

# RESTRICTED USE PESTICIDE

Due to toxicity 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**

# BRIGADE<sup>®</sup>

## WSB

INSECTICIDE / MITICIDE

EPA Reg. No. 279-3108

EPA Est. 279-NY-1

**Active Ingredient:**

**By Wt.**

Bifenthrin ..... 10.0%  
Other Ingredients: ..... 90.0%

100.0%

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

## KEEP OUT OF REACH OF CHILDREN WARNING/AVISO

This label must be in the possession of the user at the time of application.  
Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)

### 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 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 by mouth-to-mouth, if possible.</li><li>• Call a poison control center or doctor for treatment advice.</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. Rinse skin immediately with plenty of water for 15-20 minutes.</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. You may also contact 1-800-331-3148 for emergency medical treatment information.

### NOTE TO PHYSICIAN

This product is a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible fats, oils, or alcohol may increase absorption and so should be avoided.

Sold By



**FMC Corporation**  
2929 Walnut Street  
Philadelphia, PA 19104

**Net Contents: 0.5 Pound WSB**

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

#### WARNING

May be fatal if swallowed. Harmful if inhaled or absorbed through skin. Causes moderate eye irritation. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing.

### Personal Protective Equipment (PPE)

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

- Long-sleeved shirt and long pants
- Waterproof gloves or chemical-resistant gloves made of barrier laminate, butyl rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), natural rubber (≥ 14 mils), polyethylene, polyvinyl chloride (PVC) (≥ 14 mils), or viton (≥ 14 mils)
- Shoes plus socks

#### Mixers and Loaders must wear:

- Long-sleeved shirt and long pants
- Waterproof gloves or chemical-resistant gloves made of barrier laminate, butyl rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), natural rubber (≥ 14 mils), polyethylene, polyvinyl chloride (PVC) (≥ 14 mils), or viton (≥ 14 mils)
- Shoes plus socks
- Protective eyewear

#### Mixers and Loaders supporting aerial applications to cotton must wear at a minimum:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of barrier laminate, butyl rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), natural rubber (≥ 14 mils), polyethylene, polyvinyl chloride (PVC) (≥ 14 mils), or viton (≥ 14 mils)
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, 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.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### 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, a chemical-resistant apron, and chemical-resistant gloves. 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 break-down.

### 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 if bees are visiting the treatment area.

#### Protect pollinating insects by following label intended to minimize drift to reduce risk to these organisms.

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

### DIRECTIONS FOR USE Restricted Use Pesticide

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

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.

## 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; and Shoes plus socks.

## Resistance Management

For resistance management, BRIGADE WSB Insecticide/Miticide contains a Group 3A insecticide. Any insect population may contain individuals naturally resistant to BRIGADE WSB Insecticide/Miticide and other Group 3A insecticides. The resistant individuals may dominate the insect population if this group of insecticides is used repeatedly in the same fields. Appropriate resistance-management strategies should be followed. To delay insecticide resistance, take the following steps:

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

## 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. Rough handling 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.

Brigade WSB Insecticide needs to be diluted with water prior to 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 specified rate and number of acres to be treated by using the following equation:

$$\frac{\text{Specified Rate for Pest (Active/Acre)}}{0.05 \text{ (amt. ai in each bag)}} \times \text{\# Acres to be Treated with Tankload} = \text{\# of Brigade Water Soluble Bags to use for acres to be treated.}$$

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

### **Instructions for Introducing 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 the WSP 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 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 the WSP intact. Do not cut or puncture the 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 it is 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 products so long as the directions for use of all the pesticide product components 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 into the tank.
5. Do not spray water from a hose or fill pipe to break or dissolve the WSP.
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 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 WSP have fully dissolved and the contents have been thoroughly mixed into 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 has 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.
14. It is unlawful to use any registered pesticide, including WSPs, in a manner inconsistent with its label.

Air agitation is not recommended. Mix thoroughly to fully disperse and suspend the wettable powder. Wait until the Brigade WSB is fully dissolved before adding any material containing boron. Boron will cause incomplete dissolution of the water soluble bags which may result in plugging of sprayer pump, screens and lines.

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.

## **Tank-Mixture**

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

## **VEGETATIVE FILTER STRIPS**

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

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

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

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

## BUFFER ZONES TO WATER BODIES

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

**Ultra Low Volume (ULV) Aerial Application** – Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

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

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.

### Mandatory Spray Drift Management

#### Aerial Applications:

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

#### Airblast Applications:

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

#### Ground Boom Applications:

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

## Spray Drift Advisories

**THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.  
BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.**

### IMPORTANCE OF DROPLET SIZE

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### Controlling Droplet Size – Ground Boom

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

#### Controlling Droplet Size – Aircraft

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

#### BOOM HEIGHT – Ground Boom

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

#### RELEASE HEIGHT – Aircraft

- Higher release heights increase the potential for spray drift.

#### SHIELDED SPRAYERS

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

#### TEMPERATURE AND HUMIDITY

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

#### TEMPERATURE INVERSIONS

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

**WIND**

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

**NON-TARGET ORGANISM ADVISORY STATEMENT (Environmental Hazards):**

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

**Pollinator Best Management Practices**

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

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

**How to Report Bee Kills**

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

**Application Instructions**

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

**ARTICHOKE**

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Cribrate Weevil Artichoke Plume Moth	16 (0.1)	Apply when pest population reaches damaging threshold and repeat as necessary to maintain control, but not more often than 15-day intervals.  <b>Application by ground:</b> Apply a full cover spray in a minimum of 75 gallons of finished spray per acre.  <b>Application by air:</b> Apply specified dosage in a minimum of 10 gallons of finished spray per acre.  *1 bag = 0.05 lb ai = 8 oz formulated product
<b>RESTRICTIONS</b>		
<ul style="list-style-type: none"> <li>· Do not exceed 2 bags/A (0.10 lb ai/A or 16 oz product/A) between bud formation and harvest of an individual fruit.</li> <li>· Do not exceed 10 bags/A (0.5 lb ai/A or 80 oz product/A) per year.</li> <li>· Do not make more than 5 applications per year.</li> <li>· Minimum re-treatment interval (RTI) is 15 days.</li> <li>· Do not apply within 5 days of harvest.</li> </ul>		

**HOPS\***

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Aphids Armyworms Cutworms Leafrollers Loopers	9.6 - 16 (0.06 - 0.1)	<b>Application by ground:</b> For best results, full coverage is essential. Early season recommend 100-150 gallons of finished spray per acre. Late season recommend 200-250 gallons of finished spray per acre.  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.
Root Weevils	8 - 16 (0.05 - 0.1)	
Twospotted spider mite	16 (0.1)	<b>Application by air for late season control of twospotted spider mites:</b> Apply no less than 16 oz. (0.1 lb ai) per application in a minimum of 10 gallons per acre.  **1 bag = 0.05 lb ai = 8 oz formulated product.
<b>RESTRICTIONS</b>		
<ul style="list-style-type: none"> <li>· Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.</li> <li>· Do not exceed 6 bags/A (0.3 lb ai/A or 48 oz product/A) per year.</li> <li>· Do not make more than 3 applications per year.</li> <li>· Minimum re-treatment interval (RTI) is 21 days.</li> <li>· Do not apply within 14 days of harvest.</li> </ul>		

\* Not for this use in California

## LOW GROWING BERRIES (Subgroup 13-07G) except Cranberry

Bearberry, Bilberry, Blueberry, lowbush, Cloudberry, Lingonberry, Muntries, Partridgeberry, Strawberry, cultivars, varieties and/or hybrids of these

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Aphids Armyworms Flea Beetles Heliothis spp. Leafrollers Lygus spp. Plant Bugs Spittlebugs Stink Bugs Strawberry Clipper Strawberry Sap Beetle	6.4 - 32 (0.04 - 0.2)	Apply when pest populations reach damaging thresholds and repeat as necessary at 7-14 day intervals.  <b>Application by ground:</b> Apply a full cover spray in a minimum of 50 gallons of finished spray per acre.  <b>Application by air (Aerial application is prohibited in Florida):</b> Apply specified dosage in a minimum of 5 gallons per acre.  *1 bag = 0.05 lb ai = 8 oz formulated product
Strawberry Root Weevil Black Vine Weevil	8 - 32 (0.05 - 0.2)	
Spider mites	16 - 32 (0.1 - 0.2)	
<b>RESTRICTIONS</b>		
<ul style="list-style-type: none"> <li>Do not exceed 4 bags/A (0.2 lb ai/A or 32 oz product/A) per application.</li> <li>Do not exceed 10 bags/A (0.5 lb ai/A or 80 oz product/A) per year.</li> <li>Do not make more than 3 applications per year.</li> <li>Minimum re-treatment interval (RTI) is 7 days.</li> <li>Pre-Harvest Interval (PHI) is 0 days.</li> </ul>		

### 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 Brigade WSB Insecticide/Miticide greater than 0.1 lb ai/A, harvesters must wear gloves for five (5) days following application.

### Cranberry\*

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Black headed fireworm Cranberry blossom worm Cranberry fruitworm Cranberry tipworm False armyworm Flea beetle spp. Scale spp. Spanworm spp. Sparganothis fruitworm White grubs (Adults) Tipworm	16 (0.1)	Apply when pest populations reach damaging thresholds.  <b>Application by ground:</b> Apply a full cover spray in a minimum of 24 gallons of finished spray per acre.  <b>Application by air (Aerial application is prohibited in Florida):</b> Apply specified dosage in a minimum of 5 gallons of finished spray per acre.  *1 bag = 0.05 lb ai = 8 oz formulated product
<b>RESTRICTIONS</b>		
<ul style="list-style-type: none"> <li>Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.</li> <li>Do not exceed 6 bags/A (0.3 lb ai/A or 48 oz product/A) per year.</li> <li>Do not make more than 3 applications per year.</li> <li>Minimum re-treatment interval (RTI) is 7 days.</li> <li>Pre-Harvest Interval (PHI) is 30 days.</li> </ul>		

Not for this use in California\*

## CANEBERRIES (Subgroup 13-07 A)

Blackberries, Lowberries, Marionberries, Olallieberries, Youngberries, Loganberries, Andean blackberry, Arctic blackberry, Bingleberry, Black satin berry, Boysenberry, Brombeere, California blackberry, Chesterberry, Cherokee blackberry, Cheyenne blackberry, Common blackberry, Coryberry, Darrowberry, Dewberry, Dirksen thornless berry, Evergreen blackberry, Himalayaberry, Hullberry, Lavacaberry, Lucretiaberry, Mammoth blackberry, Mora, Mures deronce, Nectarberry, Northern dewberry, Oregon evergreen berry, Phenomenalberry, Rangeberry, Ravenberry, Rossberry, Shawnee blackberry, Blackberry, Southern dewberry, Tayberry, Zazamora, Raspberries (black, red and wild)

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Leafrollers Orange Tortrix Root Weevils Black Vine Weevil	8 - 16 (0.05 - 0.1)	Apply by air or ground equipment using sufficient water to obtain full coverage of foliage. (minimum of 10 gallons of finished spray per acre by air and 50 gallons of finished spray per acre by ground).  One application may be made pre-bloom and a second application may be made post bloom.  For Crown Borer, apply 0.1 lb ai/A, 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.  *1 bag = 0.05 lb ai = 8 oz formulated product
Twospotted Spider Mite Carmine Mite Raspberry Crown Borer	16 (0.1)	
<b>RESTRICTIONS</b>		
<ul style="list-style-type: none"> <li>Do not make both pre-bloom foliar and pre-bloom drench applications.</li> <li>Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.</li> <li>Do not exceed 4 bags/A (0.2 lb ai/A or 32 oz product/A) per year.</li> <li>Do not make more than 2 applications per year.</li> <li>Do not apply within 3 days of harvest.</li> </ul>		

## POME FRUIT Group 11-10 (except Mayhaw)

Pears, Apples, Azarole, Crabapple, Loquat, Medlar, Quince, Tejocote

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Aphids Codling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers Lygus spp. Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs Tarnished Plant Bugs	6.4 - 32 (0.04 - 0.2)	Application by ground: Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage.  <b>Application by air:</b> Apply the specified dosage in a minimum of 10 gallons of finished spray per acre by air.  *1 bag = 0.05 lb ai = 8 oz formulated product
Yellow Spider Mite	9.6 - 32 (0.06 - 0.2)	
European Red Mite Twospotted Spider Mite	12.8 - 32 (0.08 - 0.2)	
<b>RESTRICTIONS</b> <ul style="list-style-type: none"> <li>Do not exceed 4 bags/A (0.2 lb ai/A or 32 oz product/A) per application.</li> <li>Do not exceed 10 bags/A (0.5 lb ai/A or 80 oz product/A) per year with no more than 0.45 lb ai/A applied after petal fall.</li> <li>Do not make more than 3 applications per year.</li> <li>Minimum re-treatment interval (RTI) is 30 days.</li> <li>Do not apply within 14 days of harvest.</li> <li>Do not graze livestock in treated orchards or cut treated cover crops for feed.</li> </ul>		

## Peach Subgroup 12-12B

Peaches, Nectarines

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Aphids Codling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers Lygus spp. Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs Tarnished Plant Bugs	6.4 - 32 (0.04 - 0.2)	<b>Application by ground:</b> Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage.  <b>Application by air:</b> Apply the specified dosage in a minimum of 10 gallons of finished spray per acre by air.  *1 bag = 0.05 lb ai = 8 oz formulated product
Yellow Spider Mite	9.6 - 32 (0.06 - 0.2)	
European Red Mite Twospotted Spider Mite	12.8 - 32 (0.08 - 0.2)	
<b>RESTRICTIONS</b> <ul style="list-style-type: none"> <li>Do not exceed 4 bags/A (0.2 lb ai/A or 32 oz product/A) per application.</li> <li>Do not exceed 10 bags/A (0.5 lb ai/A or 80 oz product/A) per year with no more than 0.45 lb ai/A applied after petal fall.</li> <li>Do not make more than 3 applications per year.</li> <li>Minimum re-treatment interval (RTI) is 30 days.</li> <li>Do not apply within 14 days of harvest.</li> <li>Do not graze livestock in treated orchards or cut treated cover crops for feed.</li> </ul>		



## TREE NUT GROUP 14-12

Almond, Beech Nut, Brazil Nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert (hazelnut), Hickory Nut, Macadamia Nut (Bush Nut), Pecan, Pistachio, Walnut (Black and English), Brazilian Pine, Bunya, Bur Oak, Cajou Nut, Candlenut, Coconut, Coquito Nut, Dika Nut, Ginkgo, Gujana Chestnut, Heartnut, Mongongo Nut, Monkey Pot, Okari Nut, Pachira Nut, Peach Palm Nut, Pequi, Pili Nut, Pine Nut, Yellowhorn, Sapucaia Nut

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Black Pecan Aphid Codling Moth Filbert Worm Hickory Shuckworm Leaffooted Bugs Navel Orangeworm Oblique banded Leafroller Peach Twig Borer Pecan Leaf Casebearer Pecan Nut Casebearer Pecan Phylloxera Plant Bugs Stink Bugs Walnut Aphid Yellow Pecan Aphid	8 - 32 (0.05 - 0.2)	Application by ground: Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage. Application by air: Apply the specified dosage in a minimum of 10 gallons of finished spray per acre. Minimum Spray Intervals: Apply Brigade WSB Insecticide/Miticide as needed to maintain control, but do not apply at intervals sooner than 15 days. *1 bag = 0.05 lb ai = 8 oz formulated product.
European Red Mite Pecan Weevil Spider Mites	12.8 - 32 (0.08 - 0.2)	
Fire Ants Walnut Husk Fly	16 - 32 (0.1 - 0.2)	
Peach Twig Borer Navel Orange Worm	<b>Dormant Spray</b> 8 - 16 (0.05 - 0.1)	Apply Brigade WSB Insecticide/Miticide at 16-32 oz/A (1.0 - 2.0 lb ai/A) during dormancy using an EPA or CDPR registered dormant oil. Consult the manufacturer's dormant oil label for recommendations. Use full to one-half recommended dormant oil rates with Brigade WSB Insecticide/Miticide. Ground application is recommended for greatest efficacy. Complete coverage is critical for control of dormant pests.
San Jose Scale Walnut Scale	<b>Dormant Spray</b> 16 - 32 (0.1 - 0.2)	
<b>RESTRICTIONS</b> <ul style="list-style-type: none"> <li>• Do not exceed 4 bags/A (0.2 lb ai/A or 32 oz product/A) per application and do not exceed 2 bags/A (0.1 lb ai/A) per application for control of Peach twig borer and Navel orange worm.</li> <li>• Do not exceed 10 bags/A (0.5 lb ai/A or 80 oz product/A) per year.</li> <li>• Do not make more than 3 applications per year and do not make more than 5 applications per year as dormant spray for control of Peach twig borer and Navel orange worm.</li> <li>• Minimum re-treatment interval (RTI) is 15 days.</li> <li>• Observe a 21-day Pre-Harvest Interval (PHI) for Pecans and a 7-day PHI for all other registered tree nut crops.</li> <li>• Do not graze livestock in treated orchards or cut treated cover crops for feed.</li> </ul>		

## CITRUS FRUIT GROUP 10-10

Limes, Calamondin, Citron, Grapefruit, Kumquat, Lemons, Mandarins, Oranges, Pummelo, Tangelos, Tangerines, Tangor, Australian desert lime, Australian finger-lime, Australian round-lime, Brown River finger lime, Japanese summer grapefruit, Mediterranean mandarin, Mount white lime, New Guinea wild lime, Russell River lime, Satsuma mandarin, Sweet lime, Tachibana orange, Tahiti lime, Trifoliolate orange, Uniq fruit, Limes, Calamondin, Citron, Grapefruit, Kumquat, Lemons, Mandarins, Oranges, Pummelo, Tangelos, Tangerines, Tangor

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Diaprepes Root Weevil Southern Blue Green Citrus Root Weevil Blue Green Citrus Root Weevil Brown Leaf Notcher Little Leaf Notcher	40 - 80 (0.25 - 0.50)	<p>Apply Brigade WSB Insecticide/Miticide by ground equipment to bare soil beneath citrus trees. Brigade WSB Insecticide/Miticide 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. Use greater spray volume for greater uniformity of coverage. A pre- and post-application irrigation may aid in the uniformity of coverage as well.</p> <p>Brigade WSB Insecticide/Miticide protects citrus tree roots from Diaprepes and other citrus root weevil feeding by forming a barrier which provides contact activity on newly hatched larvae (neonates). As citrus root weevil eggs hatch in new foliage, neonates fall to the soil surface beneath the tree and come in contact with Brigade WSB Insecticide/Miticide as they attempt to burrow into the root zone. Disturbance of the soil beneath trees should be minimized.</p>
Fireant Asian Cockroach	16 - 40 (0.1 - 0.25)	<p>Timing of Brigade WSB Insecticide/Miticide 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 Brigade WSB Insecticide/Miticide 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 Brigade WSB Insecticide/Miticide soil barrier in place prior to drop of the neonates.</p> <p>Brigade WSB Insecticide/Miticide is one of several effective tools in an integrated pest management program for Citrus Root Weevils. Use Brigade WSB Insecticide/Miticide 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>Additional Instructions:            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 0.50 lb ai (80 oz formulated) 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, use 0.25 lb ai (40 oz formulated) for early season and use 0.25 lb ai for later in the season.</p> <p>Apply the labeled dosage in a minimum of 40 gallons of finished spray per acre.</p> <p>* 1 bag = 0.05 lb ai = 8 oz formulated product</p>

### RESTRICTIONS

- Do not apply through irrigation systems.
- Do not allow any application of Brigade WSB Insecticide/Miticide to contact fruit or foliage.
- Do not exceed 10 bags/A (0.5 lb ai/A or 80 oz product/A) per application and do not exceed 5 bags/A (0.25 lb ai/A or 40 oz product/A) for control of Fire ant and Asian cockroach per application.
- Do not exceed 10 bags/A (0.5 lb ai/A or 80 oz product/A) per year.
- Do not make more than 1 application per year and do not make more than 2 applications per year for control of Fire ant and Asian cockroach per year.
- Do not apply within 1 day of harvest.
- Ground application only. Do not apply by air.

## 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 long bean, Cowpea, Moth bean, Southern pea, Yard-long bean, Jackbean, Soybean (immature seed), Sword bean

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Wireworm Maggot Grubs	8 - 16 (0.05 - 0.1)	<b>Planting Time Use:</b> For Wireworm, maggot or grubs, apply in-furrow with the seed or transplant.
Flea Beetle Grasshoppers Aster Leafhopper Leafhoppers	4 - 16 (0.025 - 0.1)	<b>Foliar Use:</b> Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons of finished spray per acre with ground equipment.  Thorough coverage is essential to achieve control.
Aphids Beet Armyworm Fall Armyworm Southern Armyworm Yellowstriped Armyworm Bean Leaf Beetle Cucumber Beetles Japanese beetle Adult Sap Beetle Plant Bug Stink Bugs Tarnished Plant Bug Alfalfa Caterpillar Cloverworm European Corn Borer Cutworms Western Bean Cutworm Corn Earworm Loopers Corn Rootworm Adult Thrips Webworms Pea Weevil Pea Leaf Weevil	5.3 - 16 (0.033 - 0.1)	*1 bag = 0.05 lb ai = 8 oz formulated product
Banks Grass Mite Twospotted Spider Mite Carmine Mite Lygus Spp Whitefly	12.8 - 16 (0.08 - 0.1)	
<b>RESTRICTIONS</b>		
<ul style="list-style-type: none"> <li>Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.</li> <li>Do not exceed 4 bags/A (0.2 lb ai/A or 32 oz product/A) per year including at plant applications.</li> <li>Do not make more than 2 applications per year.</li> <li>Do not apply within 3 days of harvest.</li> </ul>		

## BRASSICAS, HEAD AND STEM

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

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Wireworm Maggot Grubs	8 - 16 (0.05 - 0.1)	<b>Planting Time Use:</b> For Wireworm, maggot or grubs, apply in-furrow with the seed or transplant.
Cutworms Corn Earworm Tobacco Budworm Saltmarsh Caterpillar Leafhoppers Flea Beetles Imported Cabbageworm Cucumber Beetles Aphids Armyworms Loopers Stink Bugs Crickets Ground Beetles Thrips Wireworm (adults) Diamondback Moth	5.3 - 16 (0.033 - 0.1)	<b>Foliar Use:</b> Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 20 gallons of finished spray per acre with ground equipment.  Thorough coverage is essential to achieve control.  *1 bag = 0.05 lb ai = 8 oz formulated product
Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus Spp. Whitefly	12.8 - 16 (0.08 - 0.1)	
<b>RESTRICTIONS</b>		
<ul style="list-style-type: none"> <li>Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.</li> <li>Do not exceed 10 bags/A (0.5 lb ai/A or 80 oz product/A) per year.</li> <li>Do not make more than 5 applications after bloom.</li> <li>Do not make applications less than 7 days apart.</li> <li>Do not apply within 7 days of harvest.</li> </ul>		

## CANOLA, CRAMBE, RAPESEED

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Aphids Cutworms Diamondback Moth Loopers Other Lepidopterous Larvae Flea Beetle Flea Hopper Grasshopper Plant Bug Stink Bugs Seedpod Weevil Thrips Armyworms	5.3 - 6.4 (0.033 - 0.04)	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons of finished spray per acre with ground equipment.  Thorough coverage is essential to achieve control.  *1 bag = 0.05 lb ai = 8 oz formulated product
<b>RESTRICTIONS</b> <ul style="list-style-type: none"> <li>Do not apply more than 0.04 lb ai/A (6.4 oz product/A) per application.</li> <li>Do not apply more than 0.08 lb ai/A (12.8 oz product/A) per year.</li> <li>Do not make more than 2 applications per year.</li> <li>Do not make applications less than 14 days apart.</li> <li>Do not apply within 35 days of harvest.</li> </ul>		

## CUCURBITS

Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cucumber, Gherkin, Gourd, edible (hyotan, cucuzza), Luffa spp. (hechima, Chinese okra), Mormordica spp. (balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon – hybrids and/or cultivars of Cucumis melo (true cantaloupe, cantaloupe casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon), Pumpkin (Cucurbita spp.), Squash, summer (crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini), Squash, winter (butternut squash, calabaza, Hubbard squash, (C.mixta; C.pepo) includes acron squash, spaghetti squash, Watermelon (hybrid and/or varieties of Citrullus spp.)

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Wireworm Maggot Grubs	8 - 16 (0.05 - 0.1)	<b>Planting Time Use:</b> For Wireworm, maggot or grubs, apply in-furrow with the seed or transplant.
Aphids Cutworms Cabbage Looper Leafhoppers Cucumber Beetles Squash Bugs Melonworm Pickleworm Plant Bug Stink Bugs Rindworm Squash Vine Borer Armyworms Corn Earworm Tobacco Budworm Grasshopper	8 - 16 (0.05 - 0.1)	<b>Foliar Use:</b> Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 20 gallons of finished spray per acre with ground equipment.  Thorough coverage is essential to achieve control.  *1 bag = 0.05 lb ai = 8 oz formulated product
Whitefly Banks Grass Mite Twospotted Spider Mite Carmine Mite Lygus Spp.	12.8 - 16 (0.08 - 0.1)	
<b>RESTRICTIONS</b> <ul style="list-style-type: none"> <li>Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.</li> <li>Do not exceed 6 bags/A (0.3 lb ai/A or 48 oz product/A) per year.</li> <li>Do not make more than 3 applications per year. Do not make more than 2 applications after bloom.</li> <li>Do not make applications less than 7 days apart.</li> <li>Do not apply within 3 days of harvest.</li> </ul>		

## LETTUCE, HEAD

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Aphids Armyworms Corn earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink bug Spp. Tobacco Budworm	5.3 - 16 (0.033 - 0.1)	Apply in water as necessary for insect control using a minimum of 20 gallons of finished spray per acre with ground equipment and 5 gallons of finished spray per acre by air.  Thorough coverage is essential to achieve control.  *1 bag = 0.05 lb ai = 8 oz formulated product
Lygus Spp. Carmine Mite Two Spotted Spider Mite Whitefly	12.8 - 16 (0.08 - 0.1)	
<b>RESTRICTIONS</b> <ul style="list-style-type: none"> <li>Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.</li> <li>Do not exceed 10 bags/A (0.5 lb ai/A or 80 oz product/A) per year.</li> <li>Do not make more than 5 applications per year.</li> <li>Do not make applications less than 7 days apart.</li> <li>Do not apply within 7 days of harvest.</li> </ul>		

## SPINACH

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Colorado Potato Beetle Tomato Pinworm Tomato Hornworm Armyworms Corn earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Thrips	5.3 - 16 (0.033 - 0.1)	For control of fire ants apply Brigade WSB Insecticide/Miticide to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.1 lb ai/A (16 oz/A) at minimum 7-day intervals up to a maximum of 4 applications.  Apply the specified dosage in 5 to 50 gallons of finished spray per acre by air or 10 to 50 gallons finished spray per acre by ground.  For control of whiteflies apply foliar treatments of Brigade WSB Insecticide/Miticide by ground or air at rates up to 0.1 lb ai/A (16 oz/A) at minimum 7-day intervals up to a maximum of 4 applications.  *1 bag = 0.05 lb ai = 8 oz formulated product
Broad Mite Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus Spp. Fire Ants Whitefly	12.8 - 16 (0.08 - 0.1)	
<b>RESTRICTIONS</b> <ul style="list-style-type: none"> <li>Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.</li> <li>Do not exceed 8 bags/A (0.4 lb ai/A or 64 oz product/A) per year.</li> <li>Do not make more than 4 applications per year.</li> <li>Do not make applications less than 7 days apart.</li> <li>Do not apply within 40 days of harvest.</li> </ul>		

## SMALL FRUIT VINE CLIMBING except Fuzzy Kiwifruit (SUBGROUP 13-07F)

Amur river grape, Gooseberry, Grape, Kiwifruit, hardy, Maypop, Schisandra berry, cultivars and/or hybrids of these

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Cutworms Eastern grape leafhopper Grape berry moth Japanese beetle adults Variegated leafhopper Western grape leafhopper	8 - 16 (0.05 - 0.1)	Apply in a minimum of 10 gallons of finished spray per acre by air or in a minimum of 25 gallons of finished spray per acre with ground equipment.  Thorough coverage is essential to achieve control.  When pest pressure is moderate to severe, use higher labeled rate.
Black vine weevil Glassywinged sharpshooter Twospotted spider mite	16 (0.1)	*1 bag = 0.05 lb ai = 8 oz formulated product
<b>RESTRICTIONS</b> <ul style="list-style-type: none"> <li>Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.</li> <li>Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per year.</li> <li>Do not make more than 1 application per year.</li> <li>Do not apply within 30 days of harvest.</li> </ul>		

## PEPPER/EGGPLANT (Subgroup 8-10B)

African eggplant, Pepper (bell & non-bell), Eggplant, Martynia, Okra, Pea eggplant, Roselle, Scarlet eggplant, Pepino

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
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 Whitefly	5.3 - 16 (0.033 - 0.1)	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons of finished spray per acre with ground equipment. When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 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
Banks Grass Mite Twospotted Spider Mite Pacific Spider Mite Lygus Spp. Broad Mite Carmine Mite Two Spotted Spider Mite	12.8 - 16 (0.08 - 0.1)	
<b>RESTRICTIONS</b> <ul style="list-style-type: none"> <li>• Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.</li> <li>• Do not exceed 4 bags/A (0.2 lb ai/A or 32 oz product/A) per year.</li> <li>• Do not make more than 2 applications per year.</li> <li>• Do not make applications less than 7 days apart.</li> <li>• Do not apply within 7 days of harvest.</li> </ul>		

## TOMATOES (Subgroup 8-10A)

Bush tomato, Cocona, Currant tomato, Garden Huckleberry, Goji berry, Groundcherry, Naranjilla, Sunberry, Tomato, Tree tomato, Tomatillo

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Wireworms Maggots Grubs	8.0 - 12.8 (0.05 - 0.08)	For Wireworm, maggot or grubs, apply in-furrow with the seed or transplant.
Aphids Armyworms Including: Beet Armyworm, Fall Armyworm, Southern Yellowstriped Armyworm Bean Leaf Beetle Cabbageworm Carmine Mite Cloverworm Corn earworm Corn Rootworm Cucumber Beetles Cutworms Diamondback Moth European Corn Borer Flea Beetles Flea Hopper Grasshopper Japanese Beetle (Adult) Leafhoppers Loopers Lygus Spp. Melonworm Pea Weevil Pea Leaf Weevil Pickleworm Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink bug Spp. Tobacco Budworm Tarnished Plant Bug Thrips Two Spotted Spider Mite Whitefly	5.3 - 12.8 (0.033 - 0.08)	Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment, or 5 gallons of finished spray per acre by air.  Thorough coverage is essential to achieve control.  *1 bag = 0.05 lb ai = 8 oz formulated product
<b>RESTRICTIONS</b> <ul style="list-style-type: none"> <li>Do not apply more than 0.08 lb ai/A (12.8 oz product/A) per application.</li> <li>Do not apply more than 4 applications (0.32 lb ai/A) per year.</li> <li>Do not make applications less than 10 days apart.</li> <li>Do not apply within 1 day of harvest.</li> </ul>		

## ROOT CROPS (Except Sugar Beets)

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

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Spider mites Fire Ants Flea Beetles Whitefly Aphids Beet armyworm Celery leaf tier Corn earworm Cross-striped cabbageworm Cutworms Diamondback moth European corn borer Fall armyworm Green cloverworm Hornworms Imported cabbageworm Loopers Southern armyworm Tobacco budworm Velvetbean caterpillar Yellowstriped armyworm	12.8 - 16 (0.08 - 0.1)	Apply foliar treatments in at least 25 gallons of finished spray per acre.  *1 bag = 0.05 lb ai = 8 oz formulated product
<b>RESTRICTIONS</b> <ul style="list-style-type: none"> <li>Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.</li> <li>Do not exceed 10 bags/A (0.5 lb ai/A or 80 oz product/A) per year.</li> <li>Do not make more than 5 applications per year.</li> <li>Do not make applications less than 7 days apart.</li> <li>Do not apply within 21 days of harvest.</li> </ul>		

## GARDEN BEET

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Spider mites Fire Ants Lepidopterous larvae Flea Beetles Whitefly Aphids	12.8 - 16 (0.08 - 0.1)	Apply foliar treatments in at least 25 gallons of finished spray per acre.  *1 bag = 0.05 lb ai = 8 oz formulated product
<b>RESTRICTIONS</b> <ul style="list-style-type: none"> <li>Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.</li> <li>Do not exceed 8 bags/A (0.4 lb ai/A or 64 oz product/A) per year.</li> <li>Do not make more than 4 applications per year.</li> <li>Do not make applications less than 7 days apart.</li> <li>Do not apply within 1 day of harvest.</li> </ul>		

## MAYHAW

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Plum Curculio	12.8 - 16 (0.08 - 0.1)	Apply foliar treatments in at least 28 gallons of finished spray per acre.  *1 bag = 0.05 lb ai = 8 oz formulated product
<b>RESTRICTIONS</b> <ul style="list-style-type: none"> <li>Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.</li> <li>Do not exceed 4 bags/A (0.2 lb ai/A or 32 oz product/A) per year.</li> <li>Do not make more than 2 applications per year.</li> <li>Do not make applications less than 7 days apart.</li> <li>Do not apply within 30 days of harvest.</li> </ul>		

## LEAFY PETIOLE VEGETABLES

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

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Cutworms Corn Earworm Tobacco Budworm Saltmarsh Caterpillar Leafhoppers Flea Beetles Imported Cabbageworm Cucumber Beetles Aphids Whitefly Armyworms Loopers Stink Bugs Crickets Ground Beetles Thrips Wireworm (adults) Diamondback Moth	5.3-16 (0.033 - 0.1)	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons of finished spray per acre with ground equipment. Thorough coverage is essential to achieve control.  *1 bag = 0.05 lb ai = 8 oz formulated product
Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus Spp.	12.8 - 16 (0.08 - 0.1)	
<b>RESTRICTIONS</b> <ul style="list-style-type: none"> <li>Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.</li> <li>Do not exceed 10 bags/A (0.5 lb ai/A or 80 oz product/A) per year.</li> <li>Do not make more than 5 applications per year.</li> <li>Do not make applications less than 7 days apart.</li> <li>Do not apply within 7 days of harvest.</li> </ul>		



## BUSHBERRIES

Blueberry; highbush and lowbush, Currant, Elderberry, Gooseberry, Huckleberry

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Blueberry maggot, Fruitworms, Lecanium scale (crawlers) Plum curculio Oblique banded leaf roller Red banded leafroller Variegated leafroller Spanworm Leafhoppers Aphids	5.3 – 16 (0.033 - 0.1)	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons of finished spray per acre with ground equipment. Thorough coverage is essential to achieve control.  *1 bag = 0.05 lb ai = 8 oz formulated product
Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus Spp.	12.8 - 16 (0.08 - 0.1)	

### RESTRICTIONS

- Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.
- Do not exceed 10 bags/A (0.5 lb ai/A or 80 oz product/A) per year.
- Do not make more than 5 applications per year.
- Do not make applications less than 7 days apart.
- Do not apply within 1 day of harvest.

## GRASS FORAGE, FODDER, and HAY GROUP and GRASS GROWN for SEED, PASTURE and RANGELAND

bahiagrass, barnyardgrass, bentgrass, Bermudagrass, Kentucky bluegrass, big bluestem, smooth bromegrass, buffalograss, reed canarygrass, centipedegrass, crabgrass, cupgrass, dallisgrass, sand dropseed, Kentucky fescue, meadow foxtail, eastern gramagrass, side-oats grama, guinea grass, Indian grass, Johnsongrass, lovegrass, napiergrass, oatgrass, orchardgrass, pangolagrass, paspalum, redtop, Italian ryegrass, St. Augustine grass, sprangletop, squirreltailgrass, stargrass, switchgrass, timothy, crested wheatgrass, wildrye grass and zoysia grass. Also included are sudangrass and sorghum forages and their hybrids.

**NOTE: Use on grasses is limited to the States of Idaho, Oregon, and Washington.**

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Alfalfa Caterpillar Alfalfa Looper Alfalfa Weevil Blue Alfalfa Aphid <sup>1</sup> Cutworms Egyptian Alfalfa Weevil (larvae & adult) Flea Beetles Green Cloverworm Green Peach Aphid <sup>1</sup> Hornworms Meadow Spittlebug Pea Aphid <sup>1</sup> Potato Leafhopper Spotted Alfalfa Aphid <sup>1</sup> Threecornered Alfalfa Hopper Velvetbean Caterpillar Webworms	5.3 - 16 (0.033 - 0.1)	Apply as insects appear in sufficient volume of water to ensure thorough coverage of foliage.  Use higher labeled rate for increased pest pressure or for increased residual pest control. Do not exceed maximum labeled rate.  Apply in a minimum of 2 gallons of finished spray per acre by aerial equipment or 10 gallons of finished spray per acre by ground equipment.  Higher volumes of finished spray may improve insect control under high temperatures, when foliage is dense and/or when insect pressure is high.  *1 bag = 0.05 lb ai = 8 oz formulated product
Armyworm, southern Armyworm, true Armyworm, yellowstriped Ant spp. Cereal Leaf Beetle Chinch Bug Cricket Grass Mealybug Grasshoppers Range Caterpillar Stink Bugs Armyworm, fall Black Grass Bug	8.0 - 16 (0.05 - 0.1)	
Hunting Bill Bug Plant Bug spp.	16 (0.1)	

### RESTRICTIONS

- Do not exceed 2 bags/A (0.1 lb ai/A or 16 oz product/A) per application.
- Do not exceed 4 bags/A (0.2 lb ai/A or 32 oz product/A) per year.
- Do not make more than 2 applications per year.
- Do not make applications less than 14 days apart.
- Do not apply within 30 days of harvest for forage and hay.

<sup>1</sup>Aphid control may be variable depending on species present and host-plant relationships.

## POMEGRANATE

Pests Controlled	Dosage* oz product/A (lb ai/A)	Directions
Katydids Navel Orangeworms Omnivorous Leafrollers Leaf Footed Plant Bugs Fuller Rose Beetles Aphids White Scales Ground Beetles Brown Marmorated Stink Bugs	16 - 32 (0.1 - 0.2)	Apply foliar treatments in at least 50 gallons of finished spray per acre.  *1 bag = 0.05 lb ai = 8 oz formulated product
<b>RESTRICTIONS</b> <ul style="list-style-type: none"> <li>Do not exceed 4 bags/A (0.2 lb ai/A or 32 oz product/A) per application.</li> <li>Do not exceed 10 bags/A (0.5 lb ai/A or 80 oz product/A) per year.</li> <li>Do not make more than 3 applications per year.</li> <li>Do not make application less than 14 days apart.</li> <li>Do not apply within 14 days of harvest.</li> </ul>		

## STORAGE AND DISPOSAL

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

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

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

### Pesticide Disposal

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

### Container Handling

**Non-refillable 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 outer container contacts 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 1/4 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.

### Conditions of Sale and Limitation of Warranty and Liability:

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control of FMC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold FMC and Seller harmless for any claims relating to such factors.

**Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, FMC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT. Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or FMC, and buyer assumes the risk of any such use.**

To the extent consistent with applicable law, FMC or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF FMC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF FMC OR SELLER, THE REPLACEMENT OF THE PRODUCT.

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