

72693-10

12/19/2011

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## U.S. ENVIRONMENTAL PROTECTION AGENCY

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

EPA Reg. Number:

72693-10

Date of Issuance:

DEC 19 2011

## NOTICE OF PESTICIDE:

☒ Registration  
☐ Reregistration

(under FIFRA, as amended).

Term of Issuance:

Unconditional

Name of Pesticide Product:

Abamectin 0.15 EC

## Name and Address of Registrant (include ZIP Code):

Universal Crop Protection Alliance, LLC  
1300 Corporate Center Curve  
Eagan, MN 55121

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

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

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

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, "EPA Reg. No 72693-10."
2. Submit one copy of the revised final printed label for the record before you release the product for shipment.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. If you have any questions, please contact Jessica Rogala at 703-347-0263 or [rogala.jessica@epa.gov](mailto:rogala.jessica@epa.gov).

Signature of Approving Official:

John Hebert, Product Manager 07  
Insecticide-Rodenticide Branch, Registration Division (7505P)

Date:

DEC 19 2011

# RESTRICTED USE PESTICIDE

Toxic to Fish, Mammals 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 applicators certification.

## Abamectin 0.15 EC

Insecticide/Miticide

### ACTIVE INGREDIENT:

Abamectin ..... 1.9 %

OTHER INGREDIENTS ..... 98.1 %

TOTAL ..... 100.0 %

Abamectin 0.15 EC contains 0.15 lb. 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.)

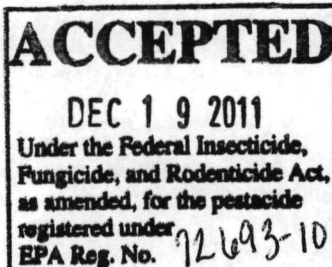
Refer to the inside of the label booklet for additional Precautionary Statements, First Aid Statements, Worker Protection Statements, Directions for Use, Storage and Disposal Instructions, and the Conditions of Sale and Warranty.

#### FIRST AID

<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 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 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>If inhaled:</b>	<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 mouth-to-mouth if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>

#### HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For 24 Hour Medical Emergency Assistance (Human or Animal) call 1-800-308-1241 or for Chemical Emergency Assistance (Spill, Leak, Fire or Accident) call CHEMTREC at 1-800-424-9300.



**NOTE TO PHYSICIAN**

Early signs of intoxication include dilation of pupils, muscular incoordination, and muscular tremors. Toxicity following accidental ingestion of this product can be minimized by early administration of chemical adsorbents (e.g., activated charcoal).

If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parental fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms, and measurements.

In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since abamectin is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic abamectin exposure.

**EPA Reg. No. 72693-xx**

**EPA Est. No. XXXXX-XX-XXX**

**Manufactured For:**

Universal Crop Protection Alliance, LLC  
1300 Corporate Center Curve  
Eagan, MN 55121  
(651) 239-1000

**Net Contents:** \_\_\_\_\_

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

Causes substantial but temporary eye injury. Do not get in eyes. Harmful if absorbed through skin or if swallowed. Avoid contact with skin or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco. Remove and wash contaminated clothing before reuse.

**Personal Protective Equipment**

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.

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants
- Socks and shoes
- Chemical-resistant gloves (such as barrier laminate, nitrile rubber, neoprene rubber, viton)
- Protective eyewear

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

**User Safety Recommendations**

Users should:

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

### ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish and wildlife. 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 apply when weather conditions favor drift from target areas. Do not contaminate water when disposing of equipment wash water or rinsate.

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 if bees are visiting the treatment area.

Use of this product may pose a risk to threatened and endangered species of fish, amphibians, crustaceans (including fresh water shrimp), and insects. All use of this product in the state of California should comply with the recommendations of the California Endangered Species Project. Before using this product in California, consult with your county agriculture commissioner to determine use limitations that apply in your area.

This product may impact surface water quality due to runoff of rain water. This is especially true for poorly draining soils and soils with shallow ground water. This product is classified as having a medium potential for reaching both surface water and aquatic sediment via runoff for several weeks to months after application. A level, well-maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential loading of abamectin from runoff water and sediment. Runoff of this product will be reduced by avoiding applications when rainfall is forecast to occur within 48 hours.

### PHYSICAL OR CHEMICAL HAZARDS

Combustible: 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.

### IMPORTANT – READ BEFORE USE

Read the entire Directions for Use, Limited Warranty and Disclaimer before using this product.

If terms are not acceptable, return the unopened product container at once. By using this product, user or buyer accepts the following warranty disclaimer, inherent risks of use and limitation of remedies.

**AGRICULTURAL USE REQUIREMENTS**

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

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours. Exception: For grape girdling, cane turning, and tying in grapes, do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 4-days.

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 over short-sleeved shirt and short pants
- Chemical-resistant gloves – EPA chemical-resistance category E (e.g., barrier laminate, nitrile rubber, neoprene rubber, viton)
- Chemical-resistant shoes and socks
- Protective eyewear

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

Abamectin 0.15 EC is an insecticide that will control certain insect pests. The product must be mixed with water and applied to labeled crops according to the specific crop use directions for effective control of these insects. For good mite and insect control, Abamectin 0.15 EC needs to be applied so that the foliage is thoroughly covered by the spray solution.

**Phytotoxicity:** Abamectin 0.15 EC has been tested for phytotoxicity and has been proven to be safe on a variety of crops. Abamectin 0.15 EC is also compatible with many commonly used pesticides, crop oils, and nutritional sprays. However, it is impossible to test all crop varieties and combination of spray mixtures under all possible growing conditions. Prior to mixing, users should test the compatibility of Abamectin 0.15 EC with any combination product using physical compatibility jar tests. Before applying Abamectin 0.15 EC and combination products to large areas of the crop, test small areas for phytotoxicity.

**New York State Restriction:** Do not apply Abamectin 0.15 EC by aerial application in New York State.

**Chemigation:** Do not apply this product through any type of irrigation system.

## SPRAY DRIFT

### Responsibility

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions.

**NOTE:** When states have more stringent regulations, they must be observed.

### Spray Drift Precautions for Application with Aircraft or Ground Application Equipment

- Apply Abamectin 0.15 EC only when wind velocity favors on target product deposition (approximately 3 to 10 mph).
- Do not apply with ground application equipment within 25 ft. of or with aircraft within 150 ft. of lakes, reservoirs, rivers, permanent streams, marshes, pot holes, natural ponds, estuaries, or commercial fish farm ponds.
- Do not cultivate within 25 ft. of the aquatic area to allow growth of a vegetative filter strip.
- Do not allow this product to drift onto non-target areas. Drift may result in illegal residues or injury to nontarget species. Risk of exposure to sensitive areas can be reduced by applying this product when the wind direction is away from the sensitive area.
- Do not apply when the weather conditions may cause drift.
- Avoid application when the temperature is high and/or the humidity is low. These conditions increase the evaporation of spray droplets and the likelihood of drift to aquatic areas.
- Do not apply when wind speed or wind gusts are greater than 15 mph.
- Do not apply when wind speed is below 2 mph because wind direction will vary and there is a high potential for inversion.
- Observe the following precautions when using ground application to spray tree crops or hops in the vicinity of aquatic areas such as lakes, reservoirs, permanent streams, marshes, potholes, natural ponds, estuaries, or commercial fish ponds:
  - Do not apply Abamectin 0.15 EC when weather conditions favor drift to aquatic areas.
  - Do not apply within 110 ft. upwind of aquatic areas or when wind speed is above 8 mph.
  - Spray last 3 rows upwind of aquatic areas using nozzles on one side only, with spray directed away from the aquatic areas.
  - Avoid spray going over tops of trees by adjusting or turning off top nozzles. Shut off nozzles on the side away from the grove/orchard when spraying the outside row. Shut off nozzles when turning at ends of row and passing tree gaps in rows.

## **Spray Drift Precautions for Aerial Application**

### **Drift Management Requirements**

The following drift management requirements must be followed to avoid off-target movement from aerial applications to agricultural field crops.

#### **Outermost Nozzle Distance**

The distance of the outermost nozzles on the boom must not exceed 3/4 the length of the wingspan or rotor.

#### **Nozzle Directions**

Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees.

#### **Maximum Wind Speed**

Do not apply when wind speed is greater than 15 mph.

#### **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 air stream 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 some use patterns, reducing the effective boom length to less than 3/4 of the wingspan or rotor length may further reduce drift without reducing swath width.

**Application Height** – Applications should not be made at a height greater than 10 ft. above the top of the target 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.

**Swath Adjustment** – When applications are made with a cross wind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind.

**Wind** – Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application must be avoided below 2 mph due to variable wind direction and high inversion potential.

**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** – To compensate for evaporation when applying Abamectin 0.15 EC in low relative humidity, set up equipment to produce larger droplets. Evaporation of droplets is most severe when conditions are both hot and dry.

**Temperature Inversions** - Abamectin 0.15 EC must not be applied during a temperature inversion because the potential for drift is high. Temperature inversions restrict vertical air mixing, and this

causes small, suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds that are common during inversions. Temperature inversions are characterized by temperatures that increase with altitude and are common on nights with limited cloud cover and light to no wind. Inversions 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, the movement of smoke from a ground source or an aircraft smoke generator can also identify inversions. 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.

**Resistance Management:** Abamectin 0.15 EC contains the active ingredient abamectin. Abamectin is a Group 6 insecticide. There are inherent risks of pests developing resistance to any product, therefore, it is strongly advised that Abamectin 0.15 EC be used in a sound resistance management program (including practices such as non-chemical alternatives (beneficial arthropods), rotation of Abamectin 0.15 EC with insecticides that have different modes of action, rotation of susceptible and non-susceptible plants, etc.). Once insect or mite-tolerant strains develop, Abamectin 0.15 EC will not be effective against labeled pests. In crops that have pests with multiple generations per crop per year, resistance management practices help reduce the risk of resistance development to Abamectin 0.15 EC. Additional information is available on implementation of these or other resistance management practices from your local agricultural advisor or company representative.

## CROP USE DIRECTIONS

## ALMONDS AND WALNUTS

Abamectin 0.15 EC will control the following pests in almonds and walnuts:

*European red mite*  
*Pacific Spider mite*  
*Strawberry spider mite*  
*Twospotted spider mite*

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
<p>For Dilute Sprays<sup>a</sup>: 2.5 – 5.0 fl. oz./100 gals</p> <p>For Concentrate Sprays<sup>b</sup>: 10 – 20 fl. oz./A</p> <p><b>PLUS</b></p> <p>A Horticultural Spray Oil that is not a dormant oil such as VINTRE.</p> <p><b>Horticultural Spray Oil:</b></p> <p>For Dilute Sprays: 0.25% or 1 gal./A</p> <p>For Concentrate Sprays: Minimum of 1 gal./A</p> <p><b>VINTRE</b></p> <p>Use 16 - 64 fl. oz. per acre at rates no greater than 0.3% v/v.</p>	<p>Apply Abamectin 0.15 EC using conventional dilute or concentrate sprays using ground application equipment. Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage. The size and number of trees per acre as well as foliage density will determine the gallons of spray required. Apply only in 40 gals. or more of water/A. Control of these mites/insects requires a thorough coverage of the spray solution on the tree foliage, and residual spider mite control increases if sprays are made to younger leaves.</p> <p>Time Abamectin 0.15 EC applications to occur when spider mites first appear. Repeat applications following the directions in the Restrictions column of this table.</p>	<p>Do not apply by air.</p> <p>Do not apply Abamectin 0.15 EC without VINTRE or a horticultural spray oil that is not a dormant oil (but one that is approved for use on almonds and walnuts).</p> <p>Do not apply more than 20 fl. oz. Abamectin 0.15 EC per application, and no more than 40 fl. oz. per growing season.</p> <p>Make only 2 applications per growing season 21 days or more apart.</p> <p>Do not allow livestock to graze in treated orchards.</p> <p>Preharvest Interval: 21 days</p>
<p><sup>a</sup> Dilute Spray Rate is based on a volume of 400 gals./A dilute spray.</p> <p><sup>b</sup> Concentrate Spray Rate: determine the amount of Abamectin 0.15 EC required in a full cover dilute spray. Then use the same amount of product per acre in concentrate sprays that would be required for the dilute sprays to the same orchard/grove. Note that for small trees, the amount may be less than 10 fl. oz./A.</p>		
<p><b>Buffer Zone:</b> To reduce the risk to aquatic organisms, maintain a 25-yard buffer zone around all water bodies containing aquatic life (streams, ponds, lakes, rivers, springs, irrigation canals containing water year-round, swamps, bogs and marshes).</p>		

## APPLES

Abamectin 0.15 EC will control the following pests in apples:

*European red mite*  
*McDaniel spider mite*  
*Tentiform leafminer*  
*Twospotted spider mite*  
*White apple leafhopper*

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
<p>For Dilute Sprays<sup>a</sup>: 2.5 – 5.0 fl. oz./100 gals</p> <p>For Concentrate Sprays<sup>b</sup>: 10 – 20 fl. oz./A</p> <p><b>And add (for best results)</b></p> <p>A Horticultural Spray Oil that is not a dormant oil such as VINTRE.</p> <p><b>Horticultural Spray Oil:</b>  For Dilute Sprays: 0.25% or 1 gal./A</p> <p>For Concentrate Sprays: Minimum of 1 gal./A</p> <p><b>VINTRE (only during non-fruit bearing stages)</b>  Use 16 - 64 fl. oz. per acre at rates no greater than 0.3% v/v.</p>	<p>Apply Abamectin 0.15 EC using conventional dilute or concentrate sprays using ground application equipment. Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage. The size and number of trees per acre as well as foliage density will determine the gallons of spray required. Apply only in 40 gals. or more of water/A. Control of these mites/insects requires a thorough coverage of the spray solution on the tree foliage.</p> <p>Time Abamectin 0.15 EC applications to occur when spider mites first appear or when insect thresholds are reached. Repeat applications following the directions in the Restrictions column of this table.</p> <p><b>Spider Mites:</b> Apply before a threshold of 5 spider mites per leaf is reached. For residual spider mite control with Abamectin 0.15 EC, apply in combination with horticultural spray oil (not a dormant oil) to newer leaves of trees. Apply Abamectin 0.15 EC for spider mite control from petal fall through 6 weeks following petal fall.</p> <p><b>Tentiform leafminer:</b> Apply onto eggs for control of new hatches and to early sap-feeder stages of first and second-generation tentiform leafminers when locally established thresholds have been reached. Do not apply during bloom.</p> <p><b>White Apple Leafhopper (Not for use west of the Rocky Mountains):</b> Apply Abamectin 0.15 EC only to the first generation of white apple leafhoppers, just after petal fall and in combination with horticultural spray oil (not a dormant oil).</p>	<p>Do not apply by air.</p> <p>Reduced efficacy and/or residual control may occur if Abamectin 0.15 EC is not applied in combination with VINTRE or a horticultural spray oil (not a dormant oil). Follow all directions on the VINTRE or spray oil label or in spray guides. Use caution when applying Abamectin 0.15 EC with VINTRE or a horticultural spray oil or injury may occur with certain apple varieties (such as russetting on light-skinned Golden Delicious apples). In some cases, phytotoxicity and crop loss has been observed when Abamectin 0.15 EC plus VINTRE or a horticultural spray oil was applied less than 14 days before or after a captan application.</p> <p>Do not apply more than 20 fl. oz. Abamectin 0.15 EC per application, and no more than 40 fl. oz. per growing season.</p> <p>Make only 2 applications per growing season 21 days or more apart.</p> <p>Do not allow livestock to graze in treated orchards.</p> <p>Preharvest Interval: 28 days</p>

<sup>a</sup> Dilute Spray Rate is based on a volume of 400 gals./A dilute spray.  
<sup>b</sup> Concentrate Spray Rate: determine the amount of Abamectin 0.15 EC required in a full cover dilute spray. Then use the same amount of product per acre in concentrate sprays that would be required for the dilute sprays to the same orchard/grove. Note that for small trees, the amount may be less than 10 fl. oz./A.

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## AVOCADOS

Abamectin 0.15 EC will control the following pests in avocados:

*Avocado thrips (Scirtothrips perseae)*

*Persea Mite (Oligonychus perseae)*

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
<p>10 – 20 fl. oz./A (Do NOT use less than 10 fl. oz. of Abamectin 0.15 EC/A)</p> <p><b>And add (for best results):</b></p> <p>a Horticultural Spray Oil that is not a dormant oil such as VINTRE.</p> <p><b>Horticultural Spray Oil:</b> Minimum of 1 to 4% v/v (Follow all directions on the spray oil label. Test small areas with oil concentrations greater than 2.0% before making applications to large areas.)</p> <p><b>VINTRE</b> Use 16-32 fl. oz. per acre at rates no greater than 0.3% v/v.</p>	<p>Apply Abamectin 0.15 EC using conventional dilute or concentrate sprays using ground or air application equipment. Although aerial application is permitted, best control of thrips is achieved with ground applications which provide better spray coverage. The user accepts all liability for thrip level and duration of control if Abamectin 0.15 EC is applied by air.</p> <p>Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage. The size and number of trees per acre as well as foliage density will determine the gallons of spray required. Apply only in 100 gals. or more of water/A by ground and 50 gals. of water by air application. [For ground applications where the spray volume is greater than 400 gals./A, use 2.5 fl. oz. Abamectin 0.15 EC per 100 gals. of water in combination with VINTRE or 1.0-4.0% of an NR (narrow range) 415 oil.] Control of these pests requires a thorough coverage of the spray solution on the tree foliage.</p> <p>Time Abamectin 0.15 EC applications to occur when immature thrips first appear but before 5 or more immature thrips per leaf/fruit are detected. Repeat applications following the directions in the Restrictions column of this table.</p> <p>Apply Abamectin 0.15 EC at 10-15 fl. oz/A for low (1-2 thrips per leaf/fruit) to moderate (3-4 thrips per leaf/fruit). Use the higher rate of 15-20 fl. oz./A for severe (more than 5 thrips per leaf/fruit) outbreaks. Apply Abamectin 0.15 EC in combination with VINTRE or a 1.0-4.0% NR 415 oil in combination with a Horticultural Spray Oil (not a dormant oil) which is approved for use on avocados.</p>	<p>Do not apply more than 20 fl. oz. Abamectin 0.15 EC per application, and no more than 40 fl. oz. per growing season.</p> <p>Make only 2 applications per growing season 30 days or more apart.</p> <p>Preharvest Interval: 14 days</p>

**CELERIAC (*Apium graveollens*)**

Abamectin 0.15 EC will control the following pests in celeriac:

*Twospotted spider mite*

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
16.0 fl. oz./A	<p>Apply Abamectin 0.15 EC using conventional dilute or concentrate sprays using ground application equipment.</p> <p>Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage of the crop foliage. Apply only in 20 gals. or more of water/A by ground application. Control of this mite requires a thorough coverage of the spray solution on the crop foliage.</p> <p>Time Abamectin 0.15 EC applications to occur when mites first appear. Repeat applications following the directions in the Restrictions column of this table.</p> <p>Optimum results are obtained if Abamectin 0.15 EC is used in combination with a non-ionic surfactant such as WETCIT.</p>	<p>Refer to the section on Spray Drift Precautions of this label.</p> <p>Do not apply by air.</p> <p>Do not apply more than 16 fl. oz Abamectin 0.15 EC per application, and no more than 48 fl. oz. after transplanting.</p> <p>To prevent resistance, make only 2 sequential applications per growing season 7 days or more apart.</p> <p>Preharvest Interval: 7 days</p>

### CITRUS FRUITS (CROP GROUP 10)

Abamectin 0.15 EC will control the following pests in citrus: calamondin, citrus citron, citrus hybrids (including chironja, tangelo, tangor), grapefruit, kumquat, lemon, lime, mandarin (tangerine), sour orange, sweet orange, pummelo, Satsuma mandarin:

*Asian citrus psylla*

*Broad mite*

*Citrus bud mite*

*Citrus leafminer*

*Citrus rust mite*

*Citrus thrips*

*Twospotted spider mite*

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
<p>For Dilute Sprays<sup>a</sup>: 1.0 – 2.0 fl. oz./100 gals. for all insects (<b>except</b> Asian citrus psylla, citrus leafminers and citrus thrips—use the concentrate spray rate)</p> <p>For Concentrate Sprays<sup>b, c</sup>: 10 – 20 fl. oz./A for all listed insects/mites</p> <p><b>And add (for best results)</b></p> <p>a Horticultural Spray Oil that is not a dormant oil such as OROCIT, VINTRE or CITRI-KING.</p> <p><b>Horticultural Spray Oil</b> 0.20% or 1 gal./A</p> <p><b>OROCIT or VINTRE or CITRI-KING</b> Use 16-64 fl. oz. per acre in sufficient water at rates no greater than 0.3% v/v.</p> <p>(see footnotes for additional rates)<sup>c</sup></p>	<p>Apply Abamectin 0.15 EC using conventional dilute or concentrate sprays using ground application equipment. Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage (outside coverage for Asian citrus psylla, citrus leafminer or citrus thrips). The size and number of trees per acre as well as foliage density will determine the gallons of spray required.</p> <p><b>Asian citrus psylla</b>: Applications made in the spring, summer or fall should be directed at newly expanding foliage and will only control adults and nymphs present at the time of application.</p> <p><b>Mites</b>: Applications made in the spring, summer or fall should be made when mites first appear.</p> <p><b>Citrus bud mite</b>: Time application to occur at "bud swell".</p> <p><b>Citrus leafminer<sup>d</sup></b>: Applications in the spring, summer or fall should be directed at newly expanding foliage.</p> <p><b>Citrus thrips</b>: Correct timing is required. Apply after egg hatch has begun (typically, early to mid-hatch is best) but only the current generation will be controlled.</p>	<p>Aerial application is permitted <b>only</b> for control of citrus leafminer. Aerial application to citrus is not approved in California.</p> <p>Do not apply more than 40 fl. oz. Abamectin 0.15 EC per growing season.</p> <p>Do not apply more than 3 applications per growing season 30 days or more apart.</p> <p>To prevent pest resistance to Abamectin 0.15 EC, do not apply in citrus nurseries.</p> <p>Do not allow livestock to graze in treated orchards.</p> <p>Preharvest Interval: 7 days</p>

- <sup>a</sup> Dilute Spray Rate is based on a volume of 1,000 gals./A dilute spray.
- <sup>b</sup> Concentrate Spray Rate: determine the amount of Abamectin 0.15 EC that would be required in a full cover dilute spray.
- <sup>c</sup> For optimum control of **Asian citrus psylla**, **broad mites**, **citrus rust mites** and **citrus leafminers**, apply 150-300 gals spray mix per acre plus OROCIT, VINTRE or CITRI-KING or a minimum of 3 gal./A of a horticultural oil (not a dormant oil) and apply using ground equipment at 1 to 1.5 miles per hour. For optimum control of **citrus bud mite**, apply Abamectin 0.15 EC in a minimum of 500 gals. per acre plus OROCIT, VINTRE or CITRI-KING or a minimum of 2 qts. (0.5%) per acre of a horticultural oil (not a dormant oil). For optimum control of **citrus thrips**, use 100-250 gals. per acre spray mix for best coverage of outside foliage.
- <sup>d</sup> **Citrus leafminer** – Ground or aerial application is permitted; however, do not apply with aircraft to citrus in California. For aerial application use a minimum of 10 gallons of finished spray volume per acre. Under conditions such as high pest population, dense foliage, or adverse application conditions (such as high temperatures) use a greater volume of water to ensure adequate coverage.

## COTTON

Abamectin 0.15 EC will control the following pests in cotton:

*Carmine spider mites*  
*Pacific spider mites*  
*Strawberry spider mites*  
*Twospotted spider mites*

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
<p>Early season: 4 – 6 fl. oz./A</p> <p>Mid-season/Lay-by: 8 – 16 fl. oz./A</p>	<p>Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage. Control of mites requires a thorough coverage of the spray solution on the crop foliage.</p> <p><b>Early season:</b> Apply Abamectin 0.15 EC when the cotton is no taller than 10 inches. Apply only using ground application equipment. Do not apply less than 4 fl. oz. Abamectin 0.15 EC per acre.</p> <p><b>Mid-season and lay-by:</b> Use Abamectin 0.15 EC at the specified rates 8 - 16 fl. oz./A) depending on the size of the plants and foliage density. Apply using ground application or by air in fixed-wing aircraft or by helicopter. Apply by air in a minimum of 5 gals. of water /A.</p> <p>Time Abamectin 0.15 EC applications to occur when mites first appear. Repeat applications following the directions in the Restrictions column of this table.</p>	<p>Refer to the section on Spray Drift Precautions of this label.</p> <p>Do not apply through any type of irrigation system.</p> <p>Do not apply more than 32 fl. oz. Abamectin 0.15 EC per growing season.</p> <p>Make only 2 applications per growing season 21 days or more apart.</p> <p>Do not feed foliage to livestock; do not allow livestock to graze treated cotton.</p> <p>Preharvest Interval: 20 days</p>

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**CUCURBIT VEGETABLES (CROP GROUP 9)**


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Abamectin 0.15 EC will control the following pests in the Cucurbit Crop Group chayote (fruit), Chinese waxgourd (Chinese preserving melon), citron melon, cucumber, gherkin, edible gourds (includes hyotan, cucuzza, hechima, Chinese okra), *Momordica* spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), muskmelon (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, summer squash (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), winter squash (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash), watermelon:

*Spider mites*  
*Leafminers*

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
8 – 16 fl. oz./A	<p>Apply Abamectin 0.15 EC using ground or air application equipment. Although aerial application is permitted, best control of insect pests is achieved with ground applications which provide better spray coverage. The user accepts all liability for mite level and duration of control if Abamectin 0.15 EC is applied by air.</p> <p>Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage. Control of these mites/insects requires a thorough coverage of the spray solution on the crop foliage.</p> <p>Do not apply in less than 20 gals. of water/A by ground and in less than 5 gals. of water by air application. To ensure thorough spray coverage, use a greater spray volume for high pest pressure, dense crop canopies, and adverse application conditions (high temperatures).</p> <p>Time Abamectin 0.15 EC applications to occur when insects first appear. Use 8 – 12 fl. oz./A for low to moderate insect pressure use 16 fl. oz./A for heavy insect infestations. Repeat applications following the directions in the Restrictions column of this table.</p>	<p>Refer to the section on Spray Drift Precautions of this label.</p> <p>Do not apply Abamectin 0.15 EC by air in the State of New York.</p> <p>Do not apply more than 48 fl. oz Abamectin 0.15 EC per growing season.</p> <p>Make only 2 sequential applications 7 days or more apart.</p> <p>Preharvest Interval: 7 days</p>

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### FRUITING VEGETABLES (Except Cucurbits) (CROP GROUP 8)

Abamectin 0.15 EC will control the following pests in the Fruiting Vegetable Crop Group: eggplant, groundcherry, pepino, pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper), tomatillo, tomato:

*Broad mite*

*Colorado potato beetle*

*Liriomyza leafminers*

*Spider mites*

*Thrips palmi*

*Tomato pinworm*

*Tomato russet mite*

*Potato psyllid (peppers only; provides suppression only)*

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
<p>8 – 16 fl. oz./A (use the 16 fl. oz./A rate for tomato pinworm)</p> <p><b>Note:</b> Although Abamectin 0.15 EC can be used without a wetting agent, improved spreading and penetration for better insect control is achieved using a combination of Abamectin 0.15 EC and a surfactant such as WETCIT. Nonionic type surfactants are recommended (not binder or sticker-type surfactants).</p>	<p>Apply Abamectin 0.15 EC using ground or air application equipment. Although aerial application is permitted, best control of mites is achieved with ground applications which provide better spray coverage. The user accepts all liability for mite level and duration of control if Abamectin 0.15 EC is applied by air.</p> <p>Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage. Control of these mites/insects requires a thorough coverage of the spray solution on the crop foliage.</p> <p>Do not apply in less than 20 gals. of water/A by ground and in less than 5 gals. of water by air application. To ensure thorough spray coverage, use a greater spray volume for high pest pressure, dense crop canopies, and adverse application conditions (high temperatures).</p> <p>Repeat applications following the directions in the Restrictions column of this table.</p> <p><b>Mites and thrips :</b> Apply when insects first appear using 8 fl. oz. for low to moderate insect populations and 16 fl. oz./A for heavy infestations.</p> <p><b>Tomato pinworm:</b> Make application when moth activity is first observed and not later than when larvae emerge. Apply using the 16 fl. oz./A rate.</p> <p><b>Colorado potato beetle:</b> Apply 8 fl. oz. for low to moderate insect populations and 16 fl. oz./A for heavy infestations.</p> <p><b>Potato psyllid (Peppers only):</b> Abamectin 0.15 EC provides suppression only. Apply when insects first appear. Use 8 – 12 fl. oz. for low to moderate insect populations and 16 fl. oz./A for heavy infestations. Make sequential applications at 10-14 day intervals when heavy egg and nymph populations are found. Use of a spreading or penetration adjuvant such as WETCIT or horticultural oil is recommended.</p>	<p>Refer to the section on Spray Drift Precautions of this label.</p> <p>Do not apply Abamectin 0.15 EC by air in the State of New York.</p> <p>Do not apply more than 48 fl. oz Abamectin 0.15 EC per growing season.</p> <p>Make only 2 sequential applications 7 days or more apart.</p> <p>To prevent insect resistance to Abamectin 0.15 EC, do not apply to fruiting vegetables grown for transplants.</p> <p>Preharvest Interval: 7 days</p>

## GRAPES

Abamectin 0.15 EC will control the following pests in grapes:

*Pacific spider mite*  
*Twospotted spider mite*  
*Western grapeleaf skeletonizer*  
*Willamette spider mite*  
*Western grape leafhopper\**  
*Varigated leafhopper\**

\*Abamectin 0.15 EC provides knock-down control only of these pests.

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
<p>8 – 16 fl. oz./A</p> <p><b>PLUS</b></p> <p><b>VINTRE</b> (Use 16-32 fl. oz. per acre at rates no greater than 0.3% v/v)</p> <p><b>OR</b></p> <p>a nonionic type surfactant (not binder or sticker-type surfactants).</p>	<p>Apply Abamectin 0.15 EC using ground application equipment. Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage. Control of these mites/insects requires a thorough coverage of the spray solution on the crop foliage. Do not spray alternate rows: apply Abamectin 0.15 EC on both sides of the row to ensure maximum coverage of the crop.</p> <p>Do not apply in less than 50 gals. of water/A by ground. If electro-static sprayers are used, the volume may be less than 50 gals./A but do not use less than 5 gals. of water/A.</p> <p>Always use Abamectin 0.15 EC with VINTRE or a nonionic surfactant. This combination improves the wetting of leaves and provides an even coverage of spray. Not all combinations of VINTRE or nonionic surfactants and Abamectin 0.15 EC have been tested on every grape variety or all types of growing conditions. Before using VINTRE or a nonionic surfactant, carefully read and follow the surfactant product's label.</p> <p>Apply when insects first appear using 8 - 12 fl. oz. for low to moderate insect populations and 16 fl. oz./A for heavy infestations. Repeat applications following the directions in the Restrictions column of this table.</p> <p><b>Mites</b> : time application to occur when mites are first detected but before motiles exceed 5 per leaf.</p> <p><b>Western grapeleaf skeletonizer</b>: Make application when larvae appear. Best control is achieved if application is made just after egg hatch.</p> <p><b>Western grape leafhopper, Varigated leafhopper</b>: For knock-down control only, apply when pests first appear.</p>	<p>Refer to the section on Spray Drift Precautions of this label.</p> <p>Do not apply by air.</p> <p>Do not apply more than 16 fl. oz. per application or more than 32 fl. oz Abamectin 0.15 EC per growing season.</p> <p>Make only 2 applications per growing season. One repeat application may be applied 21 days or more after the first application if needed to maintain control.</p> <p>Do not allow livestock to graze in treated vineyards.</p> <p>Preharvest Interval: 28 days</p>

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**HERB CROP SUBGROUP (EXCEPT CHIVES) (CROP SUBGROUP 19A)**


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Abamectin 0.15 EC will control the following pests in the Herb Crop Subgroup (except chives): angelica, balm, basil, borage, burnet, chamomile, catnip, chervil (dried), clary, coriander (leaf), costmary, cilantro (leaf), curry (leaf), dillweed, horehound, hyssop, lavender, lemongrass, lovage (leaf), marigold, marjoram (*Origanum* spp.), nasturtium, parsley (dried), pennyroyal, rosemary, rue, sage, savory (summer and winter), sweet bay, tansy, tarragon, thyme, wintergreen, woodruff, wormwood:

*Liriomyza* leafminers

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
<p>8 – 16 fl. oz./A</p> <p><b>Note:</b> To improve the wetting of leaves and provide an even coverage of spray of the foliage, use Abamectin 0.15 EC in combination with a wetting agent, such as WETCIT or a nonionic surfactant.</p>	<p>Apply Abamectin 0.15 EC using conventional dilute or concentrate ground application equipment. Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage. Control of leafminers requires a thorough coverage of the spray solution on the upper and lower leaves.</p> <p>Do not apply in less than 30 gals. of water/A by ground.</p> <p>Use the low rate for low to moderate insect pressure and the higher rate for heavy insect pressure. Time application to occur when adult flies are first detected. Repeat applications following the directions in the Restrictions column of this table.</p> <p>Not all combinations of WETCIT or nonionic surfactants and Abamectin 0.15 EC have been tested on every herb type and variety or under all types of growing conditions. Before using WETCIT or a nonionic surfactant, carefully read and follow the surfactant product's label.</p>	<p>Do not apply by air.</p> <p>Make only 2 applications per single cutting.</p> <p>Do not apply more than 6 applications per cropping season at the 8 fl. oz./A rate or more than 3 applications at the 16 fl. oz./A rate.</p> <p>Repeat applications may be made 7 days or more after the last application.</p> <p>Preharvest Interval: 14 days</p>

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## HOPS (EXCEPT IN CALIFORNIA)

Abamectin 0.15 EC will control the following pests in hops (not approved for use in California):

*Twospotted spider mite*

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
<p>8 – 16 fl. oz./A</p> <p><b>Note:</b> Although Abamectin 0.15 EC can be used without a wetting agent, improved spreading and penetration for better insect control is achieved using a combination of Abamectin 0.15 EC and a surfactant such as WETCIT. Nonionic type surfactants are recommended (not binder or sticker-type surfactants).</p>	<p>Apply Abamectin 0.15 EC using ground application equipment. Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage. Control of mites requires a thorough coverage of the spray solution on the upper and lower leaves of the crop.</p> <p>The size and foliage density of plants will determine the gallons of spray required for thorough coverage. Use the same amount of Abamectin 0.15 EC for concentrate or dilute sprays. For plants 6 – 8 feet in height (1/2 trellis growth), apply 8 – 16 fl. oz./A of Abamectin 0.15 EC in a minimum of 40 gals. of water per acre. For plants taller than 6-8 feet, do not use less than 16 fl. oz./A in a minimum of 100 gals. of water/A.</p> <p>Time application to occur when mites are first detected. One repeat application may be made following the directions in the Restrictions column of this table.</p>	<p>Refer to the section on Spray Drift Precautions of this label.</p> <p>Do not apply by air.</p> <p>Make only 2 applications per season.</p> <p>Do not apply more than 32 fl. oz./A per growing season.</p> <p>Repeat applications may be made 21 days or more after the last application. To prevent insect resistance, use other miticides with different modes of action before making a repeat application of Abamectin 0.15 EC.</p> <p>Do not allow livestock to graze in treated hop yards.</p> <p>Preharvest Interval: 28 days</p>

### LEAFY VEGETABLES (Except BRASSICA Vegetables) (CROP GROUP 4)

Abamectin 0.15 EC will control the following pests in the Leafy Vegetables (except brassica vegetables) Crop Group: amaranth (leafy amaranth, Chinese spinach, tampala), arugula (Roquette), cardoon, celery, Chinese celery, celtuce, chervil, Chrysanthemum (edible-leaved), Chrysanthemum (garland), corn salad, garden cress, upland cress (yellow rocket, winter cress), dandelion, dock (sorrel), endive (escarole), Florence fennel (finocchio), head and leaf lettuce, orach, parsley, garden purslane, winter purslane, radicchio (red chicory), rhubarb, spinach, New Zealand spinach, vine spinach (Malabar spinach, Indian spinach), Swiss chard:

*Carmine spider mite*  
*Liriomyza leafminers*  
*Twospotted spider mite*

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
<p>8 – 16 fl. oz./A</p> <p><b>Note:</b> Although Abamectin 0.15 EC can be used without a wetting agent, improved spreading and penetration for better insect control is achieved using a combination of Abamectin 0.15 EC and a surfactant such as WETCIT. Nonionic type surfactants are recommended (not binder or sticker-type surfactants).</p>	<p>Apply Abamectin 0.15 EC using ground or air application equipment. Although aerial application is permitted, best control of mites is achieved with ground applications which provide better spray coverage. The user accepts all liability for mite level and duration of control if Abamectin 0.15 EC is applied by air.</p> <p>Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage. Control of these mites/insects requires a thorough coverage of the spray solution on the crop foliage.</p> <p>Do not apply in less than 20 gals. of water/A by ground and in less than 5 gals. of water by air application. To ensure thorough spray coverage, use a greater spray volume for high pest pressure, dense crop canopies, and adverse application conditions (high temperatures).</p> <p>Apply Abamectin 0.15 EC at 8 – 12 fl. oz./A for low to moderate insect populations and at 16 fl. oz./A for heavy infestations. Make repeat applications if needed to maintain control according to the Restrictions column of this table.</p> <p><b>Mites:</b> Apply when insects first appear.  <b>Leafminers:</b> Time application to occur when adult flies are first detected.</p>	<p>Refer to the section on Spray Drift Precautions of this label.</p> <p>Do not apply Abamectin 0.15 EC by air in the State of New York.</p> <p>Do not apply more than 48 fl. oz. Abamectin 0.15 EC per growing season.</p> <p>Make only 2 sequential applications 7 days or more apart.</p> <p>To prevent insect resistance to Abamectin 0.15 EC, do not apply to leafy vegetables grown for transplants.</p> <p>Preharvest Interval: 7 days</p>

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**MINT (PEPPERMINT AND SPEARMINT)**


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Abamectin 0.15 EC will control the following pests in peppermint and spearmint:

*Twospotted spider mite*

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
<p>8 – 12 fl. oz./A</p> <p><b>Note:</b> Although Abamectin 0.15 EC can be used without a wetting agent, improved spreading and penetration for better insect control is achieved using a combination of Abamectin 0.15 EC and either a nonionic surfactant such as WETCIT or organosilicone-based surfactant at the manufacturer's recommended use rates.</p>	<p>Apply Abamectin 0.15 EC using ground or air application equipment. Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage. Control of these mites/insects requires a thorough coverage of the spray solution on the crop foliage.</p> <p>Do not apply in less than 20 gals. of water/A by ground and in less than 5 gals. of water by air application. To ensure thorough spray coverage, use a greater spray volume for high pest pressure, dense crop canopies, and adverse application conditions (high temperatures).</p> <p>Time applications to occur when insects first appear. Make repeat applications if needed to maintain control according to the Restrictions column of this table.</p>	<p>Do not apply Abamectin 0.15 EC by air in the State of New York.</p> <p>Do not apply more than 12 fl. oz. Abamectin 0.15 EC per application or more than 36 fl. oz. per growing season.</p> <p>Make only 2 sequential applications 7 days or more apart. Do not apply more than 3 applications per season.</p> <p>Do not allow livestock to graze or feed treated foliage to livestock.</p> <p>Preharvest Interval: 28 days</p>

## PEARS (INCLUDING ORIENTAL PEARS)

Abamectin 0.15 EC will control the following pests in pears and Oriental pears:

*European red mite*  
*McDaniel spider mite*  
*Pear psylla*  
*Pear rust mite*  
*Twospotted spider mite*  
*Yellow mite*

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
<p>For Dilute Sprays<sup>a</sup>: 2.5 – 5.0 fl. oz./100 gals</p> <p>For Concentrate Sprays<sup>b</sup>: 10 – 20 fl. oz./A</p> <p><b>And add (for best results)</b></p> <p>A Horticultural Spray Oil that is not a dormant oil</p> <p>For Dilute Sprays: 0.25% or 1 gal./A</p> <p>For Concentrate Sprays: Minimum of 1 gal./A</p>	<p>Apply Abamectin 0.15 EC using conventional dilute or concentrate sprays using ground application equipment. Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage. The size and number of trees per acre as well as foliage density will determine the gallons of spray required. Apply only in 40 gals. or more of water/A. Control of these mites/insects requires a thorough coverage of the spray solution on the tree foliage.</p> <p>Time Abamectin 0.15 EC applications to occur when spider mites first appear or when insect thresholds are reached. Repeat applications following the directions in the Restrictions column of this table.</p>	<p>Do not apply by air.</p> <p>Reduced efficacy and/or residual control may occur if Abamectin 0.15 EC is not applied with a horticultural spray oil (not a dormant oil). Follow all directions on the spray oil label or spray guides. In some cases, phytotoxicity and crop loss has been observed when Abamectin 0.15 EC plus a horticultural spray oil was applied in less than 14 days before or after a captan application.</p> <p>Do not apply more than 20 fl. oz. Abamectin 0.15 EC per application, and no more than 40 fl. oz. per growing season.</p> <p>Make only 2 applications per growing season 21 days or more apart.</p> <p>Do not allow livestock to graze in treated orchards.</p> <p>Preharvest Interval: 28 days</p>

<sup>a</sup> Dilute Spray Rate is based on a volume of 400 gals./A dilute spray.

<sup>b</sup> Concentrate Spray Rate: determine the amount of Abamectin 0.15 EC required in a full cover dilute spray. Then use the same amount of product per acre in concentrate sprays that would be required for the dilute sprays to the same orchard/grove. Note that for small trees, the amount may be less than 10 fl. oz./A.

## POTATOES

Abamectin 0.15 EC will control the following pests in potatoes:

*Colorado potato beetle*

*Liriomyza leafminers*

*Spider mites*

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
<p>8 – 16 fl. oz./A</p> <p><b>Note:</b> Although Abamectin 0.15 EC can be used without a wetting agent, improved spreading and penetration for better insect control is achieved using a combination of Abamectin 0.15 EC and either a nonionic surfactant such as WETCIT or organosilicone-based surfactant at the manufacturer's recommended use rates.</p>	<p>Apply Abamectin 0.15 EC using ground or air application equipment. Although aerial application is permitted, best control of mites is achieved with ground applications which provide better spray coverage. The user accepts all liability for mite level and duration of control if Abamectin 0.15 EC is applied by air.</p> <p>Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage. Control of these mites/insects requires a thorough coverage of the spray solution on the crop foliage.</p> <p>Do not apply in less than 20 gals. of water/A by ground and in less than 5 gals. of water by air application. To ensure thorough spray coverage, use a greater spray volume for high pest pressure, dense crop canopies, and adverse application conditions (high temperatures).</p> <p>Use of Abamectin 0.15 EC in combination with a sticker or binder type product such as Bravo® Weather Stik® may reduce control of insects and spider mites.</p> <p>Apply Abamectin 0.15 EC at 8 – 12 fl. oz./A for low to moderate insect populations and at 16 fl. oz./A for heavy infestations. Make repeat applications if needed to maintain control according to the Restrictions column of this table.</p> <p><b>Spider mites:</b> Time applications to occur when insects are first detected.</p> <p><b>Colorado potato beetle:</b> Apply Abamectin 0.15 EC when about 50% of the egg masses have hatched and the larvae are present. When 2 applications are required, do not make the second application to the same Colorado potato beetle generation.</p> <p><b>Liriomyza leafminers:</b> Time application to occur when adult flies are first detected.</p>	<p>Refer to the section on Spray Drift Precautions of this label.</p> <p>Do not apply Abamectin 0.15 EC by air in the State of New York.</p> <p>Do not apply more than 32 fl. oz./A Abamectin 0.15 EC to control spider mites and Colorado potato beetle, or more than 48 fl. oz. to control leafminers.</p> <p>Make only 2 sequential applications 7 days or more apart.</p> <p>Do not allow livestock to graze or feed treated foliage to livestock.</p> <p>Preharvest Interval: 14 days</p>

## STONE FRUIT CROP GROUP (CROP GROUP 12)

Abamectin 0.15 EC will control the following pests in the Stone Fruit Crop Group: apricot; cherry (sweet and tart), nectarine, peach, plum, plum (chickasaw, damson, and Japanese), plumcot, and prune (fresh):

*European spider mite*  
*Pacific spider mite*  
*Twospotted spider mite*

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
<p>For Dilute Sprays<sup>a</sup>: 2.5 – 5.0 fl. oz./100 gals</p> <p>For Concentrate Sprays<sup>b</sup>: 10 – 20 fl. oz./A</p> <p><b>Horticultural Spray Oil:</b>  For Dilute Sprays: 0.25% or 1 gal./A</p> <p>For Concentrate Sprays: Minimum of 1 gal./A</p> <p><b>Nonionic Surfactant</b>  Labeled rate</p>	<p>Apply when mites first appear.</p> <p>A second application may be made, if needed to maintain control. (see Restrictions)</p> <p>Always apply Abamectin 0.15 EC in combination with a nonionic surfactant (at the manufacturer's specified label rate) that spreads and/or penetrates the leaf cuticle, or apply with horticultural Spray oil (not a dormant oil). The combination of Abamectin 0.15 EC and the nonionic surfactant helps to provide an even coverage of spray on the foliage and to improve the wetting and penetration of leaves for better insect control.</p> <p>A nonionic surfactant that spreads on and or/penetrates the leaf cuticle can improve insect control. Although Abamectin 0.15 EC has been tested in combination with nonionic surfactants for safety to Stone Fruit, it is impossible to test on all Stone Fruit varieties under the variety of conditions that may cause crop injury. Therefore, when using Abamectin 0.15 EC in combination with a nonionic surfactant, carefully follow the Directions for Use and Precautions on the surfactant label and in official spray guides.</p> <p>A horticultural oil (not a dormant oil) may improve efficacy and can be used but it may increase the possibility of phytotoxicity to foliage and fruit. Use nonionic surfactants at the manufacturers recommended rate.</p> <p>Use a minimum of 0.25% horticultural spray oil (not a dormant oil) in the dilute spray mixture and not less than 1.0 gal. of horticultural spray oil per acre in the final finished spray.</p> <p>Apply Abamectin 0.15 EC using conventional dilute or concentrate sprays using ground application equipment. Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage. The size and number of trees per acre as well as foliage density will determine the gallons of spray required. Apply only in 40 gals. or more of water/A. Control of these mites/insects requires a thorough coverage of the spray solution on the tree foliage.</p>	<p>Do not apply by air.</p> <p>Do not apply more than 20 fl. oz. (or 0.023 lb. ai./A) of Abamectin 0.15 EC, or any other foliarly applied abamectin containing product, per application.</p> <p>Do not apply more than 40 fl. oz. (or 0.047 lb. ai./A) of Abamectin 0.15 EC, or any other foliarly applied abamectin containing product, per growing season.</p> <p>Make a maximum of 2 applications of Abamectin 0.15 EC, or any other foliarly applied abamectin containing product per growing season 21 days or more apart.</p> <p>Do not allow livestock to graze in treated orchards.</p> <p>Preharvest Interval: 21 days</p> <p>Do not apply in less than 40 gals. of water/A.</p>

<sup>a</sup> Dilute Spray Rate is based on a volume of 400 gals./A dilute spray.

<sup>b</sup> Concentrate Spray Rate: determine the amount of Abamectin 0.15 EC required in a full cover dilute spray. Then use the same amount of product per acre in concentrate sprays that would be required for the dilute sprays to the same orchard/grove. Note that for small trees, the amount may be less than 10 fl. oz./A.

## STRAWBERRIES

Abamectin 0.15 EC will control the following pests in strawberries:

*Carmine mites*  
*Cyclamen mites*  
*Aphids*  
*Thrips*  
*Whiteflies*  
*Strawberry spider mite*  
*Twospotted spider mite*

Rate of Abamectin 0.15 EC	Directions for Application	Restrictions
16 fl. oz./A  <b>Note:</b> Although Abamectin 0.15 EC can be used without a wetting agent, improved spreading and penetration for better insect control is achieved using a combination of Abamectin 0.15 EC and a nonionic surfactant such as WETCIT at the manufacturer's recommended use rate.	<p>Apply Abamectin 0.15 EC using ground application equipment. Calibrate equipment prior to application to ensure sufficient water is used for thorough coverage. Control of these mites requires a thorough coverage of the spray solution on the crop foliage. Apply Abamectin 0.15 EC to the tops and undersides of the leaves.</p> <p>Do not apply in less than 50 gals. of water/A by ground. If electro-static sprayers are used, the volume may be less than 50 gals./A but do not use less than 10 gals. of water/A.</p> <p>Apply Abamectin 0.15 EC when mites are first detected. A second repeat application may be made 7 – 10 days later. This sequence of two applications may be repeated if needed but follow the directions in the Restrictions column of this table.</p>	<p>Refer to the section on Spray Drift Precautions of this label.</p> <p>Do not apply by air.</p> <p>Do not apply more than 16 fl. oz. per application or more than 64 fl. oz Abamectin 0.15 EC per growing season.</p> <p>After the first 2 applications, wait 21 days or more before making additional applications if needed to maintain control.</p> <p>To prevent insect resistance to Abamectin 0.15 EC, do not apply in strawberry nurseries.</p> <p>Preharvest Interval: 3 days</p>

### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal. Open dumping is prohibited. Do not reuse empty container.

**PESTICIDE STORAGE:** Store in a tightly closed container in a cool, dry place.

**PESTICIDE DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. 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 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 DISPOSAL:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling if available. 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. 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.

# **CONDITION OF SALE AND WARRANTY**

The DIRECTIONS FOR USE of this product reflect the opinion of experts based on field use and tests. The directions are believed to be reliable and should be followed carefully. However, it is impossible to eliminate all risks inherently associated with use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of UNIVERSAL CROP PROTECTION ALLIANCE, LLC, its Supplemental Distributors, or the Seller. All such risks shall be assumed by the Buyer.

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