE

[Information in [ ] are optional text or reviewer notes]

## CH-BIF-3053

### Insecticide

ACTIVE INGREDIENT:	BY WT.
Bifenthrin* (2 methyl [1,1-biphenyl] 3-yl), methyl 3 (2-chloro, 3,3,3-trifluoro-1-propenyl) 2,2-dimethyl, cyclopropanecarboxylate.....	17.15%
OTHER INGREDIENTS: .....	82.85%
TOTAL: .....	100.00%

\*Cis isomers 97% minimum, trans isomers 3% maximum.  
This product contains 1.5 lbs ai per gallon.

## KEEP OUT OF REACH OF CHILDREN CAUTION

[See [front][back][side][inside][attached booklet][containers inside][inside booklet][inside leaflet] [booklet] [panel] for  
[First Aid] [and][additional] [Precautionary Statements] [and] [complete] [Directions for Use]

[See [front][back][side][inside][attached booklet][containers inside][inside booklet][inside leaflet] [booklet] [panel]  
inside for complete Directions For Use, including Conditions of Sale and Warranty.

[PEEL HERE TO OPEN [PRESS TO RESEAL] ►]

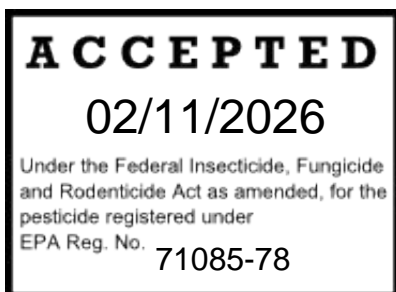
FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC at 1-800-424-9300.

CH-BIF-3053 may be comparable to another product used previously, however it is essential to read, and follow all label directions for use as there may be some differences. It is the responsibility of the user to ensure this product is labeled for use on the specific crop and geographical location in which it is intended. It is the responsibility of the user to follow all precautions and restrictions according to local and State authorities and is approved for sale. The user should read the Condition of Sale and Limitation of Warranty and Liability before purchasing this product.

CHEMAGCO LLC  
15401 Weston Parkway, Suite 170  
Cary, NC 27513

EPA Reg. No. 71085-XX  
EPA Est. No.

Net Contents:





FIRST AID	
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"> <li>• Call poison control center or doctor immediately for treatment advice.</li> <li>• Do not give any liquid to the person.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For medical emergency, call the Rocky Mountain Poison and Drug Safety at 1-866-673-6671.	
<b>NOTE TO PHYSICIAN:</b> This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.	

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

## CAUTION

Harmful if swallowed. Harmful if absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes 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.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers (other than mixers and loaders) must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves: Barrier Laminate or Nitrile Rubber (≥ 14 mils) or Neoprene Rubber (≥ 14 mils) or Viton (≥ 14 mils)
- Shoes plus socks

Mixers and loaders must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves: Barrier Laminate or Nitrile Rubber (≥ 14 mils) or Neoprene Rubber (≥ 14 mils) or Viton (≥ 14 mils)
- Shoes plus socks
- Protective eyewear

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 exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### USER SAFETY RECOMMENDATIONS

Users should:

- wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

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.

### ENVIRONMENTAL HAZARDS

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications 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 washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are actively visiting the treatment area. **Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms**

The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

### DIRECTIONS FOR USE

#### Restricted Use Pesticide

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

CH-BIF-3053 is an insecticide formulated as a suspension concentrate containing 1.5 lbs active ingredient per gallon of bifenthrin. CH-BIF-3053 can be mixed with liquid fertilizers or water. Shake well prior to mixing or measuring CH-BIF-3053 for use.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard (WPS), 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 12 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: Barrier Laminate or Nitrile Rubber ( $\geq 14$  mils) or Neoprene Rubber ( $\geq 14$  mils) or Viton ( $\geq 14$  mils), and Shoes plus socks

### RESISTANCE

For resistance management, CH-BIF-3053 contains a Group 3A insecticide. Any insect population may contain individuals naturally resistant to CH-BIF-3053 and other Group 3A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of CH-BIF-3053 or other Group 3A insecticides within a growing season, or among growing seasons, with different groups that control the same pest.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they still may provide pest management benefits.
  - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.

- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.

Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for that specific site and pest problems in your area. For further information or to report suspected resistance, contact CHEMAGCO at 1-800-438-6071.

### INSTRUCTIONS FOR APPLICATION

The rate at which CH-BIF-3053 is applied may vary due to insect pressure, timing of treatments and field scouting. Use the lower labeled rate when pest infestation is considered light to moderate. Use the higher labeled rate when there is heavy pest pressure. Higher application rates are needed when the climate is drier.

The spray tank should be filled 1/2 full with liquid fertilizer or water and then agitated continuously. Next add the appropriate amount of CH-BIF-3053, and then add the remaining amount of the fertilizer or water to the tank. Agitation should be maintained until the mixture has been applied.

**SHAKE WELL BEFORE USING.**

CH-BIF-3053 spray solutions in nurse tanks must be agitated before transferring to the spray system.

This product can be applied in-furrow with the seed, either as a broadcast application, a band over the open furrow (T-Band), over the row, or as a transplant-water drench during setting. For more instruction on suppression or pest control, refer to the information contained in the tables on this label.

CH-BIF-3053 can be mixed with a number of frequently used liquid starter or pop-up fertilizers. Follow liquid fertilizer recommendations regarding seed safety and use guidelines. A jar test should be used prior to application of any fertilizer with CH-BIF-3053. Ensure the applicable amount of CH-BIF-3053 and fertilizer are used in this compatibility test. The tank mixture should not be allowed to sit overnight. If the tank mixture does sit overnight, the tank mixture should be agitated to ensure proper mixing before application.

### USE RESTRICTIONS

**New York State:** Do not apply CH-BIF-3053 using ground equipment within 100 feet of coastal marshes or streams that drain into coastal marshes. Do not apply CH-BIF-3053 using aerial equipment within 300 feet of coastal marshes or streams that drain into coastal marshes.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

Do not mix or allow any contact with oxidizing agents since hazardous chemical reaction may occur.

### CROP ROTATION RESTRICTIONS

Crops for which bifenthrin tolerances exist may be rotated at any time. All other crops may be rotated 30 days after the last application.

## TANK-MIXES

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Apply CH-BIF-3053 with other EPA Registered products that are registered for the same crops. Read and follow all applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture. Test for compatibility to ensure application success.

## MAXIMUM ALLOWABLE CH-BIF-3053 USE PER ACRE PER SEASON

For the maximum allowable usage per acre per season refer to the tables below for each crop. The maximum allowable use must include all registered use patterns including at-plant, soil applied and/or foliar applications for the 12 months period. The 12 month period is to begin upon the initial application to the acre.

## BUFFER ZONES

### Vegetative Filter Strip

Construct and maintain a vegetative filter strip, according to the width specified below, of grass or other permanent vegetation between the field edge and nearby down gradient aquatic habitat (such as, but not limited to, lakes; reservoirs; rivers; streams; marshes or natural ponds; estuaries; and commercial fish farm ponds).

Only apply products containing (name of pyrethroid) onto fields where a maintained vegetative filter strip of at least 25 feet exists between the field edge and where a down gradient aquatic habitat exists. This minimum required width of 25 feet may be reduced or removed under the following conditions:

- For Western irrigated agriculture, a maintained vegetative filter strip of at least 10 feet wide is required. Western irrigated agriculture is defined as irrigated farmland in the following states: WA, OR, CA, ID, NV, UT, AZ, MT, WY, CO, NM, and TX (west of I-35).
- For Western irrigated agriculture, if a sediment control basin is present, a vegetative filter strip is not required.
- In all other areas, a vegetative filter strip with a minimum width of 25 feet is required, unless the following conditions are met. The vegetative filter strip requirement may be reduced from 25 feet to 15 feet if at least one of the following applies:
- The area of application is considered prime farmland (as defined in 7 CFR § 657.5).
- Conservation tillage is being implemented on the area of application. Conservation tillage is defined as any system that leaves at least 30% of the soil surface covered by residue after planting. Conservation tillage practices can include mulch-till, no-till, or strip-till.
- A functional terrace system is maintained on the area of application.
- Water and sediment control basins for the area of application are functional and maintained.
- The area of application is less than or equal to 10 acres.

For further guidance on vegetated filter strips, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. <https://www.regulations.gov/document?D=EPA-HQ-OPP-2008-0331-0175>.

### Ground Application

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

### Ultra Low Volume (ULV) Aerial Application

- Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds). Applications made by mosquito control districts and other public

health officials are exempt from this requirement.

### Non-ULV Aerial Application

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

## MANDATORY SPRAY DRIFT MANAGEMENT

### Aerial Applications:

- Do not release spray at a height greater than 10 feet above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S641).
- Do not apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed-wing aircraft and 90% or less of the rotor diameter for helicopters.
- If the windspeed is 10 miles per hour or less, applicators must use ½ swath displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use ¾ swath displacement upwind at the downwind edge of the field.
- Do not apply during temperature inversions.

### Airblast Applications:

- Sprays must be directed into the canopy.
- Do not apply when wind speeds exceed 15 mph at the application site.
- User must turn off outward pointing nozzles at row ends and when spraying outer row.
- Do not apply during temperature inversions.

### Ground Boom Applications:

- User must only apply with the nozzle height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to select nozzle and pressure that deliver medium or coarser droplets (ASABE S572).
- Do not apply when wind speeds exceed 15 mph at the application site.
- Do not apply during temperature inversions.

## SPRAY DRIFT ADVISORIES

THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.

BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

### IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use

the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### Controlling Droplet Size – Aircraft

- Adjust Nozzles - Follow nozzle manufacturers recommendations for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.

#### BOOM HEIGHT – Ground Boom

- For ground equipment, the boom should remain level with the crop and have minimal bounce.

#### RELEASE HEIGHT – Aircraft

- Higher release heights increase the potential for spray drift.

#### SHIELDED SPRAYERS

- Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.

#### TEMPERATURE AND HUMIDITY

- When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

#### TEMPERATURE INVERSIONS

- Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

#### WIND

- Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.
- Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

#### NON-TARGET ORGANISM ADVISORY STATEMENT

- This product is highly toxic to bees and other pollinating insects exposed to direct treatment or to residues in/on blooming crops or weeds. Protect pollinating insects by following label directions intended to minimize drift and reduce pesticide risk to these organisms.

#### Handheld Technology Applications:

- Take precautions to minimize spray drift

Following best management practices can help reduce risk to terrestrial pollinators. Examples of best management practices include applying pesticides in the evening and at night when pollinators are not foraging and checking to confirm hive locations before spraying. For additional resources on pollinator best management practices, visit <https://www.epa.gov/pollinator-protection/find-best-management-practices-protect-pollinators>.

Managed pollinator protection plans are developed by states/tribes to promote communication between growers, landowners, farmers, beekeepers, pesticide users, and other pest management professionals to reduce exposure of bees to pesticides. If available, visit state plans for additional information on how to protect pollinators.

#### How to Report Bee Kills

It is recommended that users contact both the state lead agency and the U.S. Environmental Protection Agency to report bee kills due to pesticide application. Bee kills can be reported to EPA at [beekill@epa.gov](mailto:beekill@epa.gov). To contact your state lead agency, see the current listing of state pesticide regulatory agencies at the National Pesticide Information Center's website: [http://npic.orst.edu/reg/state\\_agencies.html](http://npic.orst.edu/reg/state_agencies.html).

**BRASSICAS**

CROP	PESTS CONTROLLED	RATE CH-BIF-3053/ACRE	RATE CH-BIF-3053 PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS	
Head and Stem Brassica Vegetables including: Broccoli Brussels Sprout Cabbage Cauliflower Cavalo Broccoli Chinese Broccoli (gailon, white flowering broccoli) Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy) Kohlrabi	Rootworm larvae	6.8 - 8.5 fl oz	0.39 - 0.49 fl oz	Apply as a 5 - 7 inch band (T-band) over open seed furrow or in-furrow with the seed.	
		0.08 - 0.1 lb ai/A			
	Grubs Cabbage maggot Root maggots Root aphids Seedcorn maggot Wireworm	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz		
		0.04 - 0.08 lb ai/A			
		Army cutworm Armyworm spp. Cutworm spp.	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	Apply broadcast treatment over the soil surface for control of Armyworm and Cutworm spp.
			0.04 - 0.08 lb ai/A		
	<b>RESTRICTIONS</b>				
	Do not apply more than 0.1 lb ai per acre per season as an at-plant application.				
Do not apply more than 0.5 lb ai per acre per season including at-plant plus foliar applications of other products containing bifenthrin.					

**BUSHBERRIES (FOLIAR)**

CROP	PESTS CONTROLLED	RATE CH-BIF-3053/ACRE	APPLICATION INSTRUCTIONS
Blueberry, highbush and lowbush Currant Elderberry Gooseberry Huckleberry	Blueberry maggot Fruitworms Lecanium scale (crawlers) Plum curcuho Obliquebanded leafroller Red banded leafroller Variegated leafroller Spanworm Leafhoppers Aphids	3.4 - 8.5 fl oz	Apply CH-BIF-3053 in a minimum of 2 gallons of finished spray per acre or in a minimum of 10 gallons of finished spray per acre. Thorough coverage is required for control of listed pests.
		0.04 - 0.10 lb ai/A	
	Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus spp.	6.8 - 8.5 fl oz	
		0.08 - 0.10 lb ai/A	
<b>RESTRICTIONS</b> Do not apply more than 0.5 lb ai per acre per season. Do not make applications less than 7 days apart. Do not apply within 1 day of harvest.			

**CILANTRO, CORIANDER**

PESTS CONTROLLED	RATE CH-BIF- 3053/ACRE	RATE CH-BIF- 3053 PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS
Armyworm spp. Cutworm spp. Flea beetle larvae Wireworm	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	Apply as a 5 - 7 inch band over the row on the soil surface, a 5 - 7 inch band over the open furrow (T-band) in-furrow with the seed, or broadcast to the soil surface.
	0.04 - 0.08 lb ai/A		
<b>RESTRICTIONS</b> Do not apply more than 0.1 lb ai per acre per season as an at-plant application. Do not apply more than 0.5 lb ai per acre per season including at-plant plus foliar applications of other products containing bifenthrin.			

**CITRUS****(BARE SOIL SURFACE UNDER DRIP LINE)**

PESTS CONTROLLED	RATE CH-BIF-3053/ACRE	APPLICATION INSTRUCTIONS
Asian cockroach ( <i>Blattella asahinae</i> ) Fire ants ( <i>Solenopsis</i> spp.)	8.5 - 21.25 fl oz 0.1 - 0.25 lb ai/A	<p>Apply by ground in a minimum of 40 gallons of dilute spray per acre.</p> <p>Make uniform application to bare soil beneath the tree from the trunk to the drip line of the tree.</p> <p>Use a higher spray volume to ensure uniformity of coverage. Pre- and post-application irrigation may also aid in uniform coverage.</p>
Blue Green Citrus Root Weevil ( <i>Pachnaeus opalus</i> ) Brown Leaf Notcher ( <i>Epicaerus mexicanus</i> ) Diaprepes Root Weevil ( <i>Diaprepes abbreviatus</i> ) Little Leaf Notcher ( <i>Artipus floridanus</i> ) Southern Blue Green Citrus Root Weevil ( <i>Pachnaeus litus</i> )	21.25 - 42.5 fl oz 0.25 - 0.50 lb ai/A	<p>CH-BIF-3053 protects tree roots from root weevils by forming a barrier of pesticide through which they must bur- row when the newly hatched neonates fall from the tree. After application minimize disturbance of the soil beneath the trees to maintain this barrier.</p> <p>It is important to time applications correctly. Peak emergence of adult Diaprepes Weevil varies by citrus growing region and is also dramatically affected by environmental factors such as soil moisture. Typically, two peaks are observed for Diaprepes, first in spring and then in late summer or early fall. For Southern Blue Green and Blue Green Citrus Weevils and Fuller Rose Beetle, a single emergence peak in the spring is typical. Brown and Little Leaf Notchers typically have three emergence peaks in spring, summer, and fall.</p> <p>Since emergence varies seasonally and by location, observation of adults is the most accurate way to forecast timing of applications. Numbers of adults can be estimated by trapping during spring and summer during the active early morning and later afternoon periods. Egg laying occurs for 8 - 10 weeks following emergence from the soil, and larval invasion of the soil begins 2 - 3 weeks following adult emergence. It is critical to have the CH-BIF-3053 soil barrier in place before the neonates drop.</p> <p>Use CH-BIF-3053 in conjunction with other tools in an integrated pest management program for Citrus Root Weevils. Good cultural practices, biological control of larvae and foliar control of adults are all important. Local university extension personnel can provide the most current information to protect citrus trees.</p> <p><b>Additional information:</b></p> <p>Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer. Note that although peak emergence of Diaprepes occurs in the spring, weather conditions can lead to emergence of this pest in the fall.</p> <p>Use the highest rate (42.5 fl oz) to obtain the longest residual management of Diaprepes root weevil. If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, make an initial application of 21.25 fl oz early season and second application of 21.25 fl oz later in the season.</p>
<b>RESTRICTIONS</b> Do not apply CH-BIF-3053 through irrigation systems. Do not allow CH-BIF-3053 to contact fruit or foliage. Do not apply more than a total of 42.5 fl oz of formulated product (0.5 lb ai) per acre per year. Do not apply by air.		

**Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed,  
Sweet Corn, Sweet Corn Grown for Seed**

(At Planting Use)

PESTS CONTROLLED	RATE CH-BIF- 3053/ACRE	RATE CH-BIF- 3053 PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS
Corn Rootworm, larvae (Northern, Southern and Western)	6.8 - 17.0 fl oz	0.39 - 0.98 fl oz	Apply as a 5 - 7 inch T-band at planting over the open seed furrow or in-furrow with the seed.  To control Army Cutworm, Stalkborer, Cutworm spp., True Armyworm or Armyworm spp.: apply as a 5 - 7 inch over open furrow (T-band), in-furrow with the seed, or broadcast to the soil surface.
	0.08 - 0.2 lb ai/A		
Army cutworm Cutworm spp. True armyworm Armyworm spp. Grape colapsis Grubs Seedcorn maggot Stalkborer Root aphids Wireworm	3.4 - 13.6 fl oz	0.2 - 0.78 fl oz	
	0.04 - 0.16 lb ai/A		
Asiatic Garden Beetle	8.5 - 17.0 fl oz	0.49 - 0.98 fl oz	
	0.1 - 0.2 lb ai/A		
<b>RESTRICTIONS</b> Do not apply more than 0.2 lb ai per acre per season. Do not apply to soil where there is greater than 30% cover of crop residue remaining. For field corn - Do not apply more than 0.3 lb ai per acre per season including at-plant plus foliar applications of other products containing bifenthrin. For sweet corn - Do not apply more than 0.2 lb ai per acre total per season including PRE, PPI, at-plant and foliar applications of other products containing bifenthrin.			

**Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed,  
Sweet Corn, Sweet Corn Grown for Seed**

(Pre-Plant Incorporated (PPI) and Pre-Emergence (PRE))

PESTS CONTROLLED	RATE CH-BIF-3053/ACRE	APPLICATION INSTRUCTIONS
Armyworm spp. Black Cutworm Grape colapsis Seedcorn Maggot White Grub Wireworm	4 - 5.3 fl oz 0.047 - 0.062 lb ai/A (PPI)	Incorporate CH-BIF-3053 close to the anticipated depth of the seed, but do not exceed 3 inches in depth. PPI: Use the 4 - 5.3 fl oz/A (0.047 - 0.062 lb ai/A) rate only. Apply alone or with PPI herbicides as a tank mix. PRE: Use the 3.4 fl oz/A (0.04 lb ai/A) rate when tank mixing and applying with PRE herbicides.
Armyworm spp. Black Cutworm Stalkborer	3.4 fl oz 0.04 lb ai/A (PRE)	
<b>RESTRICTIONS</b> For field corn - Do not apply more than 0.3 lb ai per acre total per season including PRE, PPI, at-plant and foliar applications of other products containing bifenthrin. For sweet corn - Do not apply more than 0.2 lb ai per acre total per season including PRE, PPI, at-plant and foliar applications of other products containing bifenthrin.		

## CUCURBITS

CROP	PESTS CONTROLLED	RATE CH-BIF- 3053/ACRE	RATE CH-BIF- 3053 PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS
Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd, edible <i>Lagenaria</i> spp. (includes hyotan, cucuzza), <i>Luffa</i> spp. (includes hechima, Chinese okra) <i>Momordica</i> spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber) Muskmelon (hybrids and/or cultivars of Cucumismelo) (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) Pumpkin ( <i>Cucurbita</i> spp.) Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini) Squash, winter (includes butternut squash, calabaza, hubbard squash ( <i>C. mixta</i> ; <i>C. pepo</i> ) includes acorn squash, spaghetti squash) Watermelon (includes hybrids and/or varieties of <i>Citrullus</i> spp.)	Cucumber beetle larvae	6.8 - 8.5 fl oz	0.39 - 0.49 fl oz	For control of rootworm larvae: apply as a 5 - 7 inch band over an open furrow (T-band), or in-furrow with the seed.
		0.08 - 0.1 lb ai/A		
	Flea beetle larvae	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	For control of wireworm, grubs, and flea beetle larvae: apply as a 5 - 7 inch band over an open furrow (T-band), or in-furrow with the seed or transplant.
	Grubs	0.04 - 0.08 lb ai/A		
	Wireworm	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	For control of army cutworm, cutworm spp., true armyworm and armyworm spp.: apply as a 5 - 7 inch band over the row on the soil surface, a 5 - 7 inch band over the open furrow (T-band), in-furrow with the seed, broadcast to the soil surface or banded over the row.
	Army cutworm Armyworm spp. Cutworm spp. True armyworm	0.04 - 0.08 lb ai/A		
<b>RESTRICTIONS</b> Do not apply more than 0.1 lb ai per acre per season as an at-plant application.  Do not apply more than 0.3 lb ai per acre per season including at-plant plus foliar applications of other products containing bifenthrin.				

**BEANS AND PEAS, DRIED**

CROP	PESTS CONTROLLED	RATE CH-BIF- 3053/ACRE	RATE CH-BIF- 3053 PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS
Dried cultivars of: Bean (Lupinus) Bean (Phaseolus) Field bean Kidney bean Lima bean(dry) Navy bean Pinto bean Tepary bean Bean (Vigna) Adzuki bean Blackeyed pea Catjang Cowpea Crowder pea Moth bean Mung bean Rice bean Southern pea Urd bean Broad bean (dry) Chickpea Guar Lablab bean Lentil Pea (Pisum) Field pea Pigeon pea	Corn rootworm larvae	6.8 - 8.5 fl oz	0.39 - 0.49 fl oz	Apply as a 5 - 7 inch band over the row on the soil surface, 5 - 7 inch band (T-band) over an open furrow, or in-furrow with the seed.
		0.08 - 0.1 lb ai/A		
	Grape colapsis Wireworm Grubs Root maggot	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	
		0.04 - 0.08 lb ai/A		
		Army cutworm Cutworm spp. True armyworm Armyworm spp.	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz
	0.04 - 0.08 lb ai/A			
	<b>RESTRICTIONS</b> Do not apply more than 0.1 lb ai per acre per season as an at-plant application.  Do not apply more than 0.2 lb ai to peas, or 0.3 lb to beans per acre per season including at-plant plus foliar applications of other bifenthrin products.			

**BEANS AND PEAS, SUCCULENT**

CROP	PESTS CONTROLLED	RATE CH-BIF- 3053/ACRE	RATE CH-BIF- 3053 PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS
Pea ( <i>Pisum</i> spp.)	Rootworm larvae	6.8 - 8.5 fl oz	0.39 - 0.49 fl oz	Apply as a 5 - 7 inch band over the row on the soil surface, a 5 - 7 inch band over the open furrow (T-band), or in-furrow with the seed.
Dwarf pea		0.08 - 0.1 lb ai/A		
Edible-pod pea	Grape colapsis Grubs Root maggot Seedcorn maggot Wireworm	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	
English pea		0.04 - 0.08 lb ai/A		
Garden pea				
Green pea				
Snow pea				
Sugar snap pea	Army cutworm Armyworm spp. Cutworm spp. True armyworm	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	Apply broadcast over the soil surface for control of Army cutworm, Cutworm spp., True armyworm, or Armyworm spp.
Pigeon pea		0.04 - 0.08 lb ai/A		
Bean ( <i>Phaseolus</i> spp.)				
Broadbean (succulent)				
Lima bean (green)	<b>RESTRICTIONS</b> Do not apply more than 0.1 lb ai per acre per season as an at-plant application.  Do not apply more than 0.2 lb ai per acre per season including at-plant plus foliar applications of other products containing bifenthrin.			
Runner bean				
Snap bean				
Wax bean				
Bean ( <i>Vigna</i> spp.)				
Asparagus bean				
Blackeyed pea				
Chinese longbean				
Cowpea				
Moth bean				
Southern pea				
Yardlong bean				
Jackbean				
Soybean (immature seed)				
Sword bean				

**EGGPLANT**

PESTS CONTROLLED	RATE CH-BIF- 3053/ACRE	RATE CH-BIF- 3053 PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS
Rootworm larvae	6.8 - 8.5 fl oz	0.39 - 0.49 fl oz	Apply as a 5 - 7 inch band over the row on the soil surface, a 5 - 7 inch band over the open furrow (T-band), or in-furrow with the seed
	0.08 - 0.1 lb ai/A		
Grubs	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	
Root maggot	0.04 - 0.08 lb ai/A		
Wireworm			Apply broadcast to the soil surface for control of Army Cutworm, Cutworm Species, True Armyworm or Armyworm species.
Army cutworm	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	
Armyworm spp.	0.04 - 0.08 lb ai/A		
Cutworm spp.			
True armyworm			
<b>RESTRICTIONS</b> Do not apply more than 0.1 lb ai per acre per season as an at-plant application. Do not apply more than 0.2 lb ai per acre per season including at-plant plus foliar applications of other products containing bifenthrin.			

**LETTUCE, HEAD**

PESTS CONTROLLED	RATE CH-BIF- 3053/ACRE	RATE CH-BIF- 3053 PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS
Rootworm larvae	6.8 - 8.5 fl oz	0.39 - 0.49 fl oz	Apply as a 5 - 7 inch band over the row on the soil surface, a 5 - 7 inch band over the open furrow (T-band), or in-furrow with the seed.
	0.08 - 0.1 lb ai/A		
Grubs Lettuce root aphid Root maggot Wireworm	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	
	0.04 - 0.08 lb ai/A		
Army cutworm Armyworm spp. Bulb mites Cutworm spp. True armyworm	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	Apply broadcast to the soil surface for control of Army cutworm, Cutworm spp., True armyworm, Armyworm spp. or Bulb mites.
	0.04 - 0.08 lb ai/A		
<b>RESTRICTIONS</b> Do not apply more than 0.1 lb ai per acre per season as an at-plant application. Do not apply more than 0.5 lb ai per acre per season including at-plant plus foliar applications of other products containing bifenthrin.			

**LEAFY BRASSICAS, TURNIP GREENS**

CROP	PESTS CONTROLLED	RATE CH-BIF-3053/ACRE	RATE CH-BIF-3053 PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS
Broccoli Raab Bok Choy Collards Kale Mizuna Mustard Greens Mustard Spinach Rape Greens Turnip Greens	Rootworm larvae	6.8 - 8.5 fl oz	0.39 - 0.49 fl oz	Apply as a 5 - 7 inch band over the row on the soil surface, a 5 - 7 inch band over the open furrow (T-band), or in-furrow with the seed.
		0.08 - 0.1 lb ai/A		
	Grubs Lettuce root aphid Root maggot Wireworm	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	
		0.04 - 0.08 lb ai/A		
		Army cutworm Armyworm spp. Bulb mites Cutworm spp. True armyworm	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz
	0.04 - 0.08 lb ai/A			
	<b>RESTRICTIONS</b>			
	Do not apply more than 0.1 lb ai per acre per season as an at-plant application.			
Do not apply more than 0.4 lb ai per acre per season including at-plant plus foliar applications of other products containing bifenthrin.				

**LEAFY PETIOLE VEGETABLES (FOLIAR)**

PESTS CONTROLLED	RATE CH-BIF- 3052/ACRE	APPLICATION INSTRUCTIONS
Cutworms Corn Earworm Tobacco Budworm Saltmarsh Caterpillar Leafhoppers Flea Beetles Imported Cabbageworm Cucumber Beetles Aphids Whitefly Armyworms Loopers Stink Bugs Crickets Ground Beetles Thrips Wireworm (adults) Diamondback Moth	3.4 - 8.5 fl oz  0.04 - 0.1 lb ai/A	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons of finished spray per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be used instead of water in the finished spray. To ensure effective control, thorough coverage is required.
Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus spp.	6.8 - 8.5 fl oz  0.08 - 0.10 lb ai/A	
<b>RESTRICTIONS</b> Do not apply more than 0.5 lb ai per acre per season. Do not make applications less than 7 days apart. Do not apply within 7 days of harvest.		

**OKRA**

PESTS CONTROLLED	RATE CH-BIF-3053/ACRE	RATE CH-BIF-3053 PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS
Armyworm Cutworm Flea beetle larvae Wireworm	3.4 - 6.8 fl oz	0.2-0.39 fl oz	Apply as a 5 - 7 inch band over the row on the soil surface, a 5 - 7 inch band over the open furrow (T-band), in-furrow with the seed, or broadcast to the soil surface.
	0.04 - 0.08 lb ai/A		
<b>RESTRICTIONS</b> Do not apply more than 0.1 lb per acre per season as an at-plant application. Do not apply more than 0.2 lb ai per acre per season including at-plant plus foliar applications of other products containing bifenthrin.			

**PEPPERS (BELL and NON-BELL)**

PESTS CONTROLLED	RATE CH-BIF- 3053/ACRE	RATE CH-BIF- 3053 PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS
Rootworm larvae	6.8 - 8.5 fl oz	0.39 - 0.49 fl oz	Apply as a 5 - 7 inch band over the row on the soil surface, a 5 - 7 inch band over the open furrow (T-band), or in-furrow with the seed.
	0.08 - 0.1 lb ai/A		
Grubs	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	
Flea beetle/larvae	0.04 - 0.08 lb ai/A		
Pepper maggot			
Root aphid			
Root maggot			
Wireworm			
Army cutworm	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	Apply broadcast over the soil surface for control of Army cutworm, Cutworm spp., True armyworm, Armyworm spp. or Stalk borer.
Armyworm spp.	0.04 - 0.08 lb ai/A		
Cutworm spp.			
Stalk borer			
True armyworm			
<b>RESTRICTIONS</b>			
Do not apply more than 0.1 lb ai per acre per season as an at-plant application.			
Do not apply more than 0.2 lb ai per acre per season including at-plant plus foliar applications of other products containing bifenthrin.			

## SOD FARMS (FOLIAR)

PESTS CONTROLLED	RATE CH-BIF- 3053/ACRE	RATE CH- BIF-3053 PER 1,000 SQUARE FOOT	APPLICATION INSTRUCTIONS
Armyworms <sup>1</sup> Cutworms <sup>1</sup> Sod Webworm <sup>1</sup>	2.8 - 4.35 fl oz	0.066 - 0.1 fl oz	Apply as a broadcast treatment.  Use higher volumes up to 10 gallons of carrier per 1,000 sq. ft. to get uniform coverage when treating dense grass foliage.
	0.0014 - 0.05 lb ai/A		
Annual Bluegrass Weevil (Hyperodes) (Adult) <sup>2</sup> Banks Grass Mite <sup>6</sup> Billbugs (Adult) <sup>3</sup> Black Turfgrass Ataenius (Adult) <sup>4</sup> Crickets Earwigs Fleas (Adult) Grasshoppers Mealybugs Mites <sup>6</sup>	4.35 - 8.7 fl oz	0.1 - 0.2 fl oz	Irrigation to treated area within a few hours following application can improve efficacy to sub-surface pests including mole crickets.  The application rate ranges will provide excellent control of the named pests under typical conditions. However if maximum residual control is desired or heavy pest populations occur, CH-BIF-3053 may be applied at up to 0.4 fl oz/1,000 sq. ft rate.
	0.05 - 0.10 lb ai/A		
Ants Chinch Bugs <sup>5</sup> Fleas (Larvae) <sup>7</sup> Imported Fire Ants <sup>8</sup> Japanese Beetle (Adult) Mole Cricket (Adult) <sup>9</sup> Mole Cricket (Nymph) <sup>10</sup> Ticks <sup>11</sup>	8.7 - 17.42 fl oz	0.2 - 0.4 fl oz	
	0.10 - 0.21 lb ai/A		
<b>RESTRICTIONS</b> In New York State, this product may NOT be applied to any grass or turf area within 100 feet of a water body (lake, pond, river, stream, wetland, or drainage ditch). In New York State, make a single repeat application of this product if there are signs of renewed insect activity, but not sooner than two weeks after the first application.			

<sup>1</sup> **Armyworms, Cutworms and Sod Webworms:** For best control, delay watering (irrigation) or mowing for 24 hours after application. Higher labeled application rates (up to

0.4 fl oz per 1,000 sq ft) may be required. If the grass area is being maintained at a mowing height of greater than 1" in periods of high pest pressure.

<sup>2</sup> **Annual Bluegrass Weevil (Hyperodes) adults:** Time applications to control adult weevils as they leave their overwintering sites and move into grass areas. Generally, this movement begins when *Forsythia* is in full bloom and finish when flowering dogwood is in full bloom. Your State Cooperative Extension Service can give more specific information regarding the timing of applications.

<sup>3</sup> **Billbug adults:** Apply when adult billbugs are first seen during April and May. Consult degree day models to optimize application timing, and consult your State Cooperative Extension Service for information specific to your region. In temperate regions, apply in spring to also provide control of over-wintered chinch bugs.

<sup>4</sup> **Black Turfgrass Ataenius adults:** Apply during May and July to control the first and second generations, respectively. Time the May application to coincide with the full bloom stage of Vanhoutte spiraea (*Spirea vanhouttei*) and horse chestnut (*Aesculus hippocastanum*). Time the July application to coincide with the blooming of Rose of Sharon (*Hibiscus syriacus*).

<sup>5</sup> **Chinch Bugs:** Chinch Bugs infest the *base* of grass plants and are often found in the thatch layer. Irrigation of the grass area before treatment will optimize the penetration of the insecticide to the area where the chinch bugs are located. Use higher volume applications if the thatch layer is excessive or if a relatively long mowing height is being maintained. Chinch Bugs can be one of the most difficult pests to control in grasses and the higher labeled application rates (up to 0.4 fl oz per 1,000 square feet) may be required to control populations that contain both nymphs and adults during the middle of the summer.

<sup>6</sup> **Mites:** For best control of eriophyid mites, apply in combination with the labeled application rate of a surfactant. A second application timed five to seven days after the first may be necessary for acceptable control.

<sup>7</sup> **Flea larvae:** These pests develop in the soil of shaded areas accessible to pets and other animals. When treating these areas, use a higher volume application to ensure the insecticide penetrates into the soil. Note: if the lawn area is being treated with this product at 0.1 fl oz/1,000 square feet for adult flea control, then the larval application rate may be achieved by increasing the application volume two- to four-fold.

<sup>8</sup> **Imported Fire Ants:** For best control, combine broadcast applications (to control foraging workers and newly mated fly-in queens) with mound drenches (to control existing colonies). If the soil is not moist, irrigate before application or use a high volume application. For broadcast treatments use 0.4 fl oz/1,000 sq ft. Treat mounds by diluting 0.05 fl oz of CH-BIF-3053 per gallon of water and applying 1 to 2 gallons of finished spray per mound. Treat mounds with sufficient force to break their apex and allow the insecticide solution to flow into the ant tunnels. A four foot diameter circle around the mound should also be treated. For best results, apply in cool weather (65 - 80°F) or in early morning or late evening hours.

<sup>9</sup> **Mole Cricket adults:** Adult mole crickets are difficult to control because preferred grass areas are continuously invaded during the early spring. Apply as late in the day as possible, and water in with up to 0.5 inches of water immediately after treatment. If the soil is not moist, irrigate before application to bring the mole crickets closer to the soil surface and maximize exposure to the insecticide. Treat grass areas that receive pressure from adult mole crickets at peak egg hatch to ensure optimum control of subsequent nymph populations (see below).

<sup>10</sup> **Mole Cricket nymphs:** In grass areas that receive intense pressure from adult mole crickets, treat immediately before peak egg hatch. Best control is achieved at that time because young nymphs are more susceptible to insecticides and they are located near the soil surface. To control larger, more damaging, nymphs later in the year a higher labeled application rate and more frequent applications may be necessary. Apply as late in the day as possible and water in with up to 0.5 inches of water immediately following treatment. If the soil is not moist, irrigate before application to bring the crickets closer to the soil surface and maximize exposure to the insecticide.

<sup>11</sup> **Ticks (Including ticks that may transmit Lyme Disease and Rocky Mountain Spotted fever):** Do not make spot applications, but treat the entire area where exposure to ticks may occur. When treating areas with dense ground cover or heavy leaf litter, use higher spray volumes. Note that ticks may be reintroduced from surrounding areas on host animals and retreatment may be necessary to achieve and/or maintain control during periods of high pest pressure. Limit repeat application to no more than once per seven days, and only if there are signs of renewed activity.

**Deer ticks (*Ixodes* sp.)** This pest has a complex life cycle that ranges over a two year period and involves four life stages. Apply in the late fall and/or early spring to control adult ticks (usually located on brush or grass above the soil surface) and in mid to late spring to control larvae and nymphs (found in the soil and leaf litter).

**American dog ticks.** These ticks commonly congregate along paths or roadways where humans are likely to be encountered. Apply as necessary from mid-spring to early fall to control larvae, nymphs and adults.

**SOYBEANS**

PESTS CONTROLLED	RATE CH-BIF-3053/ACRE	RATE CH-BIF-3053 PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS
Rootworm larvae	6.8 - 8.5 fl oz	0.39 - 0.49 fl oz	Apply as a 5 - 7 inch band over the row on the soil surface, a 5 - 7 inch band over the open furrow (T-band), or in-furrow with the seed.
	0.08 - 0.1 lb ai/A		
Grape colapsis Grubs	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	
Root maggot Seedcorn maggot Wireworm	0.04 - 0.08 lb ai/A		
Army cutworm Armyworm spp. Cutworm spp. True armyworm	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	Apply broadcast over the soil surface for control of Army cutworm, Cutworm spp., True armyworm, or Armyworm spp.
	0.04 - 0.08 lb ai/A		
<b>RESTRICTIONS</b> Do not apply more than 0.1 lb ai per acre per season as an at-plant application. Do not apply more than 0.2 lb ai per acre per season including at-plant plus foliar applications of other bifenthrin products.			

**SOYBEANS****(Pre-Plant Incorporated (PPI) and Pre-Emergence (PRE))**

PESTS CONTROLLED	RATE CH-BIF-3053/ACRE	APPLICATION INSTRUCTIONS
Armyworm spp. Black Cutworm Seedcorn maggot White Grub Wireworm	4 - 5.3 fl oz 0.047 - 0.062 lb ai/A (PPI)	Incorporate CH-BIF-3053 incorporated close to the anticipated depth of the seed, but do not exceed 3 inches in depth. PPI: Use the 4 - 5.3 fl oz/A (0.047 - 0.062 lb ai/A) rate only. CH-BIF-3053 can be tank mixed and applied with PPI herbicides.
Armyworm spp. Black Cutworm Stalkborer	3.4 fl oz 0.04 lb ai/A (PRE)	PRE: Use the 3.4 fl oz/A (0.04 lb ai/A) rate when mixing and apply with PRE herbicides.
<b>RESTRICTIONS</b> Do not apply more than 0.1 lb ai (8.5 fl oz) per acre per season as PPI or PRE application. Do not apply more than 0.2 lb ai (17.0 fl oz) per acre per season including at-plant plus foliar applications of other bifenthrin products.		

**SPINACH**

PESTS CONTROLLED	RATE CH-BIF- 3053/ACRE	RATE CH-BIF- 3053 PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS
Rootworm larvae	6.8 - 8.5 fl oz	0.39 - 0.49 fl oz	Apply as a 5 - 7 inch band over the row on the soil surface, a 5 - 7 inch band over the open furrow (T-band), or in-furrow with the seed.
	0.08 - 0.1 lb ai/A		
Grubs Root maggot Seedcorn maggot Wireworm	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	
	0.04 - 0.08 lb ai/A		
Army cutworm Armyworm spp. Cutworm spp. True armyworm	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	Apply broadcast to the soil surface for control of Army cutworm, Cutworm spp., True armyworm, or Armyworm spp.
	0.04 - 0.08 lb ai/A		
<b>RESTRICTIONS</b> Do not apply more than 0.1 lb ai per acre per season as an at-plant application. Do not apply more than 0.4 lb ai per acre per season including at-plant plus foliar applications of other products containing bifenthrin.			

**TOBACCO (PRE-TRANSPLANT and AT-TRANSPLANT)**

PESTS CONTROLLED	RATE CH-BIF- 3053/ACRE	RATE CH-BIF- 3053 PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS
Armyworm spp. Cutworm spp. Flea beetle larvae Mole cricket Stalkborer White grubs Wireworm	3.4 - 8.5 fl oz	0.2 - 0.49 fl oz	<b>Pre-transplant soil applications:</b>  To control below ground pests, use equipment which will incorporate the application into top 4" of the soil.  <b>At-transplant water treatment application:</b>  Apply 0.0625 - 0.1 lb ai/A in a water treatment application volume of 10 - 200 gal/A.  May be tank mixed with herbicides registered for tobacco use. Always check for compatibility before applying tank-mixes with CH-BIF-3053. Always check the labels when mixing with herbicides to avoid crop damage issues.
	0.04 - 0.1 lb ai/A		
<b>RESTRICTIONS</b> Do not apply more than 0.2 lb ai per acre per season.  Do not apply later than layby.			

**TOBACCO (FOLIAR)**

PESTS CONTROLLED	RATE CH-BIF- 3053/ACRE	APPLICATION INSTRUCTIONS
Aphid spp.* Armyworm spp. Chinch Bugs Cutworm spp. Flea Beetle (Adults) Grasshoppers Green Bugs Japanese Beetles Stink Bugs Tarnished plant bugs Thrips Whiteflies	3.4 - 8.5 fl oz 0.04 - 0.1 lb ai/A	Apply 0.04 - 0.10 lb ai/A per foliar application up to, and including, layby in a minimum of 10 gal/A. <b>*Aphids - See Resistance Management section of this label.</b>
Budworm Hornworm Tobacco	6.8 - 8.5 fl oz 0.08 - 0.1 lb ai/A	
Lygus spp. Spider mites	8.5 fl oz 0.1 lb ai/A	
<b>RESTRICTIONS</b> Do not make more than 2 foliar applications per season. Do not apply more than 0.2 lb ai per acre (17.0 fl oz/A) per season. Do not apply later than layby. May be tank mixed with herbicides registered for tobacco use. Always check for compatibility before applying tank-mixes with CH-BIF-3053. Always check the labels when mixing with herbicides to avoid crop damage issues.		

**TOMATOES**

PESTS CONTROLLED	RATE CH-BIF-3053/ACRE	RATE CH-BIF-3053 PER 1,000 LINEAR FOOT	APPLICATION INSTRUCTIONS
Rootworm larvae	6.8 - 8.5 fl oz	0.39 - 0.49 fl oz	Apply as a 5 - 7 inch band over the row on the soil surface, a 5 - 7 inch band over the open furrow (T-band), or in-furrow with the seed.
	0.08 - 0.1 lb ai/A		
Flea beetle larvae	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	
Grubs	0.04 - 0.08 lb ai/A		
Root maggot			Apply broadcast to the soil surface for control of Army cutworm, Cutworm spp., True armyworm, Armyworm spp. or Stalkborer.
Wireworm			
Army cutworm	3.4 - 6.8 fl oz	0.2 - 0.39 fl oz	
Armyworm spp.	0.04 - 0.08 lb ai/A		
Cutworm spp.			
True armyworm			
Stalkborer			
<b>RESTRICTIONS</b>			
Do not apply more than 0.1 lb ai per acre per season as an at-plant application.			
Do not apply more than 0.32 lb ai per acre per season including at-plant plus foliar applications of other products containing bifenthrin.			

**TUBEROUS AND CORM VEGETABLES (AT-PLANT)**

CROP	PESTS CONTROLLED	RATE CH-BIF-3053/ACRE	APPLICATION INSTRUCTIONS
Potato Sweet potato Arracacha Arrowroot Chinese artichoke Jerusalem artichoke Edible canna Cassava (bitter and sweet) Chayote (root) Chufa Dasheen (taro) Ginger Leren Tanier Turmer Yam bean True yam	Grape colapsis Rootworms Sweet potato flea beetle White grub Wireworms	12.75 - 25.5 fl oz 0.15 - 0.3 lb ai/A	Apply as a soil incorporated broadcast, directed bed spray or a T-band spray into the planting furrow for the control of wireworms, rootworms, sweet potato flea beetle and white grubs.  Apply in a minimum of 10 gallons per acre of spray at the rate of 0.15 - 0.3 lb ai (12.75 - 25.5 fl oz of product) per acre.
<b>RESTRICTIONS</b> Do not apply more than 0.3 lb ai (25.5 fl oz/A) per acre per season as an at-plant application. Do not apply more than 0.5 lb ai (42.5 fl oz/A) per acre per season including at-plant plus foliar applications of other products containing bifenthrin.			

**TUBEROUS AND CORM VEGETABLES (LAY-BY)**

CROP	PESTS CONTROLLED	RATE CH-BIF-3053/ACRE	APPLICATION INSTRUCTIONS
Potato Sweet potato Arracacha Arrowroot Chinese artichoke Jerusalem artichoke Edible canna Cassava (bitter and sweet) Chayote (root) Chufa Dasheen (taro) Ginger Leren Tanier Turmer Yam bean True yam	Grape colapsis Rootworms White grub Wireworms	12.75 - 25.5 fl oz 0.15 - 0.3 lb ai/A	Apply CH-BIF-3053 as one or more soil directed and incorporated treatments at cultivation or lay-by for the control of wireworms, rootworms and white grubs.  Apply to the drill area and incorporate by cultivation equipment set to throw soil towards the drill area.  Apply CH-BIF-3053 in a minimum of 10 gallons per acre of spray at a rate of 0.15 - 0.3 lb ai (12.75 - 25.5 fl oz of product) per acre.
<b>RESTRICTIONS</b> Do not apply more than 0.5 lb ai (42.5 fl oz/A) per acre per season including soil plus foliar applications of other products containing bifenthrin.			

## STORAGE AND DISPOSAL

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

**Pesticide Storage:** If storing this product below freezing, user should shake or roll the container to ensure proper product consistency.

Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. Do not contaminate other pesticides, fertilizers, water, food, or feed by storage or disposal.

In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. **Call CHEMTREC (Transportation and Spills): (800) 424-9300.**

To confine spill: If liquid, dike surrounding area or absorb with sand, cat litter or commercial clay. If dry material, cover to prevent dispersal. Place damaged package in a holding container. Identify contents.

**Pesticide Disposal:** Pesticide wastes are toxic. 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 of the nearest EPA Regional Office for guidance.

**Container Handling: [One of the following will be used:]**

**Non-refillable container (in sizes 5 gallons or less).** Do not reuse or refill this container. Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds, pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available, or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities.

**Non-refillable container (in sizes greater than 5 gallons).** Do not reuse or refill this container. Triple rinse or pressure rinse. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**Refillable container:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

## **IMPORTANT INFORMATION**

### **READ BEFORE USING PRODUCT**

#### **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 reflect the opinion of experts based on field use and tests, and must be followed carefully. It is impossible to eliminate all risks 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 CHEMAGCO LLC or Seller. Handling, storage, and use of the product by Buyer or User are beyond the control of CHEMAGCO LLC and Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold CHEMAGCO LLC and Seller harmless for any claims relating to such factors.

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