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



OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

July 16, 2014

Mr. Andy Eimanis FMC Agricultural Products 1735 Market Street Philadelphia, PA 19103

Subject: Amended label adding pollinator protection language Product: Brigadier HPG Insecticide EPA Reg. No. 279-3459 Submission dated September 12, 2013

Dear Mr. Eimanis:

The labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act is acceptable. A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release the product for shipment with the new labeling. See 40 CFR 156.10(a)(6).

• Under 40 CFR 152.130(d), EPA may establish dates by which all product distributed or sold by the registrant must bear revised labeling. You were notified by a September 19, 2013 letter that the Agency intended to require products being revised to incorporate this pollinator protection language and released after January 31, 2014 to bear new labels. That deadline was later changed to February 28, 2014 due to the government shutdown causing delays in approving label amendments. As is it after February 28, 2014, your product must bear the revised labeling at your next release for shipment.

If these conditions are not complied with, EPA will take appropriate action against this registration. If you have any questions please contact Autumn Metzger at 703-305-5314 or <u>metzger.autumn@epa.gov</u>.

Sincerely,

Venus Eagle

Venus Eagle, Product Manager 01 Insecticide-Rodenticide Branch Registration Division Office of Pesticide Programs

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.

BRIGADIER HPG™ Insecticide

EPA Reg. No. 279-3459

EPA Est. No.

A C C E P T E D 07/16/2014

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 0770 04550

279-3459

ingreulents	
Active Ingredient:	By Wt.
Bifenthrin	
Imidacloprid	
Other Ingredients:	
-	100.0%

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

This product contains 2lbs. active ingredient per gallon

[Formulation Type: SC]

Ingradiants

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.)

See other panels for additional precautionary information.

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 by a poison control center or doctor.
	Do not give anything by mouth to an unconscious person.
If in Eyes:	 Hold eye open and rinse slowly and gently with water for 15-20 minutes.
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
	Call a poison control center or doctor for treatment advice.
If on Skin or	Take off contaminated clothing
Clothing	Rinse skin immediately with plenty of water for 15-20 minutes
-	Call a poison control center of doctor for treatment advice
If Inhaled	Move person to fresh air
	 If person is not breathing, call 911 or ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible Call a poison control center or doctor for further treatment advice
	HOTLINE NUMBER
Have the product medical treatment	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 information.
	NOTE TO PHYSICIAN
	ins a pyrethroid. If large amounts have been ingested, the stomach and intestines should be evacuated. Treatment is symptomatic and supportive. Digestible I may increase absorption and so should be avoided.

For Emergency Assistance Call 1-800-321-1FMC (1362).



FMC Corporation Agricultural Products Group 1735 Market Street Philadelphia, PA 19103 Net Contents: gallons

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Precautionary Statements

Hazards to Humans and Domestic Animals Warning

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

Personal Protective Equipment:

Some of the materials that are chemical resistant to this product are barrier laminate, nitrile rubber, neoprene rubber, and Viton. If you want more options, follow the instructions for category E on an EPA chemical resistance category selection chart.

All mixers, loaders, applicators and other handlers must wear: long sleeved shirt and long pants, shoes, socks and chemical resistant gloves (selection category E).

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 exists, use detergent and hot water. Keep and wash PPE separately from other laundry.

User Safety Recommendations Users should:

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Remove PPE immediately after handling this product. Wash the 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 wash waters.

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

The chemical imidacloprid demonstrates the properties and characteristics associated with chemicals detected in groundwater.

The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

PROTECTION OF POLLINATORS



Application Restrictions exist for this product because of risk to bees and other insect pollinators. Follow application restrictions found in the directions for use to protect pollinators.



Look for the bee hazard icon in the Directions for Use for each application site for specific use restrictions and instructions to protect bees and other insect pollinators.

This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar.

Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications
- Ingestion of residues in nectar and pollen when the pesticide is applied as a seed treatment, soil, tree injection, as well as foliar applications.

When Using This Product Take Steps To:

- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- attractive plants around the application site.
 Minimize drift of this product on to beehives or to offsite pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat can result in bee kills.

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at:

http://pesticidestewardship.org/PollinatorProtection/Pages/defa ult.aspx.

Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov

Directions for Use

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

See individual crops for specific pollinator protection application restrictions. If none exist under the specific crop, for foliar applications, follow these application directions for crops that are contracted to have pollinator services or for food/feed crops & commercially grown ornamentals that are attractive to pollinators



1. FOR CROPS UNDER CONTRACTED POLLINATION SERVICES Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless the following condition has been met.

If an application must be made when managed bees are at the treatment site, the beekeeper providing the pollination services must be notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.



2. FOR FOOD CROPS AND COMMERCIALLY GROWN ORNAMENTALS NOT UNDER CONTRACT FOR POLLINATION SERVICES BUT ARE ATTRACTIVE TO POLLINATORS

Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen unless one of the following conditions is met:

The application is made to the target site after sunset

The application is made to the target site when temperatures are below $55\,{}^\circ\text{F}$

The application is made in accordance with a government-initiated public health response

The application is made in accordance with an active stateadministered apiary registry program where beekeepers are notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying

The application is made due to an imminent threat of significant crop loss, and a documented determination consistent with an IPM plan or predetermined economic threshold is met. Every effort should be made to notify beekeepers no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.

Resistance Management

Some insects are known to develop resistance to products with the same chemical class used repeatedly for control. Brigadier contains Group 3 and Group 4A insecticides. Although pest resistance cannot be predicted, a general rule to reduce the onset of resistance pest species to Brigadier HPG is, do not consecutively and repeatedly apply Group 3 and/or Group 4Ainsecticides during a growing season for control particular pest target. Consult your local or state agricultural authorities or your FMC representative for more specific details on insect resistance management strategies.

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.

Agricultural Use Requirements

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

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is: Coveralls, Chemical-resistant gloves, such as Barrier Laminate or Nitrile Rubber or Neoprene Rubber or Viton, and Shoes plus socks.

Storage and Disposal

Do not contaminate food or feed by storage or disposal

Pesticide Storage

If storing this product below freezing, user should shake or roll the container to ensure proper product consistency. Keep out of reach of children and animals. Store in original containers only. Store in a cool, dry place and avoid excess heat. Carefully open containers. After partial use, replace lids and close tightly. Do not put concentrate or dilute material into food or drink containers. In case of spill, avoid contact, isolate area and keep out animals and unprotected persons. Confine spills. Call FMC: 1-(800)-331-3148. 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

Metal or Plastic Container: Non-refillable container. Do not reuse or refill this container. Triple rinse as follows: Empty the contents into application equipment or a mix tank and drain for 10 seconds after flow begins to drip. Fill container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or 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. When completely empty, offer for recycling, if available. If appropriate, puncture and dispose of in a sanitary landfill.

Instructions

Rate of application is variable according to pest. Use lower specified rates under light to moderate infestations; higher listed rates under heavy insect pressure. Arid climates generally require the higher listed rates.

Cultivation within 10 feet of a water body is prohibited to allow for the growth of a vegetated filter strip.

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

Adjuvants

The use of a spray adjuvant that meets or exceeds CPDA Adjuvant Certification is recommended for optimum performance. Refer to the individual crop specifications on this label for specific adjuvant type and use rates.

Rotational Crops

Plant back restrictions are determined by the crop. Crops that have tolerances for both bifenthrin and imidacloprid may be rotated at any time. Crops with tolerances for bifenthrin and not imidacloprid can be rotated 12 months following the final application of Brigadier HPG except as listed below. Crops that have tolerances for imidacloprid and not bifenthrin may be rotated 30 days following the final application of Brigadier HPG. Below is a list of plant back restrictions: **Immediate plant back:** Corn (all), tobacco, tomatoes, eggplant, peppers, bell and non-bell, okra, caneberries, citrus, artichoke, lettuce (head), grapes, spinach, pears, hops, legume vegetables, (edible podded), root tuberous and corn vegetables (except sugar beets), cilantro and coriander, soybeans, strawberries.

30 Day plant back: Cereals (Barley, Buckwheat, Millet – pearl and proso, oats, popcorn, rice, rye, sorghum, teosinte, triticale, wheat, and wild rice), cucurbits and safflower

10 Month plant back: Onion and bulb vegetables

12 Month plant back: All other crops that are not on this label.

Maximum Allowable Use

Refer to the individual crop sections for maximum allowable Brigadier HPG usage per acre year or per season. The maximum allowable use must include all registered use patterns including atplant, soil applied and/or foliar applications for the 12 months period. The 12 month period is to begin upon the initial application to the acre.

Do not apply more than 0.5 lbs AI of imidacloprid per acre, per year, regardless of formulation or method of application, unless specified within a crop specific applications section for a given crop

Tank-Mixture

Brigadier HPG 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.

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). 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. http://www.in.nrcs.usda.gov/technical/agronomy/ newconbuf.pdf.

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

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

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

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 Ground Applications

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

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

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

Additional Requirements for Aerial Applications

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

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

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

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

Chemigation Use Directions

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move; furrow; border or drip (trickle) irrigation system(s). Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse system) used for pesticide application to a public water system.

For Low Energy Pressure Application (LEPA) irrigation a minimum of 0.75 inch of water per acre is recommended. Where non-emulsified oils are used as the diluent, 1 to 2 pints per acre is recommended.

Results from utilizing chemigation have been variable and depend upon the set up and calibration of equipment. Crop injury, lack of effectiveness, or illegal residues in the crop can result from non-uniform distribution of treated water. Contact your State Agricultural Extension Service specialists, equipment manufacturers or other experts for consultation on the suitability of the equipment set up to obtain effective control of the target insect pests.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise. Failure to cease application during a mechanical stoppage may result in undesirable residues to adjacent areas.

The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment. Brigadier HPG should be applied continuously for the duration of the water application. Brigadier HPG should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inch per acre of irrigation water is recommended. Agitation generally is not required when a suitable diluent is used. A diluent test should be conducted to ensure that phase separation will not occur during dilution and application. Failure to achieve a uniform dilution throughout the time of application may result in undesirable residues or less than desirable control.

Cotton (PHI 14 days) - foliar

Pests Controlled	Rates of Application
Armyworm spp.*	5.1 – 7.7 fl oz/A
Bollworm	(0.08 – 0.12 lbs ai/A)
Cabbage looper	
Cotton leafperforator	
Cutworm spp.	
European cornborer	
Pink bollworm	
Saltmarsh caterpillar	
Tobacco budworm**	
Thrips (adult)	
Whitefly	
Cotton aphid	3.8 – 7.7 fl oz/A
Cotton fleahopper	(0.06 – 0.12 lbs ai/A)
Lygus spp.	
Southern garden leafhopper	
Stink bug spp.	
Restrictions	

• PHI: Do not apply within 14 days of harvest.

Application Interval: Do not make applications less than 7 days apart.

• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 7.7 fl oz/a (0.06 lb ai/a of imidacloprid, 0.06 lb ai/a of bifenthrin).

• Maximum Amount of Brigadier HPG Insecticide per Year: Do not apply more than 39.68 fl oz/a (0.31 lb ai/a of imidacloprid, 0.31 lb ai/a of bifenthrin) as a foliar application in all states but California.

In California, do not apply more than 38.4 fl oz/A (0.30 lb ai/a of imidacloprid, 0.30 lbs ai/a of bifenthrin) as a foliar application. • Maximum Amount of imidacloprid per Year: 0.31 lbs ai/a as a foliar application.

• Maximum Amount of bifenthrin per Season: 0.50 lbs ai/a, except in California. In California, 0.30 lbs ai/A of bifenthrin per season.

Do not graze livestock in treated areas or cut treated crops for feed.

Application Instructions

Apply in a minimum of 5 gallons per acre with ground equipment or 1 gallon per acre by aircraft. When applying by air, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray.

Thorough coverage is essential to achieve control.

*Including all armyworm pests except Beet armyworm.

** Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the resistance management statement in the DIRECTION FOR USE section of this label.

Peanut (PHI 14 days) - foliar

Pests Controlled	Rates of Application
Armyworm spp.*	5.6 fl oz/A
Corn earworm	(0.0875 lbs ai/A)
Cutworm spp.	
Grasshopper	
Green cloverworm	
Lesser cornstalk borer	
Looper spp.	
Rednecked peanut worm	
Southern corn rootworm	
Threecornered alfalfa hopper	
Velvetbean caterpillar	
Aphid spp.	3.8 – 5.6 fl oz/A
Leafhopper spp.	(0.06 – 0.0875 lbs ai/A)
Restrictions	
• PHI: Do not apply within 14 days of h	arvest.

• Application Interval: Do not make applications less than 14 days apart.

• Maximum Amount per of Brigadier HPG Insecticide Application: Do not apply more than 5.6 fl oz/a (0.044 lb ai/a of imidacloprid, 0.044 lb ai/a of bifenthrin)

• Maximum Amount of Brigadier HPG Insecticide per Year: Do not apply more than 16.64 fl oz (0.13 lb ai/a of imidacloprid, 0.13 lb ai/a of bifenthrin) as a foliar application.

• Maximum Amount of imidacloprid per Year: 0.13 lbs ai/a as a foliar application.

• Maximum Amount of bifenthrin per Season: 0.50 lbs ai/a

Do not feed green immature plants and peanut hay to livestock

Application Instructions

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.

*Including all armyworm pests except Beet armyworm.

Potato (PHI 21 days) - Foliar uses

Pests Controlled	Rates of Application	
Foliar Application		
Banded Cucumber beetle Colorado potato beetle Cucumber beetle European corn borer Grasshopper spp. Looper spp. Flea beetle spp. June beetle Potato psyllid Sugarcane beetle Sweetpotato flea beetle Sweetpotato weevil Tuberworm Whitefringed beetle Whitefly	4.8 – 6.14 fl oz/A (0.075 – 0.096 lbs ai/A)	
Aphid spp. Leafhopper spp.	3.8 – 6.14 fl oz/A (0.06 – 0.096 lbs ai/A)	

Restrictions

• PHI: Do not apply within 21 days of harvest.

• Application Interval: Do not make applications less than 7 days apart.

• Maximum Amount of Brigadier HPG Insecticide per Foliar Application: Do not apply more than 6.14 fl oz/a (0.048 lb ai/a of imidacloprid, 0.048 lb ai/a of bifenthrin) as a foliar application.

• Maximum Amount of Brigadier HPG Insecticide per Year: Do not apply more than 25.6 fl oz/A (0.2 lb ai/a of imidacloprid, 0.2 lb ai/a bifenthrin. Two applications are permitted per season. It is permitted to make one at- plant application followed by a foliar application later in the same growing season.

• Maximum Amount of imidacloprid per Year: 0.20 lbs ai/a.

• Maximum Amount of bifenthrin per Season: 0.50 lbs ai/a

Application Instructions

Foliar Application: Apply in a minimum of 5 gallons per acre with ground equipment or 1 gallon per acre by aircraft. When applying by air, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray.

Thorough coverage is essential to achieve control.

Potato - At-plant

Pests Controlled	Rates of Application	
At-Plant Application		
Aphid spp.		
Colorado potato beetle	16 – 25.6 fl oz/A	
Flea beetle spp. (adult)	(0.25 – 0.4 lbs ai/A)	
Flea beetle spp. (larvae)		
Japanese beetle (larvae)		
Leaf hopper spp.		
Potato psyllid		
Rootworm spp.		
White grub spp.		
Wireworm spp.		
Restrictions		

• PHI: Do not apply within 21 days of harvest.

• Application Interval: Do not make applications less than 7 days apart.

 Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 25.6 fl oz/a (0.2 lb ai/a of imidacloprid, 0.2 lb ai/a bifenthrin as an at-plant application.

 Maximum Amount of Bifenthrin per Season: Do not apply more than 0.30 lbs ai/a as an at-plant application. A total 0.50 lbs ai/a of bifenthrin per season.

-Maximum Amount of Imidacloprid per Year: 0.20 lbs ai/a total

A maximum of 1 at plant applications is permitted per season.

Application Instructions

At plant applications: In-furrow applications: Apply Brigadier Insecticide as an in-furrow spray on to the seed pieces or seed potatoes

Soybeans (PHI 21 days) - foliar

Pests Controlled	Rates of Application
Alfalfa caterpillar Bean leaf beetle Cloverworm Corn rootworm (adult) Cucumber beetle Cutworm spp. European corn borer Fall armyworm Flea beetle spp. Japanese beetle (adult) June beetle (adult) Looper spp. Mexican bean beetle Pea leaf weevil Pea weevil Sap beetle (adult) Saltmarsh caterpillar Silverspotted skipper Southern armyworm Threecornered alfalfa hopper Webworm	5.1 – 6.1 fl oz/A (0.08 – 0.095 lbs ai/A)
Whitefly Yellowstriped armyworm Aphid spp.	3.8 – 6.1 fl oz/A
Grasshopper Leafhopper spp. Lygus spp. Thrips (adult) (foliage feeding)	(0.06 – 0.095 lbs ai/A)
Restrictions • PHI:21 days PHI 45 days for feeding of dry vines	·

PHI 18 days for feeding of green vines

• Application Interval: Do not make applications less than 30 days apart.

 Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 6.1 fl oz/a (0.048 lb ai/a of imidacloprid, 0.048 lb ai/a of bifenthrin) of Brigadier Insecticide.

• Maximum Amount of Brigadier HPG Insecticide per Year: Do not apply more than 17.92 fl oz/a (0.14 lb ai/a of imidacloprid,0.14 lb ai/a of

bifenthrin)

• Maximum Amount of imidacloprid per Year: 0.14 lbs ai/a as a foliar application.

• Maximum Amount of bifenthrin per Season: 0.30 lbs ai/a.

Application Instructions

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.

* Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the resistance management statement in the DIRECTION FOR USE section of this label.

Tobacco (PHI 14 days) (At-transplant/Pre-transplant and Foliar Applications)

Pest	Rates of Application	
At-transplant/Pre-transplant Application		
Aphid spp.	21.75 – 25.5 fl oz / A	
Armyworm spp.*		
Cutworm spp.	1.7 – 2 fl oz / 1000 linear ft	
Flea beetle spp. (adults)		
Flea beetle spp. (larvae)	0.34 – 0.40 lbs ai/A	
Mole cricket		
White grub		
Wireworm spp.		
Foliar Ap	plication	
Armyworm spp.*	5.1 – 6.4 fl oz/A	
Chinch bug	(0.08 – 0.1 lb ai/A)	
Cutworm spp.		
Flea beetle spp. (adults)		
Grasshopper spp.		
Hornworm spp.		
Japanese beetle		
Stalkborer		
Thrips (adults)		
Tobacco budworm**		
Whitefly		
Plantbug spp.	3.8 – 6.4 fl oz/A	
Aphid spp.	(0.06 – 0.1 lbs ai/A)	
Stink Bug spp.		
Restrictions		
PHI: 14 days		

• Application Interval: Do not make applications less than 7 days apart.

Maximum Amount of Brigadier HPG Insecticide per Application:

Do not apply more than 25.5 fl oz/a (0.2 lb ai/a of imidacloprid, 0.2 lb ai/a of bifenthrin) per at-transplant/pre-transplant application

Do not apply more than 6.4 fl oz/a (0.05 lb ai/a imidacloprid, 0.05 lb ai/a bifenthrin) per foliar application.

Apply maximum of 2 applications per season.

• Maximum Amount of Brigadier HPG Insecticide per Year:

25.6 fl oz (0.2 lb ai/a of imidacloprid,0.2 lb ai/a of bifenthrin) as an attransplant/pre-transplant application.

12.8 fl oz/a (0.1 lb ai/a imidacloprid and 0.1 lb ai/a bifenthrin lbs ai/a) for foliar applications.

• Maximum Amount of Imidacloprid per Year: 0.28 lbs ai/a as an attransplant/pre-transplant application. 0.28 lbs ai/a as a foliar application.

• Maximum Amount of Bifenthrin per Season: 0.20 lb ai/a total

Do not apply after layby

Apply a maximum of 2 applications per season

Application Instructions

At-transplant water treatment application:

Apply 0.34 - 0.4 lbs ai/a in a water treatment application of 10-200 gal/a. Ensure product is mixed thoroughly before application

Foliar Application:

Apply a minimum of 10 gallons per acre with ground equipment or 5 gallon per acre by aircraft. When applying by air, 1 quart of emulsified oil may be substituted for one quart of water in the finished spray.

Ensure product is mixed thoroughly before application

*Including all armyworm pests except Beet armyworm.

** Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the resistance management statement in the DIRECTION FOR USE section of this label.

Artichoke(Globe) (PHI 7 days) - foliar

Pests Controlled	Rates of Application
Aphid spp.	6.4 – 12.8 fl oz/A
Artichoke Plume Moth	(0.1 – 0.2 lbs ai/A)
Cribrate Weevil	
Leafhopper spp.	
Restrictions	

• PHI: Do not apply within 7 days of harvest.

• Application Interval: Do not make applications less than 15 days apart.

• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 12.8 fl oz/a (0.1 lb ai/a of imidacloprid, 0.1 lb ai/a of bifenthrin)

• Maximum Amount of Brigadier HPG Insecticide per Year: Do not apply more than 25.6 fl oz/a (0.50 lb ai/a of imidacloprid, 0.50 lb ai/a of bifenthrin)

• Maximum Amount of Imidacloprid per Year: 0.50 lbs ai/a as a foliar application.

• Maximum Amount of Bifenthrin per Season: 0.50 lbs ai/a

Application Instructions

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.

Brassica Vegetables

Head and Stem Brassica (PHI 7 days) - foliar

Head and Stem Brassica Vegetables: Broccoli, Chinese, Broccoli (galion, white flowering broccoli), Brussels Sprouts, Cauliflower, Cavalo broccoli, Kohlrabi, Cabbage, Chinese Cabbage (napa), and Chinese Mustard Cabbage (gai choy)
Pests Controlled
Rates of Application

Pests Controlled	Rates of Application
Whitefly	6.1 fl oz/A
	0.095 lbs ai/A
Aphid spp.	3.8 – 6.1 fl oz/A
Armyworm spp.*	(0.06 – 0.095 lbs ai/A)
Corn earworm	
Cricket	
Cucumber beetle	
Cutworm spp.	
Diamondback moth**	
Flea beetle spp.	
Ground beetle	
Imported cabbageworm	
Leafhopper spp.	
Looper spp.	
Plantbug spp.	
Saltmarsh caterpillar	
Stink bug spp.	
Thrips (adult)	
Tobacco budworm**	
Click beetle (wireworm adults)	
Restrictions	
 PHI: Do not apply within 7 days of harves 	t.

Application Interval: Do not make applications less than 7 days apart.

• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 6.1 fl oz/A (0.048 lb ai/a of imidacloprid, 0.048 lb ai/a of bifenthrin)

• Maximum Amount of Brigadier HPG Insecticide per Season: Do
not apply more than 30.72 fl oz/a (0.24 lb ai/a of imidacloprid, 0.24 lb
ai/a of bifenthrin)

• Maximum Amount of Imidacloprid per Season: 0.24 lbs ai/a as a foliar application.

• Maximum Amount of Bifenthrin per Season: 0.50 lbs ai/a

Apply Brigadier Insecticide up to 5 applications after bloom.

Application Instructions

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 1-2quarts of water in the finished spray.

Thorough coverage is essential to achieve control.

*Including all armyworm pests except Beet armyworm.

** Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the resistance management statement in the DIRECTION FOR USE section of this label.

Leafy Brassica (PHI 7 days) - foliar

Broccoli Raab, Bok Choyl, Collards, Kale, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens.

Pests Controlled	Rates of Application
Whitefly	6.1 fl oz/A (0.095 lbs ai/A)
Aphid spp.	3.8 – 6.1 fl oz/A
Armyworm spp.*	(0.06 – 0.095 lbs ai/A)
Corn earworm	
Cricket	
Cucumber beetle	
Cutworm spp.	
Diamondback moth**	
Flea beetle spp.	
Ground beetle	
Imported cabbageworm	
Leafhopper spp.	
Looper spp.	
Plantbug spp.	
Saltmarsh caterpillar	
Stink bug spp.	
Thrips (adults)	
Tobacco budworm**	
Click beetle (wireworm adults)	
Restrictions	

• PHI: Do not apply within 7 days of harvest.

• Application Interval: Do not make applications less than 7 days apart. Apply Brigadier up to 5 applications after bloom.

 Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 6.1 fl oz/a (0.048 lb ai/a of imidacloprid, 0.048 Ib ai/a of bifenthrin)

• Maximum Amount of Brigadier HPG Insecticide per Season: Do not apply more than 30.72 fl oz/a (0.24 lb ai/a of imidacloprid, 0.24 lb ai/a of bifenthrin)

• Maximum Amount of Imidacloprid per Season: 0.24 lbs ai/a as a foliar application.

• Maximum Amount of Bifenthrin per Season: 0.50 lbs ai/a

Application Instructions

Thorough coverage is essential to achieve control.

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 1-2quarts of water in the finished spray.

*Including all armyworm pests except Beet armyworm.

** Pyrethroid resistance is known for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the resistance management statement in the DIRECTION FOR USE section of this label.

Cilantro and Coriander (PHI 7 days) - foliar

Pests Controlled	Rates of Application
Aphid spp. Cabbage looper Cutworm spp. Flea beetle spp. Grasshopper Leafhopper spp.	4.24 – 5.5 fl oz/A (0.066 – 0.086 lbs ai/A)
Saltmarsh caterpillar Spotted cucumber beetle Thrips (adult)	

Restrictions

• PHI: Do not apply within 7 days of harvest.

• Application Interval: Do not make applications less than 7 days apart.

• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 5.5 fl oz/A (0.043 lb ai/a of imidacloprid, 0.043 lb

Maximum Amount of Brigadier HPG Insecticide per Season: Do

• Maximum Amount of Brigadier new insecticide per Season: Do not apply more than 16.64 fl oz/a (0.13 lb ai/a of imidacloprid, 0.13 lb ai/a of bifenthrin)

• Maximum Amount of Imidacloprid per Season: 0.13 lbs ai/a as a foliar application.

• Maximum Amount of Bifenthrin per Season: 0.50 lbs ai/a

Application Instructions

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.

Eggplant (PHI 7 days)

Pests Controlled	Rates of Application
Armyworm spp.* Colorado potato beetle Corn earworm Cucumber beetle Cutworm spp. European cornborer Flea beetle spp. Leafminer spp. (adults) Looper spp. Thrips (adults) Whitefly	5.1 – 9.85 fl oz/A (0.08 – 0.15 lbs ai/A)
Aphid spp. Leafhopper spp. Lygus spp.	3.8 – 9.85 fl oz/A (0.06 – 0.15 lbs ai/A)

Restrictions

• PHI: Do not apply within 7 days of harvest.

Application Interval: Do not make applications less than 7 days apart.

• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 9.85 fl oz/a (0.075 lb ai/a of imidacloprid, 0.075 lb ai/a of bifenthrin)

• Maximum Amount of Brigadier HPG Insecticide per Season: Do not apply more than 25.6 fl oz/a (0.20 lb ai/a of imidacloprid, 0.20 lb ai/a of bifenthrin)

• Maximum Amount of Imidacloprid per Season: 0.24 lbs ai/a as a foliar application.

• Maximum Amount of Bifenthrin per Season: 0.20 lbs ai/a

Application Instructions

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.

Okra (PHI 7 days) - foliar

Pests Controlled	Rates of Application
Armyworm spp.* Corn earworm Cucumber beetle Cutworms European corn borer Flea beetle spp. Leafminer (adult) Looper spp. Japanese beetle (adult) Stink bug spp Thrips (adult) Whitefly	5.1 – 9.85 fl oz/A (0.08 – 0.15 lbs ai/A)
Aphid spp. Lygus spp.	3.8 – 9.85 fl oz/A (0.06 – 0.15 lbs ai/A)

Restrictions

• PHI: Do not apply within 7 days of harvest.

• Application Interval: Do not make applications less than 7 days apart.

• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 9.85 fl oz/a (0.075 lb ai/a of imidacloprid, 0.075 lb ai/a of bifenthrin)

• Maximum Amount of Brigadier HPG Insecticide per Season: Do not apply more than 25.6 fl oz/a (0.20 lb ai/a of imidacloprid, 0.20 lb ai/a of bifenthrin)

 \bullet Maximum Amount of Imidacloprid per Season: $0.24\ \mbox{lbs}\ \mbox{ai/A}$ as a foliar application.

• Maximum Amount of Bifenthrin per Season: 0.20 lbs ai/A

Application Instructions

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.

*Including all armyworm pests except Beet armyworm.

Bell-Peppers (PHI 7 days) - foliar

Pests Controlled	Rates of Application
Armyworm spp.*	5.1 – 9.85 fl oz/A
European corn borer	(0.04 – 0.15 lbs ai/A)
Flea beetle spp.	
Garden webworm	
Grasshopper spp.	
Hornworm spp.	
Leafhopper spp.	
Meadow spittlebug	
Pepper maggot (adult)	
Pepper weevil	
Psyllid spp.	
Southwestern corn borer	
Stinkbug spp.	
Vegetable leafminer (adult)	
Whitefly	
Aphid spp.	3.8 – 9.85 fl oz/A
Leafhopper spp.	(0.06 – 0.15 lbs ai/A)
Restrictions	
• PHI: Do not apply within 7 days of harves	t.

Application Interval: Do not make applications less than 7 days apart.

• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 9.85 fl oz/a (0.075 lb ai/a of imidacloprid, 0.075 lb ai/a of bifenthrin)

• Maximum Amount of Brigadier HPG Insecticide per Season: Do not apply more than 25.6 fl oz/a (0.20 lb ai/a of imidacloprid, 0.20 lb ai/a of bifenthrin)

• Maximum Amount of Imidacloprid per Season: 0.24 lbs ai/a as a foliar application.

• Maximum Amount of Bifenthrin per Season: 0.20 lbs ai/a

Do not graze livestock in treated areas or cut treated crops for feed.

Application Instructions

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.

*Including all armyworm pests except Beet armyworm.

** Pyrethroid resistance is common for this pest. Please consult your local or state agricultural authority to determine if resistance pest populations are in your area. If so refer the resistance management statement in the DIRECTION FOR USE section of this label.

Tomato (PHI 1 days) - foliar

Pests Controlled	Rates of Application
Aphid spp. Flea hopper Leafhopper spp. Lygus spp. Squash bug Stink bug spp. Thrips (adult) Whitefly	5.1 – 9.85 fl oz/A (0.06 – 0.15 lbs ai/A)
Armyworm spp.* Bean leaf beetle Cabbageworm Cloverworm Colorado potato beetle Corn earworm Corn rootworm Cucumber beetle Cutworm spp. European corn borer Flea beetle spp. Grasshopper Japanese beetle (adult) Looper spp. Salt marsh caterpillar	3.8 – 9.85 fl oz/A (0.04 – 0.15 lbs ai/A)

Restrictions

• PHI: Do not apply within 1 days of harvest.

• Application Interval: Do not make applications less than 10 days apart.

• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 9.85 fl oz/a (0.075 lb ai/a of imidacloprid, 0.075 lb ai/a of bifenthrin)

• Maximum Amount of Brigadier HPG Insecticide per Season: Do not apply more than 30.72 fl oz/a (0.24 lb ai/a of imidacloprid, 0.24 lb ai/a of bifenthrin)

• Maximum Amount of Imidacloprid per Season: 0.24 lbs ai/a as a foliar application.

• Maximum Amount of Bifenthrin per Season: 0.40 lbs ai/a

Do not graze livestock in treated areas or cut treated crops for feed.

Not for crops grown for seed unless allowed by a state specific 24(c) labeling.

Application Instructions

Apply in a minimum of 1 gallons of finished spray per acre by air or in a minimum of 15 gallons per acre with ground equipment. When applying by air, 1 quarts of emulsified oil may be substituted for 1 quarts of water in the finished spray.

Thorough coverage is essential to achieve control.

*Including all armyworm pests except Beet armyworm

Head Lettuce (PHI 7 days) - foliar

Pests Controlled	Rates of Application
Armyworm spp.* Corn earworm Cucumber beetle Cutworm spp. Flea beetle spp. Imported Cabbageworm Looper spp. Salt Marsh caterpillar Stink bug spp. Whitefly	5.1 – 6.1 fl oz/A (0.08 – 0.095 lbs ai/A)
Aphid spp. Leafhopper spp. Lygus spp.	3.8 – 6.1 fl oz/A (0.06 – 0.095 lbs ai/A)

Restrictions

• PHI: Do not apply within 7 days of harvest.

Application Interval: Do not make applications less than 7 days apart.

• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 6.1 fl oz/a (0.048 lb ai/a of imidacloprid, 0.048 lb ai/a of bifenthrin)

• Maximum Amount of Brigadier HPG Insecticide per Season: Do not apply more than 30.72 fl oz/a (0.24 lb ai/a of imidacloprid, 0.24 lb ai/a of bifenthrin)

• Maximum Amount of Imidacloprid per Season: 0.24 lbs ai/a as a foliar application.

• Maximum Amount of Bifenthrin per Season: 0.50 lbs ai/a

Application Instructions

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.

*Including all armyworm pests except Beet armyworm.

Spinach (PHI 40 days) - foliar

Pests Controlled	Rates of Application
Armyworm*	5.1 – 6.14 fl oz/A
Colorado potato beetle	(0.08 – 0.096 lbs ai/A)
Corn earworm	, , , , , , , , , , , , , , , , , , ,
Cucumber beetle	
Cutworm spp.	
European corn borer	
Fire ant spp.	
Flea beetle spp.	
Leafminer	
Looper spp.	
Thrips (adult)	
Whitefly	
Aphid spp.	3.8 – 6.14 fl oz/A
Lygus spp.	(0.06 – 0.096 lbs ai/A)

Restrictions

- PHI: Do not apply within 40 days of harvest.
- Application Interval: Do not make applications less than 7 days apart.
- Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 6.14 fl oz/A (0.048 lb ai/a of imidacloprid, 0.048 lb ai/a of bifenthrin)
- Maximum Amount of Brigadier HPG Insecticide per Season: Do not apply more than 30.72 fl oz/a (0.24 lb ai/a of imidacloprid, 0.24 lb ai/a of bifenthrin)
- Maximum Amount of Imidacloprid per Season: 0.24 lbs ai/A as a foliar application.
- Maximum Amount of Bifenthrin per Season: 0.40 lbs ai/A

Application Instructions

Apply in a minimum of 2.5 gallons of finished spray per acre by air or in a minimum of 5 gallons per acre with ground equipment. When applying by air, 1 quarts of emulsified oil may be substituted for 1 quarts of water in the finished spray.

Thorough coverage is essential to achieve control. *Including all armyworm pests except Beet armyworm.

Legume Vegetables - foliar

Dried Beans and Peas (14 days for dried shelled peas or beans)

Dry Beans and Peas include: Dried cultivars of bean (Lupinus spp.) (Phaseolus spp.); and any one (includes grain lupin, sweet lupin, dried cultivar of pea (Pisum white lupin, and white sweet lupin); (Phaseolus spp.) (includes field bean, kidney bean, lima bean (dry), navy bean, pinto bean; tepary bean; bean (Vigna spp.) (includes adzuki bean, blackeyed pea, catjang, cowpea, Crowder pea, moth bean, mung bean, rice bean, southern pea, urd bean); broad bean (dry); chickpea; guar; lablab bean; lentil; pea (Pisum spp.) (includes field pea); pigeon pea.

Pests Controlled	Rates of Application
Alfalfa caterpillar Armyworm spp.* Bean leaf beetle Cloverworm Corn earworm Corn rootworm (adult) Cucumber beetle Cutworm spp. European corn borer Flea beetle spp. Japanese beetle (adult) June beetle (adult) Looper spp. Mexican bean beetle Pea leaf weevil Pea weevil Sap beetle (adult) Saltmarsh caterpillar Silverspotted skipper Southern armyworm Threecornered alfalfa hopper Webworm Whitefly	5.6 fl oz/A (0.0875 lbs ai/A)
Aphid spp. Grasshopper Leafhopper spp. Lygus spp. Thrips (adult) (foliage feeding)	3.8 – 5.6 fl oz/A (0.06 – 0.0875 lbs ai/A)
PHI: Do not apply within 14 days of harves	st.
Application Interval: Do not make application apart.	ations less than 7 days
• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 5.6 fl oz/A (0.044 lb ai/a of imidacloprid, 0.044 lb ai/a of bifenthrin)	
Maximum Amount of Brigadier HPG In	secticide per Season: Do

not apply more than 16.64 fl oz/a (0.13 lb ai/a of imidacloprid, 0.13 lb ai/a of bifenthrin)

• Maximum Amount of Imidacloprid per Season: 0.13 lbs ai/a as a foliar application.

 \bullet Maximum Amount of Bifenthrin per Season: 0.20 lbs ai/a to peas and 0.30 lb ai/a to beans

Application Instructions

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.

*Including all armyworm pests except Beet armyworm.

Succulent Beans and Peas (PHI 7 days) - foliar

Succulent Beans and Peas including: Bean (Phaseolus spp.) (includes runneredible-podded bean (Phaseolus bean, snap bean, wax bean); bean spp.) and any one succulent (Vigna spp.) (includes asparagus bean, cultivar of edible-podded pea Chinese longbean, moth bean, yardlong (Pisum spp.).. bean); jackbean; pea (Pisum spp.) (includes dwarf pea, edible-pod pea, snow pea, sugar snap pea); pigeon pea; soybean (immature seed); sword bean: lima

of bean (Phaseolus spp.) and bean (green)); broad bean (succulent); garden pea (Pisum spp.).. bean (Vigna spp.) (includes blackeyed pea, cowpea, southern pea); pea (Pisum spp.) (includes English pea, garden pea, green pea); pigeon pea.

Pests Controlled	Rates of Application
Alfalfa caterpillar Armyworm spp.* Bean leaf beetle Cloverworm Corn earworm Corn rootworm (adult) Cucumber beetle Cutworm spp. European corn borer Flea beetle spp. Japanese beetle (adult) June beetle (adult) Looper spp. Mexican bean beetle Pea leaf weevil Pea weevil Sap beetle (adult) Saltmarsh caterpillar Silverspotted skipper Southern armyworm	5.5 fl oz/A (0.0875 lbs ai/A)
Threecornered alfalfa hopper Webworm Whitefly Aphid spp. Grasshopper Leafhopper spp. Lygus spp. Thrips (adult) (foliage feeding)	3.8 – 5.5 fl oz/A (0.06 – 0.0875 lbs ai/A)

Restrictions

• PHI: Do not apply within 7 days of harvest.

Application Interval: Do not make applications less than 7 days apart.

• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 5.5 fl oz/a (0.044 lb ai/a of imidacloprid, 0.044 lb ai/a of bifenthrin)

• Maximum Amount of Brigadier HPG Insecticide per Season: Do not apply more than 16.64 fl oz/a (0.13 lb ai/a of imidacloprid, 0.13 lb ai/a of bifenthrin)

• Maximum Amount of Imidacloprid per Season: 0.13 lbs ai/a as a foliar application.

• Maximum Amount of Bifenthrin per Season: 0.20 lbs ai/a

Application Instructions

Apply in a minimum of 1 gallons of finished spray per acre by air or in a minimum of 5 gallons per acre with ground equipment. When applying by air, 1 quarts of emulsified oil may be substituted for 1 quarts of water

in the finished spray.

Thorough coverage is essential to achieve control.

*Including all armyworm pests except Beet armyworm.



Strawberry (PHI 7) - foliar

Pests Controlled	Rates of Application
Aphid spp. Armyworm spp.* Corn earworm Flea beetle spp. Leafhopper spp. Lygus spp. Spittlebug Whitefly	5.1 – 6.14 fl oz/A (0.08 – 0.096 lbs ai/A)

Restrictions

• PHI: Do not apply within 7 days of harvest.

Application Interval: Do not make applications less than 5 days apart.

• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 6.14 fl oz/a (0.048 lb ai/a of imidacloprid, 0.048 lb ai/a of bifenthrin)

• Maximum Amount of Brigadier HPG Insecticide per Season: Do not apply more than 17.92 fl oz/a (0.14 lb ai/a of imidacloprid, 0.14 lb ai/a of bifenthrin)

• Maximum Amount of Imidacloprid per Season: 0.14 lbs ai/a as a foliar application.

• Maximum Amount of Bifenthrin per Season: 0.50 lbs ai/a

Do not apply during or within 10 days after bloom or when bees are foraging.

Restrictions: Aerial applications in Florida are prohibited.

Application Instructions

Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 50 gallons per acre with ground equipment. Thorough coverage is essential to achieve control.

*Including all armyworm pests except Beet armyworm.

Tuberous and Corm Vegetables (PHI 21 days) - foliar

Tuberous and Corm vegetables (except Radish and Sugarbeet): Sweet potato, Arracacha, Arrowroot, Chinese artichoke, Jerusalem artichoke, Edible canna, Cassava (bitter and sweet), Chayote (root), Chufa, Dasheen (taro), Ginger, Leren, Tanier, Turmer, Yam bean, True yam

Pest	Rate of application
Banded Cucumber beetle Flea beetle spp. Colorado potato beetle Cucumber beetle European corn borer Flea beetle spp. Grasshopper spp. Looper spp. June beetle	5.1 – 7.7fl oz/A (0.08 – 0.12 lbs ai/A)

Psyllid spp.		
Sugarcane beetle		
Sweetpotato flea beetle		
Sweetpotato weevil		
Whitefly		
Whitefringed beetle		
Aphid spp.	3.8 – 7.7 fl oz/A	
Leafhopper spp.	(0.06 – 0.12 lbs ai/A)	
Restrictions		
• PHI: Do not apply within 21 days of har	rvest.	
Application Interval: Do not make app	plications less than 7 days apart	
- Application mortan Do not make app	siloatione leee than r days apart.	
• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 7.7 fl oz/a (0.06 lb ai/a of imidacloprid, 0.06 lb ai/a of		
bifenthrin)		
• Maximum Amount of Brigadier HPG Insecticide per Season: Do not		
apply more than 16.64 fl oz/a (0.13 lb ai/a of imidacloprid, 0.13 lb ai/a of		
bifenthrin)		
Maximum Amount of Imidacloprid per Season: 0.13 lbs ai/a as a foliar		
application.		
••		
Maximum Amount of Bifenthrin per Season: 0.50 lbs ai/a		
Do not graze livestock in treated areas or cut treated crops for feed.		
Application Instructions		
Apply in a minimum of 2 gallons of finish	ed spray per acre by air or in a	
minimum of 10 gallons per acre with grou	und equipment. When applying by	
air, 1–2 guarts of emulsified oil may be substituted for 1–2 guarts of water		
in the finished spray.		
in the inforted opray.		

Thorough coverage is essential to achieve control.



Citrus (Soil Application) (PHI 1 day) (Australian desert lime, Australian finger lime, Australian round live, Brown River finger lime, Calamondin, Citron, Citrus hybrids, Grapefruit, Japanese summer grapefruit, Kumquat, Lemon, Lime, Mediterranean mandarin, Mount White lime, New Guinea wild lime, sour Orange, sweet Orange, Pummelo, Russell River lime, Satsuma mandarin, Sweet lime, Tachibana orange, Tahiti lime, Tangelo, Tangerine, Tangor, Trifoliate Orange, Uniq. Fruit, Cultivars)

Pests Controlled	Rates of Application	
Fire ants (Solenopsis spp.) Asian cockroach (Blattélla asahìnae)	12.8 - 32 fl oz/A (0.2 - 0.5 lb ai/A)	
Diaprepes Root Weevil (Diaprepes abbreviatus)	32 - 64 fl oz/A (0.5 – 1.0 lb ai/A)	
Southern Blue Green Citrus Root Weevil (Pachnaeus litus)		
Blue Green Citrus Root Weevil (Pachnaeus opalus)		
Brown Leaf Notcher (Epicaerus mexicanus)		
Little Leaf Notcher (Artipus floridanus)		
PHI Do not apply within 1 days of harvest		
• Maximum Amount of Brigadier Insecticide per Application: Do not apply more than 64 fl oz/a (0.5 lb ai/a of imidacloprid, 0.5 lb ai/a of bifenthrin)		
• Maximum Amount of Brigadier Insecticide per Year: Do not apply more than 64 fl oz/a (0.50 lb ai/a of imidacloprid, 0.50 lb ai/a of bifenthrin)		
 Maximum Amount of Imidacloprid per Year: 0.50 lbs ai/a as a foliar application. Maximum Amount of Bifenthrin per Season: 0.50 lbs ai/a 		
Apply by Ground application only.		

Do not apply by air or through irrigation systems.

Do not apply during bloom or within 10 days prior to bloom or when bees are foraging.

Do not allow any application of Brigadier Insecticide to contact fruit or foliage.

Apply the specified dosage in a minimum of 40 gallons of finished spray per acre.

Application Instructions

Apply Brigadier Insecticide by ground equipment to bare soil beneath citrus trees. Brigadier Insecticide 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. Apply to individual citrus resets, when not in solid planted rows, using hand-gun or shielded sprayer. Brigadier Insecticide 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 Brigadier Insecticide as they attempt to burrow into the root zone. Disturbance of the soil beneath trees should be minimized.

Timing of Brigadier Insecticide 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 Brigadier Insecticide 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 Brigadier Insecticide soil barrier in place prior to drop of the neonates.

Brigadier Insecticide is one of several effective tools in an integrated pest management program for Citrus Root Weevils. Application of Brigadier Insecticide 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:

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, 32 fluid ounces formulated product 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, 16 fluid ounces formulated product can be applied early season and 16 fluid ounces formulated product can be applied later in the season.

Grapes (PHI 30 days) - foliar

Pests Controlled	Rates of Application
Black vine weevil	5.1 – 6.4 fl oz/A
Cutworm spp.	(0.08 – 0.1 lbs ai/A)
Grape berry moth	, , , , , , , , , , , , , , , , , , ,
Grape bud beetle	
Grape leaffolder	
Grape leafroller	
Grapeleaf skeletonizer	
Japanese beetles (adult)	
Mealybug (crawlers)	
Omnivorous leafroller	
Orange tortrix	
Thrips (adults)	
Eastern grape leafhopper	3.8 – 6.4 fl oz/A
Flea beelte spp.	(0.06 – 0.1 lbs ai/A)
Sharpshooter spp.	· · · · · · · · · · · · · · · · · · ·
Variegated leafhopper	
Western grape leafhopper	
Restrictions	

• PHI: Do not apply within 30 days of harvest.

Application Interval: Do not make applications less than 14 days apart.

• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 6.4 fl oz/a (0.05 lb ai/a of imidacloprid, 0.05 lb ai/a of bifenthrin)

• Maximum Amount of Brigadier HPG Insecticide per Year: Do not apply more than 12.8 fl oz/a (0.1 lb ai/a of imidacloprid, 0.1 lb ai/a of bifenthrin)

• Maximum Amount of Imidacloprid per Year: 0.10 lbs ai/a as a foliar application.

• Maximum Amount of Bifenthrin per Season: 0.10 lbs ai/a

Application Instructions

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.

Hops (PHI 28 days) - foliar

Pests Controlled	Rates of Application
Armyworm spp.* Cutworm spp. Leafrollers	12.8 fl oz/A (0.2 lbs ai/A)
Looper spp Root weevil Two spotted spide mite	
Aphid spp. Leafhiopper spp.	3.8 – 12.8 fl oz/A (0.06 – 0.2 lbs ai/A)

Restrictions

• PHI: Do not apply within 28 days of harvest.

• Application Interval: Do not make applications less than 21 days apart.

- Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 12.8 fl oz/a (0.1 lb ai/a of imidacloprid, 0.1 lb ai/a of bifenthrin)
- Maximum Amount of Brigadier HPG Insecticide per Year: Do not apply more than 38.4 fl oz/a (0.30 lb ai/a of imidacloprid, 0.30 lb ai/a of bifenthrin) as a foliar application
- Maximum Amount of Imidacloprid per Year: 0.30 lbs ai/a as a foliar application.
- Maximum Amount of Bifenthrin per Season: 0.30 lbs ai/a

Application Instructions

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.

For Root weevil control: Make a direct spray to the base of the plant. Spray up to 3 ft on the vine and 1.5 to 2 ft on sides of the plant.

Thorough coverage is essential to achieve control.

* Including all armyworm pests except Beet armyworm ..

Pears (PHI 14 days) - foliar

Pests Controlled	Rates of Application
Codling Moth	5.1 – 12.8 fl oz/A
Cutworm spp.	(0.08 – 0.2 lbs ai/A)
Green Fruitworm	
Leafminer	
Leafroller	
Plum Curculio	
San Jose scale	
Aphid spp.	3.8 –12.8 fl oz/A
Leafhopper spp.	(0.06 – 0.2 lbs ai/A)
Lygus spp.	, , , , , , , , , , , , , , , , , , , ,
Stink Bug spp.	
Restrictions	

• PHI: Do not apply within 14 days of harvest.

Application Interval: Do not make applications less than 30 days apart.

• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 12.8 fl oz/a (0.1 lb ai/a of imidacloprid, 0.1 lb ai/a of bifenthrin)

• Maximum Amount of Brigadier HPG Insecticide per Year: Do not apply more than 64 fl oz/A (0.5 lb ai/a of imidacloprid, 0.5 lb ai/a of bifenthrin) total. Do not apply more than 57.6 fl oz (0.45 lb ai/a of imidacloprid, 0.45 lb ai/a of bifenthrin) after petal fall

• Maximum Amount of Imidacloprid per Year: 0.50 lbs ai/a as a foliar application.

• Maximum Amount of Bifenthrin per Season: 0.50 lbs ai/a total (0.45 lb ai/a after petal fall.)

Do not graze livestock in treated areas or cut treated crops for feed.

Application Instructions

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.



Tree Nuts Group, except for Almonds (PHI 7 days for crops, except Pecan which is 21 days) - foliar

(7 Day PHI): beech nut; Brazil nut; butternut; cashew; chestnut; chinquapin; filbert (hazelnut); hickory nut; macadamia nut; pistachios and walnut (black and English). (21 Day PHI) Pecan.

Pest	Rates of Application
European mite	10.24 – 12.8 fl oz/A
Spider mite	(0.16 – 0.2 lbs ai/A)
Mealy bug	
San Jose scale (crawlers)	
Aphid spp. (including black	6.4 – 12.8 fl oz/A
pecan aphid)	(0.1 – 0.2 lbs ai/A)
Codling moth	
Filbert worm	
Hickory shuckworm	
Leaffooted bug	
Navel orangeworm	
Oblique banded leafroller	
Peach twig borer	
Pecan leaf casebearer	
Pecan nut casebearer	
Pecan phylloxera	
Plantbug spp.	
Stink bug spp	
Restrictions	
• PHI: Do not apply within 7 days of harvest for all Tree nut crops	
except	
The PHI for Pecan is 21 days.	
Do not apply on almonds	
Application Interval. Do not make applications loss than 15 days	

Application Interval: Do not make applications less than 15 days apart.

• Maximum Amount of Brigadier HPG Insecticide per Application: Do not apply more than 12.8 fl oz/a (0.10 lb ai/a of imidacloprid, 0.10 lb ai/a of bifenthrin)

- Maximum Amount of Brigadier HPG Insecticide per Year: Do not apply more than 46.08 fl oz/a (0.36 lb ai/a of imidacloprid, 0.36 lb ai/a of bifenthrin)
- Maximum Amount of Imidacloprid per Year: 0.36 lbs ai/a as a foliar application.
- Maximum Amount of Bifenthrin per Season: 0.50 lbs ai/a
- Do not apply pre-bloom or during bloom or when bees are foraging.

Application Instructions

Apply by ground as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (50 gallons of finished spray per acre) spray in sufficient water to provide through coverage.

Apply by air with a minimum of 10 gallons of finished spray.

Dealers Must Sell in Original Packages Only.

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 or FMC or Seller. 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 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.