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# U S ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs Registration Division (7504P) 1200 Pennsylvania Ave NW Washington D C 20460 EPA Reg Number

Date of Issuance

83222 40

JUN 25 2012

Term of Issuance

Unconditional

Name of Pesticide Product

Imidacloprid Plus Bifenthrin

1 + 1 SC

NOTICE OF PESTICIDE

<u>x</u> Registration

\_ Reregistration

(under FIFRA as amended)

Name and Address of Registrant (include ZIP Code)
Ms Jane M Miller
Direct AG Source LLC
c/o Biologic Inc 115 Obtuse Hill Road
Brookfield CT 06804

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

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

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

This product is unconditionally registered in accordance with FIFRA sec 3(c)5 Once a pesticide is registered however it is not regarded as permanently acceptable. Registration does not eliminate the need for continual reassessment of pesticides. If the Agency determines that at any time additional data are required to maintain in effect an existing registration, the Agency will require submission of such data under FIFRA section (3)(c)(2)(B)

Revise the EPA Registration Number to read EPA No 83222 40

Signature of Approvin Official

Venus Eagle

Product Manager 01

Insecticide Rodenticide Branch Registration Division (7504P) Date

JUN 2 5 2012

EPA Form 8570 6

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- Within eighteen months of the date of this registration submit to the Agency the required one year storage stability study (830 6317) for the proposed product under warehouse conditions. The corrosion characteristics study (830 6320) may be carried out concurrently. It is recommended that observations be made at 3 6 9 and 12 months.
- Please be reminded that the 40 CFR part 156 140(a)(4) requires that a batch code lot number or other code identifying the batch of the pesticide distributed and sold be placed on non refillable containers. The code may appear either on the label or durably marked on the container itself and can be added by non notification per PRN 98 10
- Submit two copies of your final printed label before you release the product for shipment. If these conditions are not complied with the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitute acceptance of these conditions

A stamped copy of the label is enclosed for your records If you have any questions regarding this notice contact Dani Daniel at 703 305 5409 or electronically at daniel dani@epa gov

# 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

# **Imidacloprid Plus Bifenthrin 1 + 1 SC**

# Insecticide

Active Ingredients	By Wt
Bifenthrin (2 methyl [1 1 biphenyl] 3 y1) Methyl 3 (2 chloro 3 3 3 trifluoro 1	
propenyl) 2 2 dimethyl cyclopropanecarboxylate*	11 30%
Imidacloprid 1 [(6 Chloro 3 pyridonyl) methyl] N nitro 2 Imidazolidinimine	11 30%
OtherIngredients	<u>77 40%</u>
	100 00%

<sup>\*</sup>Cis isomers 97 % minimum trans isomers 3 % maximum This product contains 2lbs active ingredient per gallon

# WARNING AVISO

This label must be in the possession of the user at the time of application. Si usted no entirende 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 do so 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	
	HOTI INF 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 or emergency medical treatment information

# **NOTE TO PHYSICIAN**

This product contains a pyrethroid It 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 1 800 XXX XXXX

EPA Reg No 83222 XX

**EPA Est No XXXXX XX XXX** 

**Net Contents** 

Manufactured For Direct AG Source, LLC 50473 260<sup>th</sup> St Eldora IA 50627 ACCEPTED JUN 2 5 2012

Under the Federal Insecticide Fungicide, and Rodenticide Act as amended, for the pesticide registered under

EPA Reg No 83211-40

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# **PRECAUTIONARY STATEMENTS**

# Hazards to Humans (and Domestic Animals) Warning

May be fatal if swallowed Wash thoroughly with soap and water after handling and before eating drinking chewing gum using tobacco or using the toilet

## **Personal Protective Equipment**

Applicators and other handlers must wear Long sleeved shirt and long pants Shoes plus socks

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

# **User Safety Recommendations Users should**

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

# **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 Workers 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

# **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 actively visiting 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.

Physical Chemical Hazard warning Do not store near or use with oxidizing agents

## **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.

#### **RESISTANCE MANAGEMENT**

Some insects are known to develop resistance to products with the same chemical class used repeatedly for control. Imidacloprid Plus Bifenthrin  $1+1\,\mathrm{SC}$  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 Imidacloprid Plus Bifenthrin  $1+1\,\mathrm{SC}$  is do not consecutively and repeatedly apply Group 3 and/or Group 4A insecticides during a growing season to control particular target pest. Consult your local or state agricultural authorities or your Direct Ag Source. LLC 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.

#### Use Instructions

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

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

# **ADJUVANTS**

The use of a spray adjuvant that meets or exceeds CPDA Adjuvant Certification is recommended for optimum performance. Refer to the individual crop recommendation sections of 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 Imidacloprid Plus Bifenthrin 1+1 SC. Crops that have tolerances for imidacloprid and not bifenthrin may be rotated 30 days following the final application of Imidacloprid Plus Bifenthrin 1+1 SC. Below is a list of plant back restrictions

**Immediate plant back** Crops on this label as well as 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 corm vegetables (except sugar beet) cilantro and coriander soybeans strawberries

30 Day plant back Cereals cucurbits safflower

10 Month plant back Onion and bulb vegetables

12 Month plant back All other crops

#### Maximum Allowable Use Per Season

Refer to the individual crop sections for maximum allowable Imidacloprid Plus Bifenthrin  $1+1\,\text{SC}$  usage per acre per season. The maximum allowable use must include all registered use patterns including at plant, 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

#### **Tank Mixture**

Imidacloprid Plus Bifenthrin 1 + 1 SC 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)

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

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 ULV Aerial Application** Do not apply within 450 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)

# **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**

Mount the spray boom on the aircraft as to minimize drift caused by wingtip or rotor vortices. Use the minimum practical boom length and do not exceed 75% of the wing span or 80% rotor diameter.

Flight speed and nozzle orientation must be considered in determining droplet size. Spray must be released at the lowest height consistent with pest control and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.

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

# **APPLICATION INSTRUCTIONS**

# **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 irrigation system. Do not apply this product through any other type of irrigation system. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system.

For 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. Imidacloprid Plus Bifenthrin 1+1 SC should be applied continuously for the duration of the water application. Imidacloprid Plus Bifenthrin 1+1 SC 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.

# Artichoke(Globe) (PHI 7 days)

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 Imidacloprid Plus Bifenthrin 1 + 1 SC per Application** 12 8 fl oz/a (0 1 lb ai/A of imidacloprid and 0 1 lb ai/A of bifenthrin)

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 25 6 fl oz/a (0 50 lb ai/A of imidacloprid and 0 50 lb ai/A of bifenthrin)

**Maximum Amount of imidacloprid per Season** 0 50 lbs ai/A as a foliar application

Maximum Amount of bifenthrin per Season 0 50 lbs ai/A

#### Remarks

Thorough coverage is essential to achieve control

# Head and Stem Brassica (PHI 7 days)

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	
Whitefly	6 1 fl oz/A (0 095 lbs aɪ/A)	
Aphid spp		
Armyworm spp *		
Corn earworm		
Cricket		
Cucumber beetle		
Cutworm spp		
Diamondback moth**		
Flea beetle spp		
Ground beetle	3 8 – 6 1 fl oz/A	
Imported cabbageworm	(0 06 – 0 095 lbs aı/A)	
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 harvest

**Application Interval** Do not make applications less than 7 days apart

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 6 1 fl oz/A (0 048 lb ai/A of imidacloprid and 0 048 lb ai/A of bifenthrin)

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 30 72 fl oz/a (0 24 lb ai/A of imidacloprid and 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 Imidacloprid Plus Bifenthrin 1 + 1 SC up to 5 applications after bloom

#### Remarks

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.

Including Broccoli Raab Bok Choy Collards Kale Mizuna Mustard Greens Mustard Spinach Rape Greens

Pests Controlled	Rates of Application
Whitefly	6 1 fl oz/A (0 095 lbs aı/A)
Aphid spp Armyworm spp * 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	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. Apply Imidacloprid Plus Bifenthrin 1 + 1 SC up to 5 applications after bloom
- Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 6 1 fl oz/A (0 048 lb ai/A of imidacloprid and 0 048 lb ai/A of bifenthrin)

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 30 72 fl oz/a (0 24 lb ai/A of

imidacloprid and 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

# Remarks

Thorough coverage is essential to achieve control

\*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.

Pests Controlled	Rates of Applications	
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)		

- **PHI** Do not apply within 7 days of harvest
- **Application Interval** Do not make applications less than 7 days apart
- Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 5 5 ft oz/A (0 043 lb ai/A of imidacloprid and 0 043 lb ai/A of bifenthrin)
- Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 16 64 fl oz/a (0 13 lb ai/A of imidacloprid and 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

Remarks

Thorough coverage is essential to achieve control

Pests Controlled	Rates of Application	
Fire ants (Solenopsis spp ) Asian cockroach (Blattella asahinae)	12 8 32 fl oz/A (0 2 0 5 lb aı/A)	<u> </u>
Diaprepes Root Weevil (Diaprepes abbreviatus) 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)	32 64 fl oz/A (0 5 — 1 0 lb aı/A)	

• PHI Do not apply within 1 days of harvest

**Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application** 64 fl oz/A (0 5 lb ai/A of imidacloprid and 0 5 lb ai/A of bifenthrin)

**Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season** 64 fl oz/A (0 50 lb ai/A of imidacloprid and 0 50 lb ai/A of bifenthrin)

**Maximum Amount of imidacloprid per Season** 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 actively foraging Do not allow any application of Imidacloprid Plus Bifenthrin  $1+1\,\mathrm{SC}$  to contact fruit or foliage Apply the specified dosage in a minimum of 40 gallons of finished spray per acre

#### Remarks

Apply Imidacloprid Plus Bifenthrin  $1+1\,\text{SC}$  by ground equipment to bare soil beneath citrus trees Imidacloprid Plus Bifenthrin  $1+1\,\text{SC}$  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

Imidacloprid Plus Bifenthrin 1+1 SC 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 Imidacloprid Plus Bifenthrin 1+1 SC as they attempt to burrow into the root zone Disturbance of the soil beneath trees should be minimized

Timing of Imidacloprid Plus Bifenthrin 1 + 1 SC 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 Imidacloprid Plus Bifenthrin 1 + 1 SC 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 Imidacloprid Plus Bifenthrin 1 + 1 SC soil barrier in place prior to drop of the neonates.

Imidacloprid Plus Bifenthrin 1+1 SC is one of several effective tools in an integrated pest management program for Citrus Root Weevils Application of Imidacloprid Plus Bifenthrin 1+1 SC 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 hand gun 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 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.

# Cotton (PHI 14 days)

Pests Controlled	Rates of Application
Cotton aphid Cotton fleahopper Lygus spp Southern garden leafhopper Stink bug spp	3 8 7 7 fl oz/A (0 06 0 12 lbs ai/A)
Armyworm spp * Bollworm Cabbage looper Cotton leafperforator Cutworm spp European cornborer Pink bollworm Saltmarsh caterpillar Tobacco budworm** Thrips (adult) Whitefly	5 1 7 7 fl oz/A (0 08 0 12 lbs aı/A)

#### Restrictions

- PHI Do not apply within 14 days of harvest
- Application Interval Do not make applications less than 7 days apart
- Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 7 7 fl oz/A (0 06 lb ai/A of imidacloprid and 0 06 lb ai/A of bifenthrin)
- Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 39 68 fl oz/A (0 31 lb ai/A of imidacloprid and 0 31 lb ai/A of bifenthrin) as a foliar application in all states but California In California 38 4 fl oz/A (0 30 lb ai/A of imidacloprid and 0 30 lbs ai/A of bifenthrin) as a foliar application
- Maximum Amount of imidacloprid per Season 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 make more than 10 synthetic pyrethroid applications (of one product or combination of products) to a cotton crop in one growing season

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

## Remarks

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.

# Eggplant (PHI 7 days)

Pests Controlled	Rates of Application	
Aphid spp Leafhopper spp Lygus spp	3 8 9 85 fl oz/A (0 06 0 15 lbs aı/A)	
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)	

# Restrictions

- PHI Do not apply within 7 days of harvest
- Application Interval Do not make applications less than 7 days apart
- Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 9 85 fl oz/A (0 075 lb ai/A of imidacloprid and 0 075 lb ai/A of bifenthrin)
- Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 25 6 fl oz/a (0 20 lb ai/A of imidacloprid and 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

#### Remarks

Thorough coverage is essential to achieve control

Pests Controlled	Rates of Application
Eastern grape leafhopper	38 — 64 fl oz/A
Flea beetle spp	(0 06 0 1 lbs ai/A)
Sharpshooter spp	
Variegated leafhopper	
Western grape leafhopper	
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 tortix	
Thrips (adults)	

**PHI** Do not apply within 30 days of harvest

Application Interval Do not make applications less than 14 days apart

**Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application** 6 4 fl oz/A (0 05 lb ai/A of imidacloprid and 0 05 lb ai/A of bifenthrin)

**Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season** 12 8 fl oz/a (0 1 lb ai/A of imidacloprid and 0 1 lb ai/A of bifenthrin)

Maximum Amount of imidacloprid per Season 0 10 lbs ai/A as a foliar application

Maximum Amount of bifenthrin per Season 0 10 lbs ai/A

#### Remarks

Thorough coverage is essential to achieve control

Pests Controlled	Rates of Application	
Aphid spp Leafhopper spp Lygus spp	3 8 6 1 fl oz/A (0 06 0 095 lbs aı/A)	
Armyworm spp * Corn earworm Cucumber beetle Cutworm spp Flea beetle spp Imported Cabbageworm Looper spp Salt Marsh caterpillar Stink bug spp Whitefly	51 61fl oz/A (0 08 0 095 lbs aı/A)	

- PHI Do not apply within 7 days of harvest
- Application Interval Do not make applications less than 7 days apart

  Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 6 1 fl oz/A (0 048 lb ai/A of imidacloprid and 0 048 lb ai/A of bifenthrin)
- Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 30 72 8 oz/A (0 24 lb ai/A of imidacloprid and 0 24 lb ai/A of bifenthrin)
- Maximum Amount of imidacloprid per Season 0 24 ibs ai/A as a foliar application
- Maximum Amount of bifenthrin per Season 0 50 lbs ai/A

# Remarks

Thorough coverage is essential to achieve control

# Hops (PHI 28 days)

Pests Controlled	Rates of Application	
Aphid spp Leafhopper spp	3 8 12 8 fl oz/A (0 06 0 2 lbs ai/A)	
Armyworm spp	12 8 fl oz/A	······································
Cutworm spp	(0 2 lbs ai/A)	
Leafrollers		
Looper spp		
Root weevil		
Two spotted spider mite		

#### Restrictions

• PHI Do not apply within 28 days of harvest

Application Interval Do not make applications less than 21 days apart

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 12 8 fl oz/A (0 1 lb ai/A of imidacloprid and 0 1 lb ai/A of bifenthrin)

**Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season** 38 4 fl oz/A (0 30 lb ai/A of imidacloprid and 0 30 lb ai/A of bifenthrin)

Maximum Amount of imidacloprid per Season 0 30 lbs ai/A as a foliar application

• Maximum Amount of bifenthrin per Season 0 30 lbs ai/A

**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

# **Legume Vegetables**

# 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
Aphid spp Grasshopper Leafhopper spp Lygus spp Thrips (adult) (foliage feeding)	3 8 5 6 fl oz/A (0 06 — 0 0875 lbs aı/A)

Alfalfa caterpillar	
Armyworm spp *	5 6 fl oz/A
Bean leaf beetle	(0 0875 lbs aı/A)
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	
virilleity	

• PHI Do not apply within 14 days of harvest

Application Interval Do not make applications less than 7 days apart

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 5 6 fl oz/A (0 044 lb ai/A of imidacloprid and 0 044 lb ai/A of bifenthrin)

**Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season** 16 64 fl oz/A (0 13 lb ai/A of imidacloprid and 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 to peas and 0 30 lb ai/A to beans Remarks

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

# **Succulent Beans and Peas (PHI 7 days)**

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
Aphid spp	
Grasshopper	
Leafhopper spp	3 8 5 56 oz/A
Lygus spp	(0 06 — 0 0875 lbs al/A)
Thrips (adult) (foliage	
feeding)	
Alfalfa caterpillar	5 5 fl oz/A
Armyworm spp *	(0 0875 lbs al/A)
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)	
Looperspp	
Mexican bean beetle	
Pea leaf weevil	
Pea weevil	
Sap beetle (adult)	
Saltmarsh caterpillar	
Silverspotted skipper	
Southern armyworm	
Threecornered alfalfa hopper	
Webworm	
Whitefly	

• PHI Do not apply within 7 days of harvest

Application Interval Do not make applications less than 7 days apart

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 5 5 fl oz/A (0 044 lb ai/A of imidacloprid and 0 044 lb ai/A of bifenthrin)

• Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 16 64 fl oz/A (0 13 lb ai/A of imidacloprid and 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

#### Remarks

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 quart of emulsified oil may be substituted for 1 quart of water in the finished spray.

Thorough coverage is essential to achieve control

\*Including all armyworm pests except Beet armyworm

# Okra (PHI 7 days)

Pests Controlled	Rates of Application
Aphid spp	3 8 9 85 fl oz/A
Lygus spp	(0 06 0 15 lbs aı/A)
Armyworm spp *	5 1 9 85 fl oz/A
Corn earworm	(0 08 0 15 lbs ai/A)
Cucumber beetle	
Cutworms	
European corn borer	
Flea beetle spp	
Leafminer (adult)	
Looper spp	
Japanese beetle (adult)	
Stink bug spp	
Thrips (adult)	
Whitefly	

#### Restrictions

- PHI Do not apply within 7 days of harvest
  - **Application Interval** Do not make applications less than 7 days apart
- Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 9 85 fl oz/A (0 075 lb ai/A of imidacloprid and 0 075 lb ai/A of bifenthrin)
- Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 25 6 fl oz/A (0 20 lb ai/A of imidacloprid and 0 20 lb ai/A of bifenthnn)
- 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

# Remarks

Thorough coverage is essential to achieve control

# Peanut (PHI 14 days)

Rates of Application	
3 8 — 5 6 fl oz/A	·····
(0 06 — 0 0875 lbs ai/A)	
5 6 fl oz/A	
(0 0875 lbs ai/A)	
• • • • • • • • • • • • • • • • • • • •	
	3 8 — 5 6 fl oz/A (0 06 — 0 0875 lbs aı/A) 5 6 fl oz/A

#### Restrictions

PHI Do not apply within 14 days of harvest

Application Interval Do not make applications less than 14 days apart

Maximum Amount per of Imidacloprid Plus Bifenthrin 1 + 1 SC Application 5 6 fl oz/A (0 044 lb ai/A of imidacloprid and 0 044 lb ai/A of bifenthrin)

**Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season** 16 64 fl oz (0 13 lb ai/A of imidacloprid and 0 13 lb ai/A of bifenthrin) as a foliar application

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 feed green immature plants and peanut hay to livestock

Remarks

Thorough coverage is essential to achieve control

\*Including all armyworm pests except Beet armyworm

# Pears (PHI 14 days)

Pests Controlled	Rates of Application	
Aphid spp		
Leafhopper spp	3 8 12 8 fl oz/A	
Lygus spp	(0 06 0 2 lbs a <sub>1</sub> /A)	}
Stink Bug spp		
Codling Moth	5 1 12 8 fl oz/A	
Cutworm spp	(0 08 0 2 lbs ai/A)	
Green Fruitworm	• • •	
Leaf miner		
Leafroller		ļ
Plum Curculio		
San Jose scale		

PHI Do not apply within 14 days of harvest

Application Interval Do not make applications less than 30 days apart

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 12 8 fl oz/A (0 1 lb ai/A of imidacloprid and 0 1 lb ai/A of bifenthrin)

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 64 fl oz/A (1 0 lb ai/A of imidacloprid and 1 0 lb ai/A of bifenthrin) total and 57 6 fl oz (0 45 lb ai/A of imidacloprid and 0 45 lb ai/A of bifenthrin) after petal fall

- Maximum Amount of imidacloprid per Season 0 50 lbs ai/A as a foliar application
- Maximum Amount of bifenthrin per Season 0 50 lbs ai/A total and 0 45 lb ai/A after petal fall Do not graze livestock in treated areas or cut treated crops for feed

#### Remarks

Thorough coverage is essential to achieve control

## Peppers (PHI 7 days)

Pests Controlled	Rates of Application	·
Aphid spp	3 8 9 85 fl oz/A	.,
Leafhopper spp	(0 06 0 15 lbs aı/A)	
Armyworm spp *	5 1 9 85 fl oz/A	
European corn borer	(0 04 0 15 lbs aı/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		

#### Restrictions

- PHI Do not apply within 7 days of harvest
- Application Interval Do not make applications less than 7 days apart
- Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 9 85 fl oz/A (0 075 lb ai/A of imidacloprid and 0 075 lb ai/A of bifenthrin)
- Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 25 6 fl oz/A (0 20 lb ai/A of imidacloprid and 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

#### Remarks

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 to the resistance management statement in the DIRECTION FOR USE section of this label.

# Potato (PHI 21 days) (Foliar uses)

Pests Controlled	Rates of Application	
Foliar Application		
Aphid spp	3 8 — 6 14 fl oz/A	
Leafhopper spp	(0 06 — 0 096 lbs aı/A)	
Banded Cucumber beetle	4 8 6 14 fl oz/A	
Colorado potato beetle	(0 075 — 0 096 lbs at/A)	
Cucumber beetle		
European corn borer		
Grasshopper spp		
Looper app		
Flea beetle spp		
June beetle		
Potato psyllid		
Sugarcane beetle		
Sweetpotato flea beetle		
Sweetpotato weevil		
Tuberworm		
Whitefringed beetle		
Whitefly		

#### Restrictions

- PHI Do not apply within 21 days of harvest
- Application Interval Do not make applications less than 7 days apart

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 6 14 fl oz/A (0 048 lb i/A of

imidacloprid and 0 048 lb ai/A of bifenthrin) a foliar application

**Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season** 25 6 fl oz/A (0 2 lb ai/A of

imidacloprid and 0.2 lb ai/A of bifenthrin) as a foliar application

# Remarks

**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

# Soybeans (PHI 45 days for feeding of dry vines, PHI 18 days for feeding of green vines)

Pests Controlled	Rates of Application
Alfalfa caterpıllar	51 61floz/A
Bean leaf beetle	(0 08 0 095 lbs ai/A)
Cloverworm	
Corn earworm	
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	
Whitefly	
Yellowstriped armyworm	20640 /4
Aphid spp	3 8 6 1 fl oz/A
Grasshopper	(0 06 0 095 lbs ai/A)
Leafhopper spp	
Lygus spp	
Thrips (adult) (foliage feeding)	

# Restrictions

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 Imidacloprid Plus Bifenthrin  $\bf 1+1$  SC per Application  $\bf 61$  fl oz/A (0 048 lb ai/A of imidacloprid and 0 048 lb ai/A of bifenthrin) of Imidacloprid Plus Bifenthrin  $\bf 1+1$  SC

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 17 92 lb ai/A (0 14 lb ai/A of

imidacloprid and 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 30 lbs ai/A

#### Remarks

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

\* 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 to the resistance management statement in the DIRECTION FOR USE section of this label.

# Spinach (PHI 40 days)

Pests Controlled	Rates of Application
Aphid spp	3 8 6 14 fl oz/A
Lygus spp	(0 06 0 096 lbs ai/A)
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	
Leaf miner	
Looper spp	
Thrips (adult)	
Whitefly	

#### Restrictions

**PHI** Do not apply within 40 days of harvest

Application Interval Do not make applications less than 7 days apart

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 6 14 fl oz/A (0 048 lb ai/A of imidacloprid and 0 048 lb ai/A of bifenthrin)

**Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season** 30 72 fl oz/A (0 24 lb ai/A of imidacloprid and 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

#### Remarks

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 quart of emulsified oil may be substituted for 1 quart of water in the finished spray.

Thorough coverage is essential to achieve control

# Strawberry (PHI 7)

Pests Controlled	Rates of Application	<del></del>
Aphid spp	5 1 — 6 14 fl oz/A	
Armyworm spp *	(0 08 — 0 096 lbs ai/A)	
Corn earworm Flea beetle spp Leafhopper spp Lygus spp		
Spittlebug Whitefly		

## Restrictions

**PHI** Do not apply within 7 days of harvest

Application Interval Do not make applications less than 5 days apart

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 6 14 fl oz/A (0 048 lb ai/A of imidacloprid and 0 048 lb ai/A of bifenthrin)

**Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season** 17 92 fl oz/A (0 14 lb ai/A of imidacloprid and 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 actively foraging

#### Remarks

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. Aerial applications in Florida are prohibited

Thorough coverage is essential to achieve control

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

Pest Controlled	Rates of Application	
	At transplant/Pre transplant Application	
Aphid spp Armyworm spp * Cutworm spp Flea beetle spp (adults) Flea beetle spp (larvae) Mole cricket White grub Wireworm spp	21 75 25 5 fl oz /A 1 7 2 fl oz / 1000 linear ft 0 34 0 40 lbs ai/A	
FF	Foliar Application	
Plantbug spp Aphid spp Stink Bug spp	3 8 6 4 fl oz/A (0 06 0 1 lbs aı/A)	
Armyworm spp Chinch bug Cutworm spp Flea beetle spp (adults) Grasshopper spp Hornworm spp Japanese beetle Stalkborer Thrips (adults)	5 1 6 4 fl oz/A (0 08 0 1 lb ai/A)	

#### Restrictions

PHI 14 days

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

**Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application** Do not apply more than 6 4 floz/A (0 05 lb ai/A imidacloprid and 0 05 lb ai/A bifenthrin) per foliar application 25 5 (0 2 lb ai/A of imidacloprid and 0 2 lb ai/A of bifenthrin) per at transplant/pre transplant application Apply maximum of 2 applications per season

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 25 6 fl oz (0 2 lb ai/A of imidacloprid and 0 2 lb ai/A of bifenthrin) as an at transplant/pre transplant application

25 6 fl oz/A (0 25 lb ai/A imidacloprid and 0 25 lb ai/A bifenthrin) as a foliar application

Maximum Amount of imidacloprid per Season 0 28 lbs ai/A as an at transplant/pre transplant application 0 28 lbs ai/A as a foliar application

**Maximum Amount of bifenthrin per Season** 0 30 lb ai/A as an at transplant/pre transplant application 0 5 lbs ai/A total

Do not apply after layby

Apply a maximum of 2 applications per season

# Remarks

**Application in Water** 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

#### **Foliar 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 to the resistance management statement in the DIRECTION FOR USE section of this label.

# Tomato (PHI 1 day)

Pests Controlled	Rates of Application
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 aı/A)
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 aı/A)

#### Restrictions

- PHI Do not apply within 1 day of harvest
  - **Application Interval** Do not make applications less than 10 days apart
- Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 9 85 fl oz/A (0 075 lb ai/A of imidacloprid and 0 075 lb ai/A of bifenthrin)

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 30 72 fl oz/A (0 24 lb ai/A of imidacloprid and 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

#### Remarks

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 quart of emulsified oil may be substituted for 1 quart of water in the finished spray.

Thorough coverage is essential to achieve control

# Tree Nuts Group (PHI 7 days for crops except Pecan which is 21 days)

(7 Day PHI) including almond 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 Controlled	Rates of Application	
Aphid spp (including black pecan aphid) 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	6 4 — 12 8 fl oz/A (0 1 — 0 2 lbs aı/A)	
European mite Spider mite Mealy bug San Jose scale (crawlers)	10 24 — 12 8 fl oz/A (0 16 — 0 2 lbs aı/A)	

# Restrictions

**PHI** Do not apply within 7 days of harvest for all Tree nut crops except The PHI for Pecan is 21 days **Application Interval** Do not make applications less than 15 days apart

**Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Application** 12 8 fl oz/A (0 10 lb ai/A of imidacloprid and 0 10 lb ai/A of bifenthrin)

• Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 46 08 fl oz/A (0 36 lb ai/A of imidacloprid and 0 36 lb ai/A of bifenthrin)

**Maximum Amount of imidacloprid per Season** 0 36 lbs ai/A as a foliar application **Maximum Amount of bifenthrin per Season** 0 50 lbs ai/A

Do not apply prebloom or during bloom or when bees are actively foraging

#### Remarks

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

# **Tuberous and Corm Vegetables (PHI 21 days)**

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 Psyllid spp Sugarcane beetle Sweetpotato flea beetle Sweetpotato weevil Whitefly Whitefringed beetle	5 1 — 7 711 oz/A (0 08 0 12 lbs al/A)
Aphid spp Leafhopper spp	3 8 7 7 ft oz1A 0 06 0 12 lbs al/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 Imidacloprid Plus Bifenthrin 1 + 1 SC per Application 7 711 oz/A (0 06 lb ai/A of imidacloprid and 0 06 lb ada of bifenthrin)

Maximum Amount of Imidacloprid Plus Bifenthrin 1 + 1 SC per Season 16 64 fl oz/a (0 13 lb ai/A of imidacloprid and 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

# Remarks

Thorough coverage is essential to achieve control

# 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. Do not contaminate other pesticides fertilizers water food or feed by storage or disposal. In case of spill avoid contact isolate area and keep out animals and unprotected persons. Confine spills. 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 Handling**

**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.

# **Dealers Should Sell in Original Packages Only**

DIRECT AG SOURCE LLC warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on such label only when used in accordance with directions under normal use conditions 
It is impossible to eliminate all risks inherently associated with use of this product. Crop injury ineffectiveness or other unintended consequences may result because of such factors as weather conditions presence of other materials or the manner of use or application all of which are beyond the control of DIRECT AG SOURCE LLC To the extent consistent with applicable law in no case shall DIRECT AG SOURCE LLC be liable for consequential special or indirect damages resulting from the use or handling of this product. To the extent consistent with applicable law all such risks shall be assumed by the Buyer In addition to the foregoing no purchaser of this product (other than an end user) shall be entitled to any reimbursement for any loss suffered as a result of any suspension or cancellation of the registration for this product by the U.S. Environmental Protection Agency To the extent consistent with applicable law except as expressly provided herein DIRECT AG SOURCE LLC makes no warranties guarantees or representations of any kind either expressed or implied or by usage of trade statutory or otherwise with regard to the product sold including but not limited to merchantability fitness for a particular purpose use or eligibility of the product for any particular trade usage The exclusive remedy of any buyer or user of this product for any and all losses injuries or damages resulting from or in any way arising from the use handling or application of this product whether in contract warranty tort negligence strict liability or otherwise shall be damages not exceeding the purchase price paid for this product or at DIRECT AG SOURCE LLC election the replacement of this product