87276-5 (2/12/2014 (1/49

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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

FEB 12 2014

Envincio LLC
c/o Leanne Pruett
Pyxis Regulatory Consulting, Inc.
4110 136th St. NW
Gig Harbor, WA 98332

Subject: Amended label adding pollinator protection language
Products: Equil Imi 4F Insecticide
EPA Reg. No. 87276-5

Dear Ms. Pruett:

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

Under 40 CFR 152.130(d), EPA may establish dates by which all product distributed or sold by the registrant must bear revised labeling. The following paragraphs set forth the schedule for ensuring that that your product bears revised labeling within a reasonable time period.

- Any product released for shipment after 2/28/14 must bear the new label.

If these conditions are not complied with, EPA will take appropriate action against this registration. If you have any questions please contact Autumn Metzger at 703-504-5314 or metzger.autumn@epa.gov.

Regards,

Venus Eagle

Venus Eagle, Product Manager (01)
Insecticide-Rodenticide Branch
Registration Division (7505P)

2/49

Equil Imi 4 F Insecticide

GROUP	4	INSECTICIDE

Contains imidacloprid, the active ingredient used in Credo®.

ACTIVE INGREDIENT	% BY WT.
Imidacloprid; 1-[(6-Chloro-3-pyridinyl)methyl]-*N*-nitro-2-imidazolidinimine	42.3%
OTHER INGREDIENTS:	57.7%
TOTAL	100.0%

Contains 4 lbs. of active ingredient per gallon

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
IF SWALLOWED:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by a poison control center or doctor. • Do not give anything by mouth to an unconscious person.
IF ON SKIN OR CLOTHING:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
IF INHALED:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. • Call a poison control center or doctor for further treatment advice.
IF IN EYES:	• Hold eye open and rinse slowly and gently with water for 15 to 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 central center or doctor, or going for treatment. You may also contact 1-866-257-4118 for emergency medical treatment information.	
NOTE TO PHYSICIAN: No specific antidote is available. Treat the patient symptomatically.	

See inside label booklet for additional PRECAUTIONARY STATEMENTS.
For Chemical Spill, Leak, Fire, or Exposure, Call: CHEMTREC 1-800-424-9300
For Medical Emergencies Only, Call: 866-257-4118

EPA Reg. No. 87276-5

EPA Est. No.

Manufactured for:
Envincio LLC
200 Cascade Pointe Lane, Suite 101
Cary, NC 27513

Equil Imi 4 F Insecticide is not manufactured or distributed by Bayer Healthcare, LLC.

Net Contents:_____ [fl. oz.][gal.]

ACCEPTED
FEB 12 2014
Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under:

EPA Reg. No: 87276-5

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if swallowed, absorbed through skin, or inhaled. Avoid breathing vapor or spray mist. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Applicators and other handlers must wear:

Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for Category C on an EPA chemical-resistance category selection chart.

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC), or Viton
- Shoes plus socks

Follow manufacturer's instructions for cleaning/maintaining personal protective equipment, PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENT

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

USER SAFETY RECOMMENDATIONS

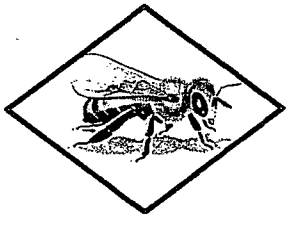
Users should:

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

ENVIRONMENTAL HAZARDS

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 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 foraging the treatment area. This product is toxic to wildlife and highly toxic to aquatic invertebrates.



PROTECTION OF POLLINATORS

APPLICATION RESTRICTIONS EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOW APPLICATION RESTRICTIONS FOUND IN THE DIRECTIONS FOR USE TO PROTECT POLLINATORS.

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

This product can kill bees and other insect pollinators.

Bees and other insect pollinators will forage on plants when they flower, shed pollen, or produce nectar. Bees and other insect pollinators can be exposed to this pesticide from:

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

When Using This Product Take Steps To:

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

Information on protecting bees and other insect pollinators may be found at the Pesticide Environmental Stewardship website at:
http://pesticidestewardship.org/PollinatorProtection/Pages/default.aspx.
Pesticide incidents (for example, bee kills) should immediately be reported to the state/tribal lead agency. For contact information for your state, go to: www.aapco.org/officials.html. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov

This chemical demonstrates the properties and characteristics associated with chemicals detected in ground water. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

TAKE THE FOLLOWING PRECAUTIONS WHEN MIXING AND APPLYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES OR NATURAL PONDS, ESTUARIES, AND COMMERCIAL FISH FARM PONDS.

SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather-related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

Importance of Droplet Size

An important factor influencing drift is droplet size. Small droplets (<150-200 microns) drift to a greater extent than large droplets. Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that provides sufficient control and coverage. Formation of very small droplets may be minimized by appropriate nozzle selection.

Wind Speed Restrictions

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy, and equipment specifications determine drift potential at any given wind speed. Do not apply when winds are greater than 15 mph and avoid gusty and windless conditions. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Restrictions During Temperature Inversions

Do not make aerial or ground applications during temperature inversions. Drift potential is high during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however if fog is not present, inversions can also be identified by the movement of smoke from a ground source. 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 mixing.

No-Spray Zone Requirements for Soil and Foliar Applications

Do not apply by ground within 25 feet or by air within 150 feet of lakes, reservoirs, rivers, permanent streams, marshes or natural ponds, estuaries, and commercial fish farm ponds.

Runoff Management

Do not cultivate within 10 feet of the aquatic areas to allow growth of a vegetative filter strip. When using this product on erodible soils, employ the best management practice to minimize runoff. Consult your local Natural Resources Conservation Service for recommendations in your use area.

ENDANGERED SPECIES NOTICE

Under the Endangered Species Act, it is a federal offense to use any pesticide in a manner that results in the death of a member of an endangered species. Consult your local county bulletin, County Extension Agent, or Pesticide State Lead Agency for information concerning endangered species in your area.

RESISTANCE MANAGEMENT

Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product must conform to resistance management strategies established for the use area.

This product contains a Group 4A insecticide. Insect biotypes with acquired or inherent tolerance to Group 4A insecticides may eventually dominate the insect population if Group 4A insecticides are used repeatedly as the predominant method of control for targeted species. This may eventually result in partial or total loss of control of those species by this product and to other Group 4A insecticides.

The active ingredient in this product is a member of the neonicotinoid chemical class. Insect pests resistant to other chemical classes have not shown cross-resistance to this product. In order to maintain susceptibility to this class of chemistry in insect species with high resistance development potential, for each crop season: 1) only a single, soil application of this product be made; 2) foliar applications of products from the same class not be made following a long residual, soil application of this product, or other neonicotinoid products.

If a soil application of this product has not been made during a crop season and foliar applications are to be made, do not use a block of more than three consecutive applications of this product and/or other Group 4A products having the same or similar mode of action. Following a neonicotinoid block of treatments, Control Solutions, Inc. strongly encourages the rotation to a block of applications with effective products with a different mode of action before using additional applications of neonicotinoid products. Using a block rotation or windowed approach, along with other IPM practices, is considered an effective use strategy for preventing or delaying an insect's ability to develop resistance to this class of chemistry.

Foliar applications of this product or other Group 4A products from the neonicotinoid chemical class should not be used on crops previously treated with a long-residual, soil-applied products from the neonicotinoid chemical class.

Other Group 4A, neonicotinoid products used as foliar treatments include: Actara, Assail, Calypso, Centric, Clutch, Couraze, Galiant, Impulse, Intruder, Leverage, Nuprid, Pasada, Provado, Trimax Pro, and Venom.

Other Group 4A, neonicotinoid products used as soil/seed treatments include: Admire Pro, Advise, Alias, Belay, Couraze, Cruiser, Gaucho, Macho, Macho Max, Nuprid, Platinum, Venom, and Widow.

Contact your Cooperative Extension specialist, certified crop advisor, and/or product manufacturer for additional insect resistance management recommendations. Also, for more information on Insect Resistance Management (IRM), visit the Insecticide Resistance Action Committee (IRAC) on the web at http://www.irac-online.org/.

DIRECTIONS FOR USE

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

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

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

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

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

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

- The application is made to the target site after sunset
- The application is made to the target site when temperatures are below 55°F
- The application is made in accordance with a government-initiated public health response
- The application is made in accordance with an active state-administered apiary registry program where beekeepers are notified no less than 48-hours prior to the time of planned application so that the bees can be removed, covered or otherwise protected prior to spraying.
- The application is made due to an imminent threat of significant crop loss, and a documented determination consistent with an IPM plan or predetermined economic threshold is met. Every effort should be made to notify beekeepers no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.

NON-AGRICULTURAL USE SITES:

Do not apply Equil Imi 4F Insecticide while bees are foraging. Do not apply Equil Imi 4F Insecticide to plants that are flowering. Only apply after all flower petals have fallen off.

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

Do not enter or allow worker entry into treated areas during the restricted-entry interval (REI) of 12 hours. Exception: If the product is soil injected or soil incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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 made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC), or Viton
- 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 on farms, forests, nurseries, or greenhouses.

Keep people and pets off treated area until dry.

APPLICATION INSTRUCTIONS

This product is a flowable insecticide for the control and suppression of a variety of listed insect pests. Apply this product:

- As a foliar treatment to: cotton, soybeans, tobacco, leafy vegetables, fruiting vegetables, legume vegetables, root vegetables, tuberous and corm vegetables, strawberries, bushberries, bananas and plantains, pome fruits, citrus, grapes, stone fruits, tropical fruits, pomegranates, coffee, hops, Christmas trees, tree nuts and other listed crops
- As a soil treatment to: cotton, tobacco, cucurbit vegetables, greenhouse vegetables, head, stem and brassica vegetables, leafy vegetables, legume vegetables, root and tuberous vegetables,

strawberries, sugarbeets, bushberries, citrus, grapes, hops, pome fruit, stone fruit, tropical fruit, tree nuts, and other listed crops
- As a seed piece treatment for potatoes
- As a poultry housing treatment against darkling and hide beetles

Do not apply more than 0.5 lb. active ingredient per acre per year regardless of formulation or method of application, unless specified within a crop-specific application section.

MIXING INSTRUCTIONS

To prepare the application mixture, add a portion of the required amount of water to the spray tank and with agitation, add this product. Complete filling tank with balance of water needed. Maintain sufficient agitation during both mixing and application. When using this product with other pesticides and/or fertilizer solutions, please see "Compatibility" section of this label. When tank mixtures of this product and other pesticides are involved, prepare the tank mixture as specified above and follow suggested "Mixing Order" below.

Mixing Order

When pesticide mixtures are needed, add wettable powders or wettable granules first, this product and other suspension concentrate (flowable) products second, and emulsifiable concentrates last. Ensure good agitation as each component is added. Do not add an additional component until the previous is thoroughly mixed. If a fertilizer solution is added, add also a fertilizer/pesticide compatibility agent, if needed. Maintain constant agitation during both mixing and application to ensure uniformity of spray mixture.

Compatibility

Test compatibility of the intended mixture before adding this product to the spray or mix tank. Add proportionate amounts of each ingredient in the appropriate order to a pint or quart jar, cap, shake for 5 minutes, and let set for 5 minutes. Do not use mixture if poor mixing occurs or precipitates form that do not readily redisperse.

CHEMIGATION

Types of Irrigation Systems: Make chemigation applications of this product to crops through chemigation systems if specified in crop-specific application sections. Only make applications of this product to crops through low-pressure systems. Do not apply this product through any other type of irrigation system.

Uniform Water Distribution and System Calibration: The irrigation system must provide uniform distribution of treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, contact Cooperative Extension Service specialists, equipment manufacturers, or other experts.

Chemigation Monitoring: 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.

Drift: Do not apply when wind speed favors drift beyond the area intended for treatment.

Required System Safety Devices: 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 distribution is adversely affected. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Using Water from Public Water Systems: Public water systems means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Chemigation systems connected to public water systems must contain a functional reduced-pressure zone, back flow preventer (RPZ), or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the outlet end of the fill pipe and to top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe. The pesticide injection pipeline must contain a functional automatic quick-closing check valve to prevent the flow of fluid back toward the injection. The pesticide injection pipeline must 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 or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

ROTATIONAL CROPS*

Re-plant treated areas with any crop specified on an imidacloprid label, or any crop for which a tolerance exists for the active ingredient, as soon as practical following the last application. For crops not listed on an imidacloprid label, or for crops for which no tolerances for the active ingredient have been established, a 12-month plant-back interval must be observed.
IMMEDIATE PLANT-BACK: All crops on this label plus the following crops not on this label: barley, canola, corn (field, pop, and sweet), rapeseed, sorghum, sugarbeet, and wheat
30-DAY PLANT-BACK: Cereals (including buckwheat, millet, oats, rice, rye, and triticale), soybeans, and safflower
10-MONTH PLANT-BACK Onion and bulb vegetables
12-MONTH PLANT-BACK: All Other Crops
* Plant cover crops for soil building or erosion control any time, but do not graze or harvest for food or feed.

FOLIAR APPLICATION

Apply this product with properly calibrated ground or aerial application equipment. Minimum specified spray volumes are 10 gallons per acre by ground application and 5 gallons per acre through aerial equipment. As pest pressure develops, apply the appropriate rate as a broadcast or directed spray to the target pest. For best control, ensure thorough coverage of entire plant. Retreat if needed. Use lower rates early in the season when pest pressure is low or when tank-mixing with other insect control products. The level of control or suppression is determined by the stage of pest development and infestation level at the time of application. This product is most effective against insects in the early instar and early nymphal stages, as well as bollworm/budworm eggs. If coverage is not thorough, activity and control will be diminished. To ensure faster activity and optimum overall control, apply at the higher listed rate within the rate range. To enhance coverage, use an organosilicone-based spray additive.

RESTRICTION:
Regardless of formulation or method of application, apply not more than 0.5 lb. of active ingredient per acre per year, including seed treatment, soil and foliar uses, unless specified within a crop-specific section for a given crop.

FIELD CROPS – FOLIAR APPLICATION

COTTON

Pests Controlled	Rate: Fluid ounces per acre
Cotton aphid, cotton fleahopper, bandedwinged whitefly, plant bugs (excludes *Lygus hesperus*), green stink bug, Southern green stink bug, bollworm/budworm (ovicidal effect)	0.9 – 1.8
Pests Suppressed	
Lygus bug (*Lygus hesperus*), whiteflies (other than bandedwinged whitefly)	1.35 – 1.8

Restrictions:
- Pre-Harvest Interval (PHI): 14 days
- Minimum interval between applications: 7 days
- Maximum amount of this product allowed per year: 8.9 fluid ounces/Acre (0.31 lb AI/Acre)
- Do not graze treated fields after application of this product

Applications:
Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

Tank Mix Instructions		
Pests Controlled (In Addition to Pests Listed Above)	**Rate of this product fluid ounces per acre**	**Bidrin® 8 Rate fluid ounces per acre**
Early Season Control: Thrips	0.9 – 1.35	1.6 – 3.2

Mid to Late Season Control: Plant bugs, stink bugs (including brown stink bug), grasshoppers, saltmarsh caterpillar, cotton leafperforator	0.9 – 1.35	4.0 – 8.0

Restrictions:

- Refer to the Bidrin® 8 product label for specific use instructions; observe all restrictions and precautions that appear on the label.

POTATO

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Colorado potato beetle, flea beetles, leafhoppers, potato psyllid	1.52

Restrictions:

- Pre-harvest interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Do not apply more than 6.4 fluid ounces of product or 0.2 lb ai of any imidacloprid product per acre per year .

Applications:

Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

SOYBEAN

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Bean leaf beetle, Cucumber beetles/Rootworm adults, Japanese beetle (adults), Leafhoppers, Whiteflies	1.35

Restrictions:

- Pre-Harvest Interval (PHI): 21 days
- Minimum interval between applications: 7 days
- Maximum amount of this product allowed per year: 4.05 fluid ounces per acre or 0.14 lb ai per acre

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

TOBACCO

Pests Controlled	Rate: Fluid ounces per acre
Aphids	0.8 - 1.6
Flea beetles, Japanese beetles	1.6

Restrictions:
- Pre-Harvest Interval (PHI): 14 days
- Minimum interval between applications: 7 days
- Maximum foliar-applied product allowed per year: 8.9 fluid ounces of product per acre or 0.28 lb ai per acre of any imidacloprid product.

Applications:
Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

VEGETABLE AND SMALL FRUIT CROPS – FOLIAR APPLICATION

BRASSICA (COLE) LEAFY VEGETABLES

Crops of Group 5 includes broccoli, broccoli raab (rapini), Brussels sprouts, cabbage, cauliflower, cavalo broccolo, Chinese broccoli (gai lon), Chinese cabbage (bok choy and napa), Chinese mustard (gai choy), collards, kale, kohlrabi, mizuna, mustard greens, mustard spinach, rape greens, turnip tops (leaves)

Pests Controlled	Rate: Fluid ounces per acre
Aphids, flea beetles, leafhoppers, whiteflies	1.5

Restrictions:
- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum foliar-applied product allowed per crop season: 7.68 fluid ounces of this product per acre or 0.24 lb ai per acre of any imidacloprid product
- Do not use on crops grown for seed.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

FRUITING VEGETABLES

Crop Group 8, plus Okra, includes: eggplant, ground cherry, okra, pepinos, peppers (bell, chili, cooking, pimento, and sweet), tomatoes, tomatillos

Pests Controlled	Rate: Fluid ounces per acre
Aphids, flea beetles, leafhoppers, whiteflies	1.5 to 2.4
Pepper weevil	2.4

Restrictions:

- Pre-Harvest Interval (PHI): 0 days
- Minimum interval between applications: 5 days
- Maximum foliar-applied product allowed per crop season: 7.6 fluid ounces of product per acre or 0.24 lb ai per acre of any imidacloprid product
- Do not use on crops grown for seed.

Applications:
Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

Use the higher listed rates within the rate range for adult whitefly.

For pepper weevil, apply only with ground equipment, before a damaging insect population becomes established. Use this product in a full-season program that includes use of different classes of chemistry and modes of action in a blocked or windowed approach. Consult an extension specialist or crop advisor for further detail.

GLOBE ARTICHOKES

Pests Controlled	Rate: Fluid ounces per acre
Aphids, leafhoppers	1.6 – 4.0

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 14 days
- Maximum foliar-applied product allowed per year: 16.0 fluid ounces of this product per acre or 0.5 lb ai per acre of any imidacloprid product
- Do not use on crops grown for seed.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

HERBS

Crops of Subgroup 19A includes angelica, lemon balm, basil (fresh and dried), borage, bumet, chamomile, catnip, chervil (dried), Chinese chives, chives, clary, coriander (cilantro or chinese parsley leaves), costmary, cilantro (leaf), curry (leaf), dillweed, horehound, hyssop, lavender, lemongrass, lovage, marigold, marjoram, nasturtium, parsley (dried), pennyroyal, rosemary, rue, sage, savory (summer and winter), sweet bay leaf, tansy, tarragon, thyme, wintergreen, woodruff, wormwood

Pests Controlled	Rate: Fluid ounces per acre
Aphids, flea beetles, leafhoppers, whiteflies	1.4

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum foliar-applied product allowed per crop season: 4.2 fluid ounces of this product per acre or 0.13 lb ai per acre of any imidacloprid product
- **Not registered for this use in California.**

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of an organosilicone spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

Not all crops or varieties listed above have been tested for phytotoxicity. Treat and evaluate only a small number of plants before making broad scale applications.

LEAFY GREEN VEGETABLES

Crop Subgroup 4A includes: amaranth (leafy amaranth, Chinese spinach), arugula (roquette), chervil, chrysanthemum (edible leaved and garland), cilantro, corn salad, cress (garden, winter, upland, yellow rocket), dandelion, dock (sorrel), endive (escarole), lettuce (head and leaf), orach, parsley, purslane (green (garden) and winter), radicchio (red chicory), spinach (including New Zealand and vine (Malabar, Indian)), watercress (upland), watercress (commercial production only - do not apply to native watercress in streams or other bodies of water)

Pests Controlled	Rate: Fluid ounces per acre
Aphids, flea beetles, leafhoppers, whiteflies	1.5

Restrictions:
- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum foliar-applied product allowed per crop season: 7.6 fluid ounces of this product per acre or 0.24 lb ai per acre of any imidacloprid product
- Do not use on crops grown for seed.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

Use the higher listed rates within the rate range for adult whitefly.

For applications made to watercress, production fields must be drained of water at least 24 hours prior to application, and water must not be reapplied to the field for a minimum of 24 hrs following the application. Apply only to fully leafed-up canopies.

LEGUME VEGETABLES (See separate instructions for soybeans)
Crops of Group 6 includes edible podded and succulent shelled peas and beans and dried shelled peas and beans; *Lupinus* spp. including grain lupin, sweet lupin, white lupin, sweet white lupin; *Phaseolus* spp. including field beans, kidney beans, lima beans, navy beans, pinto beans, runner beans, snap beans, tepary beans, wax beans; *Vigna* spp. including adzuki beans, asparagus beans, black-eyed peas, catjang, Chinese longbeans, cowpeas, Crowder peas, mothbeans, mungbeans, rice beans, Southern peas, urd beans, and yardlong beans; peas (Pisum) including dwarf peas, edible pod peas, English peas, field peas, garden peas, snow peas, sugar snap peas; broadbeans (fava); chickpeas (garbanzo beans); guar; jackbean; lablab (hyacinth) beans; lentils; pigeon peas; immature seed soybeans; sword beans

Pests Controlled	Rate: Fluid ounces per acre
Aphids, leafhoppers, thrips, whiteflies	1.4

Restrictions:
- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Maximum foliar-applied product allowed per crop season: 4.2 fluid ounces of this product per acre or 0.13 lb ai per acre of any imidacloprid product.
- Do not use on crops grown for seed.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

ROOT VEGETABLES

Crops of subgroup 1B except sugarbeets, includes garden beets, edible burdock, carrots, celeriac, chervil (turnip rooted), chicory, ginseng, horseradish, parsley (turnip rooted), parsnips, oriental radish (daikon), rutabaga, salsify (oyster plant), black salsify, Spanish salsify, skirret, turnips

Pests Controlled	Rate: Fluid ounces per acre
Aphids, flea beetles, leafhoppers, whiteflies	1.4

Restrictions:

- **Not registered for this use in California**
- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum foliar-applied product allowed per crop season: On radish - 1.4 fluid ounces of this product per acre or 0.044 lb ai per acre of any imidacloprid product; on other crops, 4.2 fl. oz of this product or 0.13 lb ai of any imidacloprid product per acre.
- Maximum number of applications of this or other imidacloprid products per season: 1 for radish, 3 for other crops
- Do not use on crops grown for seed.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

Tops or greens may be utilized for food or feed.

TUBEROUS AND CORM VEGETABLES

Crops of subgroup 1C includes arracacha, arrowroot, artichoke (Chinese and Jerusalem), canna (edible, Queensland, arrowroot), cassava (bitter and sweet), chayote root, chufa, dasheen (taro), ginger, leren, sweet potato, tanier, yam bean (jaicama, manioc pea), true yams

Pests Controlled	Rate: Fluid ounces per acre
Aphids, flea beetles, leafhoppers, whiteflies	1.4

Restrictions:

- **Not registered for this use in California**
- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum foliar-applied product allowed per crop season: 4.2 fluid ounces of this product or 0.13 lb ai of any imidacloprid product per acre
- Maximum number of applications of this or other imidacloprid products per season: 3
- Do not use on crops grown for seed.

Applications:
Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

Tops or greens may be utilized for food or feed.

STRAWBERRIES

Pests Controlled	Rate: Fluid ounces per acre
Aphids, spittlebugs, whiteflies	1.5

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 5 days
- Maximum foliar-applied product allowed per acre per crop season: 4.5 fluid ounces of this product or 0.14 lb ai of any imidacloprid product.

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

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

TREE, BUSH AND VINE CROPS – FOLIAR APPLICATION

BANANAS AND PLANTAINS

Pests Controlled	Rate: Fluid ounces per acre
Aphids, leafhoppers, thrips	3.2

Restrictions:

- Not registered for this use in California
- Pre-Harvest Interval (PHI): 0 days
- Minimum interval between applications: 14 days
- Maximum foliar-applied product allowed per year: 16 fluid ounces per acre or 0.5 lb ai per acre of any imidacloprid product.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of an organosilicone spray adjuvant as directed on the adjuvant label may improve coverage. Do not exceed 2.0 fl ounces of adjuvant per 100 gallons of spray dilution. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects. Aerial application may result in slower activity and reduced control relative to application using ground equipment.

BUSHBERRY

Crops of Subgroup 13B includes blueberries, currants, elderberries, gooseberries, huckleberries, Juneberries, lingonberries, salal

Pests Controlled	Rate: Fluid ounces per acre
Aphids, leafhoppers, sharpshooters	1.2 - 1.6
Blueberry maggots, Japanese beetle adults, thrips (foliage feeding only)	2.4 - 3.2

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Maximum foliar-applied product allowed per year: 16 fluid ounces of this product per acre or 0.5 lb ai per acre of any imidacloprid product.
- Maximum number of foliar applications per year: 5
- Minimum application volume: 20 gallons per acre by ground, 5 gallons per acre by air.

• Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

CITRUS

Crops of Group 10 includes: calamondin, citrus citron, citrus hybrids (chironja, tangelo, tangor), grapefruit, kumquat, lemon, lime, Mandarin, Tangerine, pummelo, orange (sweet and sour) Satsuma mandarin, tangelo and other cultivars of these

Pests Controlled	Rate: Fluid ounces per acre
Aphids, leafhoppers/sharpshooters, Asian citrus psyllid, blackfly, leafminers, mealybugs, scales, whiteflies	4.0 - 8.0
Pests Suppressed	
Thrips (foliage feeding only)	4.0 - 8.0

Restrictions:

- Pre-Harvest Interval (PHI): 0 days
- Minimum interval between applications: 10 days
- Maximum foliar-applied product allowed per year: 16 fluid ounces of this product per acre or 0.5 lb ai per acre of any imidacloprid product

• Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Rates are based on fully-grown mature trees. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.
Aerial application may result in slower activity and reduced control relative to application using ground equipment.

COFFEE

Pests Controlled	Rate: Fluid ounces per acre
Aphids, leafhoppers, whiteflies	3.2
Pests Suppressed	
Scales	3.2

Restrictions:

- **Not registered for this use in California.**
- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Maximum foliar-applied product allowed per year: 16 fluid ounces of this product per acre or 0.5 lb ai per acre of any imidacloprid product.

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Rates are based on fully-grown mature trees. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

Aerial application may result in slower activity and reduced control relative to application using ground equipment.

GRAPES

Includes: American bunch grapes, muscadine and vinifera varieties

Pests Controlled	Rate: Fluid ounces per acre
Leafhoppers / sharpshooters, mealybugs	1.2 - 1.6
Grapeleaf skeletonizer	1.5 - 1.6

Restrictions:

- Pre-Harvest Interval (PHI): 0 days
- Minimum interval between applications: 14 days
- Maximum foliar-applied product allowed per year: 3.2 fluid ounces of this product per acre or 0.1 lb ai per acre of any imidacloprid product.
- Ground application only

Applications: Rate is based on mature vines. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

HOPS

Pests Controlled	Rate: Fluid ounces per acre
Aphids	3.2

Restrictions:

- Pre-Harvest Interval (PHI): 28 days
- Minimum interval between applications: 21 days
- Maximum foliar-applied product allowed. per year: 9.6 fluid ounces of this product per acre or 0.3 lb ai per acre of any imidacloprid product.

Applications: Rate is based on mature vines. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

Aerial application may result in slower activity and reduced control relative to application using ground equipment.

POME FRUITS

Crops of Group 11 includes apples, crabapples, loquat mayhaw, pears (including Oriental pears), quince

Pests Controlled	Rate: Fluid ounces per acre
Leafhoppers	1.6 - 3.2
Aphids (except wooly apple aphid), apple maggot, leafminers, San Jose scale	1.6 - 3.2
For Pears Only: mealybugs, pear psylla	8

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications -10 days
- Maximum foliar-applied product allowed per year: 16 fluid ounces of this product per acre or 0.5 lb. ai per acre of any imidacloprid product.

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Rate is based on mature trees. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. For use in control of apple maggot, use a labeled sticker. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

Aerial application may result in slower activity and reduced control relative to application using ground equipment.

POMEGRANATE

Pests Controlled	Rate: Fluid ounces per acre
Aphids, leafhoppers / sharpshooters, plant bugs, rose chafers, San Jose scale	1.6 - 3.2
Cherry fruit fly	2.4 - 3.2
Pests Suppressed	
Plum curculio, stink bugs	3.2

Restrictions:

- **Not registered for this use in California**
- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 7 days
- Maximum foliar-applied product allowed per year: 9.6 fluid ounces of this product per acre or 0.3 lb. ai per acre of any imidacloprid product

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Rates are based on fully-grown mature trees. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

Aerial application may result in slower activity and reduced control relative to application using ground equipment.

STONE FRUIT

Crops of Group 12 includes: apricots, cherries (sweet and tart), nectarines, peaches, plums (including Chickasaw, Damson, and Japanese), plumcots, prunes (fresh and dried)

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Green June beetle, Japanese beetles, leafhoppers / sharpshooters, plant bugs, rose chafer, San Jose scale	1.6 - 3.2
Cherry fruit fly	2.4 - 3.2
Pests Suppressed	
Plum curculio, stink bugs	3.2

Restrictions

Apricots, nectarines, peaches

- Pre-Harvest Interval (PHI): 0 days
- Minimum interval between applications: 7 days
- Maximum foliar-applied product allowed per year: 9.6 fluid ounces of this product per acre or 0.3 lb ai per acre of any imidacloprid product.
- Minimum water volume 50 gallons per acre by ground, 25 gallons per acre by air

- Do not apply pre-bloom or during bloom or when bees are foraging

Cherries, plums, plumcots, prunes

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 10 days
- Maximum foliar-applied product allowed per year: 16 fluid ounces of this product per acre or 0.5 lb ai per acre of any imidacloprid product.
- Minimum water volume 50 gallons per acre by ground, 25 gallons per acre by air

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Rates are based on fully-grown mature trees. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Apply in a water volume of at least 50 gallons per acre by ground or 25 gallons per acre by air. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

Aerial application may result in slower activity and reduced control relative to application using ground equipment.

TREE NUTS

Crops of Crop Group 14, except Almond includes: Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert, Hickory nut, Macadamia nut, Pecan, Pistachio, Walnut (black and English)

Pests Controlled	Rate: Fluid ounces per acre
Aphids (except black pecan aphid), leafhoppers/sharpshooters, *Phylloxera* spp. (leaf infestations), spittlebugs, whiteflies	1.4 – 2.8
Black pecan aphid, mealybugs, San Jose scale	3.2

Restrictions:

- **Not registered for this use in California.**
- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 6 days
- Maximum amount of this product allowed per year: 11.5 fluid ounces of this product per acre; 0.36 lb ai per acre of any imidacloprid product.
- Minimum application volume (water): 50 GPA – ground application, 25 GPA – aerial application

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Rates are based on fully-grown mature trees. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

Aerial application may result in slower activity and reduced control relative to application using ground equipment.

TROPICAL FRUIT

Includes acerola, atemoya[1], avocado, birida[1], black sapote, canistel, cherimoya[1], custard apple[1], feijoa, jabotica, guava, llama[1], longan, lychee, mamey sapote, mango, papaya, passionfruit, persimmon, pulasan, rambutan, sapodilla, soursop[1], Spanish lime, star apple, starfruit (carambola), sugar apple[1], wax jambu

(1) Not registered for this use in California

Pests Controlled	Rate: Fluid ounces per acre
Aphids, leafhoppers / sharpshooters, mealybugs, thrips (foliage feeding only), whiteflies	3.2
Pests Suppressed	
Scales	3.2

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Minimum interval between applications: 10 days
- Maximum foliar-applied product allowed per year: 16 fluid ounces of this product per acre or 0.5 lb ai per acre of any imidacloprid product

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Rates are based on fully-grown mature trees. Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

Aerial application may result in slower activity and reduced control relative to application using ground equipment.

OTHER CROPS – FOLIAR APPLICATION

CHRISTMAS TREES

Pests Controlled	Rate: Fluid ounces per acre
Aphids, adelgids, sawflies	1.6 - 3.2

Restrictions:

- Minimum interval between applications: 7 days
- Maximum foliar-applied product allowed per year: 16 fluid ounces of this product per acre or 0.5 lb ai per acre of any imidacloprid product.

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

For gall-forming adelgids, time applications to coincide with full bud-swell of the earliest bud-breaking trees. Treatment will be ineffective once galls are formed.

POPLAR *(Populus)* SPECIES GROWN FOR TIMBER (Includes cottonwood

Pest Controlled	Rate: Fluid ounces per acre
Aphids, leaf beetles	1.6 – 3.2

Restrictions:

- **Not registered for this use in California**
- Minimum interval between applications: 10 days.
- Maximum foliar-applied product allowed per year: 16 fluid ounces of this product per acre or 0.5 lb ai per acre of any imidacloprid product.

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Apply as a broadcast or directed foliar spray to infested areas as insect population begins to build. Thorough coverage is needed for good control. Use of a spray adjuvant as directed on the adjuvant label may improve coverage. This product alone may not provide knockdown for heavy or established populations. A second application may be required for adequate control, if indicated by scouting. Tank mixing with another insecticide labeled for this use may improve knockdown and control of additional insects.

SOIL APPLICATION

For soil applications of this product, direct product into the seed or root-zone of crop. Failure to place this product into root-zone may result in loss of control or delay in onset of activity. Apply this product with ground or chemigation application equipment.

Broadcast foliar application is only specified to seedling flats or trays, or where product is intended to be washed from foliage to soil prior to drying on foliage.

Optimum activity of this product results from application to the root-zone of plants to be protected. The earlier this product is available to a developing plant, the earlier the protection begins. This product is continuously taken into the roots over a long period of time, and the systemic nature of this product allows movement from roots though the xylem tissue to all vegetative parts of the plant. This results in extended residual activity of this product, the control of insects, and the prevention and/or reduction of virus transmission or symptom expression, and plant health benefits. The rate of this product applied affects the length of the plant protection period. Higher rates are specified when infestations occur later in crop development or where pest pressure is continuous. This product will generally not control insects infesting flowers, blooms, or fruit. Additional crop protection may be required for insects feeding in, or on these plant parts, and for insects not listed in the crop-specific, pests-controlled sections of this label. Additional, specific product application instructions are also provided in the crop-specific sections of this label.

Suppression or less than complete control of certain diseases and insect pests including reduced feeding may also result from an application of this product. Refer to the following crop use tables for specific pests controlled or suppressed. Residual control of these pests/diseases may require supplemental control measures.

Restrictions:

- Do not use this product on crops grown for production of true seed intended for private or commercial planting unless allowed under state specific, 24(c) labeling.
- Do not apply more than 0.5 lb. active ingredient per acre per year regardless of formulation or method of application, unless specified within a crop-specific section for a given crop.

FIELD CROPS – SOIL APPLICATION

COTTON

Pests Controlled	Rate: Fluid ounces per 1000 row-feet	Rate: Fluid ounces per acre
Cotton aphid, Plant bugs, Thrips, Whiteflies	0.65	8.5 –10.55 (depending on row-spacing)

Restrictions:

- Maximum amount of this product allowed per year when making soil applications: 10.55 fluid ounces/Acre (0.33 lb AI/Acre).
- Maximum number of applications of this product per year is 6.
- Do not graze treated fields after any application of this product. See Resistance Management Section of this label.

Applications: Apply specified dosage in one of the following methods:

- In-furrow spray during planting directed on or below seed.
- In a narrow band directly below the eventual seed row in a bedding operation 7 or fewer days before planting.
- Chemigation into root-zone through low-pressure drip or trickle irrigation.

PEANUT

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers, Whiteflies	8.0 – 12.0
Pests Suppressed	
Thrips	8.0 – 12.0

Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Maximum amount of this product allowed per year: 12.0 fluid ounces/Acre (0.38 lb AI/Acre)

Applications: Apply specified dosage in one of the following methods:

- In-furrow spray during planting directed on or below seed.
- Chemigation into root zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment

Important Note

Increases in Tomato spotted wilt virus (TSWV) incidence have been observed with application of imidacloprid flowable products on multiple varieties of peanut. This may also be the case with other tospovirus, or other viruses transmitted by various thrips species or perhaps, other pests. Prior to application of this product to peanuts, consult with the State Cooperative Extension Service representative for recommendations. Growers are advised to weigh insect control benefits against potential increase in viral disease levels. In areas where TSWV or tospovirus are epidemic, growers are encouraged to use virus resistant varieties and consult the University of Georgia Tomato spotted wilt virus index before applying this product.

POTATO

Pests Controlled	Rate: Fluid ounces per 1000 row-feet	Rate: Fluid ounces per acre
Aphids, Colorado potato beetle, Flea beetles, Leafhoppers, Potato psyllid	0.45-0.65	6.5-10.0
Pests/Diseases Suppressed		
Symptoms of: Potato leaf roll virus (PLRV), Potato yellows, Net necrosis, Wireworms (with in-furrow spray at-planting	0.45-0.65	6.5-10.0

Restrictions:

- Maximum amount of this product allowed per year: 10.0 fluid ounces/Acre (0.31 lb AI/Acre)

Applications: Apply specified dosage in one of the following methods:

- In-furrow spray during planting directed on seed pieces or seed potatoes.
- Subsurface side-dress on both sides of the row covered with 3 or more inches of soil.
- Narrow band spray at ground cracking directly over the row during hilling covered with 3 or more inches of soil.
- Narrow band directly below the eventual seed row in a bedding operation 7 or fewer days before planting. For effective pest control or suppression, applications of this product must be placed below soil-surface and in contact with seed piece or within root-zone. For potatoes grown on highly permeable soils with shallow water table, make at-plant applications of this product in a 2 to 4 inch band (width of planter shoe opening) and completely covered.

TOBACCO

Pests Controlled	Rate: Fluid ounces per 1000 plants (as seedling tray drench)	Rate: Fluid ounces per 1000 plants (in-furrow or transplant-water)
Aphids, Flea beetles	0.5	0.7
Mole crickets, Whiteflies, Wireworms	0.7-1.4	0.9-1.4

Pests/Disease Suppressed		
Cutworms Symptoms of: Tomato spotted wilt virus (TSWV)	0.7-1.4	0.9-1.4

Restrictions:
- Pre-Harvest Interval (PHI): 14 days
- Maximum amount of this product allowed per year: 16.0 fluid ounces/Acre (0.5 lb. AI/Acre)

Applications: Apply specified dosage in one of the following methods:
- Uniform, broadcast foliar spray to seedlings in trays (tray drench) not more than 7 days prior to transplanting followed immediately by overhead irrigation to wash this product from foliage into potting media. Failure to wash this product from foliage may result in a reduction in pest control. Handle transplants carefully during setting to avoid dislodging treated potting media from roots.
- In-furrow spray or transplant-water drench during setting.
- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.

Important Note: Proper tray drench applications of this product have been shown to be the most efficacious method of application. However, apply the specified rate of this product as a combination of the tray drench in the planthouse and/or transplant-water drench in field. Adverse growing conditions may cause a delay in uptake of this product into the plant and a delay in control.

VEGETABLE AND SMALL FRUIT CROPS – SOIL APPLICATION

CUCURBIT VEGETABLES[1]

Crops of Crop Group 9 Includes: Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cuban pumpkin, Cucumber, Gherkin, Gourd (edible, includes hyotan, cucuzza, hechima, Chinese okra), *Momordica* spp. (includes balsam apple, balsam pear, bitter melon, Chinese cucumber), Muskmelon (hybrids and/or cultivars of *Cucumis melo* including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon, and Winter melon), Pumpkin, Squash (includes summer squash types such as: butternut squash, calabaza, crookneck squash, Hubbard squash, scallop squash, straightneck squash, vegetable marrow and zucchini, and winter squash types such as acorn squash and spaghetti squash), Watermelon (includes hybrids and/or varieties of *Citrullus lanatus*)

Field Application Instructions. See details below for additional planthouse specifications.	
Pests Controlled	**Rate: Fluid ounces per acre**
Aphids, Cucumber beetles, Leafhoppers, Thrips (foliage feeding thrips only), Whiteflies	8.0-12.0
Pests/ Diseases Suppressed	
Bacterial wilt (as vectored by various cucumber beetles), Leaf silvering resulting from whitefly feeding	8.0-12.0

Restrictions:
- Pre-Harvest Interval (PHI): 21days
- Maximum amount of this product allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb AI/Acre)

Applications: Apply the specified dosage in one of the following methods:
- Chemigation into root-zone through low- pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- In-furrow spray directed on or below seed.
- Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1 ½ inches with sufficient irrigation within 24 hours of application.
- Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting.
- Post-seeding drench, transplant-water drench, or hill drench.
- Subsurface side-dress on both sides of each row. This product must be incorporated into root-zone.

Planthouse Application Instructions (Not registered for this use in California)	
Pest Controlled	**Rate: Fluid ounces per 1000 plants**
Aphids, Whiteflies	0.05

Restrictions:

- Maximum amount of this product applied in the planthouse: 0.05 fluid ounces (0.00156 lb AI) per 1000 plants
- Maximum number of applications in planthouse: 1
- Not for use on crops grown for seed.

Applications: Apply specified dosage to seedlings in trays in the planthouse, targeting soil media (tray drench), not more than 7 days prior to transplanting, in one of the following methods:

- Uniform, broadcast high-volume foliar spray, followed immediately by sufficient overhead irrigation to wash this product from foliage into potting media without loss of gravitational liquid from the bottom of the tray. Failure to wash this product from foliage may result in reduced pest control.
- Injection into overhead irrigation system, using adequate volume to thoroughly saturate soil media without loss of gravitational solution from the bottom of the tray.

The application made in the planthouse will only provide short-term protection and is not intended as a substitution for a field application. An additional field application must be made within 2 weeks following transplanting to provide continuous protection. Applications of higher rates or increased number of applications in planthouse may result in significant plant injury. Handle transplants carefully during setting to avoid dislodging treated potting media from roots.

Important Note: Not all varieties of cucurbit vegetables have been tested for tolerance to this product applied to seedling flats. Therefore, treat a small number of plants and confirm tolerance for 7 days prior to treating entire planthouse.

FRUITING VEGETABLES

Crops of Crop Group 8 plus Okra Includes: Eggplant, Ground cherry, Pepper (including bell, chili, cooking, pimento, and sweet) Tomato, Pepinos, Tomatillo

Field Application Instructions. See details below for additional planthouse specifications.	
Pests Controlled	**Rate: Fluid ounces per Acre**
Aphids, Colorado potato beetle, Flea beetles, Leafhoppers, Thrips (foliage feeding thrips, only), Whiteflies	Okra and Pepper; 8.0-16.0 Other Crops; 8.0-12.0
Diseases Suppressed	
Symptoms of: Tomato mottle virus, Tomato spotted wilt virus, Tomato yellow leaf curl virus	Okra and Pepper; 8.0-16.0 Other Crops; 8.0-12.0

Restrictions:

- Pre-Harvest Interval (PHI): 21 days
- Maximum amount of this product allowed on pepper and okra crops per crop season: 16.0 fluid ounces/Acre (0.5 lb AI/Acre)
- Maximum amount of this product allowed on other fruiting vegetable crops per crop season: 12.0 fluid ounces/Acre (0.38 lb AI/Acre)

Applications: Apply specified dosage in one of the following methods:

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- In-furrow spray directed on or below seed.
- Narrow (2" or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1 ½ inches with sufficient irrigation within 24 hours of application.
- Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting.
- Post-seeding drench, transplant-water drench, or hill drench.
- Subsurface side-dress on both sides of each row. This product must be incorporated into root-zone.

Planthouse Application Instructions (Not registered for this use in California)

Pests Controlled	Rate: Fluid ounces per 1000 plants
Aphids, Whiteflies	0.05

Restrictions:

- Maximum amount of this product applied in the planthouse: 0.05 fluid ounces (0.00156 lb AI) per 1000 plants.
- Maximum number of applications in planthouse: 1
- Not for use on crops grown for seed.

Applications: Apply specified dosage to seedlings in trays in the planthouse, targeting soil media (tray drench), not more than 7 days prior to transplanting, in one of the following manners:

- Uniform, broadcast high-volume foliar spray, followed immediately by sufficient overhead irrigation to wash this product from foliage into potting media without loss of gravitational liquid from the bottom of the tray. Failure to wash this product from foliage may result in reduced pest control.
- Injection into overhead irrigation system, using adequate volume to thoroughly saturate soil media without loss of gravitational solution from the bottom of the tray.

The application made in the planthouse will only provide short-term protection and is not intended as a substitution for a field application. An additional field application must be made within 2 weeks following transplanting to provide continuous protection. Applications of higher rates or increased number of applications in planthouse may result in significant plant injury. Handle transplants carefully during setting to avoid dislodging treated potting media from roots.

Important Note: Not all varieties of fruiting vegetables have been tested for tolerance to this product applied to seedling flats. Therefore, treat a small number of plants and confirm tolerance for 7 days prior to treating entire planthouse.

GREENHOUSE VEGETABLES

(Mature plants in production greenhouses): Cucumber, Tomato, only

Pests Controlled	Rate: Fluid ounces per 1000 plants
Aphids, whiteflies	0.7

Restrictions:

- Pre-Harvest Interval (PHI): 0 day
- Maximum number of applications per crop season: 1
- Maximum allowable rate per year: 0.7 fluid ounces (0.03 lb AI)
- Not for crops grown for seed

Applications: Apply specified dosage in a minimum of 16 gallons of water for tomatoes and 21 gallons of water for cucumbers using soil drenches, micro-irrigation, drip irrigation, or hand-held or motorized calibrated irrigation equipment. Make applications only to plants grown in field-type soils, potting media, or mixtures thereof. Do not apply to plants grown in non-soil medias such as perlite, vermiculite, rock wool or other soil-less media, or plants growing hydroponically. Do not apply to immature plants since phytotoxicity may occur.

Make applications when infestation pressure surpasses threshold and beneficials are not able to maintain pest populations below damage thresholds. Repellency of bumble bee pollinators and negative effects on some beneficials (*Orius* spp.) can occur when this product is applied.

Many varieties of vegetables have been tested for tolerance to this product and show good safety. However, certain varieties may show more sensitivity to this product. Therefore, treat a few plants before treating the whole greenhouse.

GLOBE ARTICHOKE

Pests Controlled	Rate: Fluid ounces per Acre
Aphids, Leafhoppers	8.0-16.0

Restrictions:

- **Not registered for this use in California.**
- Pre-Harvest Interval (PHI): 7 days
- Maximum amount of this product allowed per year: 16.0 fluid ounces/Acre (0.5 lb AI/Acre)

Applications: Apply specified dosage in one of the following methods:

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.
- In-furrow spray at planting directed on or below seed.

HERBS (Not registered for this use in California)

Crops of Crop Subgroup 19A Includes: Angelica, Balm (lemon balm), Basil (fresh and dried), Borage, Burnet, Chamomile, Catnip, Chervil (dried), Chinese chive, Chive, Clary, Coriander, (cilantro or Chinese parsley leaves), Costmary, Cilantro (leaf), Curry (leaf), Dillweed, Horehound, Hyssop, Lavender, Lemongrass, Lovage (leaf), Marigold, Marjoram, Nasturtium, Parsley (dried), Pennyroyal, Rosemary, Rue, Sage, Savory (summer and winter), Sweet bay (bay leaf), Tansy, Tarragon, Thyme, Wintergreen, Woodruff.

Pests Controlled	Rate: Fluid ounces per Acre
Aphids, Flea beetles, Leafhoppers, Whiteflies	8.0-12.0
Pests Suppressed	
Thrips (foliage feeding thrips only)	8.0-12.0

Restrictions:
- Pre-Harvest Interval (PHI): 14 days
- Maximum amount of this product allowed per season: 12.0 fluid ounces/Acre (0.38 lb AI/Acre)

Applications: Apply specified dosage in one of the following methods:
- In-furrow spray during planting directed on or below seed.
- In-furrow spray or transplant-water drench during setting or transplanting.
- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.

Note: Not all crops and/or varieties listed above have been tested for phytotoxic effects. Without specific knowledge about a particular crop and variety treat only a small number of plants or a small area and evaluated before commercial use.

HEAD and STEM BRASSICA VEGETABLES

Crops of Crop Group 5 including: Broccoli, Broccoli raab (rapini), Brussels sprouts, Cabbage, Cauliflower, Cavalo broccoli, Chinese (gai lon) broccoli, Chinese (bok choy) cabbage, Chinese (napa) cabbage, Chinese mustard (gai choy) cabbage, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens.

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers, Thrips (foliage feeding thrips only), Whiteflies	4.4 – 10.5

Restrictions:
- Pre-Harvest Interval (PHI): 21 days
- Maximum amount of this product allowed per crop season: 10.5 fluid ounces/Acre (0.38 lb AI/Acre)
- Not for use on crops grown for seed.

Applications: Apply specified dosage in one of the following methods:
- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- In-furrow spray directed on or below seed.
- Narrow (2 inches or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1 ½ inches with sufficient irrigation within 24 hours of application.
- Surface band spray (2 inches or less wide) directly below the eventual seed row in bedding operation 14 or fewer days before planting.
- Post-seeding drench, transplant-water drench, or hill drench.
- Subsurface side-dress on both sides of each row. This product must be incorporated into root-zone.

LEAFY GREEN VEGETABLES

Crops of Crop Subgroup 4A plus Watercress Includes: Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (Roquette), Chervil, Chrysanthemum (edible leaved and garland), Cilantro, Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Radicchio (red chicory), Spinach (including New Zealand and vine (Malabar spinach, Indian spinach)), Watercress (commercial production only, applications must not be made to native cress growing in streams or other bodies of water), Watercress (upland)

Pests Controlled	Rate: Fluid ounces per acre (on 36 inch rows)
Aphids, Leafhoppers, Thrips (foliage feeding thrips only), Whiteflies	5.0-12.0

Restrictions:
- Pre-Harvest Interval (PHI): 21 days
- Maximum amount of this product allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb AI/Acre)

- Not for crops grown for seed

Applications: Apply specified dosage in one of the following methods:

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- In-furrow spray directed on or below seed.
- Narrow (2 inches or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1 ½ inches with sufficient irrigation within 24 hours of application.
- Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting.
- Post-seeding drench, transplant-water drench, or hill drench.
- Subsurface side-dress on both sides of each row. This product must be incorporated into root-zone.

LEAFY PETIOLE VEGETABLES

Crops of Crop Subgroup 4B Includes: Cardoon, Celery, Celtuce, Chinese celery (fresh leaves and stalk only), Florence fennel (including sweet anise, sweet fennel, Finocchio), Rhubarb, Swiss chard

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers, Thrips (foliage feeding thrips only), Whiteflies	5.0-12.0

Restrictions:

- Pre-Harvest Interval (PHI): 45 days
- Maximum amount of this product allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb AI/Acre)
- Not for crops grown for seeed

Applications: Apply specified dosage in one of the following methods:

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- In-furrow spray directed on or below seed.
- Narrow (2 inches or less) surface band spray over seed-line during planting incorporated to a depth of 1 to 1 ½ inches with sufficient irrigation within 24 hours of application.
- Narrow band spray directly below eventual seed row in bedding operation 14 or fewer days before planting.
- Post-seeding drench, transplant-water drench, or hill drench.
- Subsurface side-dress on both sides of each row. This product must be incorporated into root-zone.

LEGUME VEGETABLES except soybean, dry-soil treatment

Crops of Crops Group 6 Includes: Edible Podded and Succulent Shelled Pea and Bean and Dried Shelled Pea and Bean

Bean (*Lupinus* spp., includes grain lupin, sweet lupin, white lupin, and white sweet lupin)

Bean (*Phaseolus* spp., includes field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean)

Bean (*Vigna* spp., includes adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, Southern pea, urd bean, yardlong bean)

Pea (*Pisum* spp., includes dwarf pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea)

Other Beans and Peas [Broad bean (fava), Chickpea (garbanzo bean), Guar, Jackbean, Lablab bean (hyacinth bean), Lentil, Pigeon pea, Soybean (immature seed), Sword bean]

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers, Thrips (foliage feeding thrips only), Whiteflies	8.0-12.0
Diseases Suppressed	
Symptoms of: Bean common mosaic virus (BCMV), Bean golden mosaic virus (BGMV), Beet curly top	8.0-12.0

hybrigeminivirus (BCTV)	

Restrictions:
- Pre-Harvest Interval (PHI): 21 days
- Maximum amount of this product allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb AI/Acre)
- Not for crops grown for seed

Applications: Apply specified dosage in one of the following methods:
- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- In-furrow spray at planting directed on or below seed.
- In a narrow (2 inches or less) surface band over seed-line during planting incorporated to a depth of 1 to 1 ½ inches with sufficient irrigation with 24 hours following application.
- In a narrow band directly below the eventual seed row in a bedding operation 7 or fewer days before planting.
- As a post-seeding drench, transplant drench, or hill drench.

ROOT VEGETABLES

Crops of Crop Subgroup 1B except Sugarbeet plus Kava Includes: Beet (garden)[1], Burdock (edible)[1], Carrot[1], Celeriac[1], Chervil (turnip-rooted)[1], Chicory[1] Gingseng, Horseradish, Kava[1], Parsley (turnip-rooted), Parsnip[1], Radish[1] Oriental radish (diakon)[1], Rutabaga[1], Salsify (oyster plant), Salsify (black)[1], Salsify (Spanish), Skirret, and Turnip[1]

Pests Controlled	Rate: Fluid ounces per 1000 row-feet	Rate: Fluid ounces per acre
Aphids, Flea beetles, Leafhoppers, Thrips (foliage feeding thrips only), Whiteflies	0.35 - 0.85	5.0-12.0 (depending on row spacing)

Restrictions:
- Pre-Harvest Interval (PHI): 21 days
- Maximum amount of this product allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb AI/Acre)
- Maximum number of applications per crop season: 1
- Not for crops grown for seed

Application: Apply specified dosage in one of the following methods:
- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- In-furrow spray (rate specified per 1000 row-feet) or, shanked-in 1 to 2 inches below seed depth during planting.
- In a narrow (2 inches or less) band directly (1 to 2 inches) below the eventual seed row in a bedding operation 14 or fewer days before planting.

Important Note: The rate applied affects the length of control. Use higher listed rates where infestations occur later in crop development, or where pest pressure is continuous. Rates of this product less than 0.7 fluid ounces/1000 row-feet will not provide adequate residual pest control. Crops treated with this product grown on very high organic matter soils (muck) may also require additional pest management control.
[1]Tops or greens from these crops may be utilized for food or feed.

TUBEROUS and CORM VEGETABLES

Crops of Crop Subgroup 1C Includes: Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible, Queensland arrowroot), Cassava (bitter and sweet)[1], Chayote (root), Chufa, Dasheen (taro)[1], Ginger, Leren, Sweet potato, Tanier (cocoyam)[1], Turmeric, Yam bean (jicama, manioc pea), Yam (true)[1]
(For specific applications on potato see Field Crops section)

Pests Controlled	Rate: Fluid ounces per 1000 row-feet	Rate: Fluid ounces per acre
Aphids, Flea beetles, Leafhoppers Thrips (foliage feeding thrips only), Whiteflies	0.35-0.85	5.0-12.0 (depending on row spacing)
Restrictions:		

- Pre-Harvest Interval (PHI) from planting application: 3 days (leaves); 125 days (corms)
- Maximum amount of this product allowed per crop season: 12.0 fluid ounces/Acre (0.38 lb AI/Acre)
- Maximum number of applications per crop season: 1
- Not for use on crops grown for seed.

Application: Apply specified dosage in one of the following methods:

- In-furrow spray (rate specified per 1000 row-feet) over planting materials (hulis) or shanked-in 1 to 2 inches below hulis depth at planting.
- Side-dress not more than 0.3 fluid ounces/1000 row-feet no later than 45 days after planting. Observe the same PHI as above.

Important Note: The rate applied affects the length of control. Use higher listed rates where infestations occur late in crop development, or where pest pressure is continuous. Rates of this product less than 0.35 fluid ounces/1000 row-feet may not provide adequate residual pest control. Crops treated with this product grown on very high organic matter soils (muck) may also require additional pest management control.
[1]Tops or greens from these crops may be utilized for food or feed.

STRAWBERRY[1]

Annual And Perennial Crops	
Pests Controlled	**Rate: Fluid ounces per acre**
Aphids, Whiteflies	12.0-16.0

Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Maximum amount of this product allowed per crop season: 16.0 fluid ounces/Acre (0.50 lb AI/Acre)

- Do not apply immediately prior to bud opening or during bloom or when bees are foraging

Applications: Apply specified dosage in one of the following methods:

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment after plants are established or on perennial crops in early spring prior to bud opening.
- As a plant material or plant hole treatment just prior to, or during transplanting.
- As a band spray over-the-row in a minimum of 20 gallons of water per acre, followed immediately by overhead irrigation to incorporate product into root-zone. Do not use plastic or other mulches that limit movement of this product into root zone.

The rate applied affects the length of control. Use higher listed rates where infestations may occur later in crop development or where pest pressure is continuous.

Post-harvest Use on Perennial Crops	
Pests Controlled	**Rate fluid ounces per acre**
White grub complex (grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle, Oriental beetle)	8.0-12.0

Restrictions:

- Pre-Harvest Interval (PHI): 14 days
- Maximum amount of this product allowed per year: 12.0 fluid ounces per acre (0.38 lb AI/Acre)

Applications: Apply a single application post harvest to coincide with renovation of strawberry fields and during active egg-laying period of beetles. Apply specified dosage of this product in one of the following methods:

- As a ground spray via boom or backpack sprayer in a minimum of 20 gallons of water per acre.
- As a row-band spray using an adjusted amount of product based on the treated row band area in proportion to the amount required per full acre. Make the bandwidth equivalent to the width of the anticipated fruiting bed.
- As a chemigation application with 600 to 1000 gallons of water followed by 0.1 to 0.25 inches irrigation.

Important Note: All soil-surface applications must be followed by 0.25 inches of rainfall or overhead

irrigation water per acre within 2 hours of application. Failure to adequately incorporate this product into egg-deposition zone may result in decreased activity.

[1]Use only one of the methods (under "Annual and Perennial Crops" OR "Post-harvest Use on Perennial Crops"). Do not use both application methods on the same crop in the same season.

SUGARBEET - For use only in California

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers, Whiteflies, Flea beetles	3.0-6.0
Diseases Suppressed	
Symptoms of: Western yellows/Beet curly top hybrigeminivirus (BCTV)	3.0-6.0

Restrictions:

- Maximum amount of this product allowed per year: 6.0 fluid ounces/Acre (0.18 lb AI/Acre)
- Not for use on crops grown for seed.

Applications: Apply specified dosage in the following method:

- Apply specified dosage in sufficient carrier volume to insure uniform application. Apply directly below each seed furrow either during the bedding operation immediately prior to planting or at the time of planting.

Apply the low rate to aid establishment of stands in whitefly areas, or for early season control of the other pests listed.

RATE fluid ounces/ Acre	RATE fluid ounces/1000 row-feet Based on ***average*** row spacing (in inches):							
	10	15	20	25	30	35	40	45
5	0.0475	0.07125	0.095	0.11875	0.1425	0.16625	0.19	0.21375
6	0.057	0.0855	0.114	0.1425	0.171	0.1995	0.228	0.2565
7	0.0665	0.09975	0.133	0.16625	0.1995	0.23275	0.266	0.29925
8	0.076	0.114	0.152	0.19	0.228	0.266	0.304	0.342
9	0.0855	0.12825	0.171	0.21375	0.2565	0.29925	0.342	0.38475
10	0.095	0.145	0.19	0.24	0.285	0.335	0.38	0.43
12	0.115	0.17	0.23	0.285	0.345	0.4	0.46	0.515
14	0.135	0.02	0.27	0.335	0.4	0.47	0.535	0.605
16	0.155	0.23	0.305	0.385	0.46	0.535	0.61	0.69
18	0.17	0.26	0.345	0.43	0.515	0.605	0.69	0.775
20	0.19	0.285	0.38	0.48	0.575	0.67	0.765	0.86
22	0.21	0.315	0.42	0.525	0.63	0.735	0.84	0.945
24	0.23	0.345	0.46	0.575	0.69	0.805	0.92	1.035
26	0.25	0.375	0.495	0.62	0.745	0.87	0.995	1.12
28	0.27	0.4	0.535	0.67	0.805	0.935	1.07	1.205
30	0.285	0.43	0.575	0.715	0.86	1.005	1.145	1.29
32	0.305	0.46	0.61	0.76	0.92	1.07	1.225	1.375

The rate applied of this product will affect the length of control as well as the degree and effect of control. Use higher labeled rates where infestations may occur later in crop development or where there is continuous pest pressure. Except as otherwise directed on this label, do not use at application rates lower than 0.7 fluid ounces/1000 row-feet.

TREE, BUSH AND VINE CROPS – SOIL APPLICATION

BANANA AND PLANTAIN

Pests Controlled	Rate: Fluid ounces per Acre
Aphids, Leafhoppers	8.0-16.0
Pests Suppressed	
Scales	8.0-16.0

Restrictions:
- **Not registered for this use in California**
- Pre-Harvest Interval (PHI): 0 days
- Maximum amount of this product allowed per year: 16.0 fluid ounces/Acre (0.5 lb AI/Acre)

Applications: Apply specified dosage in the following method:
- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.

BUSHBERRY

Crops of Crop Subgroup 13B Includes: Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, Juneberry, Ligonberry, Salal

Pests Controlled	Rate: Fluid ounces per acre
Japanese beetle: (adults, feeding on foliage) White grub complex: (grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle and Oriental beetle)	8.0-16.0

Restrictions:
- Pre-Harvest Interval (PHI): 7 days
- Maximum amount of this product allowed per year: 16.0 fluid ounces/Acre (0.5 lb AI/Acre)

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Apply specified dosage in one of the following methods:
- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- 18-inch band on each side of the row followed by irrigation immediately after application.

For optimal grub control, apply this product to control 1st or 2nd instar larvae. Make application post-bloom up to 7 days prior to harvest, or post-harvest until October 1st. For optimum control of Japanese beetle larvae, make applications from June 1 to July 15.

Application to grass covered rows, row middles, drive lanes, headlands, and other grassy areas in and around the berry field will control resident grub populations. Applications directed to the root-zone will help protect berry plant roots from grub feeding.

Apply this product to moist soil. If necessary, apply one hour of irrigation water immediately before application of this product. To ensure maximum efficacy of soil surface spray, apply ½ to 1 inch of irrigation water or rainfall or received within 24 hours of application of this product to facilitate movement into the soil and into the root-zone.

CANEBERRY

Crops of Crop Subgroup 13A Includes:

Blackberry *(Rubus eubatus,* including bingleberry, black satin berry, boysenberry, Cherokee blackberry, Chesterberry, Cheyenne blackberry, coryberry, darrowberry, dewberry, Dirksen thornless berry, Himalayaberry, hullberry, Lavacaberry, Loganberry, lowberry, Lucretiaberry, mammoth blackberry, marionberry, nectarberry, olallieberry, Oregon evergreen berry, phenomenalberry, rangeberry, ravenberry, rossberry, Shawnee blackberry, youngberry, and varieties and/or hybrids of these)

Raspberry (black and red, *Rubus occidentalis, Rubus strigosus, Rubus idaeus)*

Pests Controlled	Rate: Fluid ounces per Acre

Aphids, Leafhoppers, Whiteflies	8.0-16.0
Rednecked cane borer	12.0-16.0
Pests Suppressed	
Thrips (foliage feeding thrips only)	8.0-16.0

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Maximum amount of this product allowed per year: 16.0 fluid ounces/Acre (0.5 lb AI/Acre)

- Do not apply pre-bloom or during bloom or when bees are foraging

Soil Application: Apply specified dosage in one of the following methods:

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler or equivalent equipment.
- Basal, soil drench in a minimum of 500 gallons solution per acre.

CITRUS (Containerized)

Crops of Crop Group 10 Includes: Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo, and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Pummelo, Orange (sweet and sour), Satsuma mandarin, Tangelo, and other cultivars and/or hybrids of these.

Pests Controlled	Rate mL/ft^3 container media
Aphid, Asian citrus psyllid, Blackfly, Citrus leafminer, Leafhoppers/Sharpshooters, Mealybugs, Scales, Whiteflies	0.37
Citrus root weevil (larval complex)	0.62-1.25
Pests Suppressed	
Citrus thrips (foliage feeding thrips only)	1.25

Application: Determine volume of container and calculate dosage necessary to treat container. Apply calculated dosage of this product per container as a soil drench or through low-pressure drip or trickle irrigation water. Use sufficient carrier volume to ensure thorough uniform distribution throughout the media without loss of gravitational water from the container. For optimal results, make treatment at planting prior to insect infestation. Retreat if necessary. For control of larvae of the citrus root weevil complex, make application prior to neonate larvae entering potting media. Utilize higher listed dosage for heavy infestations.

Restrictions:

- Pre-harvest interval (PHI) – 0 (zero) days
- Maximum rate per application - 0.17 fluid ounces per cubic foot of container medium
- Maximum rate per crop season – 0.1 fluid ounces per plant

- Do not apply pre-bloom or during bloom or when bees are foraging

CITRUS (Field)

Crops of Crop Group 10 Includes: Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo, and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Pummelo, Orange (sweet and sour), Satsuma mandarin, Tangelo, and other cultivars and/or hybrids of these.

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Asian citrus psyllid, Blackfly, Citrus leafminer, Leafhoppers/Sharpshooters, Mealybugs, Scales, Termites (FL only), Whiteflies	8.0-16.0
Pests/Diseases Suppressed	
Citrus nematode, Symptoms of: Citrus tristeza virus (CTV) through vector control, Citrus yellows, Thrips	16.0

(foliage feeding thrips only)	

Restrictions:

- Pre-Harvest Interval (PHI): 0 day
- Maximum amount of this product allowed per year: 16.0 fluid ounces/Acre (0.5 lb AI per Acre)
- Do not apply to trees over 8 feet tall

Applications: Apply specified dosage in one of the following methods:

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment. For optimum results, apply to newly planted trees or those previously trained to drip, trickle or micro-sprinkler irrigation. Lightly pre-wet soil to break soil surface tension prior to applications of this product. Chemigation application can be made separate to normal irrigation but followed by 10 to 20 minutes of additional watering to move this product into root-zone. Allowed 24 hours before initiating subsequent irrigations.
- Soil surface band spray on both sides of the tree. Bands must overlap at the tree base to create a continuous band within the drip-line area of the tree, to be followed immediately with light sprinkler irrigation sufficient to move the product into the upper portion of the root-zone. This method is suitable for very coarse soils with 0.75% organic matter or less.
- Drench to base of tree not exceeding one-quart total solution per tree immediately around trunk of tree and extending outward covering the entire fibrous root system of the tree.
- For control of existing termite infestations, apply specified dosage in 1 to 4 quarts of total solution volume, depending on size of tree, as a drench application to the basal portion of the tree trunk and surrounding soil in the immediate area of the tree trunk.
- For suppression of citrus nematode, apply specified dosage through low-pressure chemigation or soil surface band spray only, ensuring complete coverage of the root system and utilizing application directions stated above for the respective application method. Repeated and regular use of this product over several consecutive growing seasons provides the greatest degree of nematode suppression and yields the greatest plant response.

COFFEE

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers, Leafminer	8.0-16.0
Pests Suppressed	
Scales	8.0-16.0

Restrictions:

- **Not registered for this use in California**
- Pre-Harvest Interval (PHI): 7 days
- Maximum amount of this product allowed per year: 16.0 fluid ounces/Acre (0.5 lb AI/Acre)

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Apply specified dosage in one of the following methods:

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- Subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation.

Basal soil drench in sufficient water to insure incorporation into the root-zone followed by irrigation.

CRANBERRY

Pests Controlled	Rate: Fluid ounces per acre
Rootgrubs (*Scarabaeidae*) Rootworms (*Chrysomelidae*)	8.0-16.0

Restrictions:

- Pre-Harvest Interval (PHI): 30 days
- Maximum amount of this product allowed per year: 16.0 fluid ounces/Acre (0.5 lb AI/Acre)

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Apply this product to moist soil using one of the following methods:

- As a soil spray (ground application) directed to the root and crown area using a minimum of 20 gal. of water per acre.
- As a chemigation application with 600 to 1000 gal. of water.

After application, immediately incorporate this product into the root-zone by 0.1 – 0.3 inches of water per acre, either with chemigation application, or through irrigation or rainfall. Inadequate incorporation within 24 hours of application may result in reduced control.

Rootgrubs and Rootworms

Make application post-bloom immediately after bees are removed. Make applications to target early instar larvae.

This product has not been tested for crop response in tank mixtures with other registered fungicides or insecticides. If tank mixing is desired, premix a sample of this product and the fungicide or insecticide partner at labeled rates and apply to a small area. Evaluate the crop response within 48 hours and for at least two weeks prior to using the tank mix on a larger scale. If crop injury results for the premix test, do not apply the tank mix to larger acreage.

GRAPE

Includes: American bunch grape, Muscadine grape and Vinifera grape

Pests Controlled	Rate: Fluid ounces per acre
European fruit lecanium, Leafhoppers/Sharpshooters, Mealybugs, *Phylloxera* * spp	8.0-16.0
Pest/Disease Suppressed	
Grapeleaf skeletonizer, Nematodes, Pierce's disease	12.0-16.0

Restrictions:

- Pre-Harvest Interval (PHI): 30 days
- Maximum amount of this product allowed per year: 16.0 fluid ounces/Acre (0.5 lb AI/Acre)

Applications: Apply specified dosage in one of the following methods:

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- Subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation.
- Hill drench in sufficient water to insure incorporation into the root-zone followed by irrigation.
- For suppression of nematodes, apply 7 fluid ounces in a single application or two 3.5 fluid ounce applications on a 30 to 45 day interval. Apply treatment(s) only by 1) chemigation into the root-zone through above ground low-pressure drip, trickle, micro-sprinkler or equivalent equipment; or 2) French plow technique, followed immediately by sufficient irrigation to move the product into the entire root-zone of the plant. Repeated and regular use of this product over several consecutive growing seasons provides the greatest degree of nematode suppression and plant response.

Apply between bud-break and the pea-berry stage. Use a total of 7 fluid ounces/Acre under any of the following conditions:

1. Where vigorous vine growth is expected;
2. In warmer growing areas;

3. Where mealybug and European fruit lecanium populations are expected to be heavy;
4. Where vine populations exceed 600 per acre, or;
5. For suppression of nematodes.

*Repeated and regular use of this product over several, consecutive growing seasons controls existing *Phylloxera* infestations over time or prevents *Phylloxera* from becoming established.

HOPS

Pest Controlled	Rate: Fluid ounces per acre
Aphids	3.2 - 9.6

Restrictions:
- **Not registered for this use in California**
- Pre-Harvest Interval (PHI): 60 days
- Maximum amount of this product allowed per year: 9.6 fluid ounces/Acre (0.3 lb AI/Acre)

Applications: Apply specified dosage in one of the following methods:
- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- Subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation.
- Hill drench in sufficient water to insure incorporation into the root-zone followed by irrigation.

Use higher dosage rates where extended residual control is desired or for treating larger vines or vines with dense foliage volume.

POME FRUIT

Crops of Crop Group 11 Includes: Apple, Crabapple, Loquat, Mayhaw, Pear (including Oriental pear), Quince

Pests Controlled	Rate: Fluid ounces per acre
Aphids (including Wooly apple aphid), Leafhoppers	8.0-12.0

Restrictions:
- Pre-Harvest Interval (PHI): 21 days
- Maximum amount of this product allowed per year: 12.0 fluid ounces/Acre (0.38 lb AI/Acre)

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Apply specified dosage in the following method:
Chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.

POMEGRANATE

Pests Controlled	Rate: Fluid ounces per acre
Leafhoppers/Sharpshooters, Whiteflies	8.0-16.0

Restrictions:
- **Not registered for this use in California**
- Pre-Harvest Interval (PHI): 0 days
- Maximum amount of this product allowed per year: 16.0 fluid ounces/Acre (0.5 lb AI/Acre)

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Apply specified dosage in the following method:
- Chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.

STONE FRUIT

Crops of Crop Group 12 Includes: Apricot, Cherry (including sweet and tart), Nectarine, Peach, Plum (including Chickasaw, Damson, and Japanese), Plumcot, Prune (fresh and dried)

In-field, Soil Application	
Pests Controlled	**Rate: Fluid ounces per acre**
Aphids (including Woolly apple aphid), Leafhoppers	8.0-12.0

Restrictions:

- Pre-Harvest Interval (PHI): 21 days
- Maximum amount of this product allowed per year: 12.0 fluid ounces/Acre (0.38 lb AI/Acre)

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Apply specified dosage in the following method:
Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.

Pre-plant, Root Dip Application	
Pest Controlled	**Rate fluid ounce per 10 gallons root-dip solution**
Black peach aphid (infesting roots)	1.0

Mix this product at 1.0 fluid ounce per 10 gallons of water. Thoroughly wet bare-root transplant to slightly above the graft union by soaking roots in this product solution for up to 5 minutes. Allow solution to dry on roots and transplant trees as soon as possible following treatment.

TREE NUTS (Not for use in California except for Pecan)

Crops of Crop Group 14, except Almond - Includes: Beechnut, Brazil nut, Butternut, Cashew, Chestnut, Chinquapin, Filbert, Hickory nut, Macadamia nut, Pecan, Pistachio, Walnut (black and English)

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Leafhoppers/Sharpshooters, Mealybugs, Spittlebugs, Termites, Whiteflies	8.0-16.0
Pests/Diseases Suppressed	
Pecan scab (from reduction in honeydew deposition)	8.0-16.0
Thrips (foliage-feeding thrips only)	16.0

Restrictions:

- Pre-Harvest Interval (PHI): 7 days
- Maximum amount of this product allowed per season: 16.0 fluid ounces/Acre (0.5 lb AI/Acre)

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Apply specified dosage prior to or at onset of pest infestation in one of the following methods:

- Chemigation into root-zone through low-pressure drip, trickle, micro-sprinkler, or equivalent irrigation equipment. Pre-wet soil prior to applications of this product and allow soil to dry following application and prior to subsequent irrigation;
- Emitter or spot application in a minimum of 4 fluid ounces of mixture per emitter site;
- Shank or subsurface side-dress injected to a depth just above or just within the root zone and between the trunk and drip line of the tree canopy. Apply this product in a minimum of 10 gallons per acre using multiple shanks on both sides of trees. Make sure that product placement is below sod or orchard floor debris. Irrigation covering the entire treated area must follow within 48 hours to promote uptake by root system.
- For control of termites, apply specified dosage to slightly moist soil as a high-volume drench to the basal portion of the tree trunk and surrounding soil in the immediate vicinity of the tree trunk. Use sufficient carrier volume to penetrate the soil to a depth of 18 – 24 inches to obtain optimum control. Allow soil to dry following treatment and before applying any irrigation.

Remarks:

Use the higher listed rates when 1) applied by shank or subsurface sidedress; 2) used on larger trees; 3) to soils with high clay content; 4) to high plant populations; and/or 5) where extended control is desired. Under some conditions, control may not occur for 14 or more days or until two (2) irrigations have been made. Applications made later in the season may result in reduced efficacy.

TROPICAL FRUIT

Including: Acerola, Atemoya[1], Avocado, Birida[1], Black sapote, Canistel, Cherimoya[1], Custard apple, Feijoa, Jaboticaba, Guava, Llama[1], Longan, Lychee, Mamey sapote, Mango, Papaya, Passionfruit, Persimmon, Pulasan, Rambutan, Sapodilla, Soursop[1], Spanish lime, Star apple, Starfruit, Sugar apple[1], Wax jambu

[1]Not registered for this use in California

Pests Controlled	Rate: Fluid ounces per acre
Aphids, Avocado lacebug, Leafhoppers, Whiteflies	12.0-16.0
Pests Suppressed	
Scales	16.0

Restrictions:

- Pre-Harvest Interval (PHI): 6 days
- Maximum amount of this product allowed per year: 16.0 fluid ounces/Acre (0.5 lb AI/A).

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Apply specified dosage in the following method:

- Chemigation through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.

OTHER CROPS – SOIL APPLICATION

CHRISTMAS TREE

Pests Controlled	Rate: Fluid ounces per acre
White grub complex (damage from grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle and Oriental beetle)	8.0-16.0

Restrictions:

- **Not registered for this use in California**
- Maximum amount of this product allowed per year: 16.0 fluid ounces/Acre (0.5 lb AI/A).

Applications: Soil incorporation and movement of this product to the root-zone is required for activity. This product can be incorporated easiest when applied to moist soil. Apply specified dosage in one of the following methods:

- Chemigation through low-pressure drip, trickle, micro-sprinkler, or equivalent equipment.
- 18-inch band on each side of the row (small trees) to full broadcast application (large trees) followed by rainfall or 0.25 – 1 inch of irrigation within 12 hours of application.

For optimal grub control, apply this product during adult flight activity, or up to mid-July when 1st instar larvae are present.

POPLAR/COTTONWOOD

(includes members of the genus *Populus* grown for pulp or timber)

Field Application Instructions. See below for Cutting/Whips Application Instructions	
Pests Controlled	**Rate: Fluid ounces per acre**
Aphids, Cottonwood leaf beetle	8.0-16.0
Pest Suppressed	
Phylloxerina popularia	8.0-16.0

Restrictions:

- **Not registered for this use in California**
- Maximum amount of this product allowed at-plant per year: 16.0 fluid ounces/Acre (0.5 lb AI/Acre)

- Do not apply pre-bloom or during bloom or when bees are foraging

Applications: Apply specified dosage in the following method:

- Chemigation through low-pressure drip irrigation.
- For narrow-row, cutting orchards/nurseries used for plant propagation, shank into root-zone followed by adequate irrigation to promote uptake. (Adequate irrigation depends on soil moisture level at application. Apply 0.25 inches/Acre of water under dry conditions.)

For Cottonwood leaf beetle, protection against damage will occur when application is made early-season, when the beetles first begin feeding. Larger trees may require earlier treatment as a result of slower uptake. For *Phylloxerina*, apply early in the year from break of dormancy through May.

Cutting/Whip Application Instructions. See above for Field Application Instructions	
Pests Controlled	**Cutting/Whip Soaking Solution Fluid ounces of Product per 100 gallons**
Cottonwood leaf beetle	6.65 – 13.3 (unhydrated cuttings/whips) 13.3 – 20 (partially hydrated cuttings/whips)
Pest Suppressed	
Aphids, *Phylloxerina popularia*	6.65 – 13.3 (unhydrated cuttings/whips) 13.3 – 20 (partially hydrated cuttings/whips)

Restrictions:

- Maximum amount of this product allowed at-plant per year: 16.0 fluid ounces/Acre (0.5 lb AI/Acre)

Applications:

Product absorption into the plant material is affected by 1) the moisture content of the cuttings/whips prior to application, 2) the solution concentration; and 3) the length of soaking intervals. For a constant soaking interval of 24 hours, drier cuttings/whips absorb a higher amount of solution and require a lower concentration. On the other hand, more hydrated cuttings/whips absorb less solution and require a higher concentration. Soak cuttings/whips in a covered container without UV light.

Apply specified dosage in one of the following cuttings/whips soaking methods:

- For freshly cut (unhydrated) cuttings/whips, soak plant material in specific solution concentration for 24 hours prior to cold storage. After removal from cold storage, plant as needed.
- For previously hydrated cuttings/whips removed from cold storage, allow plant material to reach room temperature and soak in specified solution concentration for 24 hours prior to planting.
- Take proper care in disposal of any residual soaking solution. Apply solution to existing trees or other registered crops as long as all product label precautions and restrictions are observed.

Note: Not all *Populus* spp. (clones/varieties/hybrids) have been tested for crop safety. Treat a small numbers of cuttings/whips and evaluate before commercial use.

SEED PIECE TREATMENT

POTATO

Pests Controlled	Rate: Fluid ounces per 100 lbs. of seed	Rate: Fluid ounces per acre*
Aphids, Colorado potato beetle, Flea beetles, Leafhoppers, Potato psyllid, Wireworms (seed-piece protection)	0.2-0.4	4.0-8.0
Pests/Diseases Suppressed	**Rate: Fluid ounces per 1000 row-feet**	**Rate: Fluid ounces per acre**
Symptoms of: Potato leaf roll virus (PLRV), Potato yellows, Net necrosis	0.4	8.0

Restrictions:

- Maximum amount of this product allowed per year: 10.0 fluid ounces/Acre (0.31 lb. AI/Acre)
- Do not use treated seed-pieces for food, feed, or fodder.
- Do not apply any subsequent application of this product (in-furrow), Gaucho, Leverage, or Provado following a seed-piece treatment with this product.

Application: Apply specified dosage as a diluted spray onto seed-pieces using a shielded spray system. Dilute with 3 parts water, or less, to 1 part of this product. Agitate or stir spray solution as needed. Apply fungicidal or inert absorbent dusts after an application of this product. Apply only in areas with adequate ventilation or in areas that are equipped to remove spray mist or dust. Plant seed pieces as soon as possible after treating avoiding prolonged exposure of this product treated seed-pieces to sunlight and in accordance with the recommendation of your local Extension service.

* Based on a seeding rate of 2000 lbs. per acre.

POULTRY HOUSING STRUCTURES

Darkling and hide beetles:
Use this product as a spot, crack and crevice, or overall surface spray to control darkling beetles and hide beetles on floors, walls, and support beams of poultry or turkey housing structures and within 25 feet of the perimeter of the poultry house.

INSECTICIDE CLASS ROTATIONS:
In order to avoid problems with developed resistance to insecticides it is important to rotate to an insecticide of a different class each 2-3 flocks. It is best to attempt to use 3 different classes of insecticides during a calendar year.

When to Apply: Apply between flocks after de-caking and sanitation procedures have been completed.

Restrictions:

- Do not apply more than 7 days prior to bird placement.
- Do not apply when birds are present.
- Do not allow food or feed to be contacted by the spray.
- Remove feed and water from the treatment area before applying.
- Do not restock birds until spray has completely dried.
- When spraying the perimeter, do not allow this product to contact plants in bloom if bees are foraging the treatment area

Mixing and Application Rates: Calculate the surface area to be sprayed. Apply 3 fl. oz. of this product per 1000 square feet of surface in ½ to 2 gallons of final dilution per 1000 square feet. To prepare the dilution, partly fill the spray tank with ½ the water to be used, then add the appropriate amount of this product, mix, then add the rest of the water while agitating or mixing. Maintain agitation while spraying. Prepare a fresh mixture for each application.

How to Apply:
Apply this product to the entire footing including 1 foot up onto the wall above the footing, and to 3 to 4 foot wide bands directly beneath all feed lines. These areas are where the vast majority of the adult and larval beetles reside when the birds are in the house, and therefore will have an increased likelihood of coming in contact with the insecticide. Measure these areas to determine the correct amount of this product needed for the application.

If Beetle infestations are very high, treat the footings including 1 foot up onto the walls and the entire floor area of the house, if necessary.

Also apply as a crack and crevice spray around wall insulation or other areas where beetle may be located.

In structures having support beams it is necessary to treat the floor 1 foot around each post and 2 feet up onto the posts.

In cases of extreme infestation, treat the entire facility. Apply 3 fl oz per 1000 square feet in 2 gallons of water per 1000 square feet as described above. Apply as a broadcast spray to litter over the entire floor to litter under feed and water lines, and to lower sections of walls to one foot above the foundation.

Ants in and around animal housing facilities:

Use only crack and crevice or wall void applications in building interiors.

Apply at a rate of ¾ teaspoon to 1 ½ teaspoons this product per gallon of water (2 ½ teaspoons to 2 ½ fl. ounces per 10 gallons). Spray into cracks, crevices, drilled holes, onto walls, and around potential entry points such as doors, windows, vents, eaves, soffits, and utility access holes. If nests are present in voids, spray into the void if possible, or apply as a foam. (See specific instructions of foam generator). Spray surfaces to provide complete coverage but do not spray to dripping or runoff.

Also apply as a drench to soil, turf, ornamental shrubs or plants, or ground cover around the exterior of the building, and within 25 feet of the structure along driveways or other hard surfaces where ants may be tunneling. For above-ground nests, such as in wood posts, decks, or fences, or in trees, spray into the cavity and on the wood surface.

Restrictions:

- Do not use to control native or imported fire ants, harvester ants or pharaoh ants.
- Keep people and domestic animals out of the treated area until sprays have dried.
- Do not apply more than 0.4 lb of AI/Acre/year.
- Follow application restrictions on page [x] *(note to reviewer – page number will be added to commercial label)* to protect bees and other insect pollinators

STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

PESTICIDE STORAGE: Keep pesticide in original container. Do not put concentrate or dilute into food or drink containers. Store in a cool, dry place. Do not store diluted spray.

PESTICIDE DISPOSAL: Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility.

CONTAINER HANDLING: Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying.

(Nonrefillable ≤ 5 gallons): 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, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

(Nonrefillable > 5 gallons): Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace 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, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

CONDITION OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Direction for Use of this Product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Envincio LLC or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Envincio LLC and Seller harmless for any claims relating to such factors.

Envincio LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to

above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under abnormal conditions or under conditions not reasonably foreseeable to or beyond the control of Seller or Envincio LLC., and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, ENVINCIO LLC MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

In no event shall Envincio LLC or Seller be liable for any incidental, consequential or special damages resulting from the use or handling of this product. To the extent consistent with applicable law, **THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF ENVINCIO LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF ENVINCIO LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

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

Bidrin is a registered trademark of AMVAC Chemical Corporation
Admire, Calypso, Gaucho, Leverage, Provado, Trimax are registered trademarks of Bayer CropScience
Actara, Centric, Cruiser, and Platinum are trademarks of Syngenta Group Company
Assail and Intruder are registered trademarks of Nippon Soda Company, Ltd.
Alias and Pasada are trademarks of Makhteshim Agan
Couraze is a trademark of Cheminova
Belay and Clutch are registered trademarks of Arysta Corporation
Venom is a registered trademark of Valent USA, Corporation
Macho and Impulse are trademarks of Albaugh Inc.
Advise and Gallant are trademarks of Agriliance LLC
Widow is a trademark of Loveland Products, Inc.
Nuprid is a trademark of NuFarm America, Inc.
Credo is a registered trademark of Bayer Healthcare, LLC.

EPA [*approval date*]

Additional / Alternate Marketing Claims

- One dose formula
- Dust Free
- Rapid mixing
- Quick Mixing and Spraying
- Mix and spray liquid formula
- Quick to mix and apply
- Easy to apply, hard on darkling beetles
- Darkling beetle control liquid formulation
- Formulated for use in the poultry industry
- Formulated for effective control of darkling beetles in the poultry industry
- Contains imidacloprid [a chloronicotinyl insecticide] [neonicotinoid insecticide]

- Controls Darkling beetles that may [carry] [spread] [transmit] poultry disease-causing organisms
- Controls darkling beetles that can damage [buildings] [ceilings] [walls] [insulation]
- Controls darkling beetles that can feed on grain
- Controls both larvae and adults of [darkling beetle] [lesser mealworm] [hide beetle]
- Effective against both larvae and adults of [darkling beetle] [lesser mealworm] [hide beetle]
- Stops the damage and risks caused by darkling beetles
- Stops darkling beetles from [eating] [taking] your profits
- Effective control of [specified ants] [darkling beetles] [lesser mealworms] [hide beetles]
- [Targeted] [Banded] application provides effective control of [darkling beetles] [lesser mealworms] [hide beetles]
- One dose. Effective and easy to use
- [Focused] [Targeted] band treatment
- Allows labor-saving band treatment
- Less time-consuming band treatment
- Use less insecticide with [banded] [targeted] application
- Use less insecticide per [house] [building] [barn] with [banded] [targeted] application
- Time-saving band treatment
- Easy and flexible treatment options
- Easy and targeted control of [darkling beetles] [lesser mealworms] [hide beetles]
- Mix and spray – fast and flexible treatment options
- Broadcast or banded treatment
- May be applied as either band or broadcast spray
- Controls even [pyrethroid] [spinosad] [organophosphate] resistant [darkling beetles] [lesser mealworms] [hide beetles]
- Control exactly where you need it
- Flexible application for any poultry operation
- The active ingredient in this product has been shown to provide effective control of [specified ants] [darkling beetles] [lesser mealworms] [hide beetles]
- Controls darkling beetle adults and larvae
- The solution to control of [darkling beetles] [lesser mealworms] [hide beetles]
- Rotate with pyrethroid insecticides to manage resistance
- Manage resistance with a rotation of this product and pyrethroids