RESTRICTED USE PESTICIDE

Toxic to fish and aquatic organisms

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

GROUP	3A	INSECTICIDE

Brigade® 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

If Swallowed: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

If Inhaled: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

If in Eyes: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

If on Skin or Clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

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.

For Emergency Assistance Call (800) 331-3148.

Sold By

FMC

FMC Corporation
2929 Walnut Street
Philadelphia PA 19104

Net Contents: 0.5 Pound WSB

PRECAUTIONARY STATEMENTS
Hazards to Humans (and Domestic Animals)

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

- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks

Mixers and Loaders must wear:
- Long-sleeved shirt and long pants
- Waterproof gloves
- Shoes plus socks
- Protective eyewear

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them. Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, 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.

Environmental Hazards

This pesticide is extremely toxic to fish and aquatic invertebrates. Use with care when applying in areas adjacent to any body of water. Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not make applications when weather conditions favor drift from treated areas. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water when disposing of equipment washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are foraging the treatment area.

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

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.

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

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

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.

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 Disposal 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.

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 (eg. 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:

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

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

Fill the spray tank 1/2 full with water. Open the outer wrapper of this product and immediately dump required contents into the spray tank. Allow the water soluble bag(s) to dissolve completely. Start agitation in the tank. Air agitation is not recommended. Mix thoroughly to fully disperse and suspend the wettable powder. Wait until the Brigade WSB is fully dissolved before adding any material containing boron. Boron will cause incomplete dissolution of the water soluable bags which may result in plugging of sprayer pump, screens and lines. Fill the spray tank with the required amount of water. Maintain agitation during storage in nurse or supply tank and during application.

Mix as needed; do not store diluted material.

Rotational Crops

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

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 which appear on the labels of these products. Test for compatibility of products before mixing using a standard jar test or other similar method.

BUFFER ZONES

Vegetative Buffer Zones

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

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

For guidance, refer to the following publication for information on constructing and maintaining effective buffers: Conservation Buffers to Reduce Pesticide Losses. Natural Resources Conservation Services. USDA, NRCS. 2000. Fort Worth, Texas. 21pp. www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_023819.pdf.

Buffer Zone for Ground Application (groundboom, overhead chemigation, or airblast) – Do not apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

Buffer Zone for ULV Aerial Application - Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, ponds, estuaries, and commercial fish ponds).

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

Spray Drift Requirements

Wind Direction and Speed

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

Temperature Inversion

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

Droplet Size

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

Additional Requirements for Aerial Applications

The spray boom should be mounted on the aircraft as to minimize drift caused by wingtip or rotor vortices. The minimum practical boom length should be used and must not exceed 75% of the wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining droplet size.

Spray must be released at the lowest height consistent with pest con-

trol and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greated height is required for aircraft safety.

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

Application Instructions

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

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

Do not cultivate within 10' of the aquatic area so as to allow growth of a vegetative filter strip.

Artichoke

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
Artichoke	Cribrate Weevil Artichoke Plume Moth	16.0 (0.10)	Apply when pest population reaches damaging threshold and repeat as necessary to maintain control, but not more often than 15-day intervals. **Application by ground:** Apply a full cover spray in a minimum of 75 gallons of finished spray per acre. **Application by air:** Apply specified dosage in a minimum of 10 gallons per acre. *1 bag = 0.05 lb ai = 8 oz formulated product
RESTRICTIONS Do not exceed 2 bags (0.10 lb ai/A) between bud formation and harvest of an individual fruit. Do not exceed 10 bags (0.5 lb ai) per acre per season. Do not apply within 5 days of harvest.			

Hops*

Crop	Pest	Dosage** oz/A (lb ai/A)	Directions
Hops	Aphids Armyworms Cutworms Leafrollers Loopers	9.6 - 16.0 (0.06 - 0.1)	**Application by ground:** For best results, full coverage is essential. Early season recommend 100-150 gallons of spray per acre. Late season recommend 200-250 gallons of 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. **Application by air for late season control of twospotted spider mites:** 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.
	Root Weevils	8.0 - 16.0 (0.05 - 0.1)	
	Twospotted spider mite	16.0 (0.10)	
RESTRICTIONS Do not exceed 2 bags (0.1 lb ai) per acre per application. Do not exceed 6 bags (0.3 lb ai) per acre per season. A spray interval of 21 days between applications must be maintained. Do not apply within 14 days of harvest.			

*** Not for use in California**

Strawberries

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
Strawberries	Aphids Armyworms Fleabeetles Heliothis spp. Leafrollers Lygus spp. Plant Bugs Spittlebugs Stink Bugs Strawberry Clipper Strawberry Sap Beetle	6.4 - 32.0 (0.04 - 0.2)	Apply when pest populations reach damaging thresholds and repeat as necessary at 7-14 day intervals. **Application by ground:** Apply a full cover spray in a minimum of 50 gallons of finished spray per acre. **Application by air (Aerial application is prohibited in Florida):** 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	8.0 - 32.0 (0.05 - 0.2)	
	Spider mites	16 -32.0 (0.1 - 0.2)	
RESTRICTIONS Do not apply more than 0.5 lb active ingredient (80 oz formulated) per acre per season. Pre-Harvest Interval (PHI) is 0 days.			

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 greater than 0.1 lb ai/acre, harvesters must wear gloves for five (5) days following application.

Caneberries

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
Caneberries Including: Blackberries Bingleberries Dewberries Lowberries Marionberries Olallieberries Youngberries Loganberries Raspberries	Leafrollers Orange Tortrix Root Weevils Black Vine Weevils	8.0 - 16.0 (0.05 - 0.1)	Apply by air or ground equipment using sufficient water to obtain full coverage of foliage. (minimum of 10 gallons per acre by air and 50 gallons per acre by ground). One application may be made pre-bloom and a second application may be made post bloom. For Crown Borer, apply 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 (0.1)	

RESTRICTIONS
Do not make both pre-bloom foliar and pre-bloom drench applications.
Do not exceed 0.2 lb active ingredient (32 oz formulated) per acre per season.
Do not apply within 3 days of harvest.

Pears

Crop	Pest	Dosage oz/A (lb ai/A)	Directions
Pears	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 (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. Application by air: Apply the specified dosage in a minimum of 10 gallons per acre by air. Apply as necessary to maintain control using a minimum of 30-day spray interval. *1 bag = 0.05 lb ai = 8 oz formulated product
	Yellow Spider Mite	9.6 - 32.0 (0.06 - 0.2)	
	European Red Mite Twospotted Spider Mite	12.8 - 32.0 (0.08 - 0.2)	

RESTRICTIONS
Do not apply more than 0.5 pound active ingredient (80 oz formulated) per acre per season with no more than 0.45 pound active ingredient per acre applied after petal fall.
Do not apply within 14 days of harvest.
Do not graze livestock in treated orchards or cut treated cover crops for feed.

Tree Nut Crops

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
Almond Beech nut Brazil nut Butternut Cashew Chestnut Chinquapin Filbert (hazelnut) Hickory nut Macadamia nut (bush nut), Pecan Pistachio Walnut (black and English)	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	8.0 - 32.0 (0.05 - 0.20)	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 doseage in a minimum of 10 gallons of finished spray per acre. Minimum Spray Intervals: Apply Brigade WSB 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 (0.08 - 0.20)	
	Fire Ants Walnut Husk Fly	16.0 - 32.0 (0.1 - 0.2)	
	Peach Twig Borer Navel Orange Worm	**Dormant Spray** 8.0 - 16.0 (0.05 - 0.10	Apply Brigade WSB 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. Ground application is recommended for greatest efficacy. Complete coverage is critical for control of dormant pests.
	San Jose Scale Walnut Scale	**Dormant Spray** 16.0 - 32.0 (0.1 - 0.2)	

RESTRICTIONS
Observe a 21 day Pre-Harvest Interval (PHI) for Pecans and a 7-day PHI for all other registered tree nut crops.
Do not exceed 0.2 lb active ingredient per acre per application.
Do not exceed 0.50 lb active ingredient (80 oz formulated) per acre per season.
Do not graze livestock in treated orchards or cut treated cover crops for feed.

Citrus

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
Citrus	Diaprepes Root Weevil Southern Blue Green Citrus Root Weevil Blue Green Citrus Root Weevil Brown Leaf Notcher Little Leaf Notcher	40.0 - 80.0 (0.25 - 0.50)	Apply Brigade WSB by ground equipment to bare soil beneath citrus trees. Brigade WSB must be uniformly applied from the trunk to the drip line of tree; apply in a minimum of 40 gallons of dilute spray per acre. Greater spray volume should insure greater uniformity of coverage. A pre- and post-application irrigation may aid in the uniformity of coverage as well. Brigade WSB 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 as they attempt to burrow into the root zone. Disturbance of the soil beneath trees should be minimized. Timing of Brigade WSB 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 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 soil barrier in place prior to drop of the neonates. Brigade WSB is one of several effective tools in an integrated pest management program for Citrus Root Weevils. Application of Brigade WSB should be used 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. **Additional Instructions:** Apply to individual citrus resets, when not in solid planted rows, using handgun or shielded sprayer. 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. If the citrus grove to be treated is in an area where weather conditions are conducive to primary emergence occurring in the spring, 0.50 pound active (80 oz formulated) should be used to obtain the longest residual management of Diaprepes root weevil. If the citrus grove to be treated is in an area where weather conditions will promote more than one peak of pest emergence, 0.25 pound active (40 oz formulated) can be applied early season and 0.25 pound active can be applied later in the season. Apply the specified dosage in a minimum of 40 gallons of finished spray per acre. * 1 bag = 0.05 lb ai = 8 oz formulated product
	Fireant Asian Cockroach	16.0 - 40.0 (0.1 - 0.25)	

RESTRICTIONS
Do not apply through irrigation systems.
Do not allow any application of Brigade WSB to contact fruit or foliage.
Do not apply more than a total of 0.5 lb. active.ingredient. (80 oz formulated) per acre per year.
Do not apply within 1 day of harvest.
Ground application only. Do not apply by air.

SUCCULENT PEAS and BEANS

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
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 Yardlong bean Jackbean Soybean (immature seed) Sword bean	Wireworm Maggot Grubs	8.0 - 16.0 (0.05 – 0.10)	***Planting Time Use:*** For Wireworm, maggot or grubs, apply in-furrow with the seed or transplant.
	Flea Beetle Grasshoppers Aster Leafhopper Leafhoppers	4.0 - 16.0 (0.025 - 0.10)	***Foliar Use:*** Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. Thorough coverage is essential to achieve control. *1 bag = 0.05 lb ai = 8 oz formulated product
	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 (0.033 - 0.10)	
	Banks Grass Mite Twospotted Spider Mite Carmine Mite Lygus Spp Whitefly	12.8 - 16.0 (0.08 - 0.10)	

RESTRICTIONS
Do not apply more than 0.2 lb. active ingredient (32.0 oz formulated) per acre per season including at plant applications.
Do not apply within 3 days of harvest.

BRASSICAS

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
Head and Stem Brassica Vegetables including: Broccoli Chinese Broccoli (gailon, white flowering broccoli) Brussels Sprouts Cauliflower Cavalo broccolo Kohlrabi Cabbage Chinese Cabbage (napa) Chinese Mustard Cabbage (gai choy)	Wireworm Maggot Grubs	8.0 - 16.0 (0.05 - 0.10)	***Planting Time Use:*** 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 (0.033 - 0.10)	***Foliar Use:*** Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 20 gallons per acre with ground equipment. Thorough coverage is essential to achieve control. *1 bag = 0.05 lb ai = 8 oz formulated product
	Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus Spp. Whitefly	12.8 - 16.0 (0.08 - 0.10)	

RESTRICTIONS
Do not apply more than 0.5 lb active ingredient (80oz formulated) per acre per season).
Do not make more than 5 applications after bloom.
Do not make applications less than 7 days apart.
Do not apply within 7 days of harvest.

CANOLA, CRAMBE, RAPESEED

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
Canola Crambe Rapeseed	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 per acre with ground equipment. Thorough coverage is essential to achieve control. *1 bag = 0.05 lb ai = 8 oz formulated product

RESTRICTIONS
Do not apply more than 0.08 lb active ingredient (12.8 oz formulated) per acre per season.
Do not make applications less than 14 days apart.
Do not apply within 35 days of harvest.

CUCURBITS

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
Chayote (fruit) Chinese waxgourd (Chinese preserving melon) Citron melon Cucumber Gherkin Gourd, edible (includes hyotan, cucuzza) (Luffa spp.) (includes hechima, Chinese okra) (Momordica spp.) (includes balsam apple, balsam pear, bitter melon, Chinese cucumber) Muskmelon (hybrids and/or cultivars of Cucumis melo) (includes true cantaloupe, cantaloupe, casaba, crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, and snake melon) Pumpkin (Cucurbita spp.) Squash, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini) Squash, winter (includes butternut squash, calabaza, hubbard squash (C. mixta; C. pepo) includes acorn squash, spaghetti squash) Watermelon (includes hybrids and/or varieties of Citrullus spp.).	Wireworm Maggot Grubs	8.0 - 16.0 (0.05 - 0.10)	***Planting Time Use:*** 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	8.0 - 16.0 (0.05 – 0.10)	***Foliar Use:*** Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 20 gallons per acre with ground equipment. Thorough coverage is essential to achieve control. *1 bag = 0.05 lb ai = 8 oz formulated product
	Whitefly Banks Grass Mite Twospotted Spider Mite Carmine Mite Lygus Spp.	12.8 - 16.0 (0.08 - 0.10)	

RESTRICTIONS
Do not apply more than 0.3 lbs active ingredient (48.0 oz formulated) per acre per season.
Do not make more than two applications after bloom.
Do not make applications less than 7 days apart.
Do not apply within 3 days of harvest.

LETTUCE, HEAD

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
Lettuce, Head	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 (0.033 - 0.10)	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 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 (0.08 - 0.10)	

RESTRICTIONS
Do not apply more than 0.5 lb. active ingredient (80 oz formulated) per acre per season.
Do not make applications less than 7 days apart.
Do not apply within 7 days of harvest.

SPINACH

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
Spinach	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 (0.033 - 0.10)	For control of fire ants apply Brigade WSB to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.1 lb active (16 oz. formulated) per acre at minimum 7-day intervals up to a maximum of 4 applications. Apply the specified dosage in 5-50 gallons of finished spray per acre by air or 10-50 gallons finished spray per acre by ground. For control of whiteflies apply foliar treatments of Brigade WSB by ground or air at rates up to 0.1 lb active (16 oz. formulated) per acre 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 (0.08 - 0.10)	

RESTRICTIONS
Do not apply more than 0.4 lb active ingredient per acre per season.
Do not make applications less than 7 days apart.
Do not apply within 40 days of harvest.

GRAPES

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
Grapes	Cutworms Eastern grape leafhopper Grape berry moth Japanese beetles adults Variegated leafhopper Western grape leafhopper	8.0 - 16.0 (0.05 - 0.10)	Apply in a minimum of 10 gallons of finished spray by air or in a minimum of 25 gallons of finished spray with ground equipment. Thorough coverage is essential to achieve control. When pest pressure is moderate to severe, use higher rate. *1 bag = 0.05 lb ai = 8 oz formulated product
	Black vine weevil Glassywinged sharpshooter Twospotted spider mite	16.0 (0.10)	

RESTRICTIONS
Do not apply more than 0.10 lb active ingredient per acre per season.
Do not apply within 30 days of harvest.

FRUITING VEGETABLES

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
Eggplant Pepper (Bell & Non-Bell) Groundcherry Pepino	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 - 12.8 (0.033 - 0.08)	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. *1 bag = 0.05 lb ai = 8 oz formulated product
	Banks Grass Mite Twospotted Spider Mite Pacific Spider Mite Lygus Spp. Broad Mite Carmine Mite Two Spotted Spider Mite	12.8 (0.08)	

RESTRICTIONS
Do not apply more than 0.2 lb active ingredient (32.0 ounces formulated) per acre per season.
Do not make applications less than 7 days apart.
Do not apply within 7 days of harvest.

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
Tomato Tomatillo	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 per acre by air. Thorough coverage is essential to achieve control. *1 bag = 0.05 lb ai = 8 oz formulated product

RESTRICTIONS
Do not apply more than 4 applications (0.32 lb active ingredient) dper season.
Do not make applications less than 10 days apart.
Do not apply within 1 day of harvest.

BUSHBERRIES

Crop	Pest	Dosage* oz/A (lb ai/A)	REMARKS
Blueberry, highbush and lowbush Currant Elderberry Gooseberry Huckleberry	Blueberry maggot, Fruitworms, Lecanium scale (crawlers) Plum curculio Obliquebanded leaf roller Red banded leafroller Variegated leafroller Spanworm Leafhoppers Aphids	5.3 – 16.0 (0.033 - 0.10)	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. Thorough coverage is essential to achieve control. *1 bag = 0.05 lb ai = 8 oz formulated product
	Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus Spp.	12.8 - 16.0 (0.08 - 0.10)	

RESTRICTIONS
Do not apply more than 0.5 lb. active ingredient per acre per season.
Do not make applications less than 7 days apart.
Do not apply within 1 day of harvest.

LEAFY PETIOLE VEGETABLES

Crop	Pest	Dosage* oz/A (lb ai/A)	REMARKS
Celery Cardoon Chinese celery Celtuce Florence fennel Rhubarb Swiss chard	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 (0.033 - 0.10)	Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment. Thorough coverage is essential to achieve control. *1 bag = 0.05 lb ai = 8 oz formulated product
	Banks Grass Mite Twospotted Spider Mite Carmine Mite Pacific Spider Mite Lygus Spp.	12.8 – 16.0 (0.08 - 0.10)	

RESTRICTIONS
Do not apply more than 0.5 lb. active ingredient per acre per season.
Do not make applications less than 7 days apart.
Do not apply within 7 days of harvest.

MAYHAW

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
Mayhaw	Plum Curculio	12.8-16.0 (0.08-0.10)	Apply foliar treatments in at least 28 gallons per acre. *1 bag = 0.05 lb ai = 8 oz formulated product

RESTRICTIONS
Do not apply more than 0.2 lb active ingredient per acre per season.
Do not make applications less than 7 days apart.
Do not apply within 30 days of harvest.

ROOT CROPS (Except Sugar Beets)

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
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	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 (0.08-0.10)	Apply foliar treatments in at least 25 gallons per acre.

RESTRICTIONS
Do not apply more than 0.5 lb active ingredient per acre per season.
Do not make applications less than 7 days apart.
Do not apply within 21 days of harvest.

Crop	Pest	Dosage* oz/A (lb ai/A)	Directions
Garden Beet	Spider mites Fire Ants Lepidopterous larvae Flea Beetles Whitefly Aphids	12.8-16.0 (0.08-0.10)	Apply foliar treatments in at least 25 gallons per acre. *1 bag = 0.05 lb ai = 8 oz formulated product

RESTRICTIONS
Do not apply more than 0.4 lb active ingredient per acre per season.
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

including: 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.

Insects Controlled	Rate of Application	Method of Application
Alfalfa Caterpillar Alfalfa Looper Alfalfa Weevil Blue Alfalfa Aphid[1] Cutworms Egyptian Alfalfa Weevil (larvae & adult) Flea Beetles Green Cloverworm Green Peach Aphid[1] Hornworms Meadow Spittlebug Pea Aphid[1] Potato Leafhopper Spotted Alfalfa Aphid[1] Threecornered Alfalfa Hopper Velvetbean Caterpillar Webworms	5.3 - 16.0 oz/A (0.033 - 0.1 lb ai/A)	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 allowable rate. Apply in a minimum of 2 gallons of finished spray per acre by aerial equipment or 10 gallons 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.
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 oz/A (0.05 - 0.1 lb ai/A)	
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	16.0 oz/A (0.1 lb ai/A)	

RESTRICTIONS
Do not apply more than 0.2 lbs active ingredient per acre per season.
Do not make applications less than 14 days apart.
Applications may be made up to 30 days prior to harvest for forage and hay.

[1]Aphid control may be variable depending on species present and host-plant relationships.

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