



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

January 9, 2020

Beth Anderson  
Senior Regulatory Manager  
Atticus  
5000 CentreGreen Way  
Suite 100  
Cary, NC 27513

Subject: PRIA Label and CSF Amendment – Amendment to the currently approved Basic CSF and addition of Alternate 1 and Alternate 2 CSFs with label changes  
Product Name: A110.03  
EPA Registration Number: 91234-117  
Application Date: July 5, 2019  
Decision Number: 552989

Dear Ms. Anderson:

The amended label and CSFs referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, are acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Please note that the record for this product currently contains the following CSFs:

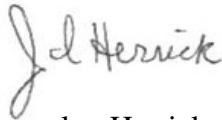
- Basic CSF dated 01/06/2020
- Alternate CSF 1 dated 06/10/2019
- Alternate CSF 2 dated 01/06/2020

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 the Federal Insecticide Fungicide and Rodenticide Act 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) list 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.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. If you have any questions, please contact Anna Briley by phone at (703) 347-0262, or via email at [briley.anna-katrina@epa.gov](mailto:briley.anna-katrina@epa.gov).

Sincerely,

A handwritten signature in cursive script that reads "J. Herrick".

Jacquelyn Herrick, Product Manager 03  
Invertebrate & Vertebrate Branch 1  
Registration Division (7505P)  
Office of Pesticide Programs

Enclosure

**ACCEPTED**

01/09/2020

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 91234-117

[Note to reviewer: [Text] in brackets denotes optional or explanatory language  
[Note to reviewer: {Text} in braces denotes where in the final label text will appear  
{BOOKLET FRONT PANEL LANGUAGE}]

**BIFENTHRIN    GROUP 3A    INSECTICIDE**

**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 those uses covered by the certified applicator's certification.

**A110.03 [™]**

[Alternate Brand Name: Batallion 10 WSP]

Contains bifenthrin, the active ingredient used in Bifenture® 10DF Insecticide/Miticide.

<b>ACTIVE INGREDIENT:</b>	<b>(% by weight)</b>
Bifenthrin* (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2, 2-dimethylcyclopropanecarboxylate .....	10.0%
<b>OTHER INGREDIENTS:</b> .....	<u>90.0%</u>
<b>TOTAL</b> .....	100.0%

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

**KEEP OUT OF REACH OF CHILDREN  
CAUTION/PRECAUCIÓN**

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>	
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</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 or doctor for treatment advice.</li> </ul>
<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 systematic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.	
<b>HOT LINE NUMBER</b>	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at <b>1-844-685-9173</b> for emergency medical treatment information.	

**For Chemical Emergency:**

**Spill, Leak, Fire, Exposure, or Accident,  
Call CHEMTREC Day or Night  
Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)**

See inside label booklet for First Aid, Precautionary Statements and Directions for Use.

**[A110.03™]** is not manufactured, or distributed by United Phosphorus Inc., seller of Bifenture® 10DF  
Insecticide/Miticide.

**EPA Reg. No.: 91234-117**

**EPA Est. No.:**

**20190425a**

Manufactured for:  
**Atticus, LLC**  
5000 CentreGreen Way, Suite 100  
Cary, NC 27513

## {LANGUAGE INSIDE BOOKLET}

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

#### CAUTION

Harmful if swallowed or 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
- Waterproof gloves
- Shoes plus socks

#### Mixers and Loaders must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves
- 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/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

[Please note the following language is ONLY to be printed when this product is formulated for WSB packaging:

#### ENGINEERING CONTROLS STATEMENT

Water soluble packets, when used correctly, qualify as a closed mixing/loading system under the Worker Protection Standard [40 CFR 170.607 (d)]. Mixers and loaders handling this product while it is enclosed in intact water-soluble packets may elect to wear reduced PPE of long-sleeved shirt, long pants, shoes, socks. When reduced PPE is worn because a closed system is being used, handlers must be provided all PPE specified above for "applicators and other handlers" and have such PPE immediately available for use in an emergency, such as a spill or equipment breakdown.]

#### 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 wash waters.

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 foraging the treatment area.

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.

### **PHYSICAL OR CHEMICAL HAZARDS**

Do not mix or allow contact with oxidizing agents, as a hazardous chemical reaction may occur.

## **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 through any type of irrigation system.

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.** Some insects are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities or universities for details.

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

### **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 intervals. 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
- waterproof gloves

- shoes plus socks.

**PRODUCT INSTRUCTIONS**

Unless otherwise directed by registered supplemental labeling, follow the Directions for Use in each crop group section.

The product in this outer package is a wettable powder formulation of the insecticide bifenthrin packaged in a translucent water-soluble bag. Do not allow the inner bag to become wet before adding it to the spray or nurse tank. Do not handle the inner bag with wet hands or wet gloves. Avoid rough handling which may cause breakage. Do not store at temperatures below 32°F (0°C). Allow to warm above 50°F (10°C) before use. Cooler water temperatures increase the time needed for the inner bag to dissolve completely.

**A110.03** insecticide must be diluted with water before spray application. Do not use nozzle screens (e.g. strainers) greater than 50 mesh size. Determine the number of water-soluble bag(s) to make up necessary spray suspension.

Calculate the number of bags needed for the recommended rate and number of acres to be treated by using the following equation:

$$\frac{\text{Rate for Pest (Active/Acre)} \times \text{Number of Acres to be Treated}}{0.05 \text{ (amount of ai in each bag)}} = \text{Number of } \mathbf{A110.03} \text{ Water Soluble Bags to use for acres to be treated}$$

**Do not break bags.** When the equation equals less than a whole number of bags, use the next higher whole number of bags.

Fill the spray tank 1/2 full with water. Add required amount of **A110.03**. Open the outer wrapper of this product and immediately dump required number of water-soluble bags into the spray tank. Allow the bag(s) to dissolve completely. Start agitation in the tank. Air agitation is not recommended. Mix thoroughly to fully disperse and suspend the wettable powder. Fill the spray tank with the required amount of water. Maintain agitation during storage in nurse or supply tank and during application.

Mix as needed; do not store diluted material.

**ROTATIONAL CROPS**

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

**[WATER SOLUBLE PACKAGING**

**Multiple Packaging:** This bag contains multiple water-soluble packets of this product. Do not handle the packets with wet gloves or allow the packets to become wet prior to addition to spray tank. Do not break open packets. Refer to the Tables of Equivalents to calculate the number of packets to use. If all are not used, close and reseal outer container to protect remaining packet(s).

**Single Packaging:** This bag contains one water soluble packet of this product. Do not handle the packet with wet gloves or allow the packet to become wet prior to addition to spray tank. Do not break open packet. Refer to the Tables of Equivalents to calculate the number of packets to use. Open outer bag and drop the unopened inner packet

of this product into spray tank.

**Preparation of Spray Solution:** Do not add any liquid fertilizers, micronutrients or adjuvants to the spray solution until after the packet and its contents have completely dissolved. Water soluble packet(s) should completely dissolve in approximately five minutes. Dissolution rate may be slowed by cold water, lack of agitation or water containing high concentrations of boron or sulfur.

#### **INSTRUCTIONS FOR USING WATER SOLUBLE PACKAGES DIRECTLY INTO SPRAY TANKS**

Water Soluble Packages (WSPs) are designed to dissolve in water. Agitation may be used, if necessary, to help dissolve the WSP. Failure to follow handling and mixing instructions can increase your exposure to the pesticide products in WSPs. WSPs, when used properly, qualify as a closed mixing/loading system under the Agricultural Worker Protection Standard [40 CFR 170.607 (d)].

#### **Handling Instructions:**

Follow these steps when handling pesticide products in WSPs.

1. Mix in spray tank only.
2. Handle WSP(s) in a manner that protects package from breakage and/or unintended release of contents. If package is broken, put on PPE required for clean-up and then continue with mixing instructions.
3. Keep the WSP(s) in outer packaging until just before use.
4. Keep the WSP dry prior to adding to the spray tank.
5. Handle with dry gloves and according to the label instructions for PPE.
6. Keep WSP intact. Do not cut or puncture WSP.
7. Reseal the WSP outer packaging to protect any unused WSP(s).

#### **Mixing Instructions:**

Follow the steps below when mixing this product, including if tank mixed with other pesticide products. If being tank mixed, the mixing directions 1 through 9 below take precedence over the mixing directions of the other tank mix products. WSPs may, in some cases, be mixed with other pesticide product so long as the directions for use of all mixed products do not conflict. Do not tank mix this product with products that prohibit tank mixing or have conflicting mixing directions.

1. If a basket or strainer is present in the tank hatch, remove prior to adding the WSP to the tank.
2. Fill tank with water to approximately one-third to one-half of the desired final volume of spray.
3. Stop adding water and stop any agitation.
4. Place intact/unopened WSP(s) into the tank.
5. Do not spray water from a hose or fill pipe to break or dissolve the WSP(s).
6. Start mechanical and recirculation agitation from the bottom of tank without using any overhead recirculation, if possible. If overhead recirculation cannot be turned off, close the hatch before starting agitation.
7. Dissolving the WSP(s) may take up to 5 minutes or longer, depending on water temperature, water hardness and intensity of agitation.
8. Stop agitation before tank lid is opened.
9. Open the lid to the tank, exercising caution to avoid contact with dusts or spray mix, to verify that the WSPs have fully dissolved and the contents have been thoroughly mixed into the solution.
10. Do not add other allowed products or complete filling the tank until the bags have fully dissolved and pesticide is thoroughly mixed.
11. Once the WSP have fully dissolved and any other products have been added to the tank, resume filling the tank with water to the desired level, close the tank lid, and resume agitation.
12. Use the spray solution when mixing is complete.
13. Maintain agitation of the diluted pesticide mix during transport and application.



It is unlawful to use any registered pesticide, including WSPs, in a manner inconsistent with its label]

#### **TANK-MIXTURE**

**A110.03** Insecticide may be applied in tank mixtures with other products approved for use on registered crops. Observe all restrictions and precautions which appear on the labels of these products. Test for compatibility of products before mixing using a standard jar test or other similar method.

#### **BUFFER ZONES**

##### **Vegetative Buffer Strip**

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

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

For guidance, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. USDA, NRCS. 2000. Fort Worth, Texas. 21 pp. <http://www.in.csusda/v/technical/agronom/newconbuf.pdf>.

##### **Buffer Zone for Ground Application (groundboom, overhead chemigation, or airblast)**

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

##### **Buffer Zone for ULV Aerial Application**

Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, permanent streams, marshes, natural ponds, estuaries, and commercial fish ponds).

##### **Buffer Zone for Non-ULV Aerial Application**

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

##### **Additional Requirements for Ground Applications**

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

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

For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

#### **SPRAY DRIFT REQUIREMENTS**

##### **Wind Direction and Speed**

Only apply this product if the wind direction favors on-target deposition. Do not apply when the wind velocity exceeds 15 mph.

##### **Temperature Inversions**

Do not make aerial or ground applications during temperature inversions. Inversions are characterized by stable air and increasing temperatures with height above the ground. Mist or fog may indicate the presence of an inversion in humid areas. The applicator may detect the presence of an inversion by producing smoke and observing a smoke layer near the ground surface.

### Droplet Size

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

Use the largest droplet size consistent with good pest control. Formation of very small droplets may be minimized by appropriate nozzle selection, by orienting nozzles away from the air stream as much as possible, and by avoiding excessive spray boom pressure.

### Additional Requirements for Ground Applications

Wind speed must be measured adjacent to the application site on the upwind side, immediately prior to application. For ground boom applications, apply using a nozzle height of no more than 4 feet above the ground or crop canopy. For airblast applications, turn off outward pointing nozzles at row ends and when spraying the outer two rows. To minimize spray loss over the top in orchard applications, spray must be directed into the canopy.

### Additional Requirements for Aerial Applications

The spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of the wing span or 80% rotor diameter. Flight speed and nozzle orientation must be considered in determining droplet size.

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

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

## APPLICATION INSTRUCTIONS

Rate of application is variable according to pest pressure, timing of sprays, and field scouting. Use lower rates under light to moderate infestation; higher rates under heavy insect pressure and for mite control. Arid climates generally require higher rates.

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.

### ARTICHOKE

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Artichoke Plume Moth Cribrate Weevil	16.0 (0.10)	Apply when pest populations reach damaging thresholds and repeat as necessary to maintain control, but not more often than 15-day intervals. <b>Ground Application:</b> Apply in a minimum of 75 gallons per acre.	Do not apply more than 16 oz product (0.10 lb ai)/A between bud formation and harvest of an individual fruit.  Do not apply more than 80 oz product (0.5 lb ai) per acre per season.

	<p><b>Air Application:</b> Apply in a minimum of 10 gallons per acre.</p> <p>[1 bag 0.05 lb ai 8 oz formulated product]</p>	Preharvest interval: 5 days.
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**BRASSICAS**

Broccoli, Chinese Broccoli, (gailon, white flowering broccoli), Brussels Sprouts, Cauliflower, Cavalo broccolo, Kohlrabi, Cabbage, Chinese Cabbage (napa), Chinese Mustard Cabbage (gai choy)

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Grubs Maggots Wireworms	8.0 to 16.0 (0.05 - 0.10)	<b>Planting Time Use:</b> For Wireworms, maggots or grubs, apply in-furrow with the seed or transplant.	Do not apply more than 32 oz product (0.2 lb ai) per acre per season, including at-plant applications.  Do not make applications less than 7 days apart.  Do not make more than 5 applications after bloom.  Preharvest interval: 7 days.
Aphids Armyworms Crickets Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Ground Beetles Imported Cabbageworm Leafhoppers Loopers Tobacco Budworm Saltmarsh Caterpillar Stink Bugs Thrips Wireworm (Adults)	5.3 to 16.0 (0.033 - 0.10)	<p><b>Foliar Use:</b> Apply in a minimum of 5 gallons per acre by air or in a minimum of 20 gallons per acre with ground equipment. Thorough coverage is essential to achieve control.</p> <p>[1 bag 0.05 lb ai 8 oz formulated product]</p>	

Banks Grass Mite	12.8 to 16.0 (0.08 - 0.10)	
Carmine Mite		
<i>Lygus</i> Spp.		
Pacific Spider Mite		
Twospotted Spider Mite		
Whiteflies		

**BUSHBERRIES**

Blueberry (highbush and lowbush), Currant, Elderberry, Gooseberry, Huckleberry

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Aphids Blueberry Maggot Fruitworms Leafhoppers Lecanium Scale (crawlers) Obliquebanded Leafroller Plum Curculio Redbanded Leafroller Spanworm Thrips Drosophila spp. (adults & larvae, including Spotted Winged Drosophila) Variegated Leafroller	5.3 to 16.0 (0.033 to 0.10)	Apply in at least 2 gallons per acre by air or in at least 10 gallons per acre with ground equipment. Thorough coverage is essential to achieve control.  [1 bag 0.05 lb ai 8 oz formulated product]	Do not apply more than 80 oz product (0.5 lb ai) per acre per season.  Do not make applications less than 7 days apart.  Preharvest interval: 1 day.
Banks Grass Mite Carmine Mite <i>Lygus</i> spp. Pacific Spider Mite Twospotted Spider Mite	12.8 to 16.0 (0.08 to 0.10)		

**CANE BERRIES**

Including: Blackberries, Bingleberries, Dewberries, Lowberries, Marionberries, Olallieberries, Youngberries, Loganberries, Raspberries

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions

Black Vine Weevil Leafrollers Orange Tortrix Root Weevils Thrips  Vinegar Flies (adults) Drosophila spp. (Including Spotted Winged Drosophila) Lygus spp.	8.0 to 16.0 (0.05 to 0.1)	Apply by air or ground equipment using sufficient water to obtain full coverage of the canopy. Use a minimum of 10 gallons per acre by air and 50 gallons per acre by ground.  One application may be made pre-bloom and a second application may be made post bloom.  For Crown Borer: apply 16 oz product (0.1 lb ai) per acre, post-harvest (fall) or pre-bloom (spring), as a drench application directed at the crown of plants in a minimum of 200 gallons water/acre. Greater efficacy is observed at higher water gallonages (up to 400 gallons/A) or in an application prior to a significant rainfall event. Do not make both pre-bloom foliar and pre-bloom drench applications.  [1 bag 0.05 lb ai 8 oz formulated product]	Do not apply more than 32 oz product (0.2 lb ai) per acre per season.  Preharvest interval: 3 days.
Carmine Mite Raspberry Crown Borer Twospotted Spider Mite	16.0 (0.1)		

**CANOLA, CRAMBE, RAPESEED**

<b>Pest</b>	<b>Rate oz/A (lb ai/A)</b>	<b>Instructions</b>	<b>Restrictions</b>
Aphids Armyworms Cutworms Diamondback Moth  Flea Beetle Flea Hopper Grasshopper Loopers Other Lepidopterous Larvae  Plant Bug Stink Bugs Seedpod Weevil Thrips	5.3 to 6.4 (0.033 - 0.04)	Apply in a minimum of 2 gallons per acre by air or in a minimum of 10 gallons per acre with ground equipment.  Thorough coverage is essential to achieve control.  [1 bag 0.05 lb ai 8 oz formulated product]	Do not apply more than 12.8 oz product (0.08 lb ai) per acre per season.  Do not make applications less than 14 days apart.  Preharvest interval: 35 days.

**CITRUS**

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
<p>Blue-Green CitrusRoot Weevil</p> <p>Brown Leaf Notcher</p> <p>DiaprepesR ootWeevil</p> <p>Fuller Rose Beetle</p> <p>GreenCitrus RootWeevil</p> <p>Little Leaf Notcher</p> <p>Southern Blue- Green CitrusWeevil</p>	<p>40.0 to 80.0 (0.25 to 0.50)</p>	<p>Apply <b>A110.03</b> by ground equipment to bare soil beneath citrus trees. <b>A110.03</b> must be uniformly applied from the trunk to the drip line of tree; apply in a minimum of 40 gallons of dilute spray per acre. Greater spray volume will insure greater uniformity of coverage. A pre- and post-application irrigation may aid in the uniformity of coverage as well.</p> <p><b>A110.03</b> protects citrus tree roots from Diaprepes and other citrus root weevils feeding by forming a barrier which provides contact activity on newly hatched larvae (neonates). As eggs hatch in new foliage, neonates fall to the soil surface BELOW the tree and come in contact with <b>A110.03</b> as they attempt to burrow into the root zone.</p> <p>Minimize disturbance of the soil beneath trees.</p> <p>Timing of <b>A110.03</b> applications is critical. Current information suggests that peak emergence of adult Diaprepes Weevil varies by citrus growing region and these emergence peaks can be dramatically affected by environmental factors, such as soil moisture. Typically, two peaks are observed for Diaprepes, first in spring then late summer or early fall. Southern Blue-Green and Blue-Green Citrus Weevils and Fuller Rose Beetle typically exhibit a single emergence peak in the spring. Brown and Little Leaf Notchers typically exhibit three emergence peaks, spring, summer and fall. Since emergence varies seasonally and by location, timing of <b>A110.03</b> application can be accurately forecast by observing adults. Adults are most active early morning and late afternoon; numbers can be estimated by trapping throughout spring and summer (emergence periods). Egg laying will occur for 8 to 10 weeks following adult emergence from the soil; larval invasion of the soil will begin 2-3 weeks following adult emergence. It is critical to have the <b>A110.03</b> soil barrier in place prior to drop of the neonates.</p> <p><b>A110.03</b> is one of several effective tools in an integrated pest management program for Citrus Root Weevils. Apply in conjunction with good cultural practices, biological control of larvae and foliar control of adults. Consult local university extension personnel for current information to protect citrus trees from Citrus Root Weevils and other pests.</p> <p><b>Additional Instructions:</b></p>	<p>Do not apply through irrigation systems.</p> <p>Do not allow any application of <b>A110.03</b> to contact fruit or foliage.</p> <p>Do not apply more than a total of 80 oz product (0.5 lb ai ) per acre per year.</p> <p>Ground application only. Do not apply by air.</p> <p>Preharvest interval: 1 day.</p>
<p>Asian Cockroach Fire Ants</p>	<p>16.0 to 40.0 (0.1 to 0.25)</p>	<p>Apply to individual citrus resets, when not in solid planted rows, using handgun or shielded sprayer.</p> <p>Peak emergence of Diaprepes root weevil generally occurs in the spring. Depending on weather conditions, a minor emergence of Diaprepes root weevil may also occur in the fall.</p> <p>If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, use 80 oz product (0.50 lb ai) to obtain the longest residual management of Diaprepes root weevil.</p>	

	<p>If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 40 oz product (0.25 lb ai) can be applied early season and 0.25 pound active can be applied later in the season.</p> <p>Apply in a minimum of 40 gallons of finished spray per acre.</p>	
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**COTTON**

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	3.2 to 16.0 (0.02 to 0.10)	This product may be applied in water. Apply in a minimum of 10 gallons per acre with ground equipment or 2 gallons per acre by air.	Do not apply more than 80 oz product (0.5 lb ai) per acre per season.  Do not graze livestock in treated areas or cut treated crops for feed.  Do not make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season.
Boll Weevil Bollworm  Cabbage Looper  Cotton Aphid  Cotton Fleahopper  Cotton Leafperforator  Cutworms  Fall Armyworm  Plant Bugs  Saltmarsh Caterpillar	6.4 to 16.0 (0.04 to 0.10)	To control Boll Weevil: apply at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.  To control Mites and Aphids: apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.  [1 bag 0.05 lb ai 8 oz formulated product]	Preharvest interval: 14 days.

Southern Garden Leafhopper			
Stink Bugs			
Tobacco Budworm			
Beet Armyworm	9.6 to 16.0 (0.06 to 0.10)		
Carmine Spider Mite			
<i>Lygus</i> spp.			
Pink Bollworm			
Twospotted Spider Mite			
Whiteflies			

**CUCURBITS**

Chayote (fruit); Chinese waxgourd (Chinese preserving melon); Citron melon; Cucumber; Gherkin; Gourd, edible (includes hyotan, cucuzza); (*Luffa* spp.) (includes hechima, Chinese okra); (*Momordica* spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber); Muskmelon (hybrids and/or cultivars of *Cucumis melo*) (includes true cantaloupe, cantaloupe, casaba, creshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon); Pumpkin (*Cucurbita* spp.); Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); Squash,



winter (includes butternut squash, calabaza, hubbard squash (*C. mixta*; *C. pepo*) includes acorn squash, spaghetti squash); Watermelon (includes hybrids and/or varieties of *Citrullus* spp.)

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Wireworms Maggots Grubs	8.0 to 16.0 (0.05 - 0.10)	<b>Planting Time Use:</b> For Wireworms, maggots or grubs, apply in-furrow with the seed or transplant.	Do not apply more than 48 oz product (0.3 lb ai) per acre per season.
Aphids Armyworms Cabbage Looper Corn Earworm Cucumber Beetles Cutworms Grasshopper Leafhoppers Plant Bug Pickleworm Melonworm Rindworm Squash Bugs Squash Vine Borer Stink Bugs Tobacco Budworm	8.0 to 16.0 (0.05 - 0.10)	<b>Foliar Use:</b> Apply in a minimum of 5 gallons per acre by air or in a minimum of 20 gallons per acre with ground equipment. Thorough coverage is essential to achieve control.  [1 bag 0.05 lb ai 8 oz formulated product]	Do not make more than two applications after bloom. Do not make applications less than 7 days apart. Preharvest interval: 3 days.
Banks Grass Mite Carmin Mite <i>Lygus</i> Spp. Twospotted Spider Mite Whiteflies	12.8 to 16.0 (0.08 - 0.10)		

**FRUITING VEGETABLES**

Eggplant, Pepper (Bell & Non-Bell), Groundcherry, Pepino

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions

Armyworms Cabbage Looper Colorado Potato Beetle Corn Earworm Cucumber Beetle Cutworms European Corn Borer Flea Beetle Leafminers Loopers Pepper Weevil Plant Bug Stink Bug Thrips Tomato Pinworm Tomato Hornworm Vegetable Leafminer Whiteflies	5.3 to 12.8 (0.033 to 0.08)	Apply in a minimum of 2 gallons per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.  [1 bag 0.05 lb ai 8 oz formulated product]	Do not make applications less than 7 days apart.  Do not apply more than 32 oz product (0.2 lb ai) per acre per season.  Preharvest interval: 7 days.
Banks Grass Mite Broad Mite Carmin Mite <i>Lygus</i> Spp. Pacific Spider Mite Two Spotted Spider Mite	12.8 (0.08)		

**FRUITING VEGETABLES: Tomato, Tomatillo**

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Grubs Maggots Wireworms	8.0 to 12.8 (0.05 to 0.08)	Apply in-furrow with the seed or transplant.	Do not make applications less than 10 days apart. Do not apply more than 32

<p>Aphids  Armyworms Including: Beet Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm  Bean Leaf Beetle  Cabbageworm    Carmin Mite  Cloverworm  Corn Earworm  Corn Rootworm  Cucumber Beetles  Cutworms  Diamondback Moth  European Corn Borer  Flea Beetles  Flea Hopper  Grasshopper  Japanese Beetle (Adult)  Leafhoppers  Loopers  <i>Lygus</i> Spp.  Melonworm  Pea Weevil  Pea Leaf Weevil  Pickleworm  Plant Bug  Rindworm  Saltmarsh Caterpillar  Sap Beetle  Seedpod Weevil  Squash Bugs  Stink Bug Spp.  Tobacco Budworm  Tarnished Plant Bug  Thrips  Tomato Hornworms  Two Spotted Spider Mite  Whiteflies</p>	<p>5.3 to 12.8  (0.033 to 0.08)</p>	<p>Apply as necessary for insect control using a minimum of 15 gallons per acre with ground. Thorough coverage is essential to achieve control.  A maximum of 4 applications may be applied per season.    [1 bag 0.05 lb ai 8 oz formulated product]</p>	<p>oz. product (0.2 lb ai) per acre per season.    Preharvest interval: 1 day.</p>
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## GRAPES

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Cutworms Eastern Grape Leafhopper Grape Berry Moth Japanese Beetles Adults Variegated Leafhopper Western Grape Leafhopper	8.0 to 16.0 (0.05 -0.10)	Apply in a minimum of 10 gallons by air or in a minimum of 25 gallons with ground equipment.  Thorough coverage is essential to achieve control.  When pest pressure is moderate to severe, use higher rate.	Do not apply more than 16 oz product (0.10 lb ai) per acre per season.  Preharvest interval: 30 days.
Black Vine Weevil Glassywinged Sharpshooter Twospotted Spider Mite	16.0 (0.10)	[1 bag 0.05 lb ai 8 oz formulated product]	

## HOPS

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Aphids Armyworms Cutworms Leafrollers Loopers	9.6 to 16.0 (0.06 to 0.10)	<p><b>Ground Application:</b> For best results, full coverage is essential. For early season applications use 100-150 gallons per acre. For late season applications use 200- 250 gallons per acre.</p> <p>For Root Weevil control, make a directed spray to the base of the plant. Spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant.</p>	<p>Do not apply more than 16 oz product (0.10 lb ai) per acre per application.</p> <p>Do not apply more than 48 oz product (0.3 lb ai) per acre per season.</p> <p>A spray interval of 21 days between applications must be maintained.</p> <p>Preharvest interval: 14 days.</p>
Root Weevils	8.0 to 16.0 (0.05 to 0.10)		
Twospotted Spider Mite	16.0 (0.10)		

**LEAFY PETIOLE VEGETABLES**

Celery, Cardoon, Chinese celery, Celtuce, Florence fennel, Rhubarb, Swiss chard

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Aphids Armyworms Crickets Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Ground Beetles Imported Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs Thrips Tobacco Budworm Whiteflies Wireworm (Adults)	5.3 to 16.0 (0.033 to 0.10)	Apply in at least 2 gallons per acre by air or at least 10 gallons per acre with ground equipment.  Thorough coverage is essential to achieve control.  [1 bag 0.05 lb ai 8 oz formulated product]	Do not apply more than 80 oz product (0.5 lb ai) per acre per season.  Do not make applications less than 7 days apart.  Preharvest interval: 7 days.
Banks Grass Mite Carmine Mite <i>Lygus</i> spp. Pacific Spider Mite Twospotted Spider Mite	12.8 to 16.0 (0.08 to 0.10)		

**LETTUCE, HEAD**

<b>Pest</b>	<b>Rate oz/A (lb ai/A)</b>	<b>Instructions</b>	<b>Restrictions</b>
Aphids Armyworms Corn Earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bug Spp. Tobacco Budworm	5.3 to 16.0 (0.033 -0.10)	Apply as necessary for insect control using a minimum of 20 gallons per acre with ground equipment and 5 gallons per acre by air.  Thorough coverage is essential to achieve control.  [1 bag 0.05 lb ai 8 oz formulated product]	Do not make applications less than 7 days apart.  Do not apply more than 80 oz product (0.5 lb ai) per acre per season.  Preharvest interval: 7 days.
Carmine Mite <i>Lygus</i> Spp. Two Spotted Spider Mite Whiteflies	12.8 to 16.0 (0.08 - 0.10)		

**MAYHAW**

<b>Pest</b>	<b>Rate oz/A (lb ai/A)</b>	<b>Instructions</b>	<b>Restrictions</b>
Plum Curculio	12.8 to 16.0 (0.08 to 0.10)	Make foliar applications in at least 28 gallons per acre.  [1 bag 0.05 lb ai 8 oz formulated product]	Do not apply more than once every 7 days. Do not apply more than 32 oz product (0.2 lb ai) per acre per season.  Preharvest interval: 30 days.

**PEANUT**

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Beet Armyworm Corn Earworm Cutworm Spp. Fall Armyworm Grasshoppers Green Cloverworm Leafhoppers Lesser Cornstalk Borer Loopers Redneck Peanut Worm Southern Armyworm Southern Corn Rootworm Stink Bugs Threecornered Alfalfa Hopper Velvetbean Caterpillar Yellowstriped Armyworm	5.3 to 16.0 (0.033 to 0.10)	Make foliar applications in at least 10 gallons per acre at the rate of 16.0 oz product (0.10 lb ai) per acre at a minimum of 14-day intervals.  [1 bag 0.05 lb ai 8 oz formulated product]	Do not apply more than 80 oz product (0.5 lb ai) per acre per season.  Preharvest interval: 14 days.
Aphids Spider Mites Thrips Whiteflies	5.12 to 16.0  (0.08 to 0.10)		

**PEARS**

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Aphids Codling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers <i>Lygus</i> Spp. Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs Tarnished Plant Bugs	6.4 to 32.0 (0.04 to 0.2)	<p><b>Ground Application:</b> Apply as a dilute (minimum of 200 gallons per acre) or concentrate (minimum of 50 gallons per acre) spray in sufficient water to provide thorough coverage.</p> <p><b>Air Application:</b> Apply in a minimum of 10 gallons per acre by air.</p> <p>Apply as needed to maintain control using a minimum of 30-day spray interval.</p> <p>[1 bag 0.05 lb ai 8 oz formulated product]</p>	<p>Do not apply more than 80 oz product (0.5 pound ai) per acre per season with no more than 0.45 pound ai per acre applied after petal fall.</p> <p>Do not graze livestock in treated orchards or cut treated cover crops for feed.</p> <p>Preharvest interval: 14 days.</p>
Yellow Spider Mite	9.6 to 32.0 (0.06 to 0.2)		
European Red Mite Twospotted Spider Mite	12.8 to 32.0 (0.08 to 0.2)		



**ROOT CROPS (EXCEPT SUGARBEETS)**

Crops	Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Burdock, edible Carrot Celeriac Chervil, turnip rooted Chicory Ginseng Horseradish Parsley, turnip rooted Parsnip Radish Radish, oriental Rutabaga Salsify Salsify, black Salsify, Spanish Skirret Turnip	Aphids Beet Armyworm Celery Leaf-tier Corn Earworm Cross-striped Cabbageworm Cutworms Diamondback Moth European Corn Borer Fall Armyworm Fire Ants Green Cloverworm Hornworms Imported Cabbageworm Loopers Southern Armyworm Tobacco Budworm Velvetbean Caterpillar Yellowstriped Armyworm Spider Mites Whiteflies	12.8 to 16.0 (0.08 to 0.10)	Make foliar applications in at least 25 gallons per acre.  [1 bag 0.05 lb ai 8 oz formulated product]	Apply no more than once every 7 days.  Do not apply more than 80 oz product (0.5 lb ai) per acre per season.  Preharvest interval: 21 days.
Garden Beet	Aphids Fire Ants Flea Beetles Lepidopterous Larvae Spider Mites Whitefly	12.8 to 16.0 (0.08 to 0.10)	Make foliar applications in at least 25 gallons per acre.	Apply no more than once every 7 days.  Do not apply more than 64 oz product (0.4 lb ai) per acre per season.  Preharvest interval: 1 day.

**SOYBEAN**

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Soybean Aphid	5.3 to 16.0 (0.033 to 0.10)	Make foliar applications in at least 10 gallons per acre at the rate of 16 oz product (0.10 lb ai) per acre at a minimum of 30-day intervals.  [1 bag 0.05 lb ai 8 oz formulated product]	Do not apply more than 48 oz product (0.3 lb ai) per acre per season.  Preharvest interval: 18 days.
Spider Mites	12.8 to 16.0 (0.08 to 0.10)		

**SPINACH**

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Armyworms Colorado Potato Beetle Corn Earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips Tomato Pinworm Tomato Hornworm	5.3 to 16.0 (0.033 to 0.10)	For control of fire ants apply <b>A110.03</b> to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 16 oz product (0.10 lb ai) per acre at minimum 7-day intervals up to a maximum of 4 applications.  Apply in 5-50 gallons per acre by air or 10-50 gallons finished spray per acre by ground.  For control of Whiteflies apply foliar treatments of <b>A110.03</b> by ground or air at rates up to 16 oz product (0.10 lb ai) per acre at minimum 7-day intervals up to a maximum of 4 applications.  [1 bag 0.05 lb ai 8 oz formulated product]	Do not make applications less than 7 days apart.  Do not apply more than 64 oz product (0.4 lb ai) per acre per season.  Preharvest interval: 40 days.

Broad Mite Banks Grass Mite Carmine Mite Fire Ants <i>Lygus</i> Spp. Pacific Spider Mite Twospotted Spider Mite Whiteflies	12.8 to 16.0 (0.08 to 0.10)		
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**STRAWBERRIES**

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Aphids Armyworms Flea beetles <i>Heliothis</i> Spp. Leafrollers <i>Lygus</i> Spp. Plant Bugs Spittlebugs Stink Bugs Strawberry Clipper Strawberry Sap Beetle Thrips Vinegar Flies (adults)  Drosophila spp. (including spotted winged drosophila)	6.4 to 32.0 (0.04 to 0.2)	Apply when pest populations reach damaging thresholds. Repeat as necessary at 7-14-day intervals.  <b>Ground Application:</b> Apply in a minimum of 50 gallons per acre.  <b>Air Application (prohibited in Florida):</b> Apply in a minimum of 5 gallons per acre.  [1 bag 0.05 lb ai 8 oz formulated product]	Do not apply more than 80 oz product (0.5 lb ai) per acre per season.  Preharvest interval: 0 days.
Black Vine Weevil Strawberry Root Weevil	8.0 to 32.0 (0.05 to 0.2)		
Spider Mites	16.0 to 32.0 (0.10 to 0.2)		

**CALIFORNIA SPECIFIC REQUIREMENTS FOR STRAWBERRY HARVESTERS:** Harvesters and other personnel performing tasks with all-day foliage contact in treated fields within five (5) days of application must wear a long-sleeved shirt, long pants, and shoes plus socks.

Following treatment of strawberry fields at rates of **A110.03** greater than 0.10 lb ai/acre, harvesters must wear gloves for five (5) days following application.

**SUCCULENT PEAS AND BEANS**

Pea (*Pisum* spp.): Dwarf pea, Edible-pod pea, English pea, Garden pea, 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, Cowpea, Moth bean, Southern pea, Yardlong bean; Jackbean; Soybean (immature seed); Sword bean

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Grubs Maggots Wireworms	8.0 to 16.0 (0.05 - 0.10)	<b>Planting Time Use:</b> For Wireworms, maggots or grubs, apply in-furrow with the seed or transplant.	Do not apply more than 32 oz product (0.2 lb ai) per acre per season including at plant applications.
Aster Leafhopper Flea Beetle Grasshoppers Leafhoppers	4.0 to 16.0 (0.025 - 0.10)	<b>Foliar Use:</b> Apply in a minimum of 2 gallons per acre by air or in a minimum of 10 gallons per acre with ground equipment.	Preharvest interval: 3 days.
Adult Sap Beetle Alfalfa Caterpillar Aphids Bean Leaf Beetle Beet Armyworm Cloverworm Corn Earworm Corn Rootworm Adult Cucumber Beetles Cutworms European Corn Borer Fall Armyworm Japanese beetle Loopers Pea Leaf Weevil Pea Weevil Plant Bug Southern Armyworm Stink Bugs Tarnished Plant Bug	5.3 to 16.0 (0.033 - 0.10)	Thorough coverage is essential to achieve control.  [1 bag 0.05 lb ai 8 oz formulated product]	

Thrips Yellowstriped Armyworm Webworms Western Bean Cutworm			
Banks Grass Mite Carmine Mite <i>Lygus</i> Spp. Twospotted Spidermite Whiteflies	12.8 to 16.0 (0.08-0.10)		

**TREE NUT CROPS**

Almond, Beech nut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory nut, Macadamia nut (bush nut), Pecan, Pistachio, Walnut (black and English).

Pest	Rate oz/A (lb ai/A)	Instructions	Restrictions
Black Pecan Aphid  Codling Moth  Filbert Worm  Hickory Shuckworm  Leaffooted Bugs  Navel Orangeworm  Obliquebanded Leafroller  Peach Twig Borer  Pecan Leaf Casebearer	8.0 to 32.0 (0.05 to 0.20)	<p><b>Ground Application:</b> Apply as a dilute (minimum of 200 gallons per acre) or concentrate (minimum of 50 gallons per acre) spray in sufficient water to provide thorough coverage.</p> <p><b>Air Application:</b> Apply in a minimum of 10 gallons of finished spray per acre.</p> <p>Minimum Spray Intervals: Apply <b>A110.03</b> as needed to maintain control, but do not apply at intervals sooner than 15 days.</p> <p>[1 bag 0.05 lb ai 8 oz formulated product]</p>	<p>Do not apply more than 32 oz product (0.2 lb ai) per acre per application; do not apply more than 80 oz product (0.50 lb ai) per acre per season.</p> <p>Do not graze livestock in treated orchards or cut treated cover crops for feed.</p> <p>Observe a 21-day PHI for pecans and a 7-day PHI for all other registered tree nut crops.</p>

Pecan Nut Casebearer			
Pecan Phylloxera			
Plant Bugs			
Stink Bugs			
Walnut Aphid			
Yellow Pecan Aphid			
European Red Mite Pecan Weevil Spider Mites	12.8 to 32.0 (0.08 to 0.20)		
Fire Ants Walnut Husk Fly	16.0 to 32.0 (0.10 to 0.20)		

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Keep out of reach of children and animals. Store in original containers only. Store in a cool dry place and avoid excess heat. Do not store at temperatures below 32°F (0°C). Rough handling may cause breakage, especially at low temperatures. Allow to warm above 50°F (10°C) before use. Do not allow inner bags to become wet during storage. Do not handle inner bag with wet hands or wet gloves. Do not put concentrate or diluted 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.

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 spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### CONTAINER HANDLING:

[non-WSB packaging in bags] Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment, then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[non-WSB packaging in plastic jugs] Nonrefillable container. Do not reuse or refill this container. Clean container 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 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. Then 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.

## LIMITATION OF WARRANTY AND LIABILITY

**IMPORTANT: READ BEFORE USE.** Read the entire Directions for Use, Conditions of Warranties and Limitations of Liability before using this product. If these terms and conditions are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following Disclaimer of Warranties and Limitations of Liability. **CONDITIONS:** 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. Ineffectiveness, injury, and other unintended consequences may result because of such factors as manner of use or application (including misuse), the presence of other materials, weather conditions, and other unknown factors, all of which are beyond the control of ATTICUS, LLC. All such risks shall be assumed by the user or buyer.

**DISCLAIMER OF WARRANTIES:** To the extent consistent with applicable law, ATTICUS, LLC makes no other warranties, express or implied, of merchantability or of fitness for a particular purpose or otherwise, that extend beyond statements on this label. **LIMITATIONS OF LIABILITY:** To the extent consistent with applicable law, neither ATTICUS, LLC the manufacturer, nor the Seller shall be liable for any indirect, special, incidental or consequential damages resulting from the use, handling, application, storage, or disposal of this product. To the extent consistent with applicable law, the exclusive remedy of the user or buyer for any and all losses, injuries or damages resulting from the use, handling, application, or storage of this product, whether in contract, warranty, tort, negligence, strict liability or otherwise, shall not exceed the purchase price paid.

[A110.03™] is a trademark of Atticus, LLC

[Bifenture] is a registered trademark of United Phosphorus, Inc.

**{LANGUAGE ON LABEL AFFIXED TO CONTAINER}**

**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 those uses covered by the certified applicator's certification.

BIFENTHRIN	GROUP	3A	INSECTICIDE
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**A110.03™**

[Alternate Brand Name: Battalion 10 WSP]

Contains bifenthrin, the active ingredient used in Bifenture® 10DF Insecticide/Miticide

**ACTIVE INGREDIENT:** (by weight)

Bifenthrin* (2 methyl[1,1'-biphenyl]-3-yl) methyl 3-(2-chloro-3,3,3-trifluoro-1-propenyl)-2,2 dimethylcyclopropanecarboxylate .....	10.0%
<b>OTHER INGREDIENTS:</b> .....	90.0%
<b>TOTAL</b> .....	100.0%

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

**KEEP OUT OF REACH OF CHILDREN  
CAUTION/PRECAUCIÓN**

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	
<b>If swallowed:</b>	<ul style="list-style-type: none"> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</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 or doctor for treatment advice.</li> </ul>
<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 systematic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.	
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact SafetyCall at 1-844-685-9173 for emergency medical treatment information.	

**For Chemical Emergency:**

Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
CAUTION**

Harmful if swallowed or 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.

**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 wash waters. 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 foraging the treatment area. 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.

**PHYSICAL OR CHEMICAL HAZARDS:** Do not mix or allow contact with oxidizing agents, as a hazardous chemical reaction may occur.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Keep out of reach of children and animals. Store in original containers only. Store in a cool dry place and avoid excess heat. Do not store at temperatures below 32°F (0°C). Rough handling may cause breakage, especially at low temperatures. Allow to warm above 50°F (10°C) before use. Do not allow inner bags to become wet during storage. Do not handle inner bag with wet hands or wet gloves. Do not put concentrate or diluted 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. 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 spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

**CONTAINER HANDLING:**

[[non-WSB packaging in bags] Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment, then offer for recycling if available, or dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.  
[non-WSB packaging in plastic jugs] Nonrefillable container. Do not reuse or refill this container. Clean container 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 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. Then 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.]

[[WSB packaging] Nonrefillable container. Do not reuse or refill this container. When all water-soluble bags are used, the outer package should be clean and may be disposed of in a sanitary landfill, by incineration or if allowed by state and local authorities, by burning. If burned, stay out of smoke. If the outer container contains formulated product in any way, it must be triple rinsed with clean water. Triple rinse as follows: empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water and close tightly. 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.]

See inside label booklet for additional Precautionary Statements and Directions for Use.

[A110.03™] is not manufactured, or distributed by United Phosphorus, Inc., seller of Bifenture® 10DF Insecticide/Miticide.

Manufactured for:  
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5000 CentreGreen Way, Suite 100  
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EPA Reg. No.: 91234-117  
EPA Est. No.: \_\_\_\_\_  
20190425a