

66330-336

02/17/2009

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

OFFICE OF  
PREVENTION, PESTICIDES AND  
TOXIC SUBSTANCES

FEB 17 2009

Mr. Bill Washburn  
Regulatory Manager  
Arysta LifeScience North America LLC  
15401 Weston Parkway, Suite 150  
Cary, NC 27513

Subject: Label Notifications for Pesticide Registration Notices 2007-4; Update Company Name  
per Pesticide Registration Notice 98-10

Dear Mr. Washburn,

The Agency is in receipt of your Applications for Pesticide Notification under Pesticide  
Registration Notices (PRN) 98-10 and 2007-4 dated February 2, 2009 for the following products:

<b>Captan 50 Wettable Powder</b>	<b>EPA Registration Number 66330-234</b>
<b>Bifenthrin 0.2%G GC</b>	<b>EPA Registration Number 66330-312</b>
<b>Bifenthrin 7.9% FL TC</b>	<b>EPA Registration Number 66330-315</b>
<b>Bifenthrin 0.2%G PL</b>	<b>EPA Registration Number 66330-317</b>
<b>Bifenthrin 0.2%G Nursery</b>	<b>EPA Registration Number 66330-319</b>
<b>Bifenthrin 2EC AG</b>	<b>EPA Registration Number 66330-336</b>

The Registration Division (RD) has conducted its review of these requests for their  
applicability under PRNs 98-10 and 2007-4 and finds that the label changes requested fall within  
the scope of PRNs 98-10 and 2007-4. The labels submitted with the applications have been  
stamped "Notification" and will be placed in our records.

Please be reminded that 40 CFR Part 156.140(a)(4) requires that a batch code, lot  
number, or other code identifying the batch of the pesticide distributed and sold be placed on  
nonrefillable containers. The code may appear either on the label (and can be added by non-  
notification/PR Notice 98-10) or durably marked on the container itself.

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If you have any questions, please call me directly at 703-305-6249 or Steve Schaible of my staff at 703-308-9362.

Sincerely,



Linda Arrington  
Notifications & Minor Formulations Team Leader  
Registration Division (7505P)  
Office of Pesticide Programs

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Please read instructions on reverse before completing form.

Form Approved, OMB No. 2070-0060, Approval expires 05-31-98

 <b>EPA</b> United States <b>Environmental Protection Agency</b> Washington, DC 20460	<input type="checkbox"/> <b>Registration</b> <input type="checkbox"/> <b>Amendment</b> <input checked="" type="checkbox"/> <b>Other:</b>	OPP Identifier Number
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### Application for Pesticide - Section I

1. Company/Product Number <b>66330-336</b>	2. EPA Product Manager <b>GEORGE LAROCCA</b>	3. Proposed Classification <input type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) <b>BIFENTHRIN 2EC AG</b>	PM# <b>13</b>	
5. Name and Address of Applicant (Include ZIP Code)  <b>Arysta LifeScience North America, LLC</b> <b>15401 Weston Parkway, Suite 150</b> <b>Cary, NC 27513</b>  <input type="checkbox"/> Check if this is a new address		6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to: <div style="text-align: right; font-weight: bold; font-size: 1.2em;">NOTIFICATION</div> EPA Reg. No. _____ <div style="text-align: right; font-weight: bold; font-size: 1.2em;">FEB 17 2009</div> Product Name _____

### Section - II

<input type="checkbox"/> Amendment – Explain below. <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application <input type="checkbox"/> Other - Explain below
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**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)

**Notification of label change per PR Notice 2007-4.** This notification is consistent with guidance in PR Notice 2007-4 and the requirements of EPA's regulations at 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula for this product. I understand that it is a violation of 18 USC Sec 1001 to willfully make any false statement to EPA. I further understand that if the amendment is not consistent with the requirements of 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

**Notification of label change per PR Notice 98-10.** This notification is consistent with the provisions of PR Notice 98-10 and EPA regulations at 40 CFR 152.46, and no other changes have been made to the labeling or the confidential statement of formula of this product. I understand that it is a violation of 18 USC Sec 1001 to willfully make any false statement to EPA. I further understand that if this notification is not consistent with the terms of PR Notice 98-10 and 40 CFR 152.46, this may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

### Section - III

1. Material This Product Will Be Packaged In:			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" Unit Packaging wgt.      No. per container	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" Package wgt.      No. per container	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify)
*Certification must be submitted			
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) Retail Container  <b>1.0 gal., 2.5 gal, 5.0 gal and Bulk</b>		5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On labeling accompanying product
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Other _____ <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled			

### Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application)			
Name <b>Bill Washburn</b>	Title <b>Regulatory Manager</b>	Telephone No. (Include Area Code) <b>901-432-5118</b>	
I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received (Stamped)
2. Signature  	3. Title <b>Regulatory Manager</b>		(Stamped area)
4. Typed Name <b>Bill Washburn</b>	5. Date <b>02/02/09</b>		



February 2, 2009

Mr. George Larocca, PM 13  
Document Processing Desk (NOTIF)  
Office of Pesticide Programs – 7504P  
U.S. Environmental Protection Agency  
One Potomac Yard, Room S-4900  
2777 South Crystal Drive  
Arlington, VA 22202

**Subject: BIFENTHRIN 2EC AG  
EPA Reg. No. 66330-336**

***Notification of Label Change per PR Notice 2007-4  
and PR Notice 98-10***

Dear Mr. Larocca:

Please find the following enclosed:

- Application for Pesticide Registration (Other) dated 02/02/09.
- One highlighted copy of subject label, showing all changes.
- One clean copy of the subject label.

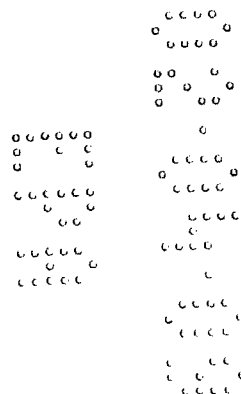
Notification of label change per PR Notice 2007-4. This notification is consistent with guidance in PR Notice 2007-4 and the requirements of EPA's regulations at 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula for this product. I understand that it is a violation of 18 USC Sec 1001 to willfully make any false statement to EPA. I further understand that if the amendment is not consistent with the requirements of 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA.

Also in this submission, we are using PR Notice 98-10 to update the name of the company, emergency telephone numbers and warranty. Arysta LifeScience North America Corporation was changed to Arysta LifeScience North America, LLC.

Should you have any questions or comments, please do not hesitate to contact me at 901-432-5118 or by e-mail at [bill.washburn@arystalifescience.com](mailto:bill.washburn@arystalifescience.com)

Sincerely,

Bill Washburn  
Regulatory Manager



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**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 2EC AG****Active Ingredient:****By Wt.****Bifenthrin\***

(2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-dimethylcyclopropanecarboxylate..... 25.1%

**Other Ingredients\*\*:** ..... 74.9%**TOTAL****100.0%**

\*Cis isomers 97% minimum, trans isomers 3% maximum.

\*\*Contains xylene range aromatic solvents

This product contains 2 pounds active ingredient per gallon.

**NOTIFICATION****FEB 17 2009**

**KEEP OUT OF REACH OF CHILDREN**  
**WARNING – AVISO**

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

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.)

<b>FIRST AID</b>	
If swallowed	<ul style="list-style-type: none"> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give <b>any</b> liquid to the person.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
If in eyes	<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>
If inhaled	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
If on skin or clothing	<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 or doctor for treatment advice.</li> </ul>
<b>NOTE TO PHYSICIAN</b>	
Please note that this pesticide is a pyrethroid. If significant quantities of this pesticide have been swallowed, it is necessary to promptly eliminate the ingested quantities from the stomach and intestines. In order to assist in eliminating the ingested quantities and reduce absorption, certain substances, including alcohol, oils, and edible or digestible fats should not be ingested. Symptomatic and supportive treatment is recommended. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.	
<b>HOT LINE NUMBER</b>	
<b>Have the product container or label with you when calling a poison control center or doctor, or going for treatment.</b> <b>FOR 24- HOUR EMERGENCY MEDICAL ASSISTANCE CALL: 1-866-303-6952</b> <b>FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident call CHEMTREC 1-800-424-9300</b>	

See Additional Precautions and Use Directions (Inside / On Side Panel)

EPA Reg. No. 66330-336  
EPA Est. No. 51036-GA-001

Net Contents  
AD051506

Manufactured for:  
**Arysta LifeScience North America LLC**  
**15401 Weston Parkway, Suite 150**  
**Cary, NC 27513**

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**PRECAUTIONARY STATEMENTS**  
**Hazards to Humans and Domestic Animals**

**WARNING.** May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Harmful if absorbed through skin or inhaled. Avoid breathing spray mist. Avoid contact with skin. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

**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 E on an EPA chemical resistance category selection chart.

**Handlers who may be exposed to the dilute through application or other tasks must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber or Viton.
- Shoes plus socks

**Handlers who may be exposed to the concentrate through mixing, loading, application or other tasks must wear:**

- Long-sleeved shirt and long pants
- Chemical-resistant gloves such as barrier laminate, Nitrile rubber, neoprene rubber, or Viton.
- 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, 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.

**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 in intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and run-off 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 to drift to blooming crops if bees are visiting the treatment area.

Do not use this product in geographic areas in which endangered species might be exposed. Consult with the local extension service in the county of use for precautions and application methods applicable to restrict exposure to endangered species.

**Physical/Chemical Hazards**

Do not use or store near heat or open flame.

**DIRECTIONS FOR USE**

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

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.

**Resistance:** Repeated use of certain insecticides may create resistance in some target pests, resulting in a decrease of control. Bifenthrin 2EC AG should be used in accordance with treatment area-appropriate strategies for resistance management. For further information regarding resistance management strategies for your treatment area, consult local or state pest management authorities.

If you are unable to attain adequate control of a target pest and this loss of control cannot be explained by misapplication or weather extremes, it is possible that resistance has developed within the target population. If this appears to have occurred, promptly seek advice from your pest management advisor or company representation regarding alternative control techniques.

#### 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 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, such as barrier laminate, Nitrile rubber, neoprene rubber or Viton.
- Shoes plus socks.

#### STORAGE AND DISPOSAL

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

**Pesticide Storage:** Open dumping is prohibited. Do not store this product near fertilizers, seeds, or other pesticides.

Store this product at temperatures above 40° F (5° C). Under no circumstances should this product be subjected to freezing conditions. In the event of crystal formation, place pesticide in a room at ambient temperature 60°F until crystals dissolve. To re-dissolve solids, thoroughly agitate container occasionally.

Keep this product out of reach of children and animals at all times. Store this product in a cool, dry place in its original container only. Do not expose the product to excessive heat. Open the product container carefully and, after use, replace the container lid by thoroughly tightening the screw cap. Keep product containers tightly closed when not in use. Damaged or leaking containers should be discarded. Do not put concentrated or diluted product into containers that are used for food or drink.

For safety and prevention of unauthorized use, all pesticides should be stored in locked facilities. To prevent accidental misuse, different pesticides should be stored in separate areas with enough distance between the pesticides to provide clear identification.

**To Contain a Spill:** If the product is a liquid, surround the spill with a barrier and then absorb liquid by covering it with cat litter, sand or a commercial clay. If the product is dry material, cover the spilled product to prevent the material from spreading. If the product container is damaged, place the entire container along with the product in a secure receptacle and clearly label the contents. For any type of product spill, avoid contact with the spilled product and evacuate the area, keeping all unprotected persons and animals at a safe distance

**Pesticide Disposal:** Pesticide wastes are toxic. Do not contaminate water, food or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### Container Disposal:

**Plastic Containers equal to or less than 5 gallons:** Nonrefillable 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 ¼ 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.

**Plastic containers greater than 5 gallons:** Nonrefillable 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. Fill the container ¼ 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 it back and forth several times. Turn the container over onto its other end and tip it back and forth several times.

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Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.

Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Returnable/Refillable Sealed Container:** Return intact to point of purchase.

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 a 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.

### Chemigation Use Directions

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 systems. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

LEPA Irrigation: Per acre, use no less than 0.75 inch of water. If using non-emulsified oils as a diluent, use 1-2 pints/acre.

The set up and calibration of chemigation equipment will influence the efficacy of applications. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration or suitability of equipment to control particular pests, you should contact State Extension Service specialists, equipment manufacturers or other experts.

A person knowledgeable of the chemigation system and responsible for its operations, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Continued application during mechanical stoppages can lead to unwanted residues in areas surrounding the treatment area.

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.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

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.

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.

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.

Do not apply when wind speed favors drift beyond the area intended for treatment.

This product should be applied continuously for the duration of the water application. Precise application to the area to be treated can be achieved by diluting Bifenthrin 2EC AG with adequate water volume. No less than 0.5 inch per acre of irrigation water should be used for chemigation. If an appropriate diluent is used, the mixture does not need to be agitated. However, it is possible that phase separation may occur. Be sure to conduct a diluent test to prevent phase separation during dilution and application. A uniform dilution should be used throughout the time of application to avoid unwanted residues or sub-maximum control.



## Spray Drift Precautions

**NOTE: FOLLOW THESE DIRECTIONS WHEN MAKING APPLICATIONS NEAR COMMERCIAL FISH FARM PONDS, ESTUARIES, LAKES, MARSHES, NATURAL PONDS, PERMANENT STREAMS, RESERVOIRS, AND RIVERS ("BODIES OF WATER"):**

- Ensure proper calibration and maintenance of all equipment used for ground and aerial application via appropriate carriers.
- Ground application within 25 feet and aerial application within 150 feet of the above bodies of water is prohibited. When making ultra low volume (ULV) applications to cotton, do not apply within 450 feet of the above bodies of water. Do not use ULV applications on corn or hops.
- To prevent unwanted exposure to the above bodies of water, maintain a 10 foot-wide non-cultivated vegetative strip filter.
- If heavy rainfall is predicted, aerial or ground applications to corn are prohibited.

### INFORMATION ON DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see Wind, Temperature and Humidity, and Temperature Inversions).

### CONTROLLING DROPLET SIZE

**Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.

**Pressure** - Do not exceed the nozzle manufacturer's recommended pressures. For many nozzle types lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.

**Number of nozzles** - Use the minimum number of nozzles that provide uniform coverage.

**Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is the recommended practice. Significant deflection from horizontal will reduce droplet size and increase drift potential.

**Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce the largest droplets and the lowest drift.

### BOOM LENGTH

For aerial applications the boom length must not exceed  $\frac{3}{4}$  of the wing span or rotor length. For some use patterns, reducing the effective boom length to less than  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width. Spray boom should attach to the aerial application equipment in such a manner as to diminish potential drift from vortices created by the wingtips or rotors.

### APPLICATION HEIGHT

Do not make applications at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### WIND

Drift potential is lowest between wind speeds of 3-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 3 mph due to variable wind direction and high inversion potential. Do not make applications when either wind gusts approach or velocity tops 15 mph.

**NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect spray drift.

### TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry. As a result, applications during high temperature and/or low humidity are not recommended.

### SENSITIVE AREAS

This product should only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

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**TEMPERATURE INVERSIONS**

Do not make applications during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions may be identified by temperatures that rise with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified 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.

**Rotational Crops**

Treated areas may be rotated with any crop with a bifenthrin tolerance at any time. You may rotate any other crop 30 days after the most recent application of this product.

**Tank-Mixing Restrictions**

This product may be tank-mixed with any other products that are permitted for use on registered crops. When tank-mixing or applying products in conjunction with this product, you should observe all applicable use precautions and recommended application rates on each product's label. Prior to tank-mixing, you should perform a compatibility test of the products to be used.

**Application Instructions**

The timing of application, infestation levels and field scouting will impact what application rate should be used:

For Light – Moderate Pest Pressure: use lower rates.

For Mite Control, Heavy Pest Pressure or applications in arid climates: use higher rates.

To prevent unwanted exposure to bodies of water, maintain a 10 foot-wide non-cultivated vegetative strip filter.

In New York State this product may not be applied within 100 feet (using ground equipment) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.

**INDEX TO CROPS LISTED ON THIS LABEL**

Artichokes  
Brassicas  
Caneberries  
Canola, Crambe, Rapeseed  
Citrus  
Cotton  
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (At Plant Use)  
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (PRE & PPI)  
Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed (Foliar Use)  
Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (At Plant Use)  
Sweet Corn (Grain and Silage), Sweet Corn Grown for Seed (Foliar Use)  
Cucurbits  
Eggplant  
Grapes  
Hops  
Lettuce, Head  
Pears  
Peppers, Bell and Non-Bell  
Spinach  
Succulent Peas and Beans  
Tomatoes

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PHI = Pre-Harvest Interval

## ARTICHOKES

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I./A.	FL. OZ./A.	
Artichoke Plume Moth Cribrate Weevil	0.10	6.4	<p>This product should be applied when the pest population reaches a damaging level. Repeat as necessary to maintain desired level of control. Do not apply more than once every 15 days.</p> <p><b>Ground Application:</b> Apply the product to fully cover the area. Per acre apply the indicated dosage in no less than 75 gallons of finished spray.</p> <p><b>Aerial Application</b> Per acre apply the indicated dosage in no less than 10 gallons of finished spray.</p> <p>Per season, use no more than 0.5 lb. A.I./A. PHI = 5 days.</p>

## BRASSICAS

CROP	INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
		LB. A.I./A.	FL. OZ./A.	
Head and Stem Brassica Vegetables including: Broccoli Brussels Sprouts Cauliflower Cavalo Broccolo Chinese Broccoli (gai lon, white flowering broccoli) Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy) Kohlrabi Cabbage	Aphids Corn Earworm Crickets Cutworms Tobacco Budworm Saltmarsh Caterpillar Leafhoppers Flea Beetles Imported Cabbageworm Cucumber Beetles Whitefly Armyworms Loopers Stink Bugs Ground Beetles Thrips Wireworm (Adults) Diamondback Moth	0.033-0.10	2.1-6.4	<p>When applying by air, use no less than 2 gallons of finished spray per acre; when applying by ground equipment, use no less than 10 gallons per acre. If treatment is to be made by aerial application, 1 to 2 qts. of emulsified oil can be substituted for 1 to 2 qts. of water. You must thoroughly cover the treatment area in order to obtain the desired level of control.</p> <p>Per season, use no more than 0.5 lb. A.I./A.</p> <p>Following bloom, you may make up to 5 applications of this product.</p> <p>Do not make applications less than 7 days apart.</p> <p>PHI = 7 days.</p>
	Banks Grass Mite Twospotted Spider Mite Pacific Spider Mite Carmine Mite Lygus spp.	0.08-0.10	5.12-6.4	

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**CANEBERRIES**

CROP	INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
		LB. A.I./A.	FL. OZ./A.	
Caneberries including: Blackberries Bingleberries Dewberries Lowberries Marionberries Ollalieberries Youngberries Loganberries Raspberries	Leafrollers Orange Tortrix Root Weevils	0.05-0.10	3.2-6.4	You may apply this product by air or ground equipment. Use a sufficient amount of water to ensure full coverage of foliage. No less than 10 gallons per acre by air and 50 gallons per acre by ground should be used.
	Spider Mites	0.10	6.4	You may apply this product once during pre-bloom and once during post bloom.  Per season, use no more than 0.2 lb. A.I./A.  PHI = 3 days.

**CANOLA, CRAMBE, RAPESEED**

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I./A.	FL. OZ./A.	
Aphids Cutworms Diamondback Moth Loopers Other Lepidopterous Larvae Flea Beetle Flea Hopper Grasshopper Plant Bug Stink Bugs Seedpod Weevil Thrips Whitefly Armyworms	0.033-0.04	2.1-2.6	When applying by air, use no less than 2 gallons of finished spray per acre; when applying by ground equipment, use no less than 10 gallons per acre. If treatment is to be made by aerial application, 1 to 2 qts. of emulsified oil can be substituted for 1 to 2 qts. of water. You must thoroughly cover the treatment area in order to obtain the desired level of control.  Per season, use no more than 0.8 lb. A.I./A.  Do not make applications less than 14 days apart.  PHI = 35 days.

**CITRUS**

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I./A.	FL. OZ./A.	
<i>Diaprepes</i> Root Weevil ( <i>Diaprepes abbreviatus</i> ) Fire Ants Asian Cockroach	0.25-0.50	16-32	This product should be applied to individual citrus resets. Do not apply product to solid planted rows. You may apply this product using a hand-gun or a shielded sprayer.  Spring is the peak time for <i>Diaprepes</i> root weevil to appear. Certain weather conditions may also cause a minor appearance of <i>Diaprepes</i> root weevil in the fall.  If weather conditions in the area where the citrus grove is to be treated contribute to primary emergence of <i>Diaprepes</i> root weevil in the Spring, you should use 32 fluid ounces of formulated product in order to obtain the most effective control.  If weather conditions in the area where the citrus grove is to be treated contribute to more than one pest emergence peak, you may apply 16 fluid ounces of formulated product during early season; you may also apply 16

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			<p>fluid ounces of formulated product later in the season.</p> <p>If use of BIFENTHRIN 2EC AG does not adequately control emergence, you may need to use other strategies, including, for example, foliar adult control or soil larvae control, such as nematodes. You should contact your state or local agricultural Extension Specialist for guidance.</p> <p>Do not use irrigation systems to apply this product.</p> <p>BIFENTHRIN 2EC AG must not have any contact or interaction with fruit or foliage.</p> <p>Per season, use no more than 0.5 lb. A.I./A.</p> <p>The specified dosage must be applied in no less than 30 gallons of finished spray per acre.</p> <p>Do not apply this product by air. This product must be applied via ground application only.</p> <p>PHI = 1 day.</p>
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**COTTON**

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I./A.	FL. OZ./A.	
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	0.02-0.10	1.3-6.4	<p>You may apply BIFENTHRIN 2EC AG in water or refined vegetable oil (soybean/cottonseed).</p> <p><b>To Apply in Water:</b> If using ground equipment, you must apply this product in no less than 5 gallons per acre. If applying by air, use no less than 1 gallon per acre. 2 gallons of finished spray per acre. When applying product by air, you may substitute 1 quart of emulsified oil for 1 quart of water in the finished spray.</p> <p><b>ULV Application:</b> In order to provide adequate coverage, you must apply the appropriate rate of BIFENTHRIN 2EC AG via properly calibrated aerial equipment in refined vegetable oil in no less than 1 quart of finished spray per acre.</p> <p><b>To Control Boll Weevil:</b> You should apply BIFENTHRIN 2EC AG every 3 to 4 days until adequate control is reached.</p> <p><b>To Control Mites and Aphids:</b> For maximum effectiveness, this product should be applied at pest emergence. Continue treatment as necessary to maintain control. You should apply higher rates of product if a damaging threshold occurs. Per season, use no more than 0.5 lb. A.I./A.</p> <p>During one growing season, a maximum of ten applications to a cotton crop using synthetic pyrethroid applications may be made, whether of one product or a combination of products. Example synthetic pyrethroid products: Ambush®, Ammo®, Asana® XL, Baythroid®, Capture®, Danitol®, Karate®, Mustang®, and Scout X-TRA®.</p> <p>Do not graze livestock in areas of application. Do not use treated crops for feed.</p> <p>PHI = 14 days.</p>
Boll Weevil Bollworm Cabbage Looper Cotton Aphid Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs Tobacco Budworm Whitefly Yellow Striped Armyworm	0.04-0.10	2.6-6.4	
Beet Armyworm Carmine Spider Mite Lygus spp. Pink Bollworm Twospotted Spider Mite	0.06-0.10	3.8-6.4	

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**FIELD CORN (GRAIN AND SILAGE), FIELD CORN GROWN FOR SEED, AND POPCORN  
AT-PLANT APPLICATION**

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I.	FL. OZ.	
Corn Rootworm, Larvae Northern Southern Western	0.0046 / 1,000 linear feet of row	0.30 / 1,000 linear feet of row	<b>T-Band Treatment:</b> Over open seed furrow, make an application in a 5 to 7 inch T-band. The spray nozzle must be placed behind the planter shoe, ahead of the press wheel and centered over the row. The table below will assist you in determining the appropriate BIFENTHRIN 2EC AG requirements per acre. The specified dosage must be applied in no less than 3 gallons of finished spray per acre.
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 - 0.0046 / 1,000 linear feet of row	0.15 - 0.30 / 1,000 linear feet of row	<p>In order to mix BIFENTHRIN 2EC AG with water or fertilizer, follow the following steps:</p> <p>The spray tank should be filled half-way with water or liquid fertilizer. Mix in the correct amount of BIFENTHRIN 2EC AG. Add the remaining water or fertilizer. Mix thoroughly by means of agitation to create and maintain a consistent spray mixture.</p> <p>You may use applications of BIFENTHRIN 2EC AG by itself or in recommended tank mixtures. You may also use applications of BIFENTHRIN 2EC AG in conjunction with in furrow pop-up fertilizers. In order to ensure that the mixture will remain in solution, you should perform a jar compatibility test using the correct ratio of BIFENTHRIN 2EC AG and fertilizer. During mixing and application, constant agitation is necessary.</p> <p>Do not apply this product to soil where more than 30% cover of crop residue remains.</p> <p>Do not graze livestock in areas of application. Do not use treated crops for feed.</p> <p>If heavy rainfall is predicted, aerial or ground applications to corn are prohibited.</p> <p>Per season, use no more than 0.1 lb. A.I./A.</p> <p>PHI = 30 days.</p>
Spacing of Rows (inches)			40      38      36      30
Application Rate (pounds a.i per acre)			0.060      0.064      0.069      0.080
Volume of formulated product (ounces per acre)			3.9      4.1      4.4      5.12

**FIELD CORN (GRAIN AND SILAGE), FIELD CORN GROWN FOR SEED, AND POPCORN  
PRE-EMERGENCE (PRE) AND PRE-PLANT INCORPORATED (PPI) APPLICATIONS**

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I./A.	FL. OZ./A.	
Armyworm spp. Black Cutworm Seedcorn Maggot Stalkborer White Grub Wireworm	0.047-0.062 Pre-Plant Incorporated (PPI)	3-4 Pre- Plant Incorporat- ed (PPI)	This rate must be applied as Pre-Plant Incorporated and may be tank-mixed with Pre-Plant Incorporated herbicides. This product should be incorporated at or near, but no deeper than, the planned depth of seed planting and, at most, three inches below the surface.
Armyworm spp. Black Cutworm Stalkborer	0.040 Pre- emergence (PRE)	2.56 Pre- emergence (PRE)	This Pre-emergence rate may be tank-mixed and applied with Pre-emergence herbicides.

**FIELD CORN (GRAIN AND SILAGE), FIELD CORN GROWN FOR SEED, POPCORN  
FOLIAR APPLICATION**

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I./A.	FL. OZ./A.	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>When applying by air, use no less than 2- 5 gallons of finished spray per acre; when applying by ground equipment, use no less than 10 gallons per acre. In order to improve effectiveness of product when applying by air, particularly when initial populations exceed normal limits, you may use 5 gallons of finished spray per acre. If treatment is to be made by aerial application, 1 to 2 qts. of emulsified oil can be substituted for 1 to 2 qts. of water. You must thoroughly cover the treatment area in order to obtain the desired level of control.</p> <p><b>To Control Ear-Attacking Pests:</b> Apply product immediately prior to silking. Repeat as needed to obtain adequate control.</p> <p><b>European Corn Borer and Southwestern Corn Borer,:</b> Apply initial application at or shortly prior to egg hatching.</p> <p><b>For Control of Other Insect Pests:</b> Make application at the time insect pests first appear. Repeat as needed to obtain adequate control.</p> <p><b>For Control of Mites:</b> To control Banks Grass Mite, apply product at the time colonies initially form and prior to discoloration or leaf damage. Must be applied before dispersal above the bottom third of the plant occurs.</p> <p><b>For Twospotted Spider Mite and Carmine Mite Control:</b> Apply product at the time colonies initially form and prior to discoloration or leaf damage. Must be applied before wide-spread mite dispersal throughout the canopy occurs.</p> <p>It is necessary to use higher rates to control heavier initial populations and when corn is under stress of drought or heat conditions. It has been shown in the field that dimethoate at 0.5 lb active per acre in tank mixture has provided adequate control under similar conditions.</p> <p><b>For Mite Control in Texas, New Mexico, Oklahoma, and Arizona:</b> When applying by air, use no less than 5 gallons of finished spray per acre; when applying by ground equipment, use no less than 10 gallons per acre.</p> <p>Per season, use no more than 0.3 lb. A.I./A. for all applications including foliar applications and PRE &amp; PPI at plant applications.</p> <p>Do not graze livestock in areas of application. Do not use treated crops for feed.</p> <p>Do not use ultra low volume (ULV) applications.</p> <p>If heavy rainfall is predicted, aerial or ground applications to corn are prohibited.</p> <p>Do not use this product on corn in any coastal county.</p> <p>PHI = 30 days.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	

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**SWEET CORN (GRAIN AND SILAGE)**  
**SWEET CORN GROWN FOR SEED**  
**(AT PLANT USE)**

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I.	FL. OZ.	
Corn Rootworm, Larvae Northern Southern Western	0.0046 / 1,000 linear feet of row	0.30 / 1,000 linear feet of row	<p><b>T-Band Treatment:</b> Over open seed furrow, make an application in a 5 to 7 inch T-band. The spray nozzle must be placed behind the planter shoe, ahead of the press wheel and centered over the row. The table below will assist you in determining the appropriate BIFENTHRIN 2EC AG requirements per acre. The specified dosage must be applied in no less than 3 gallons of finished spray per acre.</p> <p>In order to mix BIFENTHRIN 2EC AG with water or fertilizer, follow the following steps:</p> <p>The spray tank should be filled half-way with water or liquid fertilizer. Mix in the correct amount of BIFENTHRIN 2EC AG. Add the remaining water or fertilizer. Mix thoroughly via agitation to create and maintain a uniform spray mixture.</p> <p>You may use applications of BIFENTHRIN 2EC AG by itself or in recommended tank mixtures. You may also use applications of BIFENTHRIN 2EC AG in conjunction with in furrow pop-up fertilizers. In order to ensure that the mixture will remain in solution, you should perform a jar compatibility test using the correct ratio of BIFENTHRIN 2EC AG and fertilizer. During mixing and application, constant agitation is necessary.</p> <p>Do not apply this product to soil where more than 30% cover of crop residue remains.</p> <p>Do not graze livestock in areas of application. Do not use treated crops for feed.</p> <p>If heavy rainfall is predicted, aerial or ground applications to corn are prohibited.</p> <p>Per season, use no more than 0.1 lb. A.I./A. in all at-plant applications.</p> <p>PHI = 30 days.</p>
Army Cutworm Cutworm Species Grubs Seed Corn Beetle Seed Corn Maggot True Armyworm or Armyworm Species Wireworm	0.0023 - 0.0046 pound active per 1,000 linear feet of row	0.15 - 0.30 fluid ounces per 1,000 linear feet of row	
Spacing of Rows (inches)			40      38      36      30
Applications Rate (pounds a.i per acre)			0.060      0.064      0.069      0.080
Formulated Product (ounces per acre)			3.9      4.1      4.4      5.12



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**SWEET CORN (GRAIN AND SILAGE)  
SWEET CORN GROWN FOR SEED  
(FOLIAR USE)**

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I./A.	FL. OZ./A.	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm Corn Rootworm Adults Cucumber Beetle Adult Cutworm Species European Corn Borer Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle Adult Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer Stinkbugs Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	0.033-0.10	2.1-6.4	<p>When applying by air, use no less than 2 gallons of finished spray per acre; when applying by ground equipment, use no less than 10 gallons per acre. If treatment is to be made by aerial application, 1 to 2 qts. of emulsified oil can be substituted for 1 to 2 qts. of water. You must thoroughly cover the treatment area in order to obtain the desired level of control.</p> <p><b>To Control Ear-Attacking Pests:</b> Apply product immediately prior to silking. Repeat as needed to obtain adequate control.</p> <p><b>European Corn Borer and Southwestern Corn Borer,:</b> To control corn borer, apply two applications. Make the first application at or shortly prior to egg hatching.</p> <p><b>For Control of Other Insect Pests:</b> Make application at the time insect pests first appear. Repeat as needed to obtain adequate control.</p> <p><b>For Control of Mites:</b> To control Banks Grass Mite, apply product at the time colonies initially form and prior to discoloration or leaf damage. Must be applied before dispersal above the bottom third of the plant occurs.</p> <p><b>For Twospotted Spider Mite and Carmine Mite Control:</b> Apply product at the time colonies initially form and prior to discoloration or leaf damage. Must be applied before wide-spread mite dispersal throughout the canopy occurs.</p>
Banks Grass Mite Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	<p>It is necessary to use higher rates to control heavier initial populations and when corn is under stress of drought or heat conditions.</p> <p>Per season, use no more than 0.2 lb. A.I./A.</p> <p>Do not graze livestock in areas of application. Do not use treated crops for feed within thirty (30) days of application</p> <p>Do not use ultra low volume (ULV) applications.</p> <p>If heavy rainfall is predicted, aerial or ground applications to corn are prohibited.</p> <p>Do not use this product on corn in any coastal county.</p> <p>PHI = 1 days.</p>

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## CUCURBITS

CROP	INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
		LB. A.I./A.	FL. OZ./A.	
Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd, edible (includes hyloan, 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 <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) 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>Citrullis</i> spp.)	Aphids Cutworm Cabbage Looper Leafhoppers Cucumber Beetles Squash Bugs Melonworm Pickworm Plant Bug Stink Bugs Rindworm Squash Vine Borer Armyworms Corn Earworm Tobacco Budworm Grasshopper	0.04-0.10	2.6-6.4	When applying by air, use no less than 5 gallons of finished spray per acre; when applying by ground equipment, use no less than 20 gallons per acre. If treatment is to be made by aerial application, 1 to 2 qts. of emulsified oil can be substituted for 1 to 2 qts. of water. You must thoroughly cover the treatment area in order to obtain the desired level of control.  Per season, use no more than 0.3 lb. A.I./A.  Following bloom, make a maximum of two applications of this product.  Do not make applications less than 7 days apart.  PHI = 3 days.
	Whitefly Banks Grass Mite Twospotted Spider Mite Carmin Mite Lygus spp.	0.08-0.10	5.12-6.4	

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## EGGPLANT

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I./A.	FL. OZ./A.	
Colorado Potato Beetle Corn Earworm European Corn Borer Flea Beetle Cabbage Looper Cucumber Beetle Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whitefly Armyworms Plant Bug Stink Bug Thrips	0.033-0.10	2.1-6.4	When applying by air, use no less than 2 gallons of finished spray per acre; when applying by ground equipment, use no less than 10 gallons per acre. If treatment is to be made by aerial application, 1 to 2 qts. of emulsified oil can be substituted for 1 to 2 qts. of water. You must thoroughly cover the treatment area in order to obtain the desired level of control.  Do not make applications less than 7 days apart.  Per season, use no more than 0.2 lb. A.I./A.  PHI = 3 days.
Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus spp.	0.08-0.10	5.12-6.4	

## GRAPES

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I./A.	FL. OZ./A.	
Eastern Grape Leafhopper Variegated Leafhopper Western Grape Leafhopper	0.05-0.10	3.2-6.4	When applying by air, use no less than 2 gallons of finished spray per acre; when applying by ground equipment, use no less than 10 gallons per acre. If treatment is to be made by aerial application, 1 to 2 qts. of emulsified oil can be substituted for 1 to 2 qts. of water. You must thoroughly cover the treatment area in order to obtain the desired level of control.
Black Vine Weevil Glasywinged Sharpshooter Twospotted Spider Mite	0.10	6.4	Higher rates are necessary if infestation is at a moderate to severe level.  Per season, use no more than 0.1 lb. A.I./A.  PHI = 30 days.

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## HOPS

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I./A.	FL. OZ./A.	
Aphids Armyworms Cutworms Leafrollers Loopers	0.06-0.1	3.8-6.4	Per application, use no more than 0.1 lb. A.I./A.  Per season, use no more than 0.3 lb. A.I./A.  Do not make applications less than 21 days apart.
Root Weevils	0.05-0.1	3.2-6.4	PHI = 14 days.
Twospotted spider mite	0.1	6.4	<b>Ground Application:</b> In order to obtain optimum control, uniform coverage is critical. When applying during early season, you should apply 100-150 gallons of spray per acre. When applying during late season, you should apply 200-250 gallons of spray per acre.  To control Root Weevil, direct spray of product to the base of the plant. Spray up the vine to a height of 3 feet. You should spray the soil surface to a width of 1.5 to 2 feet on either side of the plant.  <b>Aerial Application for control of twospotted spider mites in the late season:</b> Per application, apply no less than 0.1 lb. a.i./A. in no less than 10 gallons of formulated product.  Do not use ultra low volume (ULV) applications.

## LETTUCE, HEAD

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I./A.	FL. OZ./A.	
Aphids Armyworms Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug spp. Tobacco Budworm Whitefly	0.033-0.10	2.1-6.4	Always apply in enough water as necessary for insect control. When applying by air, use no less than 5 gallons of finished spray per acre; when applying by ground equipment, use no less than 15 gallons per acre. If treatment is to be made by aerial application, 1 to 2 qts. of emulsified oil can be substituted for 1 to 2 qts. of water. You must thoroughly cover the treatment area in order to obtain the desired level of control.  Do not make applications less than 7 days apart.  Per season, use no more than 0.5 lb. A.I./A.  PHI = 7 days.
Lygus, spp. Carmine Mite Twospotted Spider Mite	0.08-0.10	5.12-6.4	

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## PEARS

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I./A.	FL. OZ./A.	
Aphids Coddling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers Lygus spp. Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs Tarnished Plant Bugs	0.04-0.2	2.6-12.8	<p><b>Ground Application:</b> You may apply in dilute form in no less than 200 gallons of finished spray per acre. You may apply in concentrate form in no less than 50 gallons of finished spray per acre. You must thoroughly cover the treatment area in order to obtain the desired level of control.</p> <p><b>Aerial Application:</b> Use no less than 10 gallons of finished spray per acre</p> <p>Per season, use no more than 0.5 lb. A.I./A. After petal fall, use no more than 0.45 A.I./A.</p> <p>You may make applications of this product every 30 days in order to obtain desired control.</p> <p>Do not graze livestock in orchard areas subject to application. Do not feed cover crops from treated areas to livestock.</p> <p>PHI = 14 days.</p>
Twospotted Spider Mite Yellow Mite	0.06-0.2	8.8-12.8	
European Red Mite	0.08-0.2	5.12-12.8	

## PEPPERS, BELL AND NON-BELL

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I./A.	FL. OZ./A.	
Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	0.033-0.1	2.1-6.4	<p>Always apply in enough water as necessary for insect control. You may apply as often as necessary to maintain control. When applying by air, use no less than 2 gallons per acre. When applying by ground equipment, use no less than 10 gallons per acre.</p> <p>Do not make applications less than 7 days apart.</p> <p>Per season, use no more than 0.2 lb. A.I./A.</p> <p>PHI = 7 days.</p>
Lygus spp. Broad Mite Carmine Mite Twospotted Spider Mite	0.8-0.10	5.12-6.4	

## SPINACH

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I./A.	FL. OZ./A.	
Colorado Potato Beetle Tomato Pinworm Tomato Hornworm Armyworms Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Whitefly	0.033-0.10	2.1-6.4	<p><b>Whiteflies:</b> Up to a maximum of four foliar applications may be made by air or ground at a maximum of 0.1 lb. a.i./A.</p> <p><b>Fire Ants:</b> Up to a maximum of four foliar or at-planting soil applications may be made by air or ground at a maximum of 0.1 lb. a.i./A.</p> <p>When applying by air, use no less than 5-50 gallons of finished spray per acre; when applying by ground equipment, use no less than 10-50 gallons per acre</p> <p>Do not make applications less than 7 days apart.</p> <p>Per season, use no more than 0.4 lb. A.I./A.</p>
Broad Mite Banks Grass Mite Twospotted Spider Mite Carmin Mite Pacific Spider Mite Lygus spp. Fire Ants	0.08-0.10	5.12-6.4	<p>PHI = 40 days.</p>

## SUCCULENT PEAS AND BEANS

CROP	INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
		LB. A.I./A.	FL. OZ./A.	
Pea (Pisum spp.) Dwarf pea Edible-pod pea English pea Garden pea	Flea Beetle Grasshoppers Aster Leafhopper Leafhoppers	0.025-0.10	1.6-6.4	<p>When applying by air, use no less than 2 gallons of finished spray per acre; when applying by ground equipment, use no less than 10 gallons per acre. If treatment is to be made by aerial application, 1 to 2 qts. of emulsified oil can be substituted for 1 to 2 qts. of water.</p>

Green pea Snow pea Sugar snap pea Pigeon pea Bean (Phaseolus spp.): Broadbean (succulent) Lima bean (green) Runner bean Snap bean Wax bean Bean (Vigna spp.): Asparagus bean Blackeyed pea Chinese longbean Cowpeas Moth bean Southern pea Yardlong bean Jackbean Soybean (immature seed) Sword bean	Aphids Beet Armyworm Fall Armyworm Southern Armyworm Yellowstriped Armyworm Bean Leaf Beetle Cucumber Beetles Japanese Beetle (Adult) Sap Beetle Plant Bug Stink Bugs Tarnished Plant Bug Alfalfa Caterpillar Cloverworm European Corn Borer Cutworms Western Bean Cutworm Corn Earworm Loopers Corn Rootworm (Adult) Thrips Webworms Pea Weevil Pea Leaf Weevil Whitefly	0.033-0.10	2.1-6.4	You must thoroughly cover the treatment area in order to obtain the desired level of control.  Per season, use no more than 0.2 lb. A.I./A.  PHI = 3 days.
	Banks Grass Mite Twospotted Spider Mite Carmine Mite Lygus spp.	0.08-0.10	5.12-6.4	

## TOMATOES

INSECT	APPLICATION RATE		COMMENTS AND RESTRICTIONS
	LB. A.I./A.	FL. OZ./A.	
Aphids Armyworms – Including: Beat Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm Bean Leaf Beetle Cabbageworm	0.033-0.08	2.1-5.2	Always apply in enough water as necessary for insect control. When applying by ground equipment, use no less than 15 gallons of finished spray per acre. You must thoroughly cover the treatment area in order to obtain the desired level of control.  Do not make applications less than 10 days apart.  Per season, you may make up to a maximum of four

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Carmine Mite Cloverworm Corn Earworm Corn Rootworm Cucumber Beetles Cutworms Diamondback Moth European Corn Borer Flea Beetles Flea Hopper Grasshopper Japanese Beetle (Adult) Leafhoppers Loopers Lygus spp. Melonworm Pea Weevil Pea Leaf Weevil Pickleworm Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink Bug spp. Tobacco Budworm Tarnished Plant Bug Thrips Two Spotted Spider Mite Whitefly			applications of this product.  PHI = 1 day.
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#### Warranty and Disclaimer Statement

The directions for use of this product are believed to be adequate and must be followed carefully. However, it is impossible to eliminate all risks associated with the use of this product. Such risks may arise from weather conditions, soil factors, off-target movement, unconventional farming techniques, the presence of other materials, the manner of use or application, or other unknown factors, all of which are beyond the control of Arysta LifeScience North America, LLC ("Arysta"), and can cause crop injury, injury to non-target crops or plants, ineffectiveness of the product, or other unintended consequences. All such risks shall be assumed by the user or buyer. Arysta 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 described above, when used in accordance with the Directions for Use under normal conditions. This warranty does not extend to the use of this product contrary to label instructions or under conditions not reasonably foreseeable to Arysta, and is subject to the inherent risks described above.

**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ARYSTA DISCLAIMS ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, ARYSTA, MANUFACTURER, AND SELLER DISCLAIM AND SHALL NOT BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE, HANDLING, APPLICATION, STORAGE, OR DISPOSAL OF THIS PRODUCT OR FOR DAMAGES IN THE NATURE OF PENALTIES, AND THE USER AND BUYER WAIVE ANY RIGHT THAT THEY MAY HAVE TO SUCH DAMAGES. NO AGENT, REPRESENTATIVE OR EMPLOYEE OF ARYSTA IS AUTHORIZED TO MAKE ANY WARRANTY, GUARANTEE OR REPRESENTATION BEYOND THOSE CONTAINED HEREIN OR TO MODIFY THE WARRANTIES CONTAINED HEREIN.**



**TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE TOTAL LIABILITY OF ARYSTA, MANUFACTURER, AND SELLER, SHALL BE LIMITED TO THE PURCHASE PRICE PAID, OR AT ARYSTA'S ELECTION, THE REPLACEMENT OF THE PRODUCT.**

Ammo, Capture, Mustang – trademarks of FMC Corporation  
Ambush, Karate – trademarks of a Syngenta Group Company.  
Asana – trademark of E.I. duPont de Nemours & Company  
Baythroid – trademark of Bayer  
Danitol – trademark of Sumitomo Chemical Company, Ltd.  
Scout Xtra – trademark of Hoechst Schering Agrevo S.A.

**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 2EC AG**

Active Ingredient:

By Wt.

Bifenthrin\*

(2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2-

dimethylcyclopropanecarboxylate..... 25.1%

Other Ingredients\*\*..... 74.9%

TOTAL 100.0%

\*Cis isomers 97% minimum, trans isomers 3% maximum. \*\*Contains xylene range aromatic solvents. This product contains 2 pounds active ingredient 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.)

**FIRST AID**

If swallowed	Call a poison control center or doctor immediately for treatment advice. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give any liquid to the person. Do not give anything by mouth to an unconscious person.
If in eyes	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
If inhaled	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.
If on skin or clothing	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.

**NOTE TO PHYSICIAN**

Please note that this pesticide is a pyrethroid. If significant quantities of this pesticide have been swallowed, it is necessary to promptly eliminate the ingested quantities from the stomach and intestines. In order to assist in eliminating the ingested quantities and reduce absorption, certain substances, including alcohol, oils, and edible or digestible fats should not be ingested. Symptomatic and supportive treatment is recommended. Contains petroleum distillates. Vomiting may cause aspiration pneumonia.

**HOT LINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

**EMERGENCY NUMBERS:** Transportation or spill, call CHEMTREC 800-424-9300.  
Human health, 800-832-HELP (4357).  
Animal health, call ASPCA at 800-345-4735.

**See Additional Precautions and Use Directions On Attached Labeling****PRECAUTIONARY STATEMENTS****Hazards to Humans and Domestic Animals**

**WARNING.** May be fatal if swallowed. Causes substantial but temporary eye injury. Do not get in eyes or on clothing. Wear protective eyewear (goggles, face shield or safety glasses). Harmful if absorbed through skin or inhaled. Avoid breathing spray mist. Avoid contact with skin. Remove and wash contaminated clothing before reuse. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco.

**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.

**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 in intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Drift and run-off 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 to drift to blooming crops if bees are visiting the treatment area.

Do not use this product in geographic areas in which endangered species might be exposed. Consult with the local extension service in the county of use for precautions and application methods applicable to restrict exposure to endangered species.

**Physical/Chemical Hazards**

Do not use or store near heat or open flame.

**STORAGE AND DISPOSAL****Do not contaminate water, food, or feed by storage or disposal.**

**Pesticide Storage:** Open dumping is prohibited. Do not store this product near fertilizers, seeds, or other pesticides. Store this product at temperatures above 40°F (5°C). Under no circumstances should this product be subjected to freezing conditions. In the event of crystal formation, place pesticide in a room at ambient temperature 60°F until crystals dissolve. To redissolve solids, thoroughly agitate container occasionally.

Keep this product out of reach of children and animals at all times. Store this product in a cool, dry place in its original container only. Do not expose the product to excessive heat. Open the product container carefully and, after use, replace the container lid by thoroughly tightening the screw cap. Keep product containers tightly closed when not in use. Damaged or leaking containers should be discarded. Do not put concentrated or diluted product into containers that are used for food or drink.

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For safety and prevention of unauthorized use, all pesticides should be stored in locked facilities. To prevent accidental misuse, different pesticides should be stored in separate areas with enough distance between the pesticides to provide clear identification.

**To Contain a Spill:** If the product is a liquid, surround the spill with a barrier and then absorb liquid by covering it with cat litter, sand or a commercial clay. If the product is dry material, cover the spilled product to prevent the material from spreading. If the product container is damaged, place the entire container along with the product in a secure receptacle and clearly label the contents. For any type of product spill, avoid contact with the spilled product and evacuate the area, keeping all unprotected persons and animals at a safe distance.

**Pesticide Disposal:** Pesticide wastes are toxic. Do not contaminate water, food or feed by storage or disposal. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. Dispose of excess or waste pesticide by use according to label directions, or contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**Container Disposal:**

**Plastic Containers equal to or less than 5 gallons:** Nonrefillable 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.

**Plastic Containers greater than 5 gallons:** Nonrefillable 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. Fill the container  $\frac{1}{4}$  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 it back and forth several times. Turn the container over onto its other end and tip it 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. Offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Returnable/Refillable Sealed Container:** Return intact to point of purchase.

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 procedure two more times.

EPA Reg. No. 66330-336  
EPA Est. No. 51036-GA-001

Net Contents \_\_\_\_\_  
ADxxxxxx

Manufactured for:  
Arysta LifeScience North America LLC  
15401 Weston Parkway, Suite 150  
Cary, NC 27513

**BASE LABEL**

NOTIFICATION  
FEB 17 2009

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