



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460**

**OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION**

January 5, 2023

Loveland Products, Inc.
c/o Arianna Shorey
Pyxis Regulatory Consulting Inc.
4110 136th St. Ct. NW
Gig Harbor, WA 98332

Subject: PRIA Label and CSF Amendment – Update glove language, revise basic CSF and add alternate CSFs
Product Name: LPI.A038
EPA Registration Number: 34704-1188
Application Dates: October 21, 2021, January 3, 2023
Decision Numbers: 579232, 589445

Dear Arianna Shorey:

The amended label and Confidential Statement(s) of Formula (CSFs) referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, are acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one copy of the final printed labeling before you release the product for shipment with the new labeling. In accordance with 40 CFR 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR 152.3.

Please note that the record for this product currently contains the following CSF(s):

- Basic CSF dated 8/10/2022
- Alternate CSF 1 dated 8/10/2022
- Alternate CSF 2 dated 8/10/2022
- Alternate CSF 3 dated 8/10/2022
- Alternate CSF 4 dated 8/10/2022
- Alternate CSF 5 dated 8/10/2022
- Alternate CSF 6 dated 8/10/2022

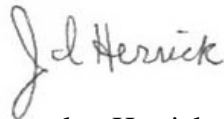
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Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) lists examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

Your release for shipment of the product constitutes acceptance of these conditions. If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact Elizabeth Andrews at 202-566-2467 or at Andrews.Elizabeth@epa.gov.

Sincerely,



Jacquelyn Herrick, Product Manager 03
Invertebrate & Vertebrate Branch 1
Registration Division (7505T)
Office of Pesticide Programs

Enclosure

{Note to reviewer: [Text] in brackets denotes optional text. {Text} in braces denotes where in the final label text will appear and notes to reviewer.}

{BOOKLET FRONT PANEL LANGUAGE}

BIFENTHRIN	GROUP	3A	INSECTICIDE
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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.

LPI.A038^[TM]

Contains bifenthrin, the active ingredient used in Capture® LFR.

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

ACTIVE INGREDIENT:	(% by weight)
Bifenthrin*.....	17.15%
OTHER INGREDIENTS:	<u>82.85%</u>
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 Precautionary Statements and Directions for Use.

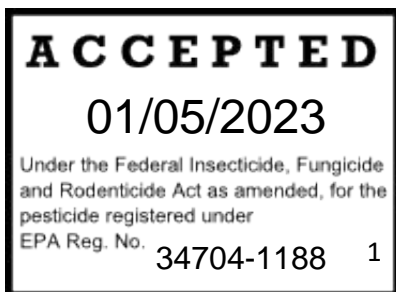
FIRST AID	
If swallowed:	<ul style="list-style-type: none"> • Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If in eyes:	<ul style="list-style-type: none"> • 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.
HOT LINE 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 Rocky Mountain Poison and Drug Safety at 1-866-944-8565 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)**

{Note to Reviewer: Below statement will appear in close proximity to above claim statement.}

[LPI.A038] is not manufactured, or distributed by [FMC Corporation], seller of [Capture® LFR].

EPA Reg. No.: 34704-1188
 EPA Est. No.:
 Net Weight:
 [EPA APPROVAL DATE]



MANUFACTURED FOR:
LOVELAND PRODUCTS, INC.
 P.O. BOX 1286
 GREELEY, COLORADO 80632-1286 USA

{LANGUAGE INSIDE BOOKLET}

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
- chemical resistant gloves made of: barrier laminate, butyl rubber (≥ 14 mils), nitrile rubber (≥ 14 mils), neoprene rubber (≥ 14 mils), polyvinyl chloride (PVC) (≥ 14 mils), or viton (≥ 14 mils)
- Shoes plus socks

Mixers and Loaders must wear:

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

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

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

Mixers, loaders, and applicators using mechanically pressurized handguns for applications to tuberous and corm vegetables must wear at a minimum:

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

Mixers, loaders, and applicators using mechanically pressurized handguns for applications to tobacco must wear at a minimum:

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

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

USER SAFETY RECOMMENDATIONS

Users should:

- 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 if bees are visiting the treatment area. **Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms.** The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

NON-TARGET ORGANISM ADVISORY STATEMENT

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

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.

For both indoor and outdoor use.

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.

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

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

Mixers, loaders, and applicators using mechanically pressurized handguns for applications to tuberous and corm vegetables must wear at a minimum:

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

Mixers, loaders, and applicators using mechanically pressurized handguns for applications to tobacco must wear at a minimum:

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

NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR part 170). The WPS applies when this product is used to produce agricultural 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.

Entry Restrictions for Non-WPS Uses: When applied to on-farm non-cropland, keep unprotected persons out of treated areas until sprays have dried.

RESISTANCE MANAGEMENT

For resistance management, **LPI.A038** contains a Group 3A insecticide. Any insect population may contain individuals naturally resistant to **LPI.A038** and other Group 3A 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 **LPI.A038** or other Group 3A insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. Do not rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues 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 use 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 Loveland Products, Inc. retailer, representative or call 1-888-LPI-CUST [(574-2878)]. You can also contact your pesticide distributor or university extension specialist to report resistance.

Mandatory Spray Drift Management

Aerial Applications:

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

Airblast Applications:

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

Ground Boom Applications:

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

Spray Drift Advisories

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

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

Controlling Droplet Size – Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.

- Pressure - Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size – Aircraft

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

BOOM HEIGHT – Ground Boom

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

RELEASE HEIGHT - Aircraft

- Higher release heights increase the potential for spray drift.

SHIELDED SPRAYERS

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

TEMPERATURE AND HUMIDITY

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

TEMPERATURE INVERSIONS

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

WIND

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

Handheld Technology Applications:

- Take precautions to minimize spray drift.

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. Apply **LPI.A038** continuously for the duration of the water application. Dilute **LPI.A038** 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. Conduct a diluent test 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

LPI.A038 is an insecticide that contains 1.5 pounds of bifenthrin per gallon. **LPI.A038** 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 labeled rates under light to moderate pest infestations, and higher labeled rates under heavier pest pressure. In arid climates, applications rates are generally higher. Do not exceed the rates listed on the label. Fill the tank one-half full with liquid fertilizer or water and begin spray tank agitation. Add the proper amount of **LPI.A038** and then add the rest of the fertilizer or water. Maintain agitation until the mixture has been applied.

SHAKE WELL BEFORE USING

- Agitate the **LPI.A038** spray solutions in nurse tanks prior to moving the solution to spray system.
- Cultivation within 25 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.
- **LPI.A038** 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 **LPI.A038** and other products containing bifenthrin.
- For at-plant applications, **LPI.A038** 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 **LPI.A038**. Do not allow a tank mixture to set overnight, but if this occurs agitate tank mixture prior to application.

LPI.A038 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

LPI.A038 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, conduct product compatibility tests. 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 LPI.A038 Use Per Acre Per Season

Refer to the individual crop sections for maximum allowable **LPI.A038** 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 Filter Strips

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

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

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

- A functional terrace system is maintained on the area of application.
- Water and sediment control basins for the area of application are functional and maintained.
- the area of application is less than or equal to 10 acres.

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

Buffer 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 Ultra Low Volume (ULV) Aerial Application - Do not apply within 450 feet of aquatic habitats (such as, but not limited to, lakes, reservoirs, rivers, streams, marshes, 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).

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

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

How to Report Bee Kills

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

ARTICHOKE

At-Plant

PEST	USE RATES			DIRECTIONS
	Fluid oz/A	Fluid oz/1000 Linear ft.	Pound ai/A	
Cribrate 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	
Cribrate Weevil (Grubs)	PRE 8.5	PRE 0.1	LPI.A038 can be tank mixed and applied with PRE herbicides.
	PPI 8.5	PPI 0.1	LPI.A038 can be tank mixed and applied with PPI herbicides. Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate close to intended depth.

Foliar

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

Artichoke Restrictions:

- Do not apply more than 0.5 lb ai/A per season including at-plant, PPI, PRE and foliar applications of **LPI.A038** and other bifenthrin containing products.

BRASSICAS, Head and Stem (Crop Subgroup 5A)

Broccoli, Chinese Broccoli (gai lon, 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	Apply as a 5-7 inch band (T-band) over the open seed or transplant furrow, or in-furrow with the seed or transplant. Cutworm and armyworm treatments may be applied as broadcast treatments to the soil surface. May be applied through transplant water at time of transplanting
At-Plant Restrictions:				
<ul style="list-style-type: none"> Do not apply more than 0.1lb ai/A per season as an at-plant application 				

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	PRE 0.04 – 0.08	LPI.A038 can be tank mixed and applied with PRE labeled herbicides and fungicides for pre-transplant application.
	PPI 3.4 – 6.8	PPI 0.04 – 0.08	Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth close to the intended seed planting or transplant depth.

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 Carmin Mite Lygus Species Pacific Spider Mite Twospotted Spider Mite	6.8 – 8.5	0.08 – 0.1	
Foliar Restrictions:			
<ul style="list-style-type: none"> • Do not make more than 5 applications after bloom. • Do not make applications less than 7 days apart. • Do not apply within 7 days of harvest. 			

Foliar

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 LPI.A038 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.
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PPI (Site Preparation) & PRE

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Wire worm White Grubs	PRE 3.4 – 8.5	PRE 0.04 – 0.1	LPI.A038 can be tank mixed and applied with PRE herbicides
Blueberry Maggot (larvae)	PPI 8.5	PPI 0.1	

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 Carmin 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 1 day of harvest.

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 **LPI.A038** and other bifenthrin containing products.

[*][Not for Use in California]

CANE BERRIES (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	LPI.A038 can be tank mixed and applied with PPI pesticides labeled for site preparation. Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth 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. Do not make both pre bloom foliar and pre bloom drench applications.

Foliar Restrictions:

- One application may be made pre bloom and a second application may be made post bloom.
- Do not apply within 3 days of harvest.

Caneberries (Crop Subgroup 07A) Restrictions:

- Do not exceed 0.2 lb ai/A per season including at-plant, PRI, PRE, and foliar applications of **LPI.A038** 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	6.83	0.08	Apply as a 5 to 7 inch band (T-band) over an open

Armyworm species Cutworm species Grape colaspis Grubs Root aphids Seed corn beetle Seed corn maggot Stalkborer Sugarcane beetle True armyworm Wireworm			furrow, or in-furrow with the seed.
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PPI & PRE

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Army cutworm	PRE 6.83	PRE 0.08	LPI.A038 can be tank mixed and applied with PRE herbicides
Armyworm species			
Cutworm species	PPI 6.83	PPI 0.08	LPI.A038 can be tank mixed and applied with PPI herbicides. Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth close to the intended seed planting depth.
Grape colaspis			
Grubs			
Root aphids			
Seed corn beetle			
Seed corn maggot			
Stalkborer			
Sugarcane beetle			
True armyworm			
Wireworm (PPI only)			

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.
Foliar Restrictions:			
<ul style="list-style-type: none"> Do not make applications less than 14 days apart. Do not apply within 35 day of harvest. 			

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 **LPI.A038** 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.
At-plant Restrictions:				
<ul style="list-style-type: none"> 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	
Army cutworm	PRE	PRE	LPI.A038 can be tank mixed and applied with PRE herbicides
Armyworm species	3.4 – 6.8	0.04 – 0.08	
Cutworm species	PPI	PPI	LPI.A038 can be tank mixed and applied with PPI herbicides. Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth close to the intended seed planting depth.
Grape colaspis	3.4 – 6.8	0.04 – 0.08	
Grubs			
Root aphids			
Seed corn beetle			
Seed corn maggot			
Wireworms (PPI Only)			

Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphids	2.8 – 8.5	0.033 - 0.1	Apply using sufficient water to obtain uniform coverage.
Beet Armyworm			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
Cabbage Looper			
Cutworm			
Flea beetle			
Grasshoppers			
Leafminer			
Saltmarsh caterpillar			
Spotted Cucumber beetle			
Thrips			
Whitefly			
Two Spotted Spider Mite	6.8 – 8.5	0.08 - 0.1	
Foliar Restrictions:			
<ul style="list-style-type: none"> Do not make applications less than 7 days apart. Do not apply within 3 day of harvest. 			

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 **LPI.A038** 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); tangor; trifoliolate orange; uniq fruit; cultivars, varieties, and/or hybrids of these

Use Directions:

When applied as directed, **LPI.A038** will provide control of the following pests listed in the table below. Apply **LPI.A038** by ground equipment to bare soil beneath citrus trees. **LPI.A038** 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.

LPI.A038 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 **LPI.A038** as they attempt to burrow into the root zone. Minimize disturbance of the soil beneath trees.

Timing of **LPI.A038** 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 **LPI.A038** 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 **LPI.A038** soil barrier in place prior to drop of the neonates.

LPI.A038 is one of several effective tools in an integrated pest management program for Citrus Root Weevils. Use application of **LPI.A038** 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, use 42.5 fluid ounces formulated product 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	
Restrictions: <ul style="list-style-type: none"> Do not allow any application of LPI.A038 to contact fruit or foliage. Do not apply more than a total of 42.5 fluid ounces of formulated product (0.5 pound active ingredient) per acre per year. Do not apply by air. 			

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 **LPI.A038**.

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	
At-Plant Restrictions: <ul style="list-style-type: none"> Do not apply more than 0.2 pound active per acre per season as an at-plant application. 				

- **For field corn** - Do not 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 Batallion 2 EC).
- **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 other bifenthrin products (such as Brigade 2EC or Batallion 2 EC).

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	LPI.A038 can be tank mixed and applied with PPI herbicides. Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate close to the intended seed planting depth.
Armyworm species Black Cutworm Seed corn beetle Stalkborer	PRE 3.4	PRE 0.04	LPI.A038 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 ¹ Corn Rootworm (Adult) Cucumber Beetle (Adults) Cutworm Species European Corn Borer ² Fall Armyworm Flea Beetle Grasshoppers Greenbug Japanese Beetle (Adult) Sap Beetle Southern Armyworm Southern Corn Leaf Beetle Southwestern Corn Borer ² 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	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. When applying by air, 1-2 quarts of emulsified oil may be substituted for 1-2 quarts of water in the finished spray. Thorough coverage is essential to achieve control. ¹ To Control Ear-Attacking Pests: Apply LPI.A038 just before silking and repeat as necessary to maintain control. ² Southwestern Corn Borer, European Corn Borer: Make application for corn borer control with initial application at or shortly before egg hatch. For Control Of Other Insect Pests: Apply when pests first appear and repeat as necessary. ³ For Control of Mites: Apply for Banks Grass Mite control when colonies first

Banks Grass Mite ³ Carmine Mite ³ Twospotted Spider Mite ³	6.8 - 8.5	0.08 – 0.1	<p>form prior to leaf damage or discoloration and before dispersal above the bottom third of the plant.</p> <p>For Twospotted Spider Mite and Carmine Mite control, apply when colonies first form prior to leaf damage or discoloration and before widespread mite dispersal throughout the canopy. Higher labeled 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>For Mite Control In Texas, New Mexico, Oklahoma, and Arizona: 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>
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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 **LPI.A038** 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 **LPI.A038** 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	LPI.A038 can be tank mixed and applied with PPI herbicides. Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth 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.
Boll Weevil ¹ Bollworm Cabbage Looper Cotton Aphid ² 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	<p>LPI.A038 may be applied in water or refined vegetable oil (soybean/cottonseed).</p> <p>Application in Water: 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.</p> <p>ULV Application: Apply the labeled rate of LPI.A038 in refined vegetable oil in a minimum of 1 quart of finished spray per acre with aircraft calibrated to give adequate coverage.</p> <p>¹Boll Weevil: Apply LPI.A038 at an interval of 3 to 4 days until pest numbers are reduced to acceptable levels.</p>

Beet Armyworm Carmine Spider Mite ² Lygus species Pink Bollworm Twospotted Spider Mite ²	5.1 – 8.5	0.06 - 0.1	² Aphids and Mites: Apply when pests first appear. Repeat as necessary to maintain control. Higher labeled rates will be required once a damaging threshold is established.
Foliar Restrictions:			
<ul style="list-style-type: none"> Do not apply within 14 days of harvest. Do not graze livestock in treated areas or cut treated crops for feed. 			

Cotton Restrictions:

- Do not apply more than 0.5 lb ai/A per season including at-plant, PRE, PPI, and foliar applications of **LPI.A038** 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®, Fanfare®, 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.
At Plant Restrictions:				
<ul style="list-style-type: none"> 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	
Seed Corn Maggot Wireworms Army cutworm Armyworm species Cutworm species Flea beetle larvae Grubs True Armyworm	PRE 6.8 – 8.5	PRE 0.08 – 0.1	LPI.A038 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.
	PPI 6.8 – 8.5	PPI 0.08 - 0.1	LPI.A038 can be tank mixed and applied with PPI labeled pesticides. Incorporate LPI.A038 no deeper than the tending planting depth. Incorporate 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	

Foliar Restrictions:

- Do not make more than two applications after bloom.
- Do not make applications less than 7 days apart
- Do not apply within 3 days of harvest

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 **LPI.A038** 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 hulled 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 Armyworm species Cutworm species Grape colaspis Grubs Root maggot True armyworm Wireworm	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	
At- Plant Restrictions:				
<ul style="list-style-type: none"> 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	
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	LPI.A038 can be tank mixed and applied with PRE herbicides. Apply in a minimum of 10 gallons per acre.
	PPI 6.8 – 8.5	PPI 0.08 - 0.1	LPI.A038 can be tank mixed and applied with PPI herbicides. Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth 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.

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	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	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 **LPI.A038** 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	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	Apply as a 5 to 7 inch band over the row on

Armyworm species Cutworm species Grubs Root maggot True armyworm Wireworm				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.
At-Plant Restrictions:				
<ul style="list-style-type: none"> 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	
Army cutworm Armyworm species Cutworm species Grubs Root maggot True armyworm Wireworm	PRE 8.5	PRE 0.1	LPI.A038 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 – 8.5	PPI 0.04 – 0.1	LPI.A038 can be tank mixed and applied with PPI labeled pesticides. Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth 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	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.

Tomato Hornworm Tomato Pinworm Vegetable Leafminer Whitefly Yellowstriped Armyworm			
Banks Grass Mite Broad Mite Carmine Mite Lygus species Pacific Spider Mite Twospotted Spider Mite	6.8 - 8.5	0.08 – 0.1	
Foliar Restrictions:			
<ul style="list-style-type: none"> Do not apply within 7 days of harvest Do not make applications less than 7 days apart 			

Eggplant Restrictions:

- Do not apply more than 0.2 lb ai/A per season including At-Plant, PRE & PPI, and Foliar applications of **LPI.A038** 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	LPI.A038 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	

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.
Black Vine Weevil Glassywinged Sharpshooter Twospotted Spider Mite	8.5	0.1	When pest pressure is moderate to severe, use higher labeled rate.
Foliar Restrictions:			
<ul style="list-style-type: none"> Do not apply within 30 days of harvest. 			

Grape Restrictions:

- Do not apply more than 0.10 lb ai per acre per season including at-plant, PPI, PRE and foliar applications of **LPI.A038** 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 (T-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 Armyworm species Bulb mites Cutworm species Grubs Lettuce root aphid Root maggot True armyworm Wireworm	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	
At-Plant Restrictions:				
<ul style="list-style-type: none"> Do not apply more than 0.1 lb ai/A per season as an at-plant application. 				

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	
<p>Foliar Restrictions:</p> <ul style="list-style-type: none"> • Do not make applications less than 7 days apart. • Do not apply within 7 days of harvest. 			

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 **LPI.A038** and other bifenthrin containing products.

HOPS[*]

At-Plant

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Grape colaspis 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 colaspis Rootworms White grub Wireworms	5.1 – 8.5	0.06 - 0.1	Apply LPI.A038 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 colaspis Rootworms White grub Wireworms	PPI 5.1 – 8.5	PPI 0.06 - 0.1	Apply LPI.A038 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 colaspis 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	Application by ground: For best results, full coverage is essential. For Early season application apply 100 – 150 gallons of spray per acre. For Late season apply 200 – 250 gallons of spray per acre. For Root Weevil control, make a directed spray to the base of the plant. Spray up the vine 3 feet and the soil surface 1.5 to 2 feet on either side of the plant. Application by air for late season control of twospotted spider mites: Apply no less than 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: <ul style="list-style-type: none"> 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 **LPI.A038** 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	3.4 – 6.8	0.2 – 0.39	0.04 – 0.08	
Armyworm spp.				
Cutworm spp.				
Grubs				
Lettuce root aphid				
Root maggot				
True armyworm				
Wireworm				
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	PRE 3.4 – 6.8	PRE 0.04 - 0.08	LPI.A038 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.
Root Maggots			
Wireworms	PPI 3.4 – 6.8	PPI 0.04 - 0.08	LPI.A038 can be tank mixed and applied with PPI labeled pesticides. Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth 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.
Army cutworm			
Armyworm species			
Cutworm species			
Flea beetle larvae			
Grubs			
True Armyworm			

Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Aphids	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.
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)			
Banks Grass Mite Carmin Mite Lygus species Pacific Spider Mite Twospotted Spider Mite	6.8 - 8.5	0.08 - 0.1	
Foliar Restrictions:			
<ul style="list-style-type: none"> 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 **LPI.A038** 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 Symphlans 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	PRE 3.4 – 8.5	PRE 0.04 - 0.1	LPI.A038 can be tank mixed and applied with labeled PRE pesticides.
Cutworm species Flea beetle larvae Grubs True Armyworm Wireworm True armyworm	PPI 8.5	PPI 0.1	
			Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth 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	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.

Cabbageworm Leafhoppers Loopers Saltmarsh Caterpillar Stink Bugs (including brown marmorated stink bugs) Thrips Tobacco Budworm Whitefly Wireworm (adults)			
Banks Grass Mite Carmine Mite Lygus species Pacific Spider Mite Twospotted Spider Mite	6.8 - 8.5	0.08 - 0.1	
Foliar Restrictions:			
<ul style="list-style-type: none"> 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 **LPI.A038** 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	LPI.A038 can be tank mixed and applied with labeled PRE pesticides.
	PPI 8.5	PPI 0.1	LPI.A038 can be tank mixed and applied with PPI pesticides labeled for site preparation Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth close to the intended seed planting 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
Foliar Restrictions:			
<ul style="list-style-type: none"> Apply no more than once every 7 days. Do not apply within 30 days of harvest 			

Mayhaw Restrictions:

- Do not apply more than 0.2 lb ai per acre per season including at-plant, PRE, PPI and foliar applications of **LPI.A038** 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.
At- Plant Restrictions:				
<ul style="list-style-type: none"> 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	
Cutworm spp	PRE 3.4 – 8.5	PRE 0.04 – 0.1	LPI.A038 can be tank mixed and applied with PPI or PRE herbicides Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth 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	
Foliar Restrictions:			
<ul style="list-style-type: none"> Do not make applications less than 7 days apart. Do not apply within 7 days of harvest. 			

Okra Restrictions:

- Do not apply more than 0.2 lb ai/A per season including At-Plant, PRE & PPI, and Foliar applications of **LPI.A038** 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
Aphids Spider Mites Thrips Whitefly	6.8 – 8.5	0.08 - 0.1	

Foliar Restrictions:

- Do not make applications less than 14 days apart
- Do not apply within 14 days of harvest.
- Do not feed green immature plants and peanut hay to livestock.

Peanut Restrictions:

- Do not apply more than 0.5 lb ai per acre per season including at-plant, PPI, PRE and foliar applications of **LPI.A038** 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	<p>Application by ground: Apply as a dilute (minimum of 200 gallons of finished spray per acre) or concentrate (minimum of 50 gallons of finished spray per acre) spray in sufficient water to provide thorough coverage.</p> <p>Application by air: Apply the specified dosage in a minimum of 10 gallons per acre by air.</p>
Twospotted Spider mite Yellow Mite	5.1 – 17.1	0.06 - 0.2	
European Red Mite	6.8 – 17.1	0.08 - 0.2	
<p>Foliar Restrictions:</p> <ul style="list-style-type: none"> 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 **LPI.A038** 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	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.

Root aphid Root maggot Stalk borer True armyworm Wireworm				Apply broadcast over the soil surface for control of Army cutworm, Cutworm species, True armyworm, Armyworm species, or Stalk borer
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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	
Army cutworm Armyworm species Cutworm species Flea beetle larvae Grubs	PRE 8.5	PRE 0.1	LPI.A038 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.
True Armyworm Wireworm	PPI 3.4 – 8.5	PPI 0.04 – 0.1	LPI.A038 can be tank mixed and applied with PPI labeled pesticides. Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth close to the intended seed planting 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.

Broad Mite Carmin Mite Lygus species Pacific Spider Mite[*] Twospotted Spider Mite	6.8 – 8.5	0.08 - 0.1	
Foliar Restrictions:			
<ul style="list-style-type: none"> 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 **LPI.A038** 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	PRE 8.5	PRE 0.1	LPI.A038 can be tank mixed and applied with PRE pesticides
Cutworms Seedcorn and Root Maggots Wireworms	PPI 8.5	PPI 0.1	LPI.A038 can be tank mixed and applied with PPI labeled herbicides. Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth close to the intended seed planting 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	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.

Fall Armyworm Fire Ants Flea Beetles Green Cloverworm Hornworms Imported Cabbageworm Loopers Southern Armyworm Spider Mites Tobacco Budworm Velvetbean Caterpillar Whitefly Yellowstriped Armyworm			
Foliar Restrictions: <ul style="list-style-type: none"> Do not make applications less than 7 days apart. Do not apply within 21 days of harvest. 			

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 **LPI.A038** 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	LPI.A038 can be tank mixed and applied with PRE pesticides
Seedcorn and Root Maggots Wireworms	PPI 8.5	PPI 0.1	LPI.A038 can be tank mixed and applied with PPI labeled herbicides. Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth close to the intended seed planting depth.

Foliar

PEST	USE RATES		DIRECTIONS
	Fluid oz/A	Pound ai/A	
Garden Beet Pests Only 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.
Foliar Restrictions: <ul style="list-style-type: none"> Do not make applications less than 7 days apart. Do not apply within 1 day of harvest. 			

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 **LPI.A038** 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. Apply broadcast over the soil surface for control of Army cutworm, Cutworm species, True armyworm, or Armyworm species.
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: <ul style="list-style-type: none"> 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	LPI.A038 can be tank mixed and applied with PRE herbicides.
Armyworm species Black Cutworm Seedcorn beetle Stalkborer Bean Leaf Beetle Larvae	PPI 4 - 5.3	PPI 0.047 - 0.062	LPI.A038 can be tank mixed and applied with PPI herbicides. Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches.

Seed corn Maggot White Grub Wireworm Seedcorn Maggot			Incorporate at depth close to the intended seed planting depth.
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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	
Foliar Restrictions:			
<ul style="list-style-type: none"> Do not make applications less than 30 days apart Do not apply within 18 days of harvest.			

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.
At Plant Restrictions:				
<ul style="list-style-type: none"> Do not apply more than 0.1 lb ai/A per season as an at-plant application 				

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 LPI.A038 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. Do not apply within 40 days of harvest. For control of fire ants apply LPI.A038 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	
<p>Foliar Restrictions:</p> <ul style="list-style-type: none"> Do not make applications less than 7 days apart Do not apply within 40 days of harvest. 			

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.

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 Grape colaspis Grubs Root maggot True armyworm Wireworm (PPI only)	PRE 6.8 – 8.5	PRE 0.08 – 0.1	LPI.A038 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	LPI.A038 can be tank mixed and applied with PPI herbicides. Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth 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.
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	2.8 – 8.5	0.033 - 0.1	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.

Thrips Webworms Western Bean Cutworm Whitefly			
Banks Grass Mite Carmine Mite Lygus species Twospotted spider mite	6.8 – 8.5	0.08 to 0.1	
Foliar Restrictions:			
<ul style="list-style-type: none"> Do not apply within 3 days of harvest. Do not make applications less than 3 days apart 			

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 **LPI.A038** 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	<p>Pre-transplant soil applications: Use of suitable equipment to incorporate into top 4” of the soil is required to control below ground pests.</p> <p>At-transplant water treatment application: Apply 0.0625 to 0.1 pound ai/A in a water treatment application volume of 10 to 200 gal/A.</p> <p>May be tank mixed with Command, Spartan or Aquesta™ 4 F, and other herbicides approved for tobacco use.</p>
Pre-Transplant & At-Transplant Restrictions:				
<ul style="list-style-type: none"> 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	3.4 – 8.5	0.04 – 0.1	<p>Apply 0.04 to 0.10 lb ai/A per foliar application up to, and including, layby in a minimum of 10 gal/A.</p> <p>May be tank mixed with Command, Spartan or Aquesta™ 4 F, and other herbicides approved for tobacco use.</p> <p>*See resistance statement under “Directions for Use” section.</p>

Tarnished plant bugs			
Hornworm Tobacco Budworm	6.8 – 8.5	0.08 – 0.1	
Spider mites Lygus spp.	8.5	0.1	
Foliar Restrictions:			
<ul style="list-style-type: none"> 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 **LPI.A038** 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:				
<ul style="list-style-type: none"> 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	PRE 0.08	LPI.A038 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 3.4 – 6.8	PPI 0.04 – 0.08	LPI.A038 can be tank mixed and applied with PPI herbicides. Incorporate LPI.A038 no deeper than the intended planting depth and no deeper than 3 inches. Incorporate at depth 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 Carmine Mite Cloverworm Corn earworm Corn Rootworm Cucumber Beetles Cutworms Diamondback Moth European Corn Borer Flea Beetles Flea Hopper Grasshopper Japanese Beetle (Adult) Leafhoppers Loopers Lygus 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: <ul style="list-style-type: none"> • 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 **LPI.A038** 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:			
<ul style="list-style-type: none"> 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 **LPI.A038** 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	LPI.A038 insecticide 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 LPI.A038 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.
At Plant Restrictions:			
<ul style="list-style-type: none"> Do not apply more than 0.3 lb ai/A per season as an at-plant application. 			

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	LPI.A038 insecticide 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 LPI.A038 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 LPI.A038 to the transplant area and incorporate to planting depth. Apply LPI.A038 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. LPI.A038 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:			
<ul style="list-style-type: none"> • 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 **LPI.A038** 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). INTERIORSCAPES AND PLANTSCAPES, LAWNS, TREES AND SHRUBS, AND ON GOLF COURSES **DO NOT** FALL WITHIN THE SCOPE OF WORKER PROTECTION STANDARD FOR AGRICULTURAL PESTICIDES (40 CFR PART 170).

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

LPI.A038 mixes with water and other aqueous carriers to control listed insects and mites on trees, shrubs, foliage plants, non-bearing fruit and nut trees, and flowers in interiorscapes: hotels, shopping malls, office buildings, and outdoor plantscapes: nurseries, residential dwellings, parks, institutional buildings, recreational areas, athletic fields, golf courses, and home lawns. Non-bearing crops are perennial crops that will not produce a harvestable raw agricultural commodity within 365 days of application.

LPI.A038 may be tank-mixed with other products, including insect growth regulators. When tank mixing **LPI.A038** 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 **LPI.A038** may vary with

different sources of pesticide products, and local cultural practices. Prepare any tank mixture which has not been previously tested 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.

All outdoor spray applications must be limited to spot or crack-and-crevice treatments only, except for the following permitted uses:

1. Application to pervious surfaces such as soil, lawn, turf, and other vegetation;
2. Perimeter band treatments of 7 feet wide or less from the base of a man-made structure to pervious surfaces (e.g., soil, mulch, or lawn);
3. Applications to vertical surfaces (such as the side of a man-made structure) directly above impervious surfaces (e.g., driveways, sidewalks, etc.), up to 2 feet above ground level;
4. Applications to vertical surfaces directly above pervious surfaces, such as soil, lawn, turf, mulch or other vegetation) only if the pervious surface does not drain into ditches, storm drains, gutters, or surface waters.

Spot treatments must not exceed two square feet in size (for example, 2 ft. by 1 ft. or 4 ft. by 0.5 ft.).

PRODUCT RESTRICTIONS

- DO NOT Apply More than 0.23 lb ai/Acre of **LPI.A038** for Lawns or Trees.
- For soil or foliar applications, do not apply by ground within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.
- Do not apply the product into fish pools, ponds, streams, or lakes. Do not apply directly to sewers or storm drains, or to any area like a drain or gutter where drainage to sewers, storm drains, water bodies, or aquatic habitat can occur.
- Do not allow the product to enter any drain during or after application.
- Do not apply directly to impervious horizontal surfaces such as sidewalks, driveways, and patios.
- Do not apply or irrigate to the point of runoff.
- Do not make applications during rain. Avoid making applications when rainfall is expected before the product has sufficient time to dry (minimum 4 hours).
- Rainfall within 24 hours after application may cause unintended runoff of pesticide application.

- Do not apply when the wind speed is greater than 15 mph.
- For outdoor applications to commercial nurseries:
 - Do not apply when the wind speed is greater than 15 mph.
 - Applicators are required to select the nozzle and pressure that deliver a medium or coarser droplet size (ASABE S572).
 - For soil or foliar applications, do not apply by ground equipment within 25 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries and commercial fish farm ponds.

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
Dandroctonus bark beetles 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. 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.
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.	
Other bark beetles 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.

<p>Clearwing moth borers such as ash borer, banded ash clearwing, dogwood borer, lesser peachtree borer, lilac borer, oak borer, peachtree borer, rhododendron borer</p> <p>Coleopteran borers such as bronze birch borer, flatheaded apple tree borer</p>	<p>8.6 – 17.2 fl. oz. per 100 gallons (0.1 – 0.2 lb. AI per 100 gallons)</p>	<p>Use 1-4 gallons of finished spray per tree.</p>	<p>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.</p>
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Treatment of Infested Trees to Control Emerging Brood

Make applications of a spray mixture containing 2.0 pints of **LPI.A038** 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

(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. **LPI.A038** per 1,000 sq. ft. or 2.4 to 19.4 fl. oz. per 100 gallons. **LPI.A038** 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. **LPI.A038** 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 LPI.A038 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 is 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.

LPI.A038 ORNAMENTAL DILUTION CHART							
Application Rate	Fluid Ounces (mL) of LPI.A038 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

$$\frac{(17.15)(\text{Fl. Oz. of LPI.A038 added to tank})}{(\text{gallons of finished spray mix})(128)} = \text{Percent Active Ingredient of Spray Mix}$$

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. Use the higher labeled application rates when maximum residual control is desired.

PEST	RATES	USE INSTRUCTIONS
Bagworms ¹ 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)	¹ Bagworms: For best results, apply when larvae begin to hatch and spray larvae directly. Applications when larvae are young will be most effective.
Adelgids Ants (Excluding fire, carpenter, harvester, and pharaoh ants) Aphids Bees Beet Armyworm Beetles	0.12 – 0.20 fl. oz. per 1,000 sq. ft. (3.6 – 7.2 fl. oz. per 100 gallons)	² Beetles, Scale Crawlers, Twig Borers, and Weevils: May treat trunks, stems and twigs in addition to plant foliage. ³ Spider Mites: LPI.A038 provides optimal two

PEST	RATES	USE INSTRUCTIONS
Black Vine Weevil (Adults) Scales, such as Brown Soft Scales California Red Scale (Crawlers) ² Elongated Hemlock Scale Pine Needle Scales (crawlers) ² San Jose Scales (Crawlers) ² 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 <i>Lygus</i> spp.) Psyllids+ Spider Mites ³ Spittlebugs Thrips Tip Moths Treehoppers Twig Borers ² Weevils ² such as White Pine Weevil Pales Weevil Diaprepes adults Orchid Weevil White flies Zimmerman pine moths		spotted spider mite control when applied during spring to mid-summer. Higher labeled application rates and/or more frequent treatments may be required for acceptable two spotted 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, LPI.A038 applications may be rotated with those of other products that have different modes of action in control programs that <i>are</i> designed to manage resistance by two spotted 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 ³	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

BEFORE BUYING OR USING THIS PRODUCT, read the entire Directions for Use and the following Conditions of Sale and Limitation of Warranty and Liability. By buying or using this product, the buyer or user accepts the following Conditions of Sale and Limitation of Warranty and Liability, which no employee or agent of LOVELAND PRODUCTS, INC. or the seller is authorized to vary in any way.

Follow the Directions for Use of this product carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop or other plant injury, ineffectiveness, or other unintended consequences may result from such risks as weather or crop conditions, mixture with other chemicals not specifically identified in this product's label, or use of this product contrary to the label instructions, all of which are beyond the control of LOVELAND PRODUCTS, INC. and the seller. The buyer or user of this product assumes all such inherent risks.

Subject to the foregoing inherent risks, LOVELAND PRODUCTS, INC. 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 when the product is used in strict accordance with such Directions for Use under normal conditions of use. EXCEPT AS WARRANTED IN THIS LABEL AND TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THIS PRODUCT IS SOLD "AS IS," AND LOVELAND PRODUCTS, INC. MAKES NO OTHER WARRANTY, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ELIGIBILITY OF THIS PRODUCT FOR ANY PARTICULAR TRADE USAGE.

IN THE UNLIKELY EVENT THAT BUYER OR USER BELIEVES THAT LOVELAND PRODUCTS, INC. HAS BREACHED A WARRANTY CONTAINED IN THIS LABEL AND TO THE EXTENT REQUIRED BY APPLICABLE LAW, BUYER OR USER MUST SEND WRITTEN NOTICE OF ITS CLAIM TO THE FOLLOWING ADDRESS: LOVELAND PRODUCTS, INC., ATTENTION: LAW DEPARTMENT, P.O. BOX 1286, GREELEY, CO 80632-1286.

TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE BUYER'S OR USER'S EXCLUSIVE REMEDY FOR ANY

INJURY, LOSS, OR DAMAGE RESULTING FROM THE HANDLING OR USE OF THIS PRODUCT, INCLUDING BUT NOT LIMITED TO CLAIMS OF BREACH OF WARRANTY OR CONTRACT, NEGLIGENCE, STRICT LIABILITY, OR OTHER TORTS, SHALL BE LIMITED TO ONE OF THE FOLLOWING, AT THE ELECTION OF LOVELAND PRODUCTS, INC. OR THE SELLER: DIRECT DAMAGES NOT EXCEEDING THE PURCHASE PRICE OF THE PRODUCT OR REPLACEMENT OF THE PRODUCT. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, LOVELAND PRODUCTS, INC. AND THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR USER OF THIS PRODUCT FOR ANY CONSEQUENTIAL, SPECIAL, OR INDIRECT DAMAGES, OR DAMAGES IN THE NATURE OF A PENALTY.

[LPI.A038] is a registered trademark of Loveland Products, Inc.
Battalion 2 EC, Serpent 1 EC, and Aquesta 4 F are trademarks of Atticus, LLC

[Capture LFR] Mustang, Brigade, Declare, Ammo are registered trademarks of FMC Corporation or an affiliate.
Ambush and Discipline are registered trademarks of AMVAC Chemical Corporation.
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Fanfare® is a registered trademark of Makhteshim Agair Group Company
Karate® is a registered trademark of Syngenta

{LANGUAGE ON LABEL AFFIXED TO CONTAINER}

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.

BIFENTHRIN GROUP 3A INSECTICIDE

LPI.A038™

[Contains bifenthrin, the active ingredient used in Capture® LFR.]

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

ACTIVE INGREDIENT:	(% by weight)
Bifenthrin*.....	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

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand the label, find someone to explain it to you in detail.)

FIRST AID	
If swallowed:	<ul style="list-style-type: none"> ● Call a poison control center or doctor immediately for treatment advice. ● Have person sip a glass of water if able to swallow. ● Do not induce vomiting unless told to do so by the poison control center or doctor. ● Do not give anything by mouth to an unconscious person.
If in eyes:	<ul style="list-style-type: none"> ● 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.
HOT LINE 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 Rocky Mountain Poison and Drug Safety at 1-866-944-8565 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 if bees are visiting the treatment area. **Protect pollinating insects by following label directions intended to minimize drift and to reduce risk to these organisms.** The use of bifenthrin is prohibited in areas that may result in exposure of endangered species to bifenthrin. Prior to use in a particular county contact the local extension service for procedures and precautions to use to protect endangered species.

NON-TARGET ORGANISM ADVISORY STATEMENT

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

PHYSICAL OR CHEMICAL HAZARDS

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

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.]

See inside label booklet for additional Precautionary Statements and Directions for Use.

[LPI.A038™] is not manufactured, or distributed by [FMC Corporation], seller of [Capture® LFR].

EPA Reg. No. 34704-1188

EPA Est. No.

Net Weight:

[EPA APPROVAL DATE]

MANUFACTURED FOR:

LOVELAND PRODUCTS, INC.

P.O. BOX 1286

GREELEY, COLORADO 80632-1286 USA