

# 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 the uses covered by the certified applicator's certification.

## INSECTICIDE



BIFENTHRIN GROUP 3A INSECTICIDE

FOR MIXING DIRECTLY WITH LIQUID FERTILIZER TO CONTROL LISTED SOIL INSECT PESTS

### ACTIVE INGREDIENT:

Bifenthrin\*..... (BY WT.) 17.15%

OTHER INGREDIENTS: ..... 82.85%

TOTAL: ..... 100.00%

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

This product contains 1.5 pounds active ingredient per gallon.

## 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 inside label booklet for Precautionary Statements and Directions for Use.

### FIRST AID

<b>If Swallowed:</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• <b>DO NOT</b> induce vomiting unless told to do so by the poison control center or doctor.</li><li>• <b>DO NOT</b> give anything by mouth to an unconscious person.</li></ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>

**HOTLINE NUMBER** Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact **CHEMTREC** at **1-800-424-9300** for emergency medical treatment information.

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

**For Chemical Emergency: Spill, Leak, Fire, Exposure, or Accident,**  
Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300  
or +1 703-527-3887 (collect calls accepted)

EPA Reg. No.: 91234-177-89391



**Distributed By:**  
**INVICTIS® CROP CARE, LLC**  
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Loveland, CO 80538

050820RD090721

# PRECAUTIONARY STATEMENTS

## HAZARDS TO HUMANS AND DOMESTIC ANIMALS

### WARNING

May be fatal if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. 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 (other than mixers and loaders) must wear:

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

Mixers and Loaders must wear:

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

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

### USER SAFETY RECOMMENDATIONS

#### Users should:

- Remove PPE after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.
- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

### ENVIRONMENTAL HAZARDS

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

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. **DO NOT** apply this product or allow it to drift to blooming crops or weeds while bees are foraging the treatment area. The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

### PHYSICAL OR CHEMICAL HAZARDS

**DO NOT** mix or allow coming in contact with oxidizing agent. Hazardous Chemical reaction may occur.

## DIRECTIONS FOR USE

### RESTRICTED USE PESTICIDE

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

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

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

### RESISTANCE MANAGEMENT

For resistance management, *NIRVANA RTU INSECTICIDE* contains a Group 3 insecticide. Any insect population may contain individuals naturally resistant to *NIRVANA RTU INSECTICIDE* and other Group 3 insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance-management strategies should be followed.

To delay insecticide/acaricide resistance, take the following steps:

- Rotate the use of *NIRVANA RTU INSECTICIDE* or other Group 3 insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. **DO NOT** rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
  - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
  - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
  - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
  - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
  - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide/acaricides that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.
- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact InVivict Crop Care, LLC at 844-425-8488.

## CHEMIGATION USE DIRECTIONS

Apply this product only through sprinkler including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, drip irrigation, or hand move irrigation systems. **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 diluents, 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 backflow.

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 distributions 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. *NIRVANA RTU INSECTICIDE* should be applied continuously for the duration of the water application. *NIRVANA RTU INSECTICIDE* should be diluted in sufficient volume to ensure accurate application over the area to be treated. When using chemigation, a minimum of 0.5 inches 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.

## Application and Mixing Instructions

*NIRVANA RTU INSECTICIDE* is an insecticide that contains 1.5 pounds of bifenthrin per gallon. *NIRVANA RTU INSECTICIDE* can be mixed directly with liquid fertilizer or with water. The rate of application is variable according to pest pressure, timing of treatments and field scouting. Use lower rates under light to moderate pest infestations, and higher rates under heavier pest pressure. In arid climates, applications rates are generally higher. Fill the tank one-half full with liquid fertilizer or water and begin spray tank agitation. Add the proper amount of *NIRVANA RTU INSECTICIDE* and then add the rest of the fertilizer or water. Maintain agitation until the mixture has been applied.

## SHAKE WELL BEFORE USING

- Agitate the *NIRVANA RTU INSECTICIDE* spray solutions in nurse tanks prior to moving the solution to spray system.
- 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) to 300 feet (using aerial equipment) of coastal marshes or streams that drain into coastal marshes.
- *NIRVANA RTU INSECTICIDE* can be applied in-furrow with the seed, as a T-band (band over the open furrow), as a broadcast application, as a band over the row, as a pre-emergent (PRE) application, as a post plant incorporated (PPI) application, as a foliar application (includes chemigation), or as a transplant-water drench during setting.
- Use rates in the individual crop sections for at-plant soil applications are listed as Fluid oz/1000 Linear ft based on 30-inch row spacings. For conversion to application rates applicable to other row spacings see the table below.
- The maximum application rate per acre per season (pounds active ingredient /acre/season) as listed under the use directions for each crop must not be exceeded. This seasonal maximum includes at-plant plus foliar applications of *NIRVANA RTU INSECTICIDE* and other products containing bifenthrin.
- For at-plant applications, *NIRVANA RTU INSECTICIDE* can be mixed with commonly used liquid starter or pop-up fertilizers. Follow liquid fertilizer recommendations regarding seed safety and use guidelines. Conduct a preliminary jar test using the appropriate ratio of fertilizer and *NIRVANA RTU INSECTICIDE*. **DO NOT** allow a tank mixture to set overnight, but if this occurs agitate tank mixture prior to application.

<i>NIRVANA RTU INSECTICIDE</i> Required Per Acre for Various Row Spacings					
Row Spacing	36"	30"	20"	15"	Twin Row 30" centers
Linear row ft/acre	14,520 ft	17,424 ft	26,136 ft	34,848 ft	34,848 ft
Conversion					
0.2 Fluid oz/1000 Linear ft =	2.9 fl oz/acre	3.5 fl oz/acre	5.2 fl oz/acre	7.0 fl oz/acre	7.0 fl oz/acre
0.24 Fluid oz/1000 Linear ft =	3.5 fl oz/acre	4.2 fl oz/acre	6.3 fl oz/acre	8.4 fl oz/acre	8.4 fl oz/acre
0.3 Fluid oz/1000 Linear ft =	4.4 fl oz/acre	5.2 fl oz/acre	7.8 fl oz/acre	10.5 fl oz/acre	10.5 fl oz/acre
0.39 Fluid oz/1000 Linear ft =	5.7 fl oz/acre	6.8 fl oz/acre	10.2 fl oz/acre	13.6 fl oz/acre	13.6 fl oz/acre
0.49 Fluid oz/1000 Linear ft =	7.1 fl oz/acre	8.5 fl oz/acre	12.8 fl oz/acre		
0.73 Fluid oz/1000 Linear ft =	10.6 fl oz/acre	12.7 fl oz/acre			
0.78 Fluid oz/1000 Linear ft =	11.3 fl oz/acre	13.6 fl oz/acre			
0.98 Fluid oz/1000 Linear ft =	14.2 fl oz/acre	17.1 fl oz/acre			
1.47 Fluid oz/1000 Linear ft =	21.3 fl oz/acre	25.6 fl oz/acre			

### Crop Rotation Restrictions

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

### Tank Mixtures

**NIRVANA RTU INSECTICIDE** 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. To ensure successful applications, product compatibility tests should be conducted. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### Maximum Allowable NIRVANA RTU INSECTICIDE Use Per Acre Per Season

Refer to the individual crop sections for maximum allowable **NIRVANA RTU INSECTICIDE** 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.

### 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.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs143\\_023819.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs143_023819.pdf)

**Buffer Zone for Ground Application** (groundboom, overhead chemigation, or airblast) – **DO NOT** apply within 25 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, 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

- 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 crosswind, 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.

### ARTICHOKE

#### At-Plant

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Cribate Weevil (Grubs)	8.5	0.49	0.1	Apply as a 5 to 7 inch band (T-band) over an open furrow, or in-furrow with the seed.

### PPI & PRE

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Cribate Weevil (Grubs)	PRE 8.5	PRE 0.1	<b>NIRVANA RTU INSECTICIDE</b> can be tank mixed and applied with PRE herbicides.
	PPI 8.5	PPI 0.1	<b>NIRVANA RTU INSECTICIDE</b> can be tank mixed and applied with PPI herbicides. Incorporation of <b>NIRVANA RTU INSECTICIDE</b> should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.

## Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Artichoke Plume Moth Cribate Weevil (Grubs)	8.5	0.1	<p>Apply when pest population reaches damaging threshold and repeat as necessary to maintain control, but not more often than 15-day intervals.</p> <p><b>Application by ground:</b> Apply a full cover spray in a minimum of 75 gallons of finished spray per acre.</p> <p><b>Application by air:</b> Apply specified dosage in a minimum of 10 gallons of finished spray per acre.</p>
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply within 5 days of harvest.</li> </ul>			

## Artichoke Restrictions:

- **DO NOT** apply more than 0.5 lb ai/A per season including at-plant, PPI, PRE and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

## BRASSICAS, Head and Stem (Crop Subgroup 5A)

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

## At-Plant

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Army cutworm Armyworm species Cabbage maggot Cutworm species Grubs Root aphids Root maggot Seedcorn maggot Wireworm	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	<p>Apply as a 5-7 inch band (T-band) over the open seed or transplant furrow, or in-furrow with the seed or transplant.</p> <p>Cutworm and armyworm treatments may be applied as broadcast treatments to the soil surface.</p> <p>May be applied through transplant water at time of transplanting</p>
<b>At-Plant Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 0.1 lb ai/A per season as an at-plant application</li> </ul>				

## PPI & PRE

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Root Aphids Root Maggots Seed corn maggot Wireworms Garden Symphylans	PRE 3.4 – 6.8  PPI 3.4 – 6.8	PRE 0.04 – 0.08  PPI 0.04 – 0.08	<p><i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE labeled herbicides and fungicides for pre-transplant application.</p> <p>Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be incorporated any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting or transplant depth.</p>

## Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphids Armyworms Cutworms Corn Earworm Crickets Cucumber Beetles Diamondback Moth Flea Beetles Ground Beetles Imported Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs (including brown marmorated stink bugs) Thrips Tobacco Budworm Whitefly Wireworm (adults) Black burrowing bug	2.8 – 8.5	0.033 – 0.1	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds.  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.
Banks Grass Mite Carmine Mite Lygus Species Pacific Spider Mite Twospotted Spider Mite	6.8 – 8.5	0.08 – 0.1	
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"><li>• <b>DO NOT</b> make more than 5 applications after bloom.</li><li>• <b>DO NOT</b> make applications less than 7 days apart.</li><li>• <b>DO NOT</b> apply within 7 days of harvest.</li></ul>			

### Brassica, Head and Stem (Crop Subgroup 5A) Restrictions:

**DO NOT** apply more than 0.5 lb ai/A per season including At-Plant, PRE, PPI, and Foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

### BUSHBERRIES (Crop Subgroup 13-07B)\*

Aronia berry; blueberry, highbush; blueberry, lowbush; buffalo currant; Chilean guava; cranberry, highbush; currant, black; currant, red; elderberry; European barberry; gooseberry; honeysuckle, edible; huckleberry; jostaberry; Juneberry (Saskatoon berry); lingonberry; native currant; salal; sea buckthorn; cultivars, varieties, and/or hybrids of these.

## At-Plant

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Wireworm White Grubs	8.5	0.1	Apply as a (T-band) over an open furrow immediately prior to transplanting, or in-furrow with the transplant in sufficient water for planting. May also be applied as a solid drench with transplant water at time of transplanting.

## PPI (Site Preparation) & PRE

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Wire worm White Grubs Blueberry Maggot (larvae)	PRE 3.4 – 8.5	PRE 0.04 – 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE herbicides
	PPI 8.5	PPI 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI herbicides, insecticides and fungicides where allowed. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended planting depth.

## Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphids Blueberry maggot Fruitworms Japanese beetle Leafhoppers Leaf rollers Lecanium scale (crawlers) Obliquebanded leaf roller Plum curculio Red banded leafroller Spanworm Variegated Leafroller Spotted Winged Drosophila	3.4 – 8.5	0.04 - 0.1	Apply in a minimum of 2 gallons 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. Make application at the onset of infestation reaching locally determined economic thresholds.
Banks Grass Mite Carmine Mite Lygus Species Pacific Spider Mite Twospotted Spider Mite	6.8 – 8.5	0.08 – 0.1	
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"><li>• <b>DO NOT</b> make applications less than 7 days apart.</li><li>• <b>DO NOT</b> apply within 1 day of harvest.</li></ul>			

### Bushberries (Crop Subgroup 13-07B) Restrictions:

- **DO NOT** apply more than 0.5 lb ai/A per season including at-plant, PRI, PRE and foliar application of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

**\*Not for Use in California**

### CANEERRIES (Crop Subgroup 13-07A)\*

Caneberries including Bingleberries, Blackberries, Dewberries, Loganberries, Lowberries, Marionberries, Olallieberries, Raspberries, and Youngberries.

## At-Plant

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Wireworm White Grubs	8.5	0.1	Apply as a 5 to 7 inch band (T-band) over an open furrow in sufficient water for planting, or in-furrow with the seed. May be applied through transplant water at time of transplanting.

## PPI & PRE

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Wireworm White Grubs	PRE 8.5	PRE 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI pesticides labeled for site preparation. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended planting depth.
	PPI 8.5	PPI 0.1	

## Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Leafrollers Orange Tortrix Root Weevils Spotted Winged Drosophila	4.3 – 8.5	0.05 - 0.1	Apply by air or ground equipment using sufficient water to obtain full coverage of foliage (minimum of 10 gallons per acre by air and 50 gallons per acre by ground).  One application may be made pre-bloom and a second application may be made post-bloom.
Raspberry Crown Borer Spider Mites	8.5	0.1	For Crown Borer, apply 0.1 lb ai/a post harvest (fall) or pre bloom (spring), as a drench application directed at the crown of plants in a minimum of 200 gallons water per acre. Greater efficacy is observed at higher gallons (up to 400 gallons/a) or in an application prior to a significant rainfall event. <b>DO NOT</b> make both pre bloom foliar and pre bloom drench applications.
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"><li>One application may be made pre bloom and a second application may be made post bloom.</li><li><b>DO NOT</b> apply within 3 days of harvest.</li></ul>			

## Caneberries (Crop Subgroup 07A) Restrictions:

- DO NOT** exceed 0.2 lb ai/A per season including at-plant, PRI, PRE, and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.
- \*Not for Use in California**

## CANOLA, CRAMBE, RAPESEED\*

### At-Plant

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Army cutworm Armyworm species Cutworm species Grape colapsis Grubs Root aphids Seed corn beetle Seed corn maggot Stalkborer Sugarcane beetle True armyworm Wireworm	6.83	0.08	Apply as a 5 to 7 inch band (T-band) over an open furrow, or in-furrow with the seed.

## PPI & PRE

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Army cutworm Armyworm species Cutworm species Grape colapsis Grubs Root aphids Seed corn beetle Seed corn maggot Stalkborer Sugarcane beetle True armyworm Wireworm (PPI only)	PRE 6.83  PPI 6.83	PRE 0.08  PPI 0.08	<p><i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE herbicides</p> <p><i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI herbicides. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.</p>



## Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphids Armyworms Cutworms Diamondback Moth Loopers Other Lepidopterous Larvae Flea Beetle Flea Hopper Grasshopper Plant Bug Stink Bugs (including brown marmorated stink bugs) Seedpod Weevil Thrips Whitefly	2.8 - 3.4	0.033 - 0.04	Apply in a minimum of 2 gallons 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.
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> make applications less than 14 days apart.</li> <li>• <b>DO NOT</b> apply within 35 day of harvest.</li> </ul>			

## Canola, Crambe, and Rapeseed Restrictions:

- **DO NOT** apply more than 0.08 lb ai/A per season including at-plant, PRI, PRE, and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.
- **Not for Use in California**

## CILANTRO, CORIANDER

### At-Plant

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Armyworm species Cutworm species Flea beetle larvae Wireworm	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band) in-furrow with the seed, or broadcast to the soil surface.
<b>At-plant Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 0.1 lb ai/A per season as an at-plant application.</li> </ul>				

## PPI & PRE

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Army cutworm Armyworm species Cutworm species Grape colaspis Grubs Root aphids Seed corn beetle Seed corn maggot Wireworms (PPI Only)	PRE 3.4 – 6.8  PPI 3.4 – 6.8	PRE 0.04 – 0.08  PPI 0.04 – 0.08	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE herbicides  <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.

## Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphids Beet Armyworm Cabbage Looper Cutworm Flea beetle Grasshoppers Leafminer Saltmarsh caterpillar Spotted Cucumber beetle Thrips Whitefly	2.8 – 8.5	0.033 - 0.1	Apply using sufficient water to obtain uniform coverage.  Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft
Two Spotted Spider Mite	6.8 – 8.5	0.08 - 0.1	
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> make applications less than 7 days apart.</li> <li>• <b>DO NOT</b> apply within 3 day of harvest.</li> </ul>			

## Cilantro and Coriander Restrictions:

- **DO NOT** apply more than 0.5 lb ai/A per season including at-plant, PPI, PRE and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

## CITRUS (Crop Group 10-10)

Australian desert lime; Australian finger-lime; Australian round lime; Brown River finger lime; calamondin; citron; citrus hybrids; grapefruit; Japanese summer grapefruit; kumquat; lemon; lime; Mediterranean mandarin; mount white lime; New Guinea wild lime; orange, sour; orange, sweet; pummelo; Russell River lime; satsuma mandarin; sweet lime; tachibana orange; Tahiti lime; tangelo; tangerine (mandarin); tanger; trifoliolate orange; uniu fruit; cultivars, varieties, and/or hybrids of these

## Use Directions:

When applied as directed, *NIRVANA RTU INSECTICIDE* will provide control of the following pests listed in the table below. Apply *NIRVANA RTU INSECTICIDE* by ground equipment to bare soil beneath citrus trees. *NIRVANA RTU 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.

*NIRVANA RTU 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 *NIRVANA RTU INSECTICIDE* as they attempt to burrow into the root zone. Disturbance of the soil beneath trees should be minimized.

Timing of *NIRVANA RTU 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 *NIRVANA RTU 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 to 3 weeks following adult emergence. It is critical to have the *NIRVANA RTU INSECTICIDE* soil barrier in place prior to drop of the neonates.

*NIRVANA RTU INSECTICIDE* is one of several effective tools in an integrated pest management program for Citrus Root Weevils. Application of *NIRVANA RTU 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.

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, 42.5 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, 21.25 fluid ounces formulated product can be applied early season and 21.25 fluid ounces formulated product can be applied later in the season.

# **BARE SOIL SURFACE UNDER DRIP LINE**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Asian cockroach Fire ants ( <i>Solenopsis species</i> )	8.5 - 21.25	0.1 - 0.25	Apply the specified dosage in a minimum of 40 gallons of finished spray per acre.
Blue Green Citrus Root Weevil Brown Leaf Notcher Diaprepes Root Weevil Little Leaf Notcher Southern Blue Green Citrus Root Weevil	21.25- 42.5	0.25 - 0.5	
<b>Restrictions:</b> <ul style="list-style-type: none"><li>• <b>DO NOT</b> allow any application of <i>NIRVANA RTU INSECTICIDE</i> to contact fruit or foliage.</li><li>• <b>DO NOT</b> apply more than a total of 42.5 fluid ounces of formulated product (0.5 pound active ingredient) per acre per year.</li><li>• <b>DO NOT</b> apply by air.</li></ul>			

# **CORN**

Field Corn (Grain and Silage), Popcorn, Field Corn Grown for Seed, Sweet Corn, Sweet Corn Grown for Seed

## **Use Directions:**

Heavy Corn Rootworm Pressure Management Program: In areas where large corn rootworm populations are present, a multi-approach system may be needed for optimal pest management. However, if the population level is not known and if a corn rootworm adult scouting program along with threshold adult control measures were not completed during the previous growing season, then utilize a maximum dosage seed treatment program or genetically modified corn rootworm resistant hybrid in addition to *NIRVANA RTU INSECTICIDE*.

## **At-plant**

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Corn Rootworm larvae (Northern, Southern and Western)	6.8 - 17.0	0.39 - 0.98	0.08 - 0.2	Apply as a 5 to 7 inch band (T-band) over an open furrow, or in-furrow with the seed. For Army cutworm, Stalkborer, Cutworm species, True armyworm or Armyworm species, apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), in-furrow with the seed, or broadcast to the soil surface.
Army cutworm Armyworm species Cutworm species Grape colaspis Grubs Root aphids Seed corn beetle Seed corn maggot Stalkborer Sugarcane beetle True armyworm Wireworm	3.4 - 13.6	0.2 - 0.78	0.04 - 0.16	
<b>At-Plant Restrictions:</b> <ul style="list-style-type: none"><li>• <b>DO NOT</b> apply more than 0.2 pound active per acre per season as an at-plant application.</li><li>• <b>For field corn - DO NOT</b> apply more than 0.3 lb ai/A per season including PPI, at-plant, pre-emergence, and foliar applications of other bifenthrin products (such as Brigade 2EC or Battalion 2 EC).</li><li>• <b>For sweet corn - DO NOT</b> apply more than 0.2 lb ai/A total per season including PPI, at-plant, pre-emergence, and foliar applications of other bifenthrin products (such as Brigade 2EC or Battalion 2 EC).</li></ul>				

**PPI & PRE**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Armyworm species Black Cutworm Grape colaspis Seed corn beetle Seed corn maggot White Grub Wireworm	PPI 4 – 5.3	PPI 0.047 – 0.062	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI herbicides. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.
Armyworm species Black Cutworm Seed corn beetle Stalkborer	PRE 3.4	PRE 0.04	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE herbicides.

**Foliar**

PEST	USE RATES		APPLICATION INSTRUCTIONS
	Fluid oz/A	Pound ai/A	
Aphids Army Cutworm Beet Armyworm Cereal Leaf Beetle Chinch Bug Common Stalk Borer Corn Earworm <sup>1</sup> Corn Rootworm (Adult) Cucumber Beetle (Adults) Cutworm Species European Corn Borer <sup>2</sup> Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle (Adult) Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer <sup>2</sup> Stinkbugs (including brown marmorated stink bugs) Tarnished Plant Bug True Armyworm or Armyworm Species Webworms Western Bean Cutworm Yellowstriped Armyworm	2.8 - 8.5	0.033-0.1	<p>Apply in a minimum of 2-5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment. To improve control by aircraft, use 5 gallons of finished spray per acre particularly when initial populations are heavier than normal.</p> <p>When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray.</p> <p>Thorough coverage is essential to achieve control.</p> <p><sup>1</sup><b>To Control Ear-Attacking Pests:</b> Apply <i>NIRVANA RTU INSECTICIDE</i> just before silking and repeat as necessary to maintain control.</p> <p><sup>2</sup><b>Southwestern Corn Borer, European Corn Borer:</b> Make application for corn borer control with initial application at or shortly before egg hatch.</p> <p><b>For Control Of Other Insect Pests:</b> Apply when pests first appear and repeat as necessary.</p> <p><sup>3</sup><b>For Control of Mites:</b> Apply for Banks Grass Mite control when colonies first form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p><b>For Twospotted Spider Mite and Carmine Mite</b> control, apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy. Higher rates will be necessary for heavier initial populations and corn under heat or drought stress. Field experience with dimethoate at 0.5 lb. active per acre in tank mixture has demonstrated good control under these conditions.</p> <p><b>For Mite Control in Texas, New Mexico, Oklahoma, and Arizona:</b> Apply in a minimum of 5 gallons of finished spray per acre by aircraft or in a minimum of 10 gallons per acre with ground equipment.</p>
Banks Grass Mite <sup>3</sup> Carmine Mite <sup>3</sup> Twospotted Spider Mite <sup>3</sup>	6.8 - 8.5	0.08 – 0.1	

**Foliar Restrictions:**

- For field corn
  - **DO NOT** apply within 30 days of harvest for field corn (grain and silage), popcorn, field corn grown for seed.
  - **DO NOT** graze livestock in treated areas or cut treated crops for feed within 30 days of the last application for field corn (grain and silage), popcorn, field corn grown for seed.
- For sweet corn
  - **DO NOT** apply within 1 day of harvest for sweet corn or sweet corn grown for seed.
  - **DO NOT** graze livestock in treated areas or cut treated crops for feed within 1 day of the last application for sweet corn or sweet corn grown for seed.
- Use of ultra low volume (ULV) application on corn is prohibited.
- **DO NOT** make aerial or ground applications to corn if heavy rainfall is imminent.

**Corn Restrictions:**

- For field corn
  - **DO NOT** apply more than 0.3 lb ai/A total per season including ppi, at-plant, pre-emergence, and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin products.
- For sweet corn
  - **DO NOT** apply more than 0.2 lb ai/A total per season including ppi, at-plant, pre-emergence, and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin products.

**COTTON\*****At-plant**

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Cutworm spp White Grub Wireworm Grape colaspis Root Maggot Seedcorn Maggot	1.7 – 8.5	0.1 – 0.5	0.02 – 0.1	Apply as a 5 to 7 inch band (T-band) over an open furrow, or in-furrow with the seed.

**PPI & PRE**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Cutworm species	PRE 3.4 – 8.5	PRE 0.04 – 0.1	
Cutworm species White Grub Wireworm Grape colaspis Root maggot Seedcorn maggot	PPI 3.4 – 8.5	PPI 0.04 – 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI herbicides. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.

**Foliar**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
European Corn Borer Soybean (Banded) Thrips Tobacco Thrips	1.7 – 8.5	0.02 - 0.1	Apply as needed using sufficient water to obtain uniform coverage. Apply with ground equipment using a minimum of 5 gallons of finished spray per acre or a minimum of 1 gallon per acre by aircraft.  <i>NIRVANA RTU INSECTICIDE</i> may be applied in water or refined vegetable oil (soybean/cottonseed).
Boll Weevil <sup>1</sup> Bollworm Cabbage Looper Cotton Aphid <sup>2</sup> Cotton Fleahopper Cotton Leafperforator Cutworms Fall Armyworm Plant Bugs Saltmarsh Caterpillar Southern Garden Leafhopper Stink Bugs (including brown marmorated stink bugs) Tobacco Budworm Whitefly Yellow Striped Armyworm	3.4 – 8.5	0.04 - 0.1	<b>Application in Water:</b> 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.  <b>ULV Application:</b> Apply the recommended rate of <i>NIRVANA RTU INSECTICIDE</i> in refined vegetable oil in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.  <sup>1</sup> <b>Boll Weevil:</b> Apply <i>NIRVANA RTU INSECTICIDE</i> at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.  <sup>2</sup> <b>Aphids and Mites:</b> Apply when pests first appear. Repeat as necessary to maintain control. Higher rates will be required once a damaging threshold is established.
Beet Armyworm Carmine Spider Mite <sup>2</sup> Lygus species Pink Bollworm Twospotted Spider Mite <sup>2</sup>	5.1 – 8.5	0.06 - 0.1	
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"><li><b>DO NOT</b> apply within 14 days of harvest.</li><li><b>DO NOT</b> graze livestock in treated areas or cut treated crops for feed.</li></ul>			

**Cotton Restrictions:**

- DO NOT** apply more than 0.5 lb ai/A per season including at-plant, PRE, PPI, and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products in all states except in California.
  - For California **DO NOT** apply more than 0.3 pounds active per acre 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. Synthetic pyrethroid products include but are not limited to Ambush®, Ammo®, Asana® XL, Baythroid®, Baythroid XL®, Brigade® or Battalion™ 2 EC, Capture®, Danitol®, Declare®, Discipline®, Fantare®, Karate® or Serpent™ 1 EC, and Mustang®.

**\*Not for Use in California**

**CUCURBITS (Crop Group 9)**

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

**At-plant**

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Cucumber beetle larvae	6.8 – 8.5	0.39 – 0.49	0.08 – 0.1	Apply as a 5 to 7 inch band (T-band) over an open furrow, or in-furrow with the seed. May be applied through transplant water at time of transplanting.
Army cutworm Armyworm species Cutworm species Flea beetle larvae Grubs True Armyworm Wireworm	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	To control cucumber beetle larvae, apply as a 5 to 7 inch band over an open furrow (T-band), or in-furrow with the seed.  To control wireworm, grubs, and flea beetle larvae, apply as a 5 to 7 inch band over an open furrow (T-band), or in-furrow with the seed or transplant  To control army cutworm, cutworm species, true armyworm and armyworm species, apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), in-furrow with the seed, broadcast to the soil surface or banded over the row.
<b>At Plant Restrictions:</b> • <b>DO NOT</b> apply more than 0.1 lb ai/A per season as an at-plant application				

**PPI & PRE**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Seed Corn Maggot Wireworms	PRE 6.8 – 8.5	PRE 0.08 – 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE pesticides. Apply through drip of drip tape. Apply when soil is moist towards the end of the irrigation run.
Army cutworm Armyworm species Cutworm species Flea beetle larvae Grubs True Armyworm	PPI 6.8 – 8.5	PPI 0.08 – 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI labeled pesticides. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth Apply through drip or Drip tape. Apply when soil is moist towards the end of the irrigation run.

## Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphids Armyworms Cabbage Looper Corn Earworm Cucumber beetles Cutworms Grasshopper Leafhoppers Melonworm Pickleworm Plant Bug Rindworm Squash Bugs Squash Vine Borer Stink Bugs (including brown marmorated stink bugs) Tobacco Budworm	3.4 – 8.5	0.04 - 0.1	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds  Apply in a minimum of 5 gallons of finished spray per acre by air or in a minimum of 20 gallons per acre with ground equipment 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
Carmine Mite Lygus species Mite Twospotted Spider Mite Whitefly	6.8 – 8.5	0.08 - 0.1	
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"><li>• <b>DO NOT</b> make more than two applications after bloom.</li><li>• <b>DO NOT</b> make applications less than 7 days apart</li><li>• <b>DO NOT</b> apply within 3 days of harvest</li></ul>			

## Cucurbits (Crop Group 9) Restrictions:

- **DO NOT** apply more than 0.3 lb ai/A per season including At-plant, PRE & PPI, and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

## DRIED BEANS AND PEAS (Crop Subgroup 6C)

Dried cultivars of: Bean (*Lupinus*); Bean (*Phaseolus*), Field bean, Kidney bean, Lima bean (dry), Navy bean, Pinto bean, Tepary bean; Bean (*Vigna*), 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*), Field pea, Pigeon pea, purple hullled peas

## At-Plant

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Corn rootworm larvae	6.8 – 8.5	0.39 – 0.49	0.08 – 0.1	Apply as a 5 to 7 inch band over the row on the soil surface, 5 to 7 inch band (T-band) over an open furrow, or in-furrow with the seed. Apply broadcast to the soil surface for control of Army cutworm, Cutworm species, True armyworm, or Armyworm species.
Army cutworm	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	
Armyworm species				
Cutworm species				
Grape colaspis				
Grubs				
Root maggot				
True armyworm				
Wireworm				
<b>At- Plant Restrictions:</b> <ul style="list-style-type: none"><li><b>DO NOT</b> apply more than 0.1 lb ai/A per season as an at-plant application.</li></ul>				



**PPI & PRE**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Army cutworm Armyworm species Cutworm species Grape colaspis Grubs Root maggot True armyworm Wireworm (PPI only)	PRE 6.8 – 8.5  PPI 6.8 – 8.5	PRE 0.08 – 0.1  PPI 0.08 - 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE herbicides. Apply in a minimum of 10 gallons per acre.  <i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI herbicides. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth. Apply in a minimum of 10 gallons per acre.

**Foliar**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aster Leafhopper Flea Beetle Grasshoppers Leafhoppers	2.1 – 8.5	0.025 - 0.1	Apply in a minimum of 2 gallons 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.  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
Alfalfa Caterpillar Aphids Bean Leaf Beetle Beet Armyworm Cloverworm Corn Earworm Corn Rootworm (Adult) Cucumber Beetles Cutworms European Corn Borer Fall Armyworm Grasshoppers Imported cabbageworm Japanese beetle (Adult) Leafminer Loopers Mexican Bean Beetle Pea Leaf Weevil Pea Weevil Plant Bug Saltmarsh caterpillar Sap Beetle Southern Armyworm Stink Bugs (including brown marmorated stink bugs) Tarnished Plant Bug Thrips Twospotted Spider Mite Tobacco budworm Webworms Western Bean Cutworm Whitefly Yellowstriped Armyworm	2.8 – 8.5	0.033 - 0.1	
Banks Grass Mite Carmine Mite Lygus Species	6.8 - 8.5	0.08 – 0.1	

**Foliar Restrictions:**

- **DO NOT** apply within 14 days of harvest
- **DO NOT** make applications less than 7 days apart

**Dried Beans and Peas (Crop Subgroup 6C) Restrictions:**

- **DO NOT** apply more than 0.2 lb ai/A to peas, or 0.3lb ai/A to beans per season including At-Plant, PRE & PPI, and Foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

**EGGPLANT****At-Plant**

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Army cutworm Armyworm species Cutworm species Grubs Root maggot True armyworm Wireworm	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), or in-furrow with the transplant or seed. Apply broadcast to the soil surface for control of Army Cutworm, Cutworm species, True Armyworm or Armyworm species.
<b>At-Plant Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 0.1 lb ai/A per season as an at-plant application.</li> </ul>				

**PPI & PRE**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Army cutworm Armyworm species Cutworm species Grubs Root maggot True armyworm Wireworm	PRE 8.5  PPI 3.4 – 8.5	PRE 0.1  PPI 0.04 – 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE pesticides. Post Plant Soil Applied: Apply through drip or Drip tape. Apply when soil is moist towards the end of the irrigation run.  <i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI labeled pesticides. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth. Post Plant Soil Applied: Apply through drip or Drip tape. Apply when soil is moist towards the end of the irrigation run.

**Foliar**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Armyworms (Including Beet) Armyworm Fall Armyworm Southern Cabbage Looper Colorado Potato Beetle Corn Earworm Cucumber Beetle Cutworms European Corn Borer Flea Beetle Leafminers Loopers Pepper weevil Plant Bug Stink Bug (including brown marmorated stink bugs) Thrips Tomato Hornworm Tomato Pinworm Vegetable Leafminer Whitefly Yellowstriped Armyworm	2.8 – 8.5	0.033 - 0.1	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds.  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.
Banks Grass Mite Broad Mite Carmine Mite Lygus species Pacific Spider Mite Twospotted Spider Mite	6.8 - 8.5	0.08 – 0.1	
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply within 7 days of harvest</li> <li>• <b>DO NOT</b> make applications less than 7 days apart</li> </ul>			

**Eggplant Restrictions:**

- **DO NOT** apply more than 0.2 lb ai/A per season including At-Plant, PRE & PPI, and Foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

**GRAPES\***
**At-Plant**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Grape Phylloxera (suppression only) White Grubs Wireworms	8.5	0.1	Apply at time of planting over an open furrow in sufficient water for planting. May be applied through transplant water at time of transplanting.

**PPI (Site Preparation) & PRE**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Grape Phylloxera (suppression only) Vine Mealybug	PRE 8.5	PRE 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE pesticides. Post Plant Soil Applied: Apply through drip or Drop Tape. Apply when soil is moist towards the end of the irrigations run.
	PPI 8.5	PPI 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI pesticide labeled for site preparation. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth. Post Plant Soil Applied: Apply through drip or Drop Tape. Apply when soil is moist towards the end of the irrigations run.

## Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Cutworms Eastern Grape Leafhopper Grape Berry Moth Japanese Beetles (Adults) Lady Beetle ( <i>Scymnus</i> spp.) Variegated Leafhopper Western Grape Leafhopper Grapevine root borer	4.3 – 8.5	0.05 - 0.1	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds.  Apply in a minimum of 10 gallons of finished spray by air or in a minimum of 25 gallons of finished spray with ground equipment.  When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray.  When pest pressure is moderate to severe, use higher rate.
Black Vine Weevil Glasswinged Sharpshooter Twospotted Spider Mite	8.5	0.1	
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"><li>• <b>DO NOT</b> apply within 30 days of harvest.</li></ul>			

## Grape Restrictions:

- **DO NOT** apply more than 0.10 lb ai per acre per season including at-plant, PPI, PRE and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.
- \*Not for Use in California**

## HEAD LETTUCE

### At-Plant

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Rootworm larvae	6.8 – 8.5	0.39 – 0.49	0.08 – 0.1	Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (I-band), or in-furrow with the seed.  Apply broadcast to the soil surface for control of Army cutworm, Cutworm species, True armyworm, armyworm species, or bulb mites.
Army cutworm	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	
Armyworm species				
Bulb mites				
Cutworm species				
Grubs				
Lettuce root aphid				
Root maggot				
True armyworm				
Wireworm				
<b>At-Plant Restrictions:</b> <ul style="list-style-type: none"><li>• <b>DO NOT</b> apply more than 0.1 lb ai/A per season as an at-plant application.</li></ul>				

## PPI

PEST	USE RATES	
	Fluid oz/A	Pound ai/A
Lettuce Root Aphid Garden Symphians	6.8 – 8.5	0.08 – 0.1

## Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphids Armyworms Corn earworm Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Imported Cabbageworm Leafhoppers Loopers Salt Marsh Caterpillar Stink Bug species (including brown marmorated stink bugs) Tobacco Budworm Whitefly	2.8 – 8.5	0.033 – 0.1	Apply in water as necessary for insect control using a minimum of 15 gallons of finished spray per acre with ground equipment and 5 gallons per acre by air. 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.
Carmine Mite Lygus Species Twospotted Spider Mite	6.8 – 8.5	0.08 – 0.1	
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"><li>• <b>DO NOT</b> make applications less than 7 days apart.</li><li>• <b>DO NOT</b> apply within 7 days of harvest.</li></ul>			

## Head Lettuce Restrictions:

- **DO NOT** apply more than 0.5 lb ai per acre per season including at-plant, PPI, PRE and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

## HOPS\*

### At-Plant

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Grape colapsis Rootworms Sweet potato flea beetle White grub Wireworm	5.1 – 8.5	0.06 - 0.1	Apply in a T-band that ensures coverage of the entire furrow, immediately prior to planting, or at planting. May also be applied as a soil drench with transplant water at time of transplanting.  Apply in a minimum of 10 gallons per acre of spray.

### Lay-By

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Grape colapsis Rootworms White grub Wireworms	5.1 – 8.5	0.06 - 0.1	Apply <i>NIRVANA RTU INSECTICIDE</i> to the transplant area and incorporate with cultivation equipment set to throw soil towards the hill.  Apply in a minimum of 10 gallons per acre of spray.

### PPI

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Grape colapsis Rootworms White grub Wireworms	PPI 5.1 – 8.5	PPI 0.06 - 0.1	Apply <i>NIRVANA RTU INSECTICIDE</i> to the transplant area and incorporate to planting depth.  Apply in a minimum of 10 gallons per acre of spray.  May be applied as a broadcast application or an incorporated band application

**PRE & Post Plant Soil Applied**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Grape colapsis Rootworms White grub Wireworms	PRE 5.1 – 8.5	PRE 0.06 - 0.1	Apply through drip or Drip tape. Apply when soil is moist towards the end of the irrigation run.

**Foliar**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphids Armyworms Cutworms Leafrollers Loopers	5.1 – 8.5	0.06 - 0.1	<b>Application by ground:</b> For best results, full coverage is essential. Early season recommend 100 – 150 gallons of spray per acre. Late season recommend 200 – 250 gallons of spray per acre. <b>For Root Weevil control,</b> make a directed spray to the base of the plant. Spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant. <b>Application by air for late season control of twospotted spider mites:</b> Apply no less than 6.4 oz (0.1 lb ai) per application in a minimum of 10 gallons per acre.
Root Weevils	4.3 – 8.5	0.05 - 0.1	
Twospotted spider mite	8.5	0.1	

**Foliar Restrictions:**

- **DO NOT** exceed 0.1 lb ai per acre per foliar application.
- **DO NOT** make applications less than 21 days apart
- **DO NOT** apply within 14 days of harvest.

**Hops Restrictions:**

- **DO NOT** exceed 0.3 lb ai per acre per season including at-plant, PRE, PPI, Layby and foliar application of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.
- Use of ultra low volume (ULV) application on hops is prohibited.

**\*Not for Use in California**

**LEAFY BRASSICAS (Crop Subgroup 5 B), TURNIP GREENS**

Broccoli Raab, Bok Choy, Collards, Kale, Mizuna, Mustard Greens, Mustard Spinach, Rape Greens, Turnip Greens

**At-Plant**

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Rootworm larvae	6.8 – 8.5	0.39 – 0.49	0.08 – 0.1	Apply as a 5-7 inch band over the row on the soil surface, a 5-7 inch band over the open furrow (T-band), or in-furrow with the seed or transplant. May be applied through transplant water at time of transplanting.  Apply broadcast over the soil surface for control of Army cutworm, Cutworm species, True armyworm or armyworm species.
Army cutworm Armyworm spp. Cutworm spp. Grubs Lettuce root aphid Root maggot True armyworm Wireworm	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	

**At-Plant Restrictions:**

- **DO NOT** apply more than 0.1 lb ai/A per season as an at-plant application.

**PPI & PRE**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Lettuce root aphid Root Maggots Wireworms Army cutworm Armyworm species Cutworm species Flea beetle larvae Grubs True Armyworm	PRE 3.4 – 6.8	PRE 0.04 - 0.08	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE pesticides. Post Plant Soil Applied: Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run.
	PPI 3.4 – 6.8	PPI 0.04 - 0.08	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI labeled pesticides. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth. Post Plant Soil Applied: Apply through drip or drip tape. Apply when soil is moist towards the end of irrigation run.

**Foliar**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphids Armyworms Corn Earworm Cutworms Crickets Cucumber Beetles Diamondback Moth Flea Beetles Grasshoppers Ground Beetles Imported Cabbageworm Japanese Beetle (adult) Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs (including brown marmorated stink bugs) Tobacco Budworm Thrips Whitefly Wireworm (adults)	2.8 – 8.5	0.033 - 0.1	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds.  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.
Banks Grass Mite Carmine Mite Lygus species Pacific Spider Mite Twospotted Spider Mite	6.8 - 8.5	0.08 - 0.1	

**Foliar Restrictions:**

- **DO NOT** make applications less than 7 days apart
- **DO NOT** apply within 7 days of harvest.

**Leafy Brassica (Crop Subgroup 5B) and Turnip Greens Restrictions:**

- **DO NOT** apply more than 0.4 lb ai/A per season including at-plant, PPI, PRE, and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

**LEAFY PETIOLE VEGETABLES (Crop Subgroup 4B)\***

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

**At-Plant**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Lettuce Root Aphid Garden Symphians Cutworm spp.	3.4 – 8.5	0.04 - 0.1	Apply as a 5 to 7 inch band (T-band) over an open furrow, or in-furrow with the seed. May be applied through transplant water at time of transplanting.

# PPI & PRE

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Army cutworm Armyworm species Cutworm species Flea beetle larvae Grubs	PRE 3.4 – 8.5	PRE 0.04 - 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with labeled PRE pesticides.
True Armyworm Wireworm True armyworm	PPI 8.5	PPI 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI labeled pesticides. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth.

## Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphids Armyworms Corn Earworm Crickets Cucumber Beetles Cutworms Diamondback Moth Flea Beetles Ground Beetles Imported Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs (including brown marmorated stink bugs) Thrips Tobacco Budworm Whitefly Wireworm (adults)	3.4 – 8.5	0.04 - 0.1	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds. Apply in a minimum of 2 gallons of finished spray per acre by air or in a minimum of 10 gallons of finished spray per acre with ground equipment. When applying by air, 1 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.
Banks Grass Mite Carmine Mite Lygus species Pacific Spider Mite Twospotted Spider Mite	6.8 - 8.5	0.08 - 0.1	

### Foliar Restrictions:

- **DO NOT** make applications less than 7 days apart
- **DO NOT** apply within 7 days of harvest.

### Leafy Petiole Restrictions:

- **DO NOT** apply more than 0.5 lb. active ingredient per acre per season including at-plant, PPI, PRE and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.
- **\*Not for Use in California**

## MAYHAW\*

# PPI & PRE

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
White Grub Wireworm	PRE 8.5	PRE 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with labeled PRE pesticides.
	PPI 8.5	PPI 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI pesticides labeled for site preparation. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth.



## Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Plum Curculio	6.8 – 8.5	0.08 – 0.1	Apply foliar treatments in at least 28 gallons per acre
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"> <li>• Apply no more than once every 7 days.</li> <li>• <b>DO NOT</b> apply within 30 days of harvest</li> </ul>			

## Mayhaw Restrictions:

- **DO NOT** apply more than 0.2 lb ai per acre per season including at-plant, PRE, PPI and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.
- \*Not for Use in California**

## OKRA

### At-Plant

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Armyworm Cutworm spp Flea beetle larvae Grape colaspis Root maggot Wireworm White Grub	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), in-furrow with the seed, or broadcast to the soil surface.
<b>At- Plant Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 0.1 lb ai/A per season as an at-plant application</li> </ul>				

## PPI & PRE

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Cutworm spp	PRE 3.4 – 8.5	PRE 0.04 – 0.1	NIRVANA RTU INSECTICIDE can be tank mixed and applied with PPI or PRE herbicides. Incorporation of NIRVANA RTU INSECTICIDE should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.
Cutworm species Flea beetle larvae* Wireworm White Grub Grape colaspis Root maggot	PPI 3.4 – 8.5	PPI 0.04 – 0.1	
PPI & PRE Restrictions: *Not for Use in California			

**Foliar**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphids Armyworms Corn earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Japanese Beetle (Adult) Leafminers Loopers Stink bugs (including brown marmorated stink bugs) Thrips Whitefly	2.8 – 8.5	0.033 - 0.1	Apply as needed using sufficient water to obtain uniform coverage.  Apply with ground equipment using a minimum of 10 gallons of finished spray per acre or a minimum of 2 gallons per acre by aircraft.
Broad Mite Carmine Mite Lygus species Twospotted Spider Mite	6.8 – 8.5	0.08 - 0.1	
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> make applications less than 7 days apart.</li> <li>• <b>DO NOT</b> apply within 7 days of harvest.</li> </ul>			

**Okra Restrictions:**

- **DO NOT** apply more than 0.2 lb ai/A per season including At-Plant, PRE & PPI, and Foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin products.

**PEANUT\*****At- Plant**

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Thrips, Leafhoppers, Aphids, and Wireworms	6.8 – 8.5	0.39 – 0.49	0.08 – 0.1	Apply as a 5 to 7 inch band (T-band) over an open furrow, or in-furrow with the seed.

**Foliar**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Beet Armyworm Corn Earworm Cutworm species Fall Armyworm Grasshoppers Green Cloverworm Leafhoppers Lesser Cornstalk borer Loopers Rednecked peanut worm Southern Armyworm Southern Corn Rootworm Stink Bugs (including brown marmorated stink bugs) Threecornered alfalfa hopper Velvetbean caterpillar Yellowstriped armyworm	2.8 – 8.5	0.033 - 0.1	Apply in a minimum of 10 gallons per acre with ground equipment or 2 gallon per acre by air craft

**Foliar (cont'd)**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphids Spider Mites Thrips Whitefly	6.8 – 8.5	0.08 - 0.1	Apply in a minimum of 10 gallons per acre with ground equipment or 2 gallon per acre by air craft
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> make applications less than 14 days apart</li> <li>• <b>DO NOT</b> apply within 14 days of harvest.</li> <li>• <b>DO NOT</b> feed green immature plants and peanut hay to livestock.</li> </ul>			

**Peanut Restrictions:**

- **DO NOT** apply more than 0.5 lb ai per acre per season including at-plant, PPI, PRE and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.
- \*Not for Use in California**

**PEARS\*****Foliar**

PEST	USE RATES		DIRECTIONS
	Fluid oz/a	Pound ai/a	
Aphids Codling Moth Cutworms Green Fruitworm Leafhoppers Leafminers Leafrollers Lygus species Plant Bugs Plum Curculio San Jose Scale (Crawlers) Stink Bugs (including brown marmorated stink bugs) Tarnished Plant Bugs	3.4 – 17.1	0.04 - 0.2	<b>Application by ground:</b> Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage.  <b>Application by air:</b> Apply the specified dosage in a minimum of 10 gallons per acre by air.
Twospotted Spider mite Yellow Mite	5.1 – 17.1	0.06 - 0.2	
European Red Mite	6.8 – 17.1	0.08 - 0.2	

**Foliar Restrictions:**

- **DO NOT** make applications less than 30 days apart.
- Apply up to 14 days prior to harvest.
- **DO NOT** graze livestock in treated orchards or cut treated cover crops for feed

**Pear Restrictions:**

- **DO NOT** apply more than 0.5 pound active per acre per season including at-plant, PRE, PPI and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products with no more than 0.45 pound active per acre applied after petal fall.

**\*Not for Use in California**

**PEPPERS (BELL and NON-BELL) & PEPINO**

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Army Cutworm Armyworm species Cutworm species Flea beetle larvae Grubs Pepper maggot Root aphid Root maggot Stalk borer True armyworm Wireworm	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), or in-furrow with the transplant or seed. May be applied through transplant water at time of transplanting. Apply broadcast over the soil surface for control of Army cutworm, Cutworm species, True armyworm, Armyworm species, or Stalk borer
<b>At Plant Restrictions:</b> • <b>DO NOT</b> apply more than 0.1 lb ai/A per season as an at-plant application				

**PPI & PRE**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Army cutworm Armyworm species Cutworm species Flea beetle larvae Grubs True Armyworm Wireworm	PRE 8.5  PPI 3.4 – 8.5	PRE 0.1  PPI 0.04 – 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE pesticides Post Plant Soil Applied: Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run.  <i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI labeled pesticides. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth. Post Plant Soil Applied: Apply through drip or drip tape. Apply when soil is moist towards the end of the irrigation run.

**Foliar**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Armyworms (Including Beet) Armyworm Fall Armyworm Southern Cabbage Looper Colorado Potato Beetle Corn Earworm Cucumber Beetle Cutworms European Corn Borer Flea Beetle Leafminers Loopers Pepper weevil Plant Bug Stink Bug (including brown marmorated stink bugs) Thrips Tomato Hornworm Tomato Pinworm Vegetable Leafminer Whitefly Yellowstriped Armyworm	2.8 – 8.5	0.033 - 0.1	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds.  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 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.

**Foliar (cont'd)**

Broad Mite Carmine Mite Lygus species Pacific Spider Mite* Twospotted Spider Mite	6.8 – 8.5	0.08 - 0.1	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds.  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 to 2 quarts of emulsified oil may be substituted for 1 to 2 quarts of water in the finished spray. Thorough coverage is essential to achieve control.
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**Foliar Restrictions:**

- **DO NOT** make applications less than 7 days apart.
- **DO NOT** apply within 7 days of harvest.

**\*Not for Use in California**

**Pepper (Bell and Non-Bell) Restrictions:**

- **DO NOT** apply more than 0.2 lb ai/A per season including at-plant, PPI, PRE and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

**ROOT CROPS (Except Sugar Beets and Garden Beets) (Crop Subgroup 1B)\***

Burdock Edible, Carrot, Celeriac, Chervil Turnip Rooted, Chicory, Garden Beet, Ginseng, Horseradish, Parsley Turnip Rooted, Parsnip, Radish, Radish Oriental, Rutabaga, Salsify, Salsify Black, Salsify Spanish, Skirret, and Turnip.

**At-Plant**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Crown and Root Aphids Flea Beetles Cutworms Seedcorn and Root Maggots Wireworms	8.5	0.1	Apply as a 5 to 7 inch band (T-band) over an open furrow, or in-furrow with the seed. May be applied through transplant water at time of transplanting.

**PPI & PRE**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Crown and Root Aphids Flea Beetles Cutworms Seedcorn and Root Maggots Wireworms	PRE 8.5	PRE 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE pesticides
	PPI 8.5	PPI 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI labeled herbicides. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth

## Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphids Beet Armyworm Celery Leaf Tier Corn Earworm Cross Striped Cabbageworm Cutworms Diamondback Moth European Corn Borer Fall Armyworm Fire Ants Flea Beetles Green Cloverworm Hornworms Imported Cabbageworm Loopers Southern Armyworm Spider Mites Tobacco Budworm Velvetbean Caterpillar Whitefly Yellowstriped Armyworm	6.8 – 8.5	0.08 - 0.1	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds.  Apply foliar treatments in at least 25 gallons per acre.
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> make applications less than 7 days apart.</li> <li>• <b>DO NOT</b> apply within 21 days of harvest.</li> </ul>			

## Root Crops Restrictions:

- **DO NOT** apply more than 0.5 lb ai per acre per season including at-plant, PRE, PPI and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.
- \*Not for Use in California**

## GARDEN BEETS\*

### At-Plant

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Crown and Root Aphids Flea Beetles Cutworms Seedcorn and Root Maggots Wireworms	8.5	0.1	Apply as a 5 to 7 inch band (T-band) over an open furrow, or in-furrow with the seed. May be applied through transplant water at time of transplanting.

### PPI & PRE

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Crown and Root Aphids Flea Beetles Cutworms	PRE 8.5	PRE 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE pesticides
Seedcorn and Root Maggots Wireworms	PPI 8.5	PPI 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI labeled herbicides. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth. Incorporation depth should be close to the intended depth

## Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
<b>Garden Beet Pests Only</b> Aphids Fire Ants Flea Beetles Lepidopterous Larvae Spider Mites Whitefly	6.8 – 8.5	0.08 - 0.1	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic thresholds. Apply foliar treatments in at least 25 gallons per acre.
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> make applications less than 7 days apart.</li> <li>• <b>DO NOT</b> apply within 1 day of harvest.</li> </ul>			

### Garden Beets Restrictions:

- **DO NOT** apply more than 0.4 lb ai per acre per season including at-plant, PRE, PPI and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

**\*Not for use in California**

## SOYBEANS

### At-Plant

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Rootworm larvae	6.8 – 8.5	0.39 – 0.49	0.08 – 0.1	Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), or in-furrow with the seed.
Army cutworm Armyworm species Cutworm species Grape colaspis Grubs Root maggot Seed corn beetle Seedcorn maggot True armyworm Wireworm Bean Leaf Beetle Larvae	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	
At- Plant Restrictions: • DO NOT apply more than 0.1 lb ai/A per season as an at-plant application				

### PRE & PPI

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Armyworm species Black Cutworm	PRE 3.4	PRE 0.04	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE herbicides.
Armyworm species Black Cutworm Seedcorn beetle Stalkborer Bean Leaf Beetle Larvae Seed corn Maggot White Grub Wireworm Seedcorn Maggot	PPI 4 - 5.3	PPI 0.047 - 0.062	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI herbicides.  Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth.

**Foliar**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Alfalfa Caterpillar Aphids Armyworms Bean Leaf Beetle Blister Beetle species Corn Earworm Corn Rootworm (Adult) Cowpea Curculio Cucumber Beetle (Adult) Cutworms Dectes Stem Borer European Corn Borer False Cinch Bug Flea Beetle Grasshoppers Green cloverworm Hornworms Imported Cabbageworm Japanese Beetle (Adult) Leaf Skeletonizer species Leafhoppers Leafminers (Adults) Lesser Cornstalk Borer Loopers Kudzu Bug Mexican Bean Beetle Painted Lady (Thistle) Caterpillar Pea Leaf Weevil Saltmarsh Caterpillar Seedcorn Maggot (Adult) Silverspotted Skipper Spittlebug Stink Bug (including brown marmorated stink bugs) Three Cornered Alfalfa Hopper Thrips Tobacco Budworm Velvetbean Caterpillar Webworm Woollybear Caterpillar	2.8 – 8.5	0.033 – 0.1	Apply in a minimum of 10 gallons per acre with ground equipment or 2 gallon per acre by aircraft.  Pyrethroid resistance is common for Beet Armyworm and Tobacco Budworm. Please consult your local or state agricultural authority to determine if resistant pest populations are in your area. If so, refer to the resistance management statement in the DIRECTIONS FOR USE section of this label.
Lygus species Whitefly Twospotted spider mite	6.8 – 8.5	0.08 – 0.1	
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"><li>• <b>DO NOT</b> make applications less than 30 days apart</li><li>• <b>DO NOT</b> apply within 18 days of harvest.</li></ul>			

**Soybean Restrictions:**

- **DO NOT** apply more than 0.3 lb ai/A per season including At-Plant, PRE & PPI, and Foliar applications of this and other bifenthrin products.



**SPINACH**  
**At-Plant**

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Rootworm larvae Garden Symphylans	6.8 – 8.5	0.39 – 0.49	0.08 – 0.1	Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), or in-furrow with the seed.
Army cutworm Armyworm species Cutworm species Grubs Root maggot Seedcorn maggot True armyworm Wireworm	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	Apply broadcast to the soil surface for control of Army cutworm, Cutworm species, True armyworm, or Armyworm species.
<b>At Plant Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 0.1 lb ai/A per season as an at-plant application</li> </ul>				

**PPI**

PEST	USE RATES	
	Fluid oz/A	Pound ai/A
Seed Corn Maggot Wireworms Garden Symphylans	PPI 3.4 – 6.8	PPI 0.04 – 0.08

**Foliar**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Armyworms Colorado Potato Beetle Corn earworm Cucumber Beetles Cutworms European Corn Borer Flea Beetles Leafminers Loopers Pepper Weevil Tomato Hornworm Tomato Pinworm Thrips Whitefly	2.8 – 8.5	0.033 – 0.1	For control of whiteflies, apply foliar treatments of <i>NIRVANA RTU INSECTICIDE</i> by ground or air at rates of up to 0.1 lb active per acre at minimum 7 day intervals up to a maximum of 4 applications. <b>DO NOT</b> apply within 40 days of harvest.  For control of fire ants apply <i>NIRVANA RTU INSECTICIDE</i> to the soil (at planting) or as a foliar treatment by ground or air at rates of up to 0.1 lb active per acre at minimum 7 day intervals up to a maximum of 4 applications.  Apply the specified dosage in 5-50 gallons of finished spray per acre by air or 10-50 gallons finished spray per acre by ground.
Banks Grass Mite Broad Mite Carmine Mite Fire Ants Lygus species Pacific Spider Mite Twospotted spider mite	6.8 – 8.5	0.08 – 0.1	
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> make applications less than 7 days apart</li> <li>• <b>DO NOT</b> apply within 40 days of harvest.</li> </ul>			

**Spinach Restrictions:**

- **DO NOT** apply more than 0.4 lb ai/A per season including At-Plant, PRE & PPI, and Foliar applications of this and other bifenthrin products.

**SUCCULENT PEAS AND BEANS (Crop Subgroups 6A and 6B)**

Pea (*Pisum* spp.): Dwarf pea, Edible-pod pea, English pea, Garden pea, Green pea, Snow pea, Sugar snap pea, Pigeon pea; Bean (*Phaseolus* spp.): Broadbean (succulent), Lima bean (green), Runner bean, Snap bean, Wax bean; Bean, *Vigna* spp.): Asparagus bean, Blackeyed pea, Chinese longbean, Cowpea, Moth bean, Southern pea, Yardlong bean, Jackbean, Soybean (immature seed), Sword bean, purple hulled pea.

**At-Plant**

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Rootworm larvae	6.8 – 8.5	0.39 – 0.49	0.08 – 0.1	Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), or in-furrow with the seed.
Army cutworm Armyworm species Cutworm species Grape colaspis Grubs Root maggot Seedcorn maggot True armyworm Wireworm	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	Apply broadcast over the soil surface for control of Army cutworm, Cutworm species, True armyworm, or Armyworm species.
<b>At- Plant Restrictions:</b> • <b>DO NOT</b> apply more than 0.1 lb ai/A per season as an at-plant application				

**PRE & PPI**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Army cutworm Armyworm species Cutworm species Grape colaspis Grubs Root maggot True armyworm Wireworm (PPI only)	PRE 6.8 – 8.5	PRE 0.08 – 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE herbicides.  Post Plant Soil Applied: Apply through drip or Drip Tape. Apply when soil is moist towards the end of the irrigation run.
	PPI 6.8 – 8.5	PPI 0.08 – 0.1	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI herbicides.  Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth. Apply in a minimum of 10 gallons per acre. Post Plant Soil Applied: Apply through drip or Drip tape. Apply when soil is moist towards the end of the irrigation run.

**Foliar**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aster Flea Beetle Leafhopper	2.1 – 8.5	0.025 - 0.1	Apply in a minimum of 2 gallons 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.  Make application at the onset of infestation reaching locally determined economic threshold.
Adult Sap Beetle Alfalfa Caterpillar Aphids Armyworm, Beet Armyworm, Fall Armyworm, Southern Armyworm, Yellowstriped Bean Leaf Beetle Cloverworm Corn earworm Corn Rootworm (Adult) Cucumber Beetle Cutworms European Corn Borer Grasshoppers Japanese Beetle Loopers Pea Leaf Weevil Pea Weevil Plant Bug Stink Bugs (including brown marmorated stink bugs) Tarnished Plant Bug Thrips Webworms Western Bean Cutworm Whitefly	2.8 – 8.5	0.033 - 0.1	
Banks Grass Mite Carmine Mite Lygus species Twospotted spider mite	6.8 – 8.5	0.08 to 0.1	
<b>Foliar Restrictions:</b> <ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply within 3 days of harvest.</li> <li>• <b>DO NOT</b> make applications less than 3 days apart</li> </ul>			

**Succulent Peas and Beans (Crop Subgroups 6A and 6B) Restrictions:**

- **DO NOT** apply more than 0.2 lb ai/A per season including At-Plant, PRE & PPI, and Foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

**TOBACCO**
**PRE-TRANSPLANT and AT-TRANSPLANT**

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Armyworm species Cutworm species Flea beetle larvae Mole cricket Stalkborer White grubs Wireworm	3.4 – 8.5	0.2 – 0.49	0.04 – 0.1	<b>Pre-transplant soil applications:</b> Use of suitable equipment to incorporate into top 4" of the soil is required to control below ground pests. <b>At-transplant water treatment application:</b> Apply 0.0625 to 0.1 pound ai/A in a water treatment application volume of 10 to 200 gal/A.  May be tank mixed with Command, Spartan or Aquesta™ 4 F, and other herbicides approved for tobacco use.

**Pre-Transplant & At-Transplant Restrictions:**

- **DO NOT** apply later than layby.

**Foliar**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphid spp.* Armyworm spp. Chinch bugs Cutworm spp. Flea beetle (Adults) Grasshoppers Green bugs Japanese beetles Stink Bugs (including brown marmorated stink bugs) Thrips White flies Tarnished plant bugs	3.4 – 8.5	0.04 – 0.1	Apply 0.04 to 0.10 lb ai/A per foliar application up to, and including, layby in a minimum of 10 gal/A.  May be tank mixed with Command, Spartan or Aquesta™ 4 F, and other herbicides approved for tobacco use.  *See resistance statement under "Directions for Use" section.
Hornworm Tobacco Budworm	6.8 – 8.5	0.08 – 0.1	
Spider mites Lygus spp.	8.5	0.1	

**Foliar Restrictions:**

- **DO NOT** make more than 2 foliar applications per season.
- **DO NOT** apply later than layby.

**Tobacco Restrictions:**

- **DO NOT** apply more than 0.2 lb ai/A per season including at-plant, PRE, PPI and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

**TOMATOES, TOMATILLOS, & GROUNDCHERRIES****At-Plant**

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Army cutworm Armyworm species Cutworm species Flea beetle larvae Grubs Root maggot Stalkborer True armyworm Wireworm	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	Apply as a 5 to 7 inch band over the row on the soil surface, a 5 to 7 inch band over the open furrow (T-band), or in-furrow with the transport or seed. May be applied through transplant water at time of transplanting. Apply broadcast to the soil surface for control of Army cutworm, Cutworm species, True armyworm, Armyworm species, or Stalkborer.

**At-Plant Restrictions:**

- **DO NOT** apply more than 0.1 lb ai/A per season as an at-plant application

# PRE & PPI

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Army cutworm Armyworm species Cutworm species Flea beetle larvae Garden symphylans Grubs True Armyworm Wireworm	PRE 6.8     PPI 3.4 – 6.8	PRE 0.08     PPI 0.04 – 0.08	<i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PRE herbicides. Post Plant Soil Applied: Apply through drip or Drip Tape. Apply when soil is moist towards the end of the irrigation run.  <i>NIRVANA RTU INSECTICIDE</i> can be tank mixed and applied with PPI herbicides. Incorporation of <i>NIRVANA RTU INSECTICIDE</i> should not be any deeper than the intended planting depth and no deeper than 3 inches. Incorporation depth should be close to the intended seed planting depth. Apply in a minimum of 10 gallons per acre. Post Plant Soil Applied: Apply through drip or Drip tape. Apply when soil is moist towards the end of the irrigation run.

# Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphids Armyworms (including Beet) Armyworm, Fall Armyworm, Southern Bean Leaf Beetle Cabbageworm Carminae Mite Cloverworm Corn earworm Corn Rootworm Cucumber Beetles Cutworms Diamondback Moth European Corn Borer Flea Beetles Flea Hopper Grasshopper Japanese Beetle (Adult) Leafhoppers Loopers Lygus species Melonworm Pea Weevil Pea Leaf Weevil Pickleworm Plant Bug Rindworm Salt Marsh Caterpillar Sap Beetle Seedpod Weevil Squash Bugs Stink bug species (including brown marmorated stink bugs) Tobacco Budworm Tarnished Plant Bug Thrips Whitefly Yellowstriped Armyworm	2.8 – 6.8	0.033 – 0.08	Thorough coverage is necessary to attain acceptable control. Make application at the onset of infestation reaching locally determined economic levels.  Apply in water. Apply the specified dosage in 5 to 50 gallons of finished spray per acre by air or 10 to 50 gallons of finished spray per acre by ground. Thorough coverage is essential to achieve control.
Twospotted spider mite	6.8 – 8.5	0.08 – 0.1	

## Foliar Restrictions:

- **DO NOT** make applications less than 10 days apart.
- **DO NOT** apply within 1 day of harvest

**Tomato, Tomatillo, and Groundcherry Restrictions:**

- **DO NOT** apply more than 0.40 lb ai/A per season including at-plant, PRE, PPI and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

**TREE NUTS\***

African nut-tree; almond; beechnut; Brazil nut; Brazilian pine; bunya; bur oak; butternut; Cajou nut; candlenut; cashew; chestnut; chinquapin; coconut; coquito nut; dika nut; ginkgo; Guiana chestnut; hazelnut (filbert); heartnut; hickory nut; Japanese horse-chestnut; macadamia nut; mongongo nut; monkey-pot; monkey puzzle nut; Okari nut; Pachira nut; peach palm nut; pecan; pequi; Pili nut; pine nut; pistachio; Sapucaia nut; tropical almond; walnut, black; walnut, English; yellowhorn; cultivars, varieties, and/or hybrids of these

**Foliar**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Black Pecan Aphid Codling Moth Filbert Worm Hickory Shuckworm Leaffooted Bugs Navel Orangeworm Oblique Banded Leafroller Peach Twig Borer Pecan Leaf Casebearer Pecan Nut Casebearer Pecan Phylloxera Plant Bugs Stink Bugs (including brown marmorated stink bugs) Walnut Aphid Yellow Pecan Aphid	4.3 – 17.1	0.05 - 0.2	Apply by ground or air equipment using sufficient water to obtain full coverage of foliage. Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) by ground or apply the specified amount in a minimum of 10 gallons of finished spray per acre by air.
European Red Mite Pecan Weevil Spider Mite species	6.8 – 17.1	0.08 - 0.2	
Fire ants Walnut Husk Fly	8.5 – 17.1	0.1 - 0.2	

**Foliar Restrictions:**

- **DO NOT** make applications less than 15 days apart.
- **DO NOT** apply within 21 days of harvest for pecans and 7 days for all other registered tree nut crops.
- **DO NOT** graze livestock in treated orchards or cut treated cover crops for feed.

**Tree Nuts Restrictions:**

- **DO NOT** apply more than 0.5 lb active ingredient (1 quart) per acre per season including at-plant, PRE, PPI and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

**\*Not for Use in California****TUBEROUS AND CORM VEGETABLES (Crop Subgroup 1C)**

Potato, 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.

**At-Plant**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Grape colaspis Rootworms Sweet potato flea beetle White grub Wireworms	12.75 – 25.5	0.15 – 0.3	<i>NIRVANA RTU INSECTICIDE</i> may be applied as a soil incorporated broadcast, directed bed spray or a T-band spray into the planting furrow for the control of wireworms, sweet potato flea beetle, and white grubs.  Apply <i>NIRVANA RTU INSECTICIDE</i> at the rate of 0.15 to 0.3 pounds active ingredient (12.75 to 25.5 fluid ounces formulated) per acre in a minimum of 10 gallons per acre of spray.
<b>At Plant Restrictions:</b>			
<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 0.3 lb ai/A per season as an at-plant application.</li> </ul>			

**Lay-By**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Grape colaspis Rootworms Wireworms White grub	12.75 – 25.5	0.15 – 0.3	<i>NIRVANA RTU INSECTICIDE</i> may be applied as one or more soil directed and incorporated treatments at cultivation or layby for the control of wireworms and white grubs. Apply <i>NIRVANA RTU INSECTICIDE</i> to the drill area and incorporate by cultivation equipment set to throw soil towards the drill area. Apply in a minimum of 10 gallons per acre of spray.

**PPI**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Grape colaspis Rootworms Wireworms White grub	12.75 – 25.5	0.15 – 0.3	Apply <i>NIRVANA RTU INSECTICIDE</i> to the transplant area and incorporate to planting depth. Apply <i>NIRVANA RTU INSECTICIDE</i> in a minimum of 10 gallons per acre of spray. May be applied as a broadcast application or an incorporated band application

**Foliar**

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Banded Cucumber beetle Black flea beetle Corn wireworm Cucumber beetle Japanese beetle grubs June beetle Rootworms Southern potato wireworm Sugarcane beetle Sweetpotato flea beetle Sweetpotato weevil Tobacco wireworm Whitefringed beetle White grub	2.8 – 8.5	0.033 - 0.1	Apply in a minimum of 3 gallons finished spray per acre by air or in a minimum of 10 gallons per acre with ground equipment.  <i>NIRVANA RTU INSECTICIDE</i> may be applied as a foliar spray for the control of the adult life stages of flea beetles, click beetles (wireworms), cucumber beetles (rootworms), white fringed beetles and May/June beetles (white grubs).

**Foliar Restrictions:**

- **DO NOT** make more than 2 foliar applications per season
- **DO NOT** make applications less than 21 days apart.
- **DO NOT** apply within 21 days of harvest.

**Tuberous and Corm Vegetables (Crop Subgroup 1C) Restrictions:**

- **DO NOT** apply more than 0.5 lb ai/A per season including soil, lay-by, at-plant, PPI and foliar applications of *NIRVANA RTU INSECTICIDE* and other bifenthrin containing products.

**APPLICATIONS INSTRUCTIONS – ORNAMENTALS\***

\* NOT FOR USE IN CALIFORNIA TO CONTROL LISTED INSECT PESTS ON ORNAMENTALS AND TREES (INCLUDING FIELD AND CONTAINER GROWN NURSERY STOCK, CHRISTMAS TREES, INTERIORSCAPES AND PLANTSCAPES, LAWNS, TREES AND SHRUBS, AND ON GOLF COURSES).

For use on plants intended for aesthetic purposes or climatic modifications and being grown in interior plantscapes and on outdoor ornamentals, Christmas trees, nurseries, lawns, and golf courses.

**PRODUCT INSTRUCTIONS**

*NIRVANA RTU INSECTICIDE* may be tank-mixed with other products, including insect growth regulators. When tank mixing *NIRVANA RTU INSECTICIDE* with other products observe all precautions and limitations on each separate product label. The addition of spreader stickers is not necessary. The physical compatibility of *NIRVANA RTU INSECTICIDE* may vary with different sources of pesticide products, and local cultural practices. Any tank mixture which has not been previously tested should be prepared on a small scale (pint or quart jar), using the proper proportions of chemicals and water to ensure the physical compatibility of the mixture. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

The following procedure is recommended for preparation of a new tank mix, unless specified otherwise in label directions:

1. Add wettable powders to tank water
2. Agitate
3. Add fluids and flowables
4. Agitate
5. Add emulsifiable concentrates
6. Agitate

If a mixture is found to be incompatible following the order of addition, try reversing the order of addition, or increase the volume of water. **Note:** If the tank mixture is found to be compatible after increasing the amount of water then the sprayer will need to be recalibrated for a higher volume application. **DO NOT** allow tank mix to stand overnight. When using tank mixes, observe all restrictions and precautions which appear on the labels of these products. Provide constant agitation to keep the mixture in solution.

#### APPLICATION RATES

##### TRUNK SPRAYS TO ORNAMENTAL TREES (including Christmas trees)

##### For Control of Bark Beetles and Boring Beetles

Refer to the table below. Application rates and timing differ according to the target pest and other factors specific to each local situation. Consult your local State Extension specialist or other qualified expert for recommendations. Note: **DO NOT** apply more than 12.8 fl. oz. (0.2 lbs. AI) per acre of this product to trees. Repeat application may be necessary if reinfestation is likely.

PEST	RATE	SPRAY VOLUME	USE INSTRUCTIONS
<b>Dendroctonus bark beetles</b> such as mountain pine beetle, southern pine beetle, western pine beetle, and black turpentine beetle.	21 - 43 fl. oz. per 100 gallons (0.25 – 0.5 lb. AI per 100 gallons)	Use 1-4 gallons of finished spray per tree.	Make applications to the trunk of the tree with a hydraulic sprayer in the early spring or prior to adult beetle flight and tree infestation.
Engraver beetle ( <i>Ips</i> spp.)	21 - 43 fl. oz. per 100 gallons (0.25 – 0.5 lb. AI per 100 gallons)	Use 10-14 gallons of finished spray per tree.	Apply spray directly to the main trunk from the base of the tree to at least half-way into the live crown. Spray until the bark is thoroughly wet.
<b>Other bark beetles</b> such as ambrosia beetles, elm bark beetles, and metallic wood borers such as emerald ash borer.	21 - 43 fl. oz. per 100 gallons (0.25 – 0.5 lb. AI per 100 gallons)	Use 2-5 gallons of finished spray per tree.	Make applications of a spray mixture to the trunk, scaffolding and limbs of the tree with a hydraulic sprayer in the early spring or prior to adult beetle flight and tree infestations. Spray until the bark is thoroughly wet.
<b>Clearwing moth borers</b> such as ash borer, banded ash clearwing, dogwood borer, lesser peachtree borer, lilac borer, oak borer, peachtree borer, rhododendron borer	8.6 – 17.2 fl. oz. per 100 gallons (0.1 – 0.2 lb. AI per 100 gallons)	Use 1-4 gallons of finished spray per tree.	Apply to the branches and trunks prior to adult emergence. Spray until the bark is thoroughly wet. For maximum residual control, use highest labeled rate.
<b>Coleopteran borers</b> such as bronze birch borer, flatheaded apple tree borer			

#### Treatment of Infested Trees to Control Emerging Brood

Make applications of a spray mixture containing 2.0 pints of **NIRVANA RTU INSECTICIDE** per 100 gallons of water to trees that still have beetles in the bark. Apply spray directly to the main trunk from the base of the tree to at least half-way into the live crown. Spray until the bark is thoroughly wet (usually 1 to 4 gallons of spray per tree). **DO NOT** apply more than 0.2 lbs. AI (19.4 fl. oz.) of this product to trees per acre.

Trees on which all needles have turned brown generally have been vacated and should not be sprayed unless infestation is confirmed. To confirm an infestation, scrape off the outer bark to determine if trees are still infested. If live infestations remain in the trunks, fell the trees and cut into sections. Spray the trunk and large limbs and turn sections so that all of the surface area can be treated. **DO NOT** apply more than 0.2 lbs. AI (19.4 fl. oz.) of this product to trees per acre.

#### PRODUCT INFORMATION

##### FOLIAR SPRAYS TO ORNAMENTALS AND TREES

##### (Including Field and Container Grown Nursery Stock, Christmas Trees, Interiorscapes and Plantscapes, Lawns, Trees and Shrubs, and on Golf Courses)

For applications to ornamentals (trees, shrubs, ground covers, bedding plants and foliage plants, conifers (field and container grown), Christmas Trees and pine seed orchards) apply 0.6 to 0.44 fl. oz. **NIRVANA RTU INSECTICIDE** per 1,000 sq. ft. or 2.4 to 19.4 fl. oz. per 100 gallons. **NIRVANA RTU INSECTICIDE** may be diluted and applied in various volumes of water providing that the maximum label rate (0.44 fl. oz. per 1,000 sq. ft. or 19.4 fl. oz. per 100 gallons) is not exceeded. **NIRVANA RTU INSECTICIDE** may be applied through low volume application equipment by dilution with water or other carriers and providing that the maximum label rate (0.44 fl. oz. per 1,000 sq. ft. or 19.4 fl. oz. per 100 gallons) is not exceeded.



**Calculating Dilution Rates Using the Ornamental Application Rates Table and the *NIRVANA RTU INSECTICIDE* Dilution Chart**

Use the following steps to determine the appropriate dilution of this product required to control the specific pests:

1. Find the least susceptible target pest (the pest that requires the highest application rate for control).
2. Select an application rate in terms of fluid ounces of this product.
3. Find your application volume and how much spray you want to prepare.
4. Use the **Ornamental Dilution Chart** to determine the appropriate volume of this product that must be mixed in your desired volume of water.

For example, to control black vine weevil adults on rhododendron, the **Ornamental Application Rates** table shows that 0.12 to 0.20 fl. oz. of this product should be applied per 1,000 sq. ft. You select an application rate of 0.20 fl. oz. per 1,000 sq. ft. because maximum residual control is desired. Your application volume is approximately 300 gallons per acre which is equivalent to 6.9 gallons per 1,000 sq. ft. Consulting the **Ornamental Dilution Chart** shows that you should dilute 0.72 fl. oz. of this product in 10 gallons of water.

NIRVANA RTU INSECTICIDE ORNAMENTAL DILUTION CHART							
Application Rate	Fluid Ounces (mL) of <i>NIRVANA RTU INSECTICIDE</i> diluted to the Volumes of Finished Spray						
	1 Gallon		5 Gallons		10 Gallons		100 Gallons
Fl. oz./1,000 sq. ft.	Fl. oz.	mL	Fl. oz.	mL	Fl. oz.	mL	Fl. oz.
0.06	0.018	0.5	0.09	2.6	0.18	5.3	1.8
0.12	0.036	1.1	0.18	5.3	0.36	10.6	3.6
0.20	0.072	2.1	0.36	10.6	0.72	21.3	7.2
0.44	0.144	4.3	0.72	21.3	1.44	42.6	14.4

$$\frac{(17.15) \text{ (Fl. Oz. of } \textit{NIRVANA RTU INSECTICIDE} \text{ added to tank)}}{\text{Ingredient of Spray Mix (gallons of finished spray mix) (128)}} = \text{Percent Active}$$

**ORNAMENTAL AND TREE FOLIAR APPLICATION RATES**

The application rates listed in the following table will provide control of the noted pests under typical conditions. However, at the discretion of the applicator, this product may be applied at up to 0.44 fl. oz. per 1,000 sq. ft (19.4 fl. oz. per 100 gallons) to control each of the pest listed in this table. The higher application rates should be used when maximum residual control is desired.

PEST	RATES	USE INSTRUCTIONS
Bagworms <sup>1</sup> Cutworms Elm Leaf Beetles Fall Webworms Gypsy Moth Caterpillars Lace Bugs Leaf Feeding Caterpillars Tent Caterpillars Tussock moth	0.06 – 0.12 fl. oz. per 1,000 sq. ft.  (1.8 – 3.8 fl. oz. per 100 gallons)	<sup>1</sup> Bagworms: For best results, apply when larvae begin to hatch and spray larvae directly. Applications when larvae are young will be most effective.  <sup>2</sup> Beetles, Scale Crawlers, Twig Borers, and Weevils: May treat trunks, stems and twigs in addition to plant foliage.

**ORNAMENTAL AND TREE FOLIAR APPLICATION RATES (cont'd)**

PEST	RATES	USE INSTRUCTIONS
Adelgids Ants (Excluding fire, carpenter, harvester, and pharaoh ants) Aphids Bees Beet Armyworm Beetles <sup>2</sup> Black Vine Weevil (Adults) Scales, such as Brown Soft Scales California Red Scale (Crawlers) <sup>2</sup> Elongated Hemlock Scale Pine Needle Scales (crawlers) <sup>2</sup> San Jose Scales (Crawlers) <sup>2</sup> Broad Mites Budworms Cicadas Citrus Thrips Clover Mites Crickets Earwigs European Red Mite Flea Beetles Fungus Gnats (Adults) Glassywinged Sharpshooter Grasshoppers Japanese Beetle (Adult) Leafhoppers Leafrollers Mealybugs Mites Nantucket Pine Tip Moth Pillbugs Pine sawflies Plant Bugs (including Lygus spp.) Psyllids+ Spider Mites <sup>3</sup> Spittlebugs Thrips Tip Moths Treehoppers Twig Borers <sup>2</sup> Weevils <sup>2</sup> such as White Pine Weevil Pales Weevil Diaprepes adults Orchid Weevil White flies Zimmerman pine moths	0.12 – 0.20 fl. oz. per 1,000 sq. ft.  (3.6 – 7.2 fl. oz. per 100 gallons)	<sup>3</sup> Spider Mites: <i>NIRVANA RTU INSECTICIDE</i> provides optimal twospotted spider mite control when applied during spring to mid-summer. Higher application rates and/or more frequent treatments may be required for acceptable twospotted spider mite control during mid- to late-summer. The addition of a surfactant or horticultural oil may increase the effectiveness of this product. Combinations of this product with other registered miticides have also proven effective. Alternately, <i>NIRVANA RTU INSECTICIDE</i> applications may be rotated with those of other products that have different modes of action in control programs that are designed to manage resistance by twospotted spider mites. Consult your local Cooperative Extension Service for resistance management recommendations in your region.
Leafminers Pecan Leaf Scorch Mite Pine Shoot Beetle (Adults) Spider Mites <sup>3</sup>	0.20 – 0.44 fl. oz. per 1,000 sq. ft.  (7.2 – 14.4 fl. oz. per 100 gallons)	

## STORAGE AND DISPOSAL

**DO NOT** contaminate water, food or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in a tightly closed container in a cool, dry place. Store in original container and out of reach of children, preferably in a locked storage area.

**PESTICIDE DISPOSAL:** Pesticide spray mixture or rinsate that cannot be used should be disposed of in a landfill approved for pesticides. Improper disposal of excess pesticide spray mixture or rinsate is a violation of Federal law. If these wastes cannot be disposed of by the use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

### **CONTAINER HANDLING:**

**For plastic containers ≤ 5 gallons: Nonrefillable Container. DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

**For plastic containers > 5 gallons: Nonrefillable container. DO NOT** reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple Rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Recap and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

### **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. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of INNICTIS CROP CARE LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold INNICTIS CROP CARE LLC and Seller harmless for any claims relating to such factors.

INNICTIS CROP CARE LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or INNICTIS CROP CARE LLC, and Buyer and User assume the risk of any such use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, INNICTIS CROP CARE LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither INNICTIS CROP CARE LLC nor Seller shall 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 INNICTIS CROP CARE LLC 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 INNICTIS CROP CARE, LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

INNICTIS CROP CARE LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing conditions of Sale and Limitation of Warranty and Liability which may not be modified except by written agreement signed by a duly authorized representative of INNICTIS CROP CARE LLC.

All trademarks are the property of their respective owners.

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# 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 the uses covered by the certified applicator's certification.

## NIRVANA® RTU INSECTICIDE

For mixing directly with liquid fertilizer to control listed soil insect pests.

### ACTIVE INGREDIENTS:

Bifenthrin\* ..... % BY WT. 17.15%

**OTHER INGREDIENTS:** ..... 82.85%

**TOTAL** ..... 100.0%

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

This product contains 1.5 pounds active ingredient per gallon.

## 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 inside label booklet for additional precautionary statements.

### 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.

### HOTLINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact CHEMTREC at **1-800-424-9300** for emergency medical treatment information.

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

### For Chemical Emergency:

**Spill, Leak, Fire, Exposure, or Accident, Call CHEMTREC Day or Night**

Within USA and Canada: 1-800-424-9300 or +1 703-527-3887 (collect calls accepted)

## PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS  
WARNING

May be fatal if swallowed. Causes moderate eye irritation. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.

### ENVIRONMENTAL HAZARDS

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

This product is highly toxic to bees exposed to direct treatment or residues on blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds while bees are foraging the treatment area. The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

### PHYSICAL OR CHEMICAL HAZARDS

Do not mix or allow coming in contact with oxidizing agent. Hazardous Chemical reaction may occur.

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1880 Fall River Drive, Suite 100  
Loveland, CO 80538

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EPA EST No.: 39578-TX-001(M); 70989-AR-001(OB)

Letter(s) in lot number correspond to letter(s) following the EPA Est. No.

Net Contents: 2.5 Gal. (9.46 L)

