U.S. ENVIRONMENTAL PROTECTION AGENCY Office of Pesticide Programs Registration Division (7505T) 1200 Pennsylvania Ave., N.W. Washington, D.C. 20460 NOTICE OF PESTICIDE: <u>X</u> Registration <u>Reregistration</u> (under FIFRA, as amended)	EPA Reg. Number: 89118-16 Term of Issuance: Unconditiona Name of Pesticide Pr VCP-034	Date of Issuance: 3/6/24		
Name and Address of Registrant (include ZIP Code): Wess Lovell Sr. Regulatory Associate Vive Crop Protection, Inc. 500 Westover Dr., #10198 Sanford, NC 27330				
Note: Changes in labeling differing in substance from that accepted in connection with this registration Registration Division prior to use of the label in commerce. In any correspondence on this product alw	must be submitted to a ays refer to the above Ef	nd accepted by the PA registration number.		
On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others. This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you: 1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.				
		Continues page 2		
Signature of Approving Official:	Date: 3/6/2	4		

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Venus Eagle, Product Manager 01 Invertebrate and Vertebrate Branch 3, Registration Division

EPA Form 8570-6

- 2. Make the following label changes before you release the product for shipment:
 - Revise the EPA Registration Number to read, "EPA Reg. No. 89118-16."
- 3. If, after formal consultation with the appropriate Service(s), additional modifications are identified in the Service's Biological Opinion(s) for imidacloprid, EPA will notify Vive Crop Protection, Inc. in writing consistent with the terms in the Biological Opinion of any necessary required changes. Vive Crop Protection, Inc. must submit an application for amendment incorporating any required changes, including amended labels, consistent with the timeline specified in EPA's notification. If Vive Crop Protection, Inc. fails to comply with this term, Vive Crop Protections, Inc. has agreed in prior written acceptance on May 3, 2023 of these terms that EPA may cancel the registration under an expedited process under FIFRA 6(e).
- 4. Submit one copy of the final printed label for the record before you release the product for shipment.

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

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.

The record for this product currently contains the following CSF(s):

Basic CSF dated 11/22/2022 Alternate CSF A dated 11/22/2022 Alternate CSF B dated 11/22/2022 Alternate CSF C dated 11/22/2022 Alternate CSF D dated 11/22/2022 Alternate CSF F dated 11/22/2022 Alternate CSF G dated 11/22/2022 Alternate CSF H dated 11/22/2022 Alternate CSF I dated 11/22/2022 Alternate CSF J dated 11/22/2022 Page 3 of 3 EPA Reg. No. 89118-16 Decision No. 586708

Alternate CSF E dated 11/22/2022 Alternate CSF K dated 11/22/2022

If you have any questions, please contact Marianne Lewis at lewis.marianne@epa.gov.

Enclosure

MASTER LABEL/COVER PAGE

IMIDACLOPRID GROUP 4A INSECTICIDE

MASTER LABEL consists of: SUB-LABEL A: COMMERCIAL AGRICULTURE SUB-LABLE B: NURSERY, GREENHOUSE and LANDSCAPE ORNAMENTALS

{Note: This master label contains 2 sub-labels which bear directions for use in Commercial Agriculture, and in Nursery, Greenhouse and Landscape Ornamentals.}



Active Ingredient:	By Wt
Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine Other Ingredients:	40.0% 60.0%
Total:	100.0%

This product contains 4.0 pounds of active ingredient per gallon

KEEP OUT OF REACH OF CHILDREN CAUTION

Lot No.: EPA Reg. No. 89118-XX EPA Est. XXX-YY-Z Net Contents: [1, 2.5, 5, 15, 30, 130, or 265 Gallons]



Vive Crop Protection Inc. 500 Westover Dr. #10198 Sandford, NC 27330 1-416-260-8889



ື 89118-16

IMIDACLOPRID GROUP 4A INSECTICIDE

VCP-034

{Sub-label A Alternate brand names: "Viloprid 4", "Viloprid FC 4", "Viloprid 4FC"}

VCP-034 is a systemic and foliar insecticide for use on the listed crops including artichokes (globe); bananas/plantains; bushberries; caneberries; Christmas trees; citrus; coffee; cotton; cranberries; cucurbit vegetables; fruiting vegetables; grapes; head and stem brassica vegetables; herbs; hops; leafy greens and leafy petiole vegetables; legume vegetables (succulent or dried); mature cucumber/tomato in production greenhouses; peanuts; pome fruits; pomegranates; poplar/cottonwood; potatoes; root vegetables; soybeans; stone fruit; strawberries; sugar beets; tobacco; tree nuts (except almond); tropical fruits; and tuberous and corm vegetables.

Active Ingredient:	By Wt
Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine	40.0%
Other Ingredients:	60.0%
Total:	100.0%

This product contains 4.0 pounds of active ingredient per gallon

KEEP OUT OF REACH OF CHILDREN CAUTION

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

Lot No.: EPA Reg. No. 89118-XX EPA Est. XXX-YY-Z Net Contents: [1, 2.5, 5, 15, 30, 130, or 265 Gallons]



Vive Crop Protection Inc. 500 Westover Dr. #10198 Sandford, NC 27330 1-416-260-8889

FIRST AID			
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice.		
	Have person sip a glass of water if able to swallow.		
	• DO NOT induce vomiting unless told to by a poison control center or doctor.		
	DO NOT give anything by mouth to an unconscious person.		
IF ON SKIN OR	Take off contaminated clothing.		
CLOTHING	Rinse skin immediately with plenty of water for 15 to 20 minutes.		
	Call a poison control center or doctor for treatment advice.		
IF INHALED	Move the 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 15-20 minutes. 		
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.		
	Call a poison control center or doctor for treatment advice.		
Note to Physician:			
No specific antidot	e is available. Treat the patient symptomatically.		
EMERGENCY INFO	RMATION		

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

For information on this pesticide product (including general health concerns or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378 Monday through Friday, 8:00 AM to 12:00 PM Pacific Standard Time. In the event of a medical emergency, call your poison control center at 1-800-222-1222.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

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

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

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

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

Engineering Control Statements

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the 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 immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

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

DO NOT apply directly to water, or 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 chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Physical or Chemical Hazards

DO NOT mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

PROTECTION OF POLLINATORS



APPLICATION RESTRICTIONS EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOWAPPLICATION 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://pesticidestewarship.org/pollinator-protection

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. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov

DIRECTIONS FOR USE

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

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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

For Crops Under Contracted Pollination Services



DO NOT apply this product while bees are foraging. **DO NOT** apply this product until flowering is complete and all petals have fallen unless the following condition has been met:

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

For Food Crops and Commercially Grown Ornamentals Not Under Contract for Pollination Services But Are Attractive To Pollinators



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

- The application is made to the target site after sunset.
- The application is made to the target site when temperatures are below 55°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 the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.
- The application is made due to an imminent threat of significant crop loss, and a documented determination consistent with an IPM plan or predetermined economic threshold is met. Every effort should be made to notify beekeepers no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR 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 in this labeling about personal protective equipment, restricted-entry intervals, and notification to works. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

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.

For early entry into 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, wear:

- Coveralls.
- Shoes plus socks.
- Gloves made of: barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, natural rubber ≥14 mils, polyethylene, polyvinylchloride (PVC) ≥14 mils or viton ≥14 mils.

RESTRICTIONS

- **DO NOT** apply to plants grown in non-soil media such as perlite, vermiculite, rock wool or other soil-less media, or plants growing hydroponically.
- **DO NOT** apply more than 0.5 lb imidacloprid per acre per calendar year regardless of formulation or method of application, unless specified within a crop-specific section for a given crop.
- DO NOT apply VCP-034 on crops grown for seed unless allowed by state approved 24(c) labeling.
- **DO NOT** graze treated areas or use clippings from treated areas for feed or forage, unless specified within a crop-specific section for a given crop.

MIXING AND LOADING REQUIREMENTS

To avoid potential contamination of groundwater, use a properly designed and maintained containment pad for mixing and loading of any pesticide into application equipment. If containment pad is not used, maintain a minimum distance of 25 feet between mixing and loading area and potential surface to groundwater conduits such as field sumps, uncased well heads, sink-holes, or field drains.

RUNOFF MANAGEMENT

DO NOT cultivate within 10 feet of the aquatic areas to allow growth of a vegetative filter strip. When used on erodible soils best management practices for minimizing runoff must be employed.

VEGETATIVE FILTER STRIPS

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

Only apply products containing imidacloprid onto fields where a maintained vegetative filter strip of at least 10 feet exists between the field edge and where a down gradient aquatic habitat exists.

Western irrigated agriculture is exempt from this requirement. Western irrigated agriculture is defined as irrigated farmland in the following states: WA, OR, CA, ID, NV, UT, AZ, MT, WY, CO, NM, and TX (west of I-35).

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

NO-SPRAY ZONE REQUIREMENTS FOR SOIL APPLICATIONS

DO NOT apply within 25 feet, of lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries and commercial fish farm ponds.

NO-SPRAY ZONE REQUIREMENTS FOR 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.

MANDATORY SPRAY DRIFT MANAGEMENT

Ground Boom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Boomless Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Aerial Applications:

- **DO NOT** release spray at a height greater than 10 ft above the ground or vegetative canopy unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed wing aircraft and 90% or less of the rotor diameter for helicopters.
- For aerial applicators, if the windspeed is 10 miles per hour or less, applicators must use ½ swatch displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use ¾ swatch displacement upwind at the downwind edge of the field.
- **DO NOT** apply during temperature inversions.

Airblast Applications:

- Sprays must be directed into the canopy foliage.
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- User must turn off outward pointing nozzles at row ends and when spraying outer row.
- **DO NOT** apply during temperature inversions.

OBSERVE 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 ADVISORIES

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

IMPORTANCE OF DROPLET SIZE

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

Controlling Droplet Size - Ground Boom

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce spray drift.

Controlling Droplet Size - Aircraft

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

BOOM HEIGHT - Ground Boom

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

RELEASE HEIGHT – Aircraft

Higher release heights increase the potential for spray drift.

SHIELDED SPRAYERS

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

TEMPERATURE AND HUMIDITY

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

TEMPERATURE INVERSIONS

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

WIND

Drift potential generally increases with wind speed.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Boomless Ground Applications:

• Setting nozzles at the lowest effective height will help reduce the potential for spray drift.

Handheld Technology Applications:

• Take precautions to minimize spray drift.

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.

PRODUCT INFORMATION

VCP-034 is a versatile, broad-spectrum insecticide containing the active ingredient imidacloprid in a suspension concentrate (SC) product that is compatible with liquid fertilizers. VCP-034 provides activity against listed important crop insect pests and can be used alternated with other insecticides with a different mode of action or tank-mixed with such insecticides and other crop protection products.

RESISTANCE MANAGEMENT

VCP-034 contains the active ingredient imidacloprid which is a GROUP 4A INSECTICIDE and is effective against a variety of insect pests. Insects pests resistant to other chemical classes have not shown cross-resistance to imidacloprid or other neonicotinoids.

Some insect species are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities or universities for details.

For resistance management, VCP-034 contains a Group 4A insecticide. Any insect population may contain individuals naturally resistant to VCP-034 and other Group 4A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of VCP-034 or other Group 4A insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. **DO NOT** rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
 - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
 - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
 - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
 - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
 - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
- Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information
 related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical
 control practices.

- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Vive Crop Protection at 1-888-760-0187.

Maintaining Susceptibility to These Classes of Chemistry

For insects with a high potential to develop resistance it is recommended to follow these practices in each crop season:

- Only make a single application when using a soil-applied program and **DO NOT** follow up with any additional foliar applications of VCP-034 or other Group 4A insecticides.
- Avoid making a block of more than 3 consecutive foliar applications of VCP-034 or other group 4A insecticides in the same crop season.
- Avoid making a foliar-applied program of VCP-034 or other Group 4A insecticides in the same crop season that a soilapplied program of VCP-034 or other group 4A insecticides has been applied targeting inspect species with a high potential to develop resistance.

Integrated Pest Management (IPM)

VCP-034 should be used as one component in an integrated pest management program including cultural practices that reduce insect pest pressure. Consult your local extension specialist or certified crop advisor for local best practices to manage insect pests.

Application and Mixing Instructions

VCP-034 is a suspension concentrate product. Shake [Stir] Well Before Use. {"Shake" will be used for containers 5 gallons or less. "Stir" will be used for containers > 5 gallons.} Like most suspension concentrate products, VCP-034 will thicken upon standing for long periods of time. VCP-034 will revert back to an easily flowable fluid after a brief shake or stir.

VCP-034 disperses finely in liquid fertilizer and micronutrient products without prior dilution with water. However, due to the wide variability in the composition and consistency of liquid fertilizers, it is recommended a jar-test be performed.

VCP-034 insecticide is designed for at-plant, soil, and foliar applications, and must be diluted with water and/or liquid fertilizer before application. Apply this product with properly calibrated ground or aerial application equipment. Minimum spray volumes unless otherwise specified in the Use Directions for Agricultural Crops section are 10 gallons/acre by ground applications and 5 gallons/acre through aerial equipment.

DO NOT apply more than 0.5 lbs. active ingredient per acre, per calendar year, from all imidacloprid containing products regardless of method of application, unless specified within the **Specific Use Directions for Agricultural Crops** to a given crop. Refer to **Specific Use Directions for Agricultural Crops** for pest control or suppression instructions.

Make sure that application equipment is thoroughly cleaned and properly calibrated prior to application and thoroughly cleaned after application.

- Use spray nozzles appropriate for the crop to provide full coverage and uniform distribution of the spray mixture.
- Use screens where appropriate to protect sprayer equipment and prevent clogging.
- Use screens to protect pump on the suction side with no finer than 16-mesh.
- **DO NOT** fit the recirculation line of the spray system with a screen.
- Screens used on the spray nozzles are to be no finer than 50-mesh.
- Use a spray system pump with sufficient capacity to deliver 35-40 psi of pressure to the nozzles and recirculate at least 10% of the tank volume per minute to maintain a uniform mixture.
- Agitate the spray mixture with a jet agitator or liquid sparge tube.
- **DO NOT** use air sparge.

Consult manufacturers of spray equipment for more information on sprayer use, calibration, and recommendations. Consult state agricultural extension recommendations for local directions and spray schedules.

DO NOT prepare more mixture than is required for the treatment. For best results, use immediately after mixing. If the mixtures settles, agitate the mixture and assess to ensure thorough re-mixing prior to application.

Choose a rate within the listed label ranges for the crop being treated based on expected insect pest pressure. This can be determined by history and scouting of the field and whether weather conditions are expected to be favorable. Use lower listed rates when insect pest pressure is expected to be light and use higher rates when insect pest pressure is expected to be heavy.

As with any insecticide, care must be taken to minimize exposure of VCP-034 to honey bees and other pollinators. Additional information on VCP-034 uses for these crops and other questions may be obtained from the Cooperative Extension Service, PCAs, consultants or local Vive Crop Protection representatives.

Application Rate Summary Table			
fl oz Product/A	lb imidacloprid/A	Treated Acres per Gallon Product	Treated Acres per 2.5 Gallon Jug of Product
0.8	0.025	160	400
1.0	0.03	128	320
1.2	0.04	107	267
1.4	0.044	91	289
1.5	0.047	83	213
1.6	0.05	80	200
2.0	0.06	64	160
2.4	0.08	53	133
2.5	0.09	46	114
3.0	0.09	43	107
3.2	0.10	40	100
4.0	0.125	32	80
4.2	0.13	30	76
4.5	0.14	28	71
5.0	0.16	26	64
6.0	0.19	21	53
6.4	0.20	20	50
6.5	0.20	20	49
7.5	0.23	17	43
7.7	0.24	17	42

8.0	0.25	16	40
8.5	0.27	15	38
9.0	0.28	14	36
9.6	0.3	13	33
10.0	0.31	13	32
10.6	0.33	12	30
11.5	0.36	11	28
12.0	0.38	11	27
12.8	0.4	10	25
16.0	0.5	8	20

Solo VCP-034 Application Mixing Instructions

- Determine the required volume of water or liquid fertilizer for application and fill the spray/mixing tank with ½ ⅔ of this volume.
- Begin agitation of the tank and add the required volume of VCP-034 for the insecticide application. While pouring, avoid direct contact of VCP-034 with the mix tank wall to achieve the best dispersion.
- Continue agitation while adding the remaining $\frac{1}{2}$ $\frac{1}{3}$ volume of water or liquid fertilizer to complete the spray mixture.
- Apply the mixture after the contents of the tank are completely dispersed.
- Best practice is to maintain agitation of the spray tank until all of the spray mixture has been applied.
- Thoroughly rinse spray tank with water and dispose of the rinse water by spraying onto a section of the already treated crop.

Tank Mixture Application Instructions

VCP-034 may be applied in tank mixtures with adjuvants, micronutrients, and other products approved for use on the same registered crops.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

When an adjuvant is used, it is recommended to use an adjuvant that meets the standards of the Council of Producers and Distributors of Agrotechnology (CPDA) adjuvant certification.

Tank Mixing Order Instructions

This is the general recommendation for order of addition. Always follow any specific order of addition instructions on all the tank-mix partner labels. Jar tests (or other similar methods) to ensure order of addition compatibility between products should be conducted before use. Allow each tank-mix partner to fully mix prior to adding the next component.

- 1. Fill tank ¹/₃ to ¹/₂ full with mixing diluent (water, liquid fertilizer, etc.).
- 2. Begin tank agitation before adding any tank-mix partners and ensure good agitation as each component is added.
- 3. Add any water conditioner/anti-foam/compatibility agents.
- 4. Add any products packaged in water-soluble packaging and allow to completely dissolve/disperse.
- 5. Add any wettable powders/flowables (DC, DS, GR, SG, SP).
- 6. Add any microencapsulated suspensions (ME).
- 7. Add any liquids and solubles (SC, SU), including VCP-034.
- 8. Add any emusifiable concentrates (EC).

9. Add any adjuvants.

Jar Test Procedure

Test potential mixing partners, including adjuvants, for mixing compatibility using a standard jar test or other similar method and for crop safety prior to use on a crop.

The following jar test procedure is recommended to evaluate compatibility: Following any product specific instructions for order of addition, pour the recommended proportions of the products into a suitable container, mix thoroughly and allow to stand at least twenty (20) minutes. If the combination remains mixed, or can be re-mixed readily, the mixture is considered physically compatible. If the combination does not remain mixed, or cannot be re-mixed readily, the products are not physically compatible and should not be tank-mixed together.

Instructions for Soil Applications

Apply VCP-034 directly to the seed or root-zone of the crop. Loss of insect pest control or delayed activity may occur if treatment is not placed in specified location. Apply VCP-034 by ground or chemigation application.

Applying VCP-034 to the root-zone of plants is ideal, as it is the systemic activity of VCP-034 that provides most control. Early application of VCP-034 leads to early control of listed insect pests. Application in the root-zone results in uptake by the roots of the developing plant, and the active ingredient is translocated through the xylem tissue to the vegetative parts of the plant, resulting in residual control. The higher labeled rate may result in longer periods of residual control and are best used for late or continuous insect pest infestations throughout the growing season. However, protection will not generally last against pests infesting flowers, blooms, or fruit.

Residual activity of VCP-034 controls insects which may vector disease transmission.

Refer to the Specific Use Directions to determine if VCP-034 is labeled for a given crop and, if so, for which insect pests.

Check with your local extension specialist or certified crop advisor for specific advice on best local practices for insect control.

At Plant In-Furrow Application Rates (fl oz product per 1000 row ft)					
fl oz product per	Average Row Spacing (inches)				
acre	15	20	30	34	36
5.0	0.14	0.19	0.29	0.33	0.34
6.5	0.19	0.25	0.37	0.42	0.45
8.5	0.24	0.33	0.49	0.55	0.59
10.0	0.29	0.38	0.57	0.65	0.69
10.5	0.30	0.41	0.61	0.68	0.72
12.0	0.34	0.46	0.69	0.78	0.83
IMPORTANT: The linear application rate applied affects the duration and degree of control. Linear application rates in the non-					
shaded region in the above table will provide early season protection to the seed and seedling, but may not provide residual pest control. These rates are not recommended for long-term residual control. Follow all crop specific use instructions regarding maximum use rates					

Linear Row Feet Calculation: 522,720 ÷ row spacing (in inches) = Row feet per acre

Instructions for Foliar Applications

Make foliar applications using properly calibrated ground or aerial application equipment for thorough coverage. Minimum spray volumes are 2 gallons or more per acre. See individual crop for specific application volume. Applications made with less than 5 gallons per acre may result in less control or slower activity from a single application when compared to higher spray volumes. Apply using the rates specified in the **Specific Use Directions for Field Crops** section and apply at the earliest threshold for the target pest as the pest population begins to develop. Scout the field and retreat if necessary, following all foliar use restrictions.

When pest pressure is low or when tank-mixing with products registered for target pest control the lower specified rates can be used. The stage of pest development at application and the infestation level will have an impact on the degree of control or suppression that can be achieved. Optimal performance of VCP-034 is achieved against early instar and early nymphal stages of insects and bollworm/budworm eggs. The use of organosilicone-based spray adjuvants may provide better control when targeting aphids and whiteflies.

Suppression or less than complete control of certain diseases and insect pests including reduced feeding may also result from VCP-034 applications. Supplemental control measures may be required to completely control these insect pests or diseases.

Chemigation Use Directions

VCP-034 may be applied to crops through chemigation systems as specified in the **Specific Use Directions for Agricultural Crops** section.

- Make foliar chemigation applications of this product to crops through overhead sprinkler chemigation systems if specified in crop- specific restrictions and limitations application sections. Make soil chemigation applications of this product only to crops through chemigation as specified in crop-specific application sections and only through low-pressure systems specifically listed for a given crop. **DO NOT** apply this product through any other type of irrigation system.
- 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, you should contact State Extension Service specialists, equipment manufacturers or other experts.
- **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- 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.
- Follow rates and application timings given in the specific crop instructions.
- The chemical supply tank and injector system must be thoroughly cleaned and flushed with clean water.
- **DO NOT** apply when wind speed favors drift beyond the targeted treatment area.

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

Specific Instructions for Public Water Systems

Public water system 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, discharge the water from the public water system 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 the 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 pipe.
- 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.
- **DO NOT** apply when wind speed favors drift beyond the area intended for treatment.

Rotational Crops

Crops which are listed on imidacloprid labels or crops that have existing tolerances for imidacloprid may be planted in treated areas as soon as practical after the last imidacloprid application. Crops that are not found on an imidacloprid label, or crops that do not have existing tolerances for imidacloprid, may not be planted in treated areas for 12-months after the last application. Refer to the table below for plantback intervals for different crops. Note that if cover crops are planted any time after an application of this product, those crops may not be grazed or harvested for food or feed.

Rotational Crops – Plant-Back Intervals

IMMEDIATE PLANT-BACK:

All crops on this label plus the following crops not on this label: barley; corn (field, pop & sweet); rapeseed/canola; sorghum; and wheat.

30-DAY PLANT-BACK:

Cereals (including buckwheat, millet, oats, rice, rye, and triticale), safflower.

10-MONTH PLANT-BACK:

Onions and bulb vegetables.

12-MONTH PLANT-BACK:

All Other Crops.

Cover crops for soil building or erosion control may be planted any time, but **DO NOT** graze or harvest for food or feed.

{Note to reviewer: If a table is split between pages the name of the crop will be added above the trailing portion of the table, ex. Artichoke, Globe continued}.

Specific Use Directions for Agricultural Crops

ARTICHOKE, GLOBE			
SOIL APPLICATIONS			
PESTS	USE RATE fl oz product/A (lb a.i./A)		
Aphids Leafhoppers	8.0 – 16.0 (0.25 – 0.50)		
 Soil Application Methods: Make application by one of the following methods: By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment. As an in-furrow spray directed on or below the seed during planting. 			
 Soil Use Restrictions: Annual Maximum: DO NOT exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year. DO NOT exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products. Pre-Harvest Interval (PHI): 7 days. 			
FOLIAR APPLICATIONS			
USE RATE PESTS fl oz product/A (lb a.i./A)			
Aphids 1.6 – 4.0 Leafhoppers (0.05 – 0.125)			
 Foliar Application Methods: Apply as a broadcast or directed spray through properly calibrated ground, aerial or chemigation application equipment. Thorough coverage of foliage is necessary. 			
 Foliar Use Restrictions: Annual Maximum: DO NOT exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year. DO NOT exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products. Minimum Application Interval: DO NOT make applications less than 14 days apart. Pre-Harvest Interval (PHI): 7 days. 			

SOIL APPLICATIONS			
PESTS	USE RATE fl oz product/A (lb a.i./A)		
Aphids Leafhoppers	8.0 - 16.0		
Suppression: Scales	(0.25 – 0.50)		
 Soil Application Methods Apply by chemigation into the root-zone through aquiament 	low-pressure (drip, trickle, micro-sprinkler, or other equivalent)		
equipment.			
Soil Use Restrictions: Annual Maximum: DO NOT exceed 16.0 fl oz of VCP-034 (0.50 lb DO NOT exceed 0.50 lb imidacloprid per acre Pre-Harvest Interval (PHI): 0 days.	a.i.) per acre per calendar year. per calendar year from all imidacloprid containing products.		
Soil Use Restrictions: Annual Maximum: DO NOT exceed 16.0 fl oz of VCP-034 (0.50 lb DO NOT exceed 0.50 lb imidacloprid per acre Pre-Harvest Interval (PHI): 0 days. FOLIAR APPLICATIONS	a.i.) per acre per calendar year. per calendar year from all imidacloprid containing products.		
Soil Use Restrictions: • Annual Maximum: • DO NOT exceed 16.0 fl oz of VCP-034 (0.50 lb • DO NOT exceed 0.50 lb imidacloprid per acre • Pre-Harvest Interval (PHI): 0 days. FOLIAR APPLICATIONS PESTS	a.i.) per acre per calendar year. per calendar year from all imidacloprid containing products. USE RATE fl oz product/A (lb a.i./A)		

- Apply by ground or aerial applications. Aerial applications may result in reduced control or slower activity compared to ground applications.
- Apply as a broadcast or directed spray with sufficient spray volume to ensure thorough coverage targeting the infested area.

Foliar Use Restrictions:

- Annual Maximum:
 - o **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - o **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 14 days apart.
- Pre-Harvest Interval (PHI): 0 days.

BUSHBERRY Blueberry; currant; elderberry; gooseberry; huckleberry; juneberry; ligonberry; salal				
SOIL APPLICATIONS				
PESTS USE RATE fl oz product/A (lb a.i./A)				
Japanese Beetle (Adults Feeding on Foliage) White Grub Complex ¹ (Grubs of Asiatic Garden Beetle, European and Masked Chafer, Japanese Beetle and Oriental Beetle)				
 Soil Application Methods: Make application by one of the following methods: By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment. As an 18-inch banded spray on each side of the row followed with 0.25 inch of irrigation immediately after application. 				
 Soil Application Instructions: For grub control, apply this product to control 1st or 2nd (early) instar larvae. Application may be made post-bloom up to 7 days prior to harvest, or post-harvest until October 1st. For control of Japanese beetle larvae, make applications from June 1 to July 15. DO NOT apply during bloom. 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. To ensure maximum efficacy, 0.5 to 1 inch of irrigation water or rainfall must be applied or received within 24 hours of application of this product to facilitate movement into the soil and into the root zone. 				
 Soil Use Restrictions: Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging. Annual Maximum: 				
FOLIAR APPLICATIONS				
PESTS	USE RATE fl oz product/A (lb a.i./A)			
Aphids Leafhoppers / Sharpshooters	1.2 – 1.6 (0.04 – 0.05)			
Japanese Beetle (Adults)2.4 – 3.2Thrips (Foliage Feeding Thrips Only)(0.08 – 0.10)				
Blueberry Maggot 3.2				

	(0.10)
Foliar Application Methods:	
• Apply this product as a broadcast or directed sp chemigation application equipment. Thorough o	oray method through properly calibrated ground, aerial or coverage of foliage is necessary.
oliar Use Restrictions:	
 Application Timing: DO NOT apply during bloom 	n or within 10 days prior to bloom or when bees are foraging.
 Application Volume: Apply in a minimum of 20 ; 	gallons per acre by ground or 5 gallons per acre by air.
Annual Maximum:	
• DO NOT exceed 5 applications of VCP-034 pe	er acre per calendar year.
o DO NOT exceed 16.0 fl oz of VCP-034 (0.50 ll	b a.i.) per acre per calendar year.
• DO NOT exceed 0.50 lb imidacloprid per acre	e per calendar year from all imidacloprid containing products.
Minimum Application Interval: DO NOT make a	pplications less than 7 days apart.
Pre-Harvest Interval (PHI): 3 days.	

CANEBERRY

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 raspberry) cultivars and/or hybrids of these

CO 11		-
SOIL	APPL	ONS

PESTS	USE RATES fl oz product/A (lb a.i./A)
Aphids Leafhoppers Whiteflies	8.0 – 16.0 (0.25 – 0.50)
Rednecked Cane Borer	12.0 – 16.0 (0.38 – 0.50)
Suppression: Thrips (Foliage Feeding Thrips Only)	16.0 (0.50)

Soil Application Methods:

Make application by one of the following methods:

- By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
- As a basal soil drench applied in a minimum of 500 gallons solution per acre.

Soil Use Restrictions:

- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
- Annual Maximum:
 - **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.

• Pre-Harvest Interval (PHI): 7 days.		
FOLIAR APPLICATIONS		
PESTS	USE RATE fl oz product/A (lb a.i./A)	
Aphids Leafhoppers	3.2	
Suppression: Thrips (Foliage Feeding Thrips Only)	(0.10)	

Foliar Application Methods:

• Apply this product as a broadcast or directed spray method through properly calibrated ground, aerial or chemigation application equipment. Thorough coverage of foliage is necessary.

Foliar Use Restrictions:

- State Restrictions: Not for use in California unless otherwise directed by state approved 24(c) labeling.
- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
- Annual Maximum:
 - **DO NOT** exceed 9.6 fl oz of VCP-034 (0.30 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.30 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 7 days apart.
- Pre-Harvest Interval (PHI): 3 days.

CHRISTMAS TREE NURSERIES		
SOIL APPLICATIONS		
PESTS	USE RATE fl oz product/A (lb a.i./A)	
White Grub Complex (Grubs of Asiatic Garden Beetle, European and Masked Chafer, Japanese Beetle and Oriental Beetle)	8.0 – 16.0 (0.25 – 0.50)	

Soil Application Methods:

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

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

Soil Application Instructions:

• Apply this product during adult flight activity, or up to mid-July, when first instar larvae are present.

Soil Use Restrictions:

• Annual Maximum:

- **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
- **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.

FOLIAR APPLICATIONS		
PESTS	USE RATE fl oz product/A (lb a.i./A)	
Adelgids ¹ Aphids Sawflies	1.6 - 3.2 (0.05 - 0.10)	

Foliar Application Methods:

• Apply specific dosage of this product as a broadcast or directed spray to infested area ensuring thorough coverage. Apply this product through properly calibrated ground or aerial equipment.

Foliar Application Instructions:

- Ground applications of this product are more effective than aerial applications.
- ¹Adelgids: make application to coincide with full bud swell or the first bud break of the earliest bud breaking trees to control gall forming adelgids. Once the galls form spraying will be ineffective.

Foliar Use Restrictions:

- Annual Maximum:
 - **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 7 days apart.

CITRUS

Calamondin; citrus citron; citrus hybrids (includes chironja, tangelo, tangor); grapefruit; kumquat; lemon; lime; mandarin (tangerine); orange, sour; orange, sweet; pummelo; Satsuma mandarin, and other cultivars and/or hybrids of these.

CONTAINERIZED SOIL APPLICATIONS

PESTS	USE RATE mL / 0.1 ft ³ container media (lb a.i./0.1 ft ³)
Aphids Asian Citrus Psyllid Blackfly Citrus Leafminer Citrus Root Weevil ¹ (Larval Complex) Leafhoppers / Sharpshooters Mealybugs Scales Whiteflies	0.38 – 0.58 (0.0004 – 0.0006)

Suppression: Citrus Thrips (Foliage Feeding Thrips Only)	0.58 (0.0006)	
 Containerized Soil Application Methods: 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, treatment must be made at planting prior to insect infestation. Retreat if necessary but DO NOT exceed the annual maximum per crop season regardless of container size. 		
 Containerized Soil Application Instructions: ¹Citrus root weevil complex: make application prior to the neonate larvae entering the potting media. Not all varieties or hybrids have been tested for phytotoxicity from imidacloprid applications. It is recommended that the user conducts a small-scale test on a few plants and observe for phytotoxic effects for up to 60 days before treating a nursery on a large scale. 		
 Containerized Soil Use Restrictions: Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging. Maximum Single Applications: DO NOT apply more than 0.58 mL VCP-034 per 0.1 ft³ per application. Annual Maximum: DO NOT exceed 3.5 mL of VCP-034 (0.0037 lb a.i.) per plant per crop season. Pre-Harvest Interval (PHI): 0 days. 		
FIELD SOIL APPLICATIONS		
PESTS	USE RATE fl oz product/A (lb a.i./A)	
Aphids Asian Citrus Psyllid Blackfly Citrus Leafminer Leafhoppers / Sharpshooters Mealybugs Scales Whiteflies	8.0 – 16.0 (0.25 – 0.50)	
Suppression: Citrus Nematode ¹ Thrips (Foliage Feeding Thrips Only)	16.0	
Suppression of disease symptoms of: Citrus Tristeza Virus (CTV) Through Vector Control Citrus Yellows	(0.50)	
Field Soil Application Methods:		

Make application by one of the following methods:

• By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment. Apply to new planted trees or trees that have been trained to drip, trickle or micro-sprinkler irrigation. The soil must be lightly prewetted prior to application to break soil surface tension. Follow chemigation with 10 to 20 minutes of additional watering to move imidacloprid into the root-zone. Allow 24 hours to pass before 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 the base of the tree and the area extending directly outward, covering the entire fibrous root system of the tree. **DO NOT** exceed 1 quart of solution volume per tree. **DO NOT** use on trees more than 8 feet tall for Florida citrus.

Field Soil Application Instructions:

• ¹Citrus nematode: Apply through low pressure chemigation or a soil surface banded spray only following the application directions above. Complete coverage of the root system and repeated and regular applications over several consecutive growing seasons will provide the greatest degree of nematode suppression and will yield the greatest plant response.

Field Soil Use Restrictions:

- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
- Annual Maximum:
 - o **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Pre-Harvest Interval (PHI): 0 days.

FOLIAR APPLICATIONS

PESTS	USE RATE fl oz product/100 gallons (lb a.i./100 gallons)	USE RATE fl oz product/A (lb a.i./A)
Aphids Asian Citrus Psyllid Blackfly Leafhoppers / Sharpshooters Leafminers Mealybugs Scales ¹ Whiteflies	1.4 – 2.0 (0.044 – 0.06) Dilute Application	4.0 – 8.0 (0.125 – 0.25) Depending on tree size, target pest, and infestation pressure
Suppression: Thrips (Foliage Feeding Thrips Only)	2.0 (0.06)	8.0 (0.25)

Foliar Application Methods:

• Apply as a broadcast or directed spray through properly calibrated ground or aerial equipment. Thorough coverage of foliage is necessary..

Foliar Application Instructions:

- Aerial application of this product may result in slower activity and reduced control compared to ground application. Where higher rate applications are appropriate, increase the spray solution concentration to apply an equivalent rate per acre to that applied in the diluted application. The 8.0 fluid ounce/Acre rate is based on full sized trees. This rate may be reduced proportionally for smaller trees.
- ¹Scales: make application at the crawler stage and treat each generation.

Foliar Use Restrictions:

• Application Timing: DO NOT apply during bloom, or within 10 days prior to bloom, or when bees are foraging.

• Annual Maximum:

•

- **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
- **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 10 days apart.
- Pre-Harvest Interval (PHI): 0 days.

COFFEE		
SOIL APPLICATIONS		
PESTS	USE RATE fl oz product/A (lb a.i./A)	
Aphids Leafhoppers Leafminer	8.0 - 16.0	
Suppression: Scales	(0.25 0.50)	
 Soil Application Methods: Make application by one of the following methods: By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment. As a subsurface side-dress into the root-zone by shanked application on both sides of the plants followed by irrigation. As a Basal soil drench applied in sufficient water to ensure incorporation into the root-zone followed by irrigation. 		
 Soil Use Restrictions: Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging. Annual Maximum: 		
FOLIAR APPLICATIONS		
PESTS	USE RATE fl oz product/A (lb a.i./A)	
Aphids Leafhoppers Leafminer	3.2 (0.10)	
Suppression: Scales		
Foliar Application Methods:		

• Apply this product as a broadcast or directed spray method through properly calibrated ground, aerial or chemigation application equipment. Thorough coverage of foliage is necessary.

Foliar Use Restrictions:

- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
- Annual Maximum:
 - **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 7 days apart.
- Pre-Harvest Interval (PHI): 7 days.

COTTON			
SOIL APPLICATIONS			
PESTS	US fl oz produ (lb a.i./:	E RATE ct/1000 row ft 1000 row ft)	USE RATE fl oz product/A (lb a.i./A)
Cotton Aphid Plant Bugs Thrips Whiteflies	(0.65 0.02)	8.5 – 10.6 (0.27 – 0.33) (Depending on row spacing)
 Soil Application Methods: Make application by one of the following methods: By chemigation into the root-zone through low-pressure drip, or trickle irrigation. As an in-furrow spray directed on or below the seed during planting. As a narrow banded application directly below the eventual seed row during bedding operations 7 or fewer days before planting. 			
 Soil Use Restrictions: Annual Maximum: DO NOT exceed 10.6 fl oz of VCP-034 (0.33 lb a.i.) per acre per calendar year. DO NOT exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products including seed, soil, and foliar uses. DO NOT graze treated fields. 			
FOLIAR APPLICATIONS			
USE RATE PESTS fl oz product/A (lb a.i./A)		USE RATE fl oz product/A (lb a.i./A)	
Bandedwinged Whitefly Bollworm/Budworm (Ovicidal Effect) Cotton Aphid Cotton Fleahopper Green stink bug Plant Bugs (Excludes Lygus hesperus) Southern green stink bug			1.0 – 2.0 (0.03 – 0.06)

Suppression: Lygus Bug (<i>Lygus hesperus</i>) Whiteflies (Other Than Bandedwinged Whitefly)	2.0 (0.06)	
 Foliar Application Methods: Apply as a broadcast or directed spray through properly calibrated ground, aerial or chemigation equipment. Thorough coverage of foliage is necessary. 		
 Foliar Use Restrictions: Annual Maximum: DO NOT exceed 10.0 fl oz of VCP-034 (0.31 lb a.i.) per acre per calendar year. DO NOT exceed 0.31 lb imidacloprid per acre per calendar year from all foliar applied imidacloprid containing products. DO NOT exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products. DO NOT exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products including seed, soil, and foliar uses. Minimum Application Interval: DO NOT make applications less than 7 days apart. 		

• **DO NOT** graze treated fields.

CRANBERRY	
SOIL APPLICATIONS	
PESTS	USE RATE fl oz product/A (lb a.i./A)
Rootgrubs / Scarab Grubs (Scarabaeidae) Rootworms (Chrysomelidae)	8.0 – 16.0 (0.25 – 0.50)

Soil Application Methods:

- Make an application post-bloom immediately after bees are removed. The application should target early instar larvae.
- Make applications to moist soil. If soil is not moist, hydrate the soil with irrigation water immediately before making an application of VCP-034.
- Make application to moist soil by one of the following methods:
 - As a ground application soil spray in a minimum of 20 gallons water per acre directed to the root and crown area.
 - As a chemigation application in 600 1000 gallons of water.

Immediately upon application, this product must be incorporated into root zone by 0.1 to 0.3 inch water/Acre, either with the chemigation application or through irrigation/rainfall if not applied through chemigation. Inadequate incorporation within 24 hours of application may result in reduced control.

Soil Application Instructions:

• Not all tank mix partners have been tested for phytotoxicity when mixed with VCP-034. It is recommended that the user conducts a small-scale test on a few plants and observe for phytotoxic effects within 48 hours and for the following two weeks before treating on a large scale. See **Tank Mixture Application** section for additional directions.

Soil Use Restrictions:

- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
- Annual Maximum:
 - o **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - o **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Pre-Harvest Interval (PHI): 30 days.

CUCURBIT VEGETABLES

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, bittermelon, Chinese cucumber); muskmelon (includes 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, summer (includes crookneck squash, scallop squash, straightneck squash, vegetable marrow, zucchini); squash, winter (includes butternut squash, calabaza, hubbard squash, acorn squash, spaghetti squash); watermelon

FIELD SOIL APPLICATIONS

PESTS	USE RATE fl oz product/A (lb a.i./A)
Aphids Cucumber Beetles Leafhoppers Thrips (Foliage Feeding Thrips Only) Whiteflies	8.0 – 12.0 (0.25 – 0.38)
Suppression of disease symptoms of: Bacterial Wilt (as Vectored by Various Cucumber Beetles) Leaf Silvering (Resulting from Whitefly Feeding)	12.0 (0.38)

Field Soil Application Methods:

Make application by one of the following methods:

- By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
- As an in-furrow spray directed on or below the seed during planting.
- As a narrow (2" or less) banded spray over the seed-row during planting with incorporation to a depth of 1 to 1.5" followed by sufficient irrigation within 24 hours of application.
- As a narrow banded application directly below the eventual seed row during bedding operations 14 or fewer days before planting.
- As a post-seeding drench, transplant-water drench, or hill drench.
- As a subsurface side-dress on both sides of each row and must be incorporated into the root zone.

Field Soil Use Restrictions:

- Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24(c) labelling.
- Annual Maximum:
 - o **DO NOT** exceed 12.2 fl oz of VCP-034 (0.38 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Pre-Harvest Interval (PHI): 21 days.

PLANTHOUSE APPLICATIONS	
PESTS	USE RATE fl oz product/10,000 plants (lb a.i./10,000 plants)
Aphids Whiteflies	0.5 (0.0156)

Planthouse Application Methods:

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:

- Injection into an overhead irrigation system, using adequate volume to thoroughly saturate soil media without loss of gravitational solution from the bottom of the tray.
- Uniform, broadcast high-volume foliar spray followed immediately by overhead irrigation with sufficient volume to wash VCP-034 from the foliage into potting media without loss of gravitational liquid from the bottom of the tray. Failure to wash from the foliage into the tray media may result in reduce pest control.

Planthouse Application Instructions:

- Apply with sufficient carrier volume to ensure thorough distribution throughout the tray media without the solution dripping out of the container.
- Planthouse application will only provide short-term protection and is not a replacement for a field application. Make an additional field application within 2 weeks following transplanting to provide continuous protection.
- Applications of higher rates or an increased number of applications in the planthouse may result in significant plant injury. **DO NOT** use more than the specified application rate or more than 1 application in the planthouse.
- Handle transplants carefully during setting to avoid dislodging the tray media from the roots.
- Not all varieties have been tested for phytotoxicity from imidacloprid applications to seedling flats. It is recommended that the user conducts a small-scale test on a few plants and observe for phytotoxic effects for 7 days before treating an entire planthouse.

Planthouse Use Restrictions:

- State Restrictions: Not for use in California unless otherwise directed by state approved 24(c) labeling.
- Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24(c) labelling.
- Maximum Single Applications: DO NOT apply more than 0.5 fl oz of VCP-034 (0.0156 lb a.i.) per 10,000 plants per application.
- Annual Maximum:
 - **DO NOT** exceed 1 application of VCP-034 in a planthouse per crop.
 - o **DO NOT** exceed 0.5 fl oz of VCP-034 (0.0156 lb a.i.) per 10,000 plants.
 - **DO NOT** exceed 0.0156 lb imidacloprid/10,000 plants as a planthouse application per crop from all imidacloprid containing products.

FRUITING VEGETABLES

Eggplant; groundcherry (*Physalis* spp.); okra; pepino; pepper (includes bell pepper, chili pepper, cooking pepper, pimento, sweet pepper); tomatillo; tomato

FIELD SOIL APPLICATIONS

PESTS	USE RATE fl oz product/A (Ib a.i./A)
Aphids Colorado Potato Beetle Flea Beetles Leafhoppers Thrips (Foliage Feeding Thrips Only) Whiteflies	Okra and Peppers: 8.0 – 16.0 (0.25 – 0.50) Other Listed Crops: 8.0 – 12.0 (0.25 – 0.38)
Suppression of disease symptoms of: Tomato Mottle Virus Tomato Spotted Wilt Virus Tomato Yellow Leaf Curl Virus	

Field Soil Application Methods:

Make application by one of the following methods and ensure incorporation into the root-zone:

- By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
- As an in-furrow spray directed on or below the seed during planting.
- As a narrow (2" or less) surface banded spray over the seed-row during planting with incorporation to a depth of 1 to 1.5" followed by sufficient irrigation within 24 hours of application.
- As a narrow banded application directly below the eventual seed row during bedding operations 14 or fewer days before planting.
- As a post-seeding drench, transplant-water drench, or hill drench.
- As a subsurface side-dress on both sides of each row. Must be incorporated into the root-zone.

Field Soil Use Restrictions:

- Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24(c) labelling.
- Annual Maximum:
 - Okra and Peppers:
 - **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - DO NOT exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
 - Other Listed Fruiting Vegetables:
 - **DO NOT** exceed 12.0 fl oz of VCP-034 (0.38 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Pre-Harvest Interval (PHI): 21 days.

PLANTHOUSE APPLICATIONS PESTS USE RATE fl oz product/10,000 plants (lb a.i./10,000 plants) Aphids 0.5

Whiteflies	(0.0156)	
 Planthouse Application Methods: For application to seedlings in trays in the planthouse, targeting soil media (tray drench), not more than 7 days prior to transplanting by one of the following methods: Injection into overhead irrigation system, using adequate volume to thoroughly saturate soil media without loss of gravitational solution from the bottom of the tray. 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. 		
 Planthouse Application Instructions: Apply with sufficient carrier volume to ensure thorough distribution throughout the tray media without the solution dripping out of the container. Planthouse application will only provide short-term protection and is not a replacement for a field application. Make an additional field application within 2 weeks following transplanting to provide continuous protection. Applications of higher rates or an increased number of applications in the planthouse may result in significant plant injury. DO NOT use more than the specified application rate or more than 1 planthouse application. Handle transplants carefully during setting to avoid dislodging the tray media from the roots. Not all varieties have been tested for phytotoxicity from imidacloprid applications to seedling flats. It is recommended that the user conducts a small-scale test on a few plants and observe for phytotoxic effects for 7 days before treating an entire planthouse. 		
 Planthouse Use Restrictions: State Restrictions: Not for use in California unless otherwise directed by state approved 24(c) labeling. Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24(c) labelling. Maximum Single Applications: DO NOT apply more than 0.5 fl oz of VCP-034 (0.0156 lb a.i.) per 10,000 plants per application. Annual Maximum: DO NOT exceed 1 application of VCP-034 in a planthouse per crop. DO NOT exceed 0.5 fl oz of VCP-034 (0.0156 lb a.i.) per 10,000 plants. DO NOT exceed 0.0156 lb imidacloprid/10,000 plants as a planthouse application per crop from all imidacloprid containing products. 		
FIELD FOLIAR APPLICATIONS		
PESTS	USE RATE fl oz product/A (lb a.i./A)	
Aphids Colorado Potato Beetle Leafhoppers Whiteflies ¹	1.5 – 2.5 (0.047 – 0.08)	
Pepper Weevil ² (Pepper Only)	2.5 (0.08)	
Field Foliar Application Methods:		

 Apply as a broadcast or directed spray through properly calibrated ground, aerial, or chemigation equipment. Thorough coverage of foliage is necessary.

Field Foliar Application Instructions:

- Use of VCP-034 must be incorporated into a full season program with alternations to effective products from multiple classes of chemistry and modes of action using a blocked or windowed approach. Contact your local extension specialist, certified crop advisor, or Vive Crop Protection Inc. representative for additional information.
- ¹Whiteflies: Higher specified rate within the rate range must be used when targeting adult whiteflies.
- ²Pepper weevil: Make applicates prior to a damaging population becoming established and only make applications by ground equipment only (no aerial applications). For best results good coverage of the fruit and foliage is required.

Field Foliar Use Restrictions:

- Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24(c) labelling.
- Annual Maximum:
 - **DO NOT** exceed 7.7 fl oz of VCP-034 (0.24 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.24 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 5 days apart.
- Pre-Harvest Interval (PHI): 0 days

GRAPES

American bunch grape, muscadine grape, vinifera grape

SOIL APPLICATIONS

PESTS	USE RATE fl oz product/A (lb a.i./A)	
European Fruit Lecanium Leafhoppers / Sharpshooters Mealybugs <i>Phylloxera</i> spp. ¹	8.0 – 16.0 (0.25 – 0.50)	
Suppression of disease symptoms of: Pierce's Disease	- 16.0 (0.50)	
Suppression: Grapeleaf Skeletonizer Nematodes ²		

Soil Application Methods:

Make application by one of the following methods:

- By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
- As a subsurface side-dress into the root-zone by shanked application on both sides of the plants followed by irrigation.
- As a hill drench in sufficient solution volume to ensure incorporation into the root zone. Follow the application with irrigation to aid in incorporation.

Soil Application Instructions:

• Make application between bud-break and the pea-berry stage. A total of 16 fluid ounces/acre is required under the following conditions:

- Where vigorous vine growth is expected;
- in warmer growing areas;
- where mealybug and European fruit lecanium populations are expected to be heavy;
- where vine populations exceed 600 per acre, or;
- \circ for suppression of nematodes
- **1***Phylloxera* spp.: Repeated and regular applications over several consecutive growing seasons will provide the greatest degree of *Phylloxera* infestation control or prevent an infestation from becoming established.
- ²Nematodes: For suppression, make a single 16.0 fl oz product/A application OR two 8.0 fl oz product/A applications on a 30 45 day application interval. Repeated and regular applications over several consecutive growing seasons will provide the greatest degree of nematode suppression and will yield the greatest plant response. Make the application by one of the following methods: 1) By chemigation into the root-zone through above ground low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment. 2) By the French plow technique followed by irrigation to move the imidacloprid 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 yields the greatest plant response.

Soil Use Restrictions:

- Annual Maximum:
 - **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - o **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Pre-Harvest Interval (PHI): 30 days.

FOLIAR APPLICATIONS

PESTS	USE RATE fl oz product/A (lb a.i./A)
Leafhoppers / Sharpshooters Mealybugs	1.2 – 1.6 (0.04 – 0.05)
Grapeleaf Skeletonizer	1.6 (0.05)

Foliar Application Methods:

• Apply specific dosage of this product using properly calibrated ground application equipment only. Apply as a broadcast or directed spray to infested areas ensuring thorough coverage.

Foliar Use Restrictions:

- Application Method: For ground application only, DO NOT apply aerially.
- Annual Maximum:
 - o DO NOT exceed 3.2 fl oz of VCP-034 (0.10 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.10 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 14 days apart.
- Pre-Harvest Interval (PHI): 0 days.
| GREENHOUSE VEGETABLES
Mature Cucumber and Tomato plants in production greenhouses ONLY. | | |
|--|---|--|
| PESTS | USE RATE
fl oz product/1,000 plants
(lb a.i./1,000 plants) | |
| Aphids
Whiteflies | 0.7
(0.022) | |
| Soil Application Methods: 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. DO NOT apply to immature plants since phytotoxicity may occur. | | |
| Soil Application Instructions: Make application when infestation pressure populations Below damage thresholds. Repebeneficials (onius Sp.) can occur when this present the second se | surpasses threshold and beneficials are not able to maintain pest
llency of bumble bee pollinators and negative effects on some
roduct is applied.
ed for tolerance to this product and show good safety. However,
to this product. Therefore, treat a few plants before treating the whole | |
| Soil Use Restrictions:
• Application Restrictions: DO NOT use on cro
• Annual Maximum:
• DO NOT exceed 1 application of VCP-034
• DO NOT exceed 0.7 fl oz of VCP-034 (0.02
• Pre-Harvest Interval (PHI): 0 days. | ps grown for seed unless allowed by state approved 24(c) labelling.
per crop season.
22 lb a.i.) per 1,000 plants. | |

BRASSICA (COLE) LEAFY VEGETABLES

Broccoli; broccoli, Chinese (gai lon); broccoli raab (rapini); Brussels sprouts; cabbage; cabbage, Chinese (bok choy); cabbage, Chinese (napa); cabbage, Chinese mustard (gai choy); cauliflower; cavalo broccolo; collards; kale; kohlrabi; mizuna; mustard greens; mustard spinach; rape greens

PESTS	USE RATE fl oz product/A (lb a.i./A)
Aphids Leafhoppers Thrips (Foliage Feeding Thrips Only) Whiteflies	5.0 – 12.0 (0.16 – 0.38)
Soil Application Methods:	

Make application by one of the following methods and ensure incorporation into the root-zone:

- By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
- As an in-furrow spray directed on or below the seed during planting.
- As a narrow (2" or less) surface banded spray over the seed-row during planting with incorporation to a depth of 1 to 1.5" followed by sufficient irrigation within 24 hours of application.
- As a narrow banded spray directly below the eventual seed row during bedding operations 14 or fewer days before planting.
- As a post-seeding drench, transplant-water drench, or hill drench.
- As a subsurface side-dress on both sides of each row. Must be incorporated into root-zone.

Soil Use Restrictions:

- Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24I labelling.
- Annual Maximum:
 - **DO NOT** exceed 12.0 fl oz of VCP-034 (0.38 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Pre-Harvest Interval (PHI): 21 days.

FOLIAR APPLICATIONS

PESTS	USE RATE fl oz product/A (lb a.i./A)
Aphids Flea Beetles Leafhoppers Whiteflies	1.5 (0.047)

Foliar Application Methods:

• Apply as a broadcast or directed spray through properly calibrated ground, aerial, or chemigation equipment. Thorough coverage of foliage is necessary.

Foliar Use Restrictions:

- Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24(c) labelling.
- Annual Maximum:
 - **DO NOT** exceed 7.7 fl oz of VCP-034 (0.23 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.23 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 5 days apart.
- Pre-Harvest Interval (PHI): 7 days.

HERBS

Angelica; balm (lemon balm); basil; borage; burnet; camomile; catnip; chervil (dried); chive; chive, Chinese; clary; coriander (leaf) (cilantro or Chinese parsley); costmary; culantro (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; tansy; tarragon; thyme; wintergreen; woodruff; and wormwood

FIELD SOIL APPLICATIONS	

PESTS USE RATE fl oz product/A

	(Ib a.i./A)	
Aphids Flea Beetles Leafhoppers Whiteflies	8.0 – 12.0 (0.25 – 0.38)	
Suppression: Thrips (Foliage Feeding Thrips Only)		
 Field Soil Application Methods: Make application by one of the following: By chemigation into the root-zone through low equipment. As an in-furrow spray directed on or below the As a transplant-water drench or in-furrow spray Shanked in or below the eventual seed line. 	-pressure drip, trickle, micro-sprinkler, or other equivalent seed during planting. y during setting or transplanting.	
 Field Soil Application Instructions: Not all crops and/or varieties have been tested that the user conducts a small-scale test on a fe treating on a large scale. 	for phytotoxicity from imidacloprid application. It is recommended w plants or a small area and observe for phytotoxic effects before	
 Field Soil Use Restrictions: Annual Maximum: DO NOT exceed 12.0 fl oz of VCP-034 (0.38 logon of the second of the s	lb a.i.) per acre per calendar year. e per calendar year from all imidacloprid containing products.	
FIELD FOLIAR APPLICATIONS		
PESTS	USE RATE fl oz product/A (lb a.i./A)	
Aphids Flea Beetles Leafhoppers Whiteflies	1.4 (0.044)	
 Field Foliar Application Methods: Apply as a broadcast or directed spray method through properly calibrated ground, aerial, or chemigation application equipment. Thorough coverage of foliage is necessary. 		
 Field Foliar Application Instructions: The addition of an organosilicone-based spray adjuvant at a rate not to exceed the adjuvant manufacturer's specified use rate may improve coverage and control. 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 small areas or numbers of plants and evaluate prior to full-scale use. 		

Field Foliar Use Restrictions:

Annual Maximum:

- **DO NOT** exceed 4.2 fl oz of VCP-034 (0.13 lb a.i.) per acre per calendar year.
- **DO NOT** exceed 0.13 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 5 days apart.
- Pre-Harvest Interval (PHI): 7 days.

HOPS		
SOIL APPLICATIONS		
PESTS	USE RATE fl oz product/A (lb a.i./A)	
Aphids	9.6 (0.30)	
 Soil Application Methods: Make application by one of the following methods: By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment. As a subsurface side-dress into the root-zone by shanked application on both sides of the plants followed by irrigation. As a hill drench in sufficient water to ensure incorporation into the root zone. Follow the application with irrigation. 		
 Soil Use Restrictions: Annual Maximum: DO NOT exceed 9.6 fl oz of VCP-034 (0.30 lb DO NOT exceed 0.30 lb imidacloprid per acr Pre-Harvest Interval (PHI): 60 days. 	a.i.) per acre per calendar year. e per calendar year from all imidacloprid containing products.	
FOLIAR APPLICATIONS		
PESTS	USE RATE fl oz product/A (lb a.i./A)	
Aphids 3.2 (0.10)		
 Foliar Application Methods: Apply as a broadcast or directed spray method fequipment. Thorough coverage of foliage is nec 	through properly calibrated ground, aerial, or chemigation essary.	
 Foliar Use Restrictions: Annual Maximum: DO NOT exceed 9.6 fl oz of VCP-034 (0.30 lb 	a.i.) per acre per calendar year.	

- o **DO NOT** exceed 0.30 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 21 days apart.
- Pre-Harvest Interval (PHI): 28 days.

•

LEAFY GREENS VEGETABLES & WATERCRESS

Amaranth; arugula; chervil; chrysanthemum, edible-leaved; chrysanthemum, garland; corn salad; cress, garden; cress, upland; dandelion; dock; endive; lettuce; orach; parsley; purslane, garden; purslane, winter; radicchio; red chicory; spinach; spinach, New Zealand; spinach, vine; watercress; watercress upland

SOIL APPLICATIONS

PESTS	USE RATE fl oz product/A (lb a.i./A)
Aphids Leafhoppers Thrips (Foliage Feeding Thrips Only) Whiteflies	5.0 – 12.0 (0.16 – 0.38)

Soil Application Methods:

Make application by one of the following methods:

- By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
- As an in-furrow spray directed on or below the seed during planting.
- As a narrow (2" or less) surface banded spray over the seed-row during planting with incorporation to a depth of 1 to 1.5" followed with sufficient irrigation within 24 hours of application.
- As a narrow banded spray application directly below the eventual seed row in bedding operation 14 or fewer days before planting.
- As a post-seeding drench, transplant-water drench, or hill drench.
- As a subsurface side-dress on both sides of each row. Must be incorporated into root-zone.

For watercress, drain the production field of water at least 24 hours prior to application of VCP-034 and **DO NOT** reapply water to the field for a minimum of 24 hours following application of VCP-034. **DO NOT** apply to native cress growing in streams or other bodies of water.

Soil Use Restrictions:

- Application Restrictions:
 - **DO NOT** use on crops grown for seed unless allowed by state approved 24(c) labeling.
 - **DO NOT** use on native watercress growing in streams or other bodies of water.
- Annual Maximum:
 - **DO NOT** exceed 12.0 fl oz of VCP-034 (0.38 lb a.i.) per acre per calendar year.
 - o **DO NOT** exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Pre-Harvest Interval (PHI): 21 days.

FOLIAR APPLICATIONS

PESTS	USE RATE fl oz product/A (lb a.i./A)
Aphids Flea Beetles Leafhoppers Whiteflies	1.5 (0.047)
Foliar Application Methods:	

- Apply as a broadcast or directed spray method through properly calibrated ground, aerial or chemigation application equipment. Thorough coverage of foliage is necessary..
- For watercress, drain the production field of water at least 24 hours prior to application of VCP-034 and **DO NOT** reapply water to the field for a minimum of 24 hours following application of VCP-034. Only make applications to fully leafed-up canopies. **DO NOT** apply to native cress growing in streams or other bodies of water.

Foliar Use Restrictions:

- Application Restrictions:
 - **DO NOT** use on crops grown for seed unless allowed by state approved 24(c) labelling.
- Annual Maximum:
 - o DO NOT exceed 7.5 fl oz of VCP-034 (0.23 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.23 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 5 days apart.
- Pre-Harvest Interval (PHI): 7 days.

LEAFY PETIOLES VEGETABLES

Cardoon; celery; celery, Chinese (fresh leaves and stalk only); celtuce; fennel, Florence (including sweet anise, sweet fennel, finocchio); rhubarb; Swiss chard

FIELD SOIL APPLICATIONS

PESTS	USE RATE fl oz product/A (on 36 inch rows) (lb a.i./A)
Aphids Leafhoppers Thrips (Foliage Feeding Thrips Only) Whiteflies	5.0 – 12.0 (0.16 – 0.38)

Field Soil Application Methods:

Make application by one of the following methods and ensure incorporation into the root-zone:

- By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
- As an in-furrow spray directed on or below the seed during planting.
- As a narrow (2" or less) surface banded spray over the seed-row during planting with incorporation to a depth of 1 to 1.5" followed by sufficient irrigation within 24 hours of application.
- As a narrow banded spray application directly below the eventual seed row during bedding operations 14 or fewer days before planting.
- As a post-seeding drench, transplant-water drench, or hill drench.
- As a subsurface side-dress on both sides of each row. Must be incorporated into root-zone.

Field Soil Use Restrictions:

- Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24(c) labelling.
- Annual Maximum:
 - o **DO NOT** exceed 12.0 fl oz of VCP-034 (0.38 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Pre-Harvest Interval (PHI): 45 days.

LEGUME VEGETABLES (EXCEPT DRY SOYBEAN)

Edible Podded and Succulent shelled pea and Bean and Dried Shelled Pean and Bean including:

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); broad bean (fava bean); chickpea (garbanzo bean); guar; jackbean; lablab bean (hyacinth bean); lentil; pea (*Pisum* spp.) (includes dwarf pea, edible-podded pea, English pea, field pea, garden pea, green pea, snowpea, sugar snap pea); pigeon pea; soybean (immature seed); sword bean

FIELD SOIL APPLICATIONS

PESTS	USE RATE fl oz product/A (lb a.i./A)
Aphids Leafhoppers Thrips (Foliage Feeding Thrips Only) Whiteflies	8.0 – 12.0 (0.25 – 0.38)
Suppression of Disease Symptoms of: Bean Common Mosaic Virus (BCMV) Bean Golden Mosaic Virus (BGMV) Beet Curly Top Hybrigeminivirus (BCTV)	

Field Soil Application Methods:

Make application by one of the following methods:

- By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
- As an in-furrow spray directed on or below the seed at planting.
- As a narrow (2" or less) surface banded spray over the seed-row during planting incorporated to a depth of 1 to 1.5" followed by sufficient irrigation within 24 hours of application.
- As a narrow banded application directly below the eventual seed row during bedding operations 7 or fewer days before planting.
- As a post-seeding drench, transplant-water drench, or hill drench.

Field Soil Use Restrictions:

- Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24(c) labelling.
- Annual Maximum:
 - **DO NOT** exceed 12.0 fl oz of VCP-034 (0.38 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Pre-Harvest Interval (PHI): 21 days.

FIELD FOLIAR APPLICATIONS

PESTS	USE RATE fl oz product/A (lb a.i./A)
Aphids	1.4

Leafhoppers Whiteflies	(0.044)
 Field Foliar Application Methods: Apply this product as a broadcast or directed spray method through properly calibrated ground, aerial or chemigation application equipment. Thorough coverage of foliage is necessary. 	
 Field Foliar Use Restrictions: Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24(c) labelling. Annual Maximum: DO NOT evened 4.2 fl or of VCD 024 (0.12 lb o i) per agree per colondar user. 	

- **DO NOT** exceed 0.13 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 7 days apart.
- Pre-Harvest Interval (PHI): 7 days.

PEANUT		
SOIL APPLICATIONS		
PESTS	USE RATE fl oz product/A (Ib a.i./A)	
Aphids Leafhoppers Whiteflies	8.0 – 12.0 (0.25 – 0.38)	
Suppression: Thrips	12.0 (0.38)	

Soil Application Methods:

Make application by one of the following methods:

- By chemigation into the root-zone through properly calibrated low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.
- As an in-furrow spray directed on or below the seed during planting.

Soil Application Instructions:

• Applications of this product has been observed to cause an increase in the incidence of Tomato spotted wilt virus (TSWV) and possibly other tospoviruses on multiple varieties of peanuts. Before applying VCP-034 to peanuts contact your local extension specialist, certified crop advisor, or Vive Crop Protection Inc. representative for additional information. Decisions to treat for insect control benefits should be weighed against the potential increase in viral disease levels. In areas where TSWV or other tospoviruses are endemic it is encouraged that growers use virus resistant varieties before applying an imidacloprid product.

Soil Use Restrictions:

- State Restrictions: Not for use in California unless otherwise directed by state approved 24(c) labeling.
- Annual Maximum:
 - **DO NOT** exceed 12.0 fl oz of VCP-034 (0.38 lb a.i.) per acre per calendar year.
 - o **DO NOT** exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Pre-Harvest Interval (PHI): 14 days.

FOLIAR APPLICATIONS		
PESTS	USE RATE fl oz product/A (Ib a.i./A)	
Aphids Leafhoppers Whiteflies	1.4 (0.044)	
Foliar Application Methods:		

• Apply as a broadcast or directed spray through properly calibrated ground, aerial, or chemigation application equipment. Thorough coverage of foliage is necessary.

Foliar Use Restrictions:

- State Restrictions: Not for use in California.
- Annual Maximum:
 - **DO NOT** exceed 4.2 fl oz of VCP-034 (0.13 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.13 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
 - Minimum Application Interval: DO NOT make applications less than 5 days apart.
- Pre-Harvest Interval (PHI): 14 days.

POME FRUIT

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Apple; crabapple; loquat; mayhaw; pear; pear, oriental; quince

SOIL APPLICATIONS			
PESTS	USE RATE fl oz product/A (lb a.i./A)		
Aphids (Including Woolly Apple Aphid) Leafhoppers	8.0 – 12.0 (0.25 – 0.38)		

Soil Application Methods

• Apply by chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.

Soil Use Restrictions:

- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
- Annual Maximum:
 - **DO NOT** exceed 12.0 fl oz of VCP-034 (0.38 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Pre-Harvest Interval (PHI): 21 days.

USE RATE USE RATE			
(lb a.i./100 gallons) (lb a.i./A)	PESTS	USE RATE fl oz product/100 gallons (lb a.i./100 gallons)	USE RATE fl oz product/A (lb a.i./A)

Leafhoppers	0.4 – 0.8 (0.0125 – 0.025)	1.6 - 3.2 (0.05 - 0.10)
Aphids (Except Woolly Apple Aphid) Apple Maggot ¹ Leafminers San Jose Scale	0.8 (0.025)	3.2 (0.10)
For Pears Only: Mealybugs Pear Psylla	2.0 (0.06)	8.0 (0.25)

Foliar Application Methods:

• Apply as a broadcast or directed spray through properly calibrated ground or aerial application equipment. Thorough coverage of foliage is necessary..

Foliar Application Instructions:

• **¹Apple maggot:** apply tank mixed with a sticker type adjuvant following adjuvant manufacturers rate instructions.

Foliar Use Restrictions:

- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
- Annual Maximum:
 - **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
- **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 10 days apart.
- **Pre-Harvest Interval (PHI):** 7 days.

POMEGRANATES	
SOIL APPLICATIONS	
PESTS	USE RATE fl oz product/A (Ib a.i./A)
Aphids Leafhoppers / Sharpshooters Whiteflies	8.0 - 16.0 (0.25 - 0.50)

Soil Application Methods

• Apply by chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.

Soil Use Restrictions:

- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
- Annual Maximum:
 - **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Pre-Harvest Interval (PHI): 0 days.

FOLIAR APPLICATIONS

PESTS	USE RATE fl oz product/A (lb a.i./A)
Aphids Leafhoppers / Sharpshooters Whiteflies	3.2
Suppression: Scales	(0.10)

Foliar Application Methods:

• Apply as a broadcast or directed spray through properly calibrated ground or aerial application equipment. Thorough coverage of foliage is necessary.

Foliar Use Restrictions:

- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
- Annual Maximum:
 - o **DO NOT** exceed 9.6 fl oz of VCP-034 (0.30 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.30 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
 - Minimum Application Interval: DO NOT make applications less than 7 days apart.
- Pre-Harvest Interval (PHI): 7 days.

POPLAR / COTTONWOOD (Includes members of the genus <i>Populus</i> grown for pulp or timber)		
SOIL APPLICATIONS		
PESTS	USE RATE fl oz product/A (Ib a.i./A)	
Aphids Cottonwood Leaf Beetle ¹	8.0 - 16.0	
Suppression: Phylloxerina popularia ²	(0.25 – 0.50)	

Soil Application Methods:

Make application by one of the following methods:

- By chemigation into the root-zone through low-pressure drip irrigation.
- In cutting orchards/nurseries used for plant propagation with narrow rows apply as a shanked application into the root zone followed by irrigation to promote uptake. The amount of irrigation is dependent on soil moisture at the time of application. Under dry conditions apply 0.25 inches/acre of irrigation.

Soil Application Instructions:

- ¹Cottonwood leaf beetle: apply early season when beetles are first feeding to protect against damage. Larger trees may require earlier application due to slower uptake.
- ²*Phylloxerina*: apply early in year from the break of dormancy through May.

Soil Use Restrictions:

- State Restrictions: Not for use in California unless otherwise directed by state approved 24(c) labeling.
- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
- Annual Maximum:
 - o **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - o **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.

FOLIAR APPLICATIONS

PESTS	USE RATE fl oz product/A (lb a.i./A)
Aphids	1.6 - 3.2
Cottonwood Leaf Beetle	(0.05 - 0.10)

Foliar Application Methods:

• Apply as a broadcast or directed spray through properly calibrated ground, aerial, or chemigation application equipment. Thorough coverage of foliage is necessary.

Foliar Use Restrictions:

- State Restrictions: Not for use in California unless otherwise directed by state approved 24(c) labeling.
- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
 Annual Maximum:
- Annual Maximum:
 - **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 10 days apart.
- Pre-Harvest Interval (PHI): 7 days.

POPLAR/COTTONWOOD CUTTINGS/WHIPS

PESTS	USE RATE fl oz product/100 gallons (lb a.i./100 gallons)
Cottonwood Leaf Beetle	Unhydrated Cuttings/Whips: 6.65 – 13.3 (0.2 – 0.4)
	Partially Hydrated Cuttings/Whips: 13.3 – 20.0 (0.4 – 0.6)
Suppression: Aphids Phylloxerina popularia	Unhydrated Cuttings/Whips: 13.3 (0.4) Partially Hydrated Cuttings/Whips: 20.0
Soak Application Methods:	20.0 (0.6)

Make application by one of the following methods:

- For unhydrated / freshly cut cuttings or whips soak the plant material in the specified solution concentration for 24 hours prior to cold storage. Plant as needed after removal from cold storage. Unhydrated plant material absorbs more soak solution than hydrated plant material and requires a lower concentration for a soak treatment for set treatment interval of 24 hours.
- For previously hydrated cuttings or whips removed from cold storage, allow the plant material to reach room temperature and soak the plant material in the specified solution concentration for 24 hours prior to planting. Hydrated plant material absorbs less soak solution than unhydrated plant material and requires a higher concentration for a soak treatment for set treatment interval of 24 hours.

Proper care must be taken when disposing of any remaining soak solution. The soak solution may be applied to existing trees or other registered crops on this label as long as all of the label precautions, restrictions, and instructions are followed. Soak application should be made in a covered container in the absence of UV light.

Soak Application Instructions:

- The moisture content prior to application of the cuttings/whips, the solution concentration and the length of soaking interval interact to affect the amount of product absorbed into plant material. For a constant soaking interval of 24 hours, dry cuttings/whips absorb a higher quantity of solution and require a lower concentration. Conversely, more hydrated cuttings/whips absorb less solution and require a higher concentration. Soaking of cuttings/whips must occur in a covered container in absence of UV light.
- Not all *Populus* sp. clones/varieties/hybrids have been tested for crop safety. Without specific knowledge about a particular *Populus* sp. clone/variety/hybrid, a small number of cuttings/whips of each must be treated and evaluated prior to commercial use.

Soak Use Restrictions:

- State Restrictions: Not for use in California unless otherwise directed by state approved 24I labeling.
- Annual Maximum:
 - **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - o **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.

ΡΟΤΑΤΟ		
SOIL APPLICATIONS		
PESTS	USE RATE fl oz product/A (lb a.i./A)	USE RATE fl oz product/1000 row ft (lb a.i./1000 row ft)
Aphids Colorado Potato Beetle Flea Beetles Leafhoppers Potato Psyllid		
Suppression of Disease Symptoms of: Net Necrosis (PLRV) Potato Leaf Roll Virus (PLRV) Potato Yellows	6.5 - 10.0 (0.20 - 0.31)	0.45 – 0.65 (0.014 – 0.020)
Suppression:		

Wireworms (In-Furrow Spray At- Plant)			
 Soil Application Methods: Make application by one of the fo As an in-furrow spray directe On both sides of the row app Apply directly over the row c As a narrow banded applicat before planting. 	llowing methods: ed on the seed pieces only as a subsurface side luring pre-emergence ion directly below the	during planting. e-dress, covering w hilling directed as a eventual seed row	ith 3 or more inches of soil. a narrow band spray at ground cracking. during bedding operations 7 or fewer days
 Soil Application Instructions: Linear application rates affect specified range where pest p less than 0.35 fl oz/1000 row For effective pest control or s contact with the seed piece of water table, make the at plan completely cover. 	t the duration and deg ressure is continues of ft will not provide add suppression, application or into the root zone. In nt application with a 2	gree on control to a r where infestation equate residual pes ons of this product f potatoes are grov to 4 inch band (wig	a large extent. Use higher rate within the s occur later during drop development. Rates st control. must be placed below the soil surface and in vn in highly permeable soils with a shallow dth of the planter shoe opening) and
 Soil Use Restrictions: Annual Maximum: DO NOT exceed 10.0 fl oz of VCP-034 (0.31 lb a.i.) per acre per calendar year. DO NOT exceed 0.31 lb imidacloprid per acre per calendar year from all imidacloprid containing products. Pre-Harvest Interval (PHI): 7 days. 			
FOLIAR APPLICATIONS			
PESTS			USE RATE fl oz product/A (lb a.i./A)
Aphids Colorado Potato Beetle 1.5 Flea Beetles (0.047) Leafhoppers Potato Psyllid			
Leafhoppers Potato Psyllid			1.5 (0.047)
 Leafhoppers Potato Psyllid Foliar Application Methods: Apply as a broadcast or directed equipment. Thorough covertion 	ted spray through pro age of foliage is necess	perly calibrated gro	1.5 (0.047) bund, aerial, or chemigation application
 Leafhoppers Potato Psyllid Foliar Application Methods: Apply as a broadcast or directed equipment. Thorough cover Foliar Use Restrictions: Annual Maximum: DO NOT exceed 6.4 fl oz do to to	ted spray through pro age of foliage is necess of VCP-034 (0.20 lb a.i. nidacloprid per acre p al: DO NOT make app days.	perly calibrated gro sary. .) per acre per cale er calendar year fro lications less than 7	1.5 (0.047) bund, aerial, or chemigation application ndar year. om all imidacloprid containing products. 7 days apart.
 Leafhoppers Potato Psyllid Foliar Application Methods: Apply as a broadcast or directed equipment. Thorough coveration Foliar Use Restrictions: 	ted spray through pro age of foliage is necess of VCP-034 (0.20 lb a.i. nidacloprid per acre po a l: DO NOT make app days.	perly calibrated gro sary. .) per acre per cale er calendar year fro lications less than 7	1.5 (0.047) bund, aerial, or chemigation application ndar year. bm all imidacloprid containing products. 7 days apart.

	(lb a.i./A)	(lb a.i./100 lb seed)
Aphids Colorado Potato Beetle Flea Beetles Leafhoppers Potato Psyllid Wireworms (Seed-Piece Protection)	4.0 – 8.0 (0.125 – 0.25)	0.2 – 0.4 (0.006 – 0.013)
Suppression of Disease Symptoms of: Net Necrosis (PLRV) Potato Leaf Roll Virus (PLRV) Potato Yellows	8.0 (0.25)	0.4 (0.013)

Seed-Piece Treatment Methods:

Apply as a diluted spray onto the potato seed-pieces using a shielded spray system. Dilute with 3 parts water (or less) to 1 part VCP-034 and agitate or stir the spray solution during application. Make the application only in an area with adequate ventilation or in an area that is equipped to remove spray mist or dust. A fungicidal or inert absorbent dust may be applied to the potato seed-piece after the VCP-034 application. Plant the potato seed-pieces as soon as possible after treatment with VCP-034 and in accordance with your local extension specialist or certified crop advisor recommendations to prevent prolonged exposure of the seed-pieces to sunlight.

Remarks:

• ¹ Based on a seeding rate of 2000 lb/acre.

Seed-Piece Treatment Restrictions:

- Apply only in areas that are equipped to remove spray mist or dust or with adequate ventilation.
- Annual Maximum:
 - **DO NOT** exceed 10.0 fl oz of VCP-034 (0.31 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.31 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Food and Feed Restrictions: DO NOT use treated seed-pieces for food, feed, or fodder.
- Pre-Harvest Interval (PHI): 7 days.

ROOT VEGETABLES (EXCEPT SUGAR BEET)

Beet, garden¹; burdock, edible¹; carrot¹; celeriac (celery root)¹; chervil, turnip-rooted¹; chicory¹; ginseng; horseradish; parsley, turnip-rooted; parsnip¹; radish¹; radish, oriental (daikon)¹; rutabaga¹; salsify (oyster plant); salsify, black¹; salsify, Spanish; skirret; turnip¹. (¹Tops or greens from these crops may be utilized for food or feed).

SOIL APPLICATIONS

PESTS	USE RATE fl oz product/A (lb a.i./A)	USE RATE fl oz product/1000 row ft (lb a.i./1000 row ft)
Aphids Flea Beetles Leafhoppers	5.0 – 12.0 (0.16 – 0.38)	0.35 – 0.85 (0.011 – 0.027)

Thrips (Foliage Feeding Thrips Only) Whiteflies		
 Soil Application Methods: Make application by one of the follow By chemigation into the root-zon equipment. As an in-furrow spray directed or Shanked in 1" – 2" below the see As a narrow (2" or less) banded a operations 14 or fewer days before 	ring methods: the through low-pressure drip, tricklen or below the seed during planting and depth during planting. application directly below (1-2 incho ore planting.	e irrigation, micro-sprinkler or equivalent es) the eventual seed row during bedding
 Soil Application Instructions: Linear application rates affect the duration and degree on control. Use higher rate within the specified range where pest pressure continues or where infestations occur later during drop development. Rates less than 0.35 fl oz/1000 row ft will not provide adequate residual pest control. Applications to crops grown in very high organic matter soils (muck) may also require additional pest management solutions for control. 		
 Soil Use Restrictions: Application Restrictions: DO NOT Annual Maximum: DO NOT exceed 1 application DO NOT exceed 12.0 fl oz of V DO NOT exceed 0.38 lb imida Pre-Harvest Interval (PHI): 21 data 	r use on crops grown for seed unle of VCP-034 per acre per calendar y /CP-034 (0.38 lb a.i.) per acre per ca cloprid per acre per calendar year f ys.	ss allowed by state approved 24(c) labelling. rear. alendar year. from all imidacloprid containing products.
FOLIAR APPLICATIONS		
PESTS		USE RATE fl oz product/A (lb a.i./A)
Aphids Flea Beetles 1.4 Leafhoppers (0.044) Whiteflies		
 Foliar Application Methods: Apply specified rate per acre as a build thorough uniform coverage coverage. This product may not k required to achieve control. Scou knockdown of pests or for improvement. 	broadcast or directed foliar spray is necessary to achieve optimum c mockdown established and heavy i t fields and retreat if needed. Tank ved control of other pests	to infested area as pest populations begin to ontrol. Use a spray adjuvant to improve nsect populations. Two applications may be mix this product with other insecticides for

Foliar Use Restrictions:

- Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24(c) labelling.
- Annual Maximum:
 - o Radish:
 - **DO NOT** exceed 1 application of VCP-034 per acre per calendar year.
 - DO NOT exceed 1.4 fl oz of VCP-034 (0.044 lb a.i.) per acre per calendar year.

- DO NOT exceed 0.044 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Other Crops:
 - **DO NOT** exceed 3 application of VCP-034 per acre per calendar year.
 - **DO NOT** exceed 4.2 fl oz of VCP-034 (0.13 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.13 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 5 days apart.
- Pre-Harvest Interval (PHI): 7 days.

SOYBEAN		
FOLIAR APPLICATIONS		
PESTS	USE RATE fl oz product/A (lb a.i./A)	
Aphids Bean Leaf Beetle Cucumber Beetles Japanese Beetle (Adults) Leafhoppers Rootworm (Adults) Whiteflies	1.5 (0.047)	

Foliar Application Methods:

• Apply as a broadcast or directed spray through properly calibrated ground, aerial, or chemigation application equipment. Thorough coverage of foliage is necessary.

Foliar Use Restrictions:

- State Restrictions: Not for use in California unless otherwise directed by state approved 24(c) labeling.
- Annual Maximum:
 - **DO NOT** exceed 3.65 fl oz of VCP-034 (0.13 lb a.i.) per acre per calendar year.
- **DO NOT** exceed 0.13 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 7 days apart.
- Pre-Harvest Interval (PHI): 21 days.

STONE FRUIT

Apricot; cherry, sweet; cherry, tart; nectarine; peach; plum; plum, Chickasaw; plum, Damson; plum, Japanese; plumcot; prune (fresh and dried)

SOIL APPLICATIONS

PESTS	USE RATE fl oz product/A (lb a.i./A)
Aphids (Including Woolly Apple Aphid)	8.0 - 12.0

Leafhoppers	(0.25 – 0.38)

Soil Application Methods

• Apply by chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.

Soil Use Restrictions:

- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
- Annual Maximum:
 - **DO NOT** exceed 12.0 fl oz of VCP-034 (0.38 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Pre-Harvest Interval (PHI): 21 days.

FOLIAR APPLICATIONS

PESTS	USE RATE fl oz product/100 gallons (lb a.i./100 gallons)	USE RATE fl oz product/A (lb a.i./A)
Aphids Green June Beetle Japanese Beetle Leafhoppers / Sharpshooters Plant Bugs Rose Chafer San Jose Scale	0.8 (0.025)	1.6 - 3.2 (0.05 - 0.10)
Cherry Fruit Fly		2.4 - 3.2 (0.08 - 0.10)
Suppression: Plum Curculio Stinkbugs		3.2 (0.10)

Foliar Use Methods:

• Apply specific dosage of this product as a broadcast or directed spray to infested area ensuring thorough coverage. Apply this product through properly calibrated ground or aerial equipment. Apply in a minimum of 50 gallons per acre by ground or 25 gallons per acre by air.

Foliar Use Restrictions:

- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
- Annual Maximum:
 - Apricots, Nectarines, Peaches:
 - DO NOT exceed 9.6 fl oz of VCP-034 (0.30 lb a.i.) per acre per calendar year.
 - DO NOT exceed 0.30 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
 - Cherries, Plumbs, Plumcots, Prunes:
 - DO NOT exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - DO NOT exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval:
 - Apricots, Nectarines, Peaches: DO NOT make applications less than 7 days apart.
 - Cherries, Plumbs, Plumcots, Prunes: DO NOT make applications less than 10 days apart.
- Pre-Harvest Interval (PHI):

- **Apricots, Nectarines, Peaches:** 0 days.
- Cherries, Plumbs, Plumcots, Prunes: 7 days.

PRE-PLANT ROOT DIP APPLICATIONS

PESTS	USE RATE fl oz product/10 gallons (lb a.i./10 gallons)
Black Peach Aphid (Infesting Roots)	1.0 (0.03)

Pre-Plant Root Dip Application Method:

• Mix this product at a rate of 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's solution for up to 5 minutes. Allow solution to dry on roots and transplant trees as soon as possible following treatment.

STRAWBERRIES		
SOIL (ANNUAL AND PERENNIAL) APPLICATIONS		
PESTS	USE RATE fl oz product/A (lb a.i./A)	
Aphids Whiteflies	12.0 – 16.0 (0.38 – 0.50)	

Soil (Annual and Perennial) Application Methods:

Make application by one of the following methods:

- By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment. Make the application after annual plants are established or on perennial plants in early spring prior to bud opening.
- As a plant hole treatment or plant material treatment just prior to or during transplanting.
- As a pre-plant banded spray over the row in a minimum of 20 gallons of water/acre. Immediately follow the application with overhead irrigation to incorporate the product into the root-zone.

Soil (Annual and Perennial) Application Instructions:

- **DO NOT** use plastic or other mulches that will limit the movement of this product into the root zone.
- The rate of VCP-034 applied will affect the length of control. Use higher rates where infestations may occur later in crop development or where pest pressure is continuous.

Soil (Annual and Perennial) Restrictions:

- **Application Method: DO NOT** apply a soil application and a foliar application on the same crop in the same season.
- Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24(c) labeling.
- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
- Annual Maximum:
 - **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Pre-Harvest Interval (PHI): 14 days.

SOIL (PERENNIAL POST-HARVEST) APPLICATIONS			
PESTS	USE RATE fl oz product/A (lb a.i./A)		
White Grub Complex (Grubs of Asiatic Garden Beetle, European and Masked Chafer, Japanese Beetle, Oriental Beetle)	8.0 – 12.0 (0.25 – 0.38)		
 Soil (Perennial Post-Harvest) Application Methods: Make application by one of the following methods: As a ground application in a minimum of 20 gallons of water per acre using a boom or backpack sprayer. As a banded spray with a bandwidth equivalent to the anticipated width of the fruiting bed. Adjust the amount of VCP-034 applied based on the treated row band area in proportion to the amount required per full acre. By chemigation into the root zone with 600 to 1000 gallons of water followed by 0.1 – 0.25" of irrigation. 			
 Soil (Perennial Post-Harvest) Application Instructions: Make a single post-harvest application which coincides with renovation of perennial strawberry fields during the active egg laying period of beetles. All soil-surface applications must be followed by 0.25 inch 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 of beetle grubs. 			
 Soil (Perennial Post-Harvest) Restrictions: Application Method: DO NOT apply a soil application and a foliar application on the same crop in the same season. Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging. Annual Maximum: DO NOT exceed 12.0 fl oz of VCP-034 (0.38 lb a.i.) per acre per calendar year. DO NOT exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products. 			
FOLIAR (ANNUAL AND PERENNIAL) APPLICATIONS			
USE RATE PESTS fl oz product/A (lb a.i./A)			
Aphids 1.5 Spittlebugs (0.047)			
 Foliar (Annual and Perennial) Application Methods: Apply as a broadcast or directed spray through properly calibrated ground, aerial, or chemigation application equipment. Thorough coverage of foliage is necessary. 			
 Foliar (Annual and Perennial) Use Restrictions: Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging. Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24I labeling Annual Maximum: DO NOT exceed 4.5 fl oz of VCP-034 (0.14 lb a.i.) per acre per calendar year. 			

- DO NOT exceed 0.14 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 5 days apart.

• Pre-Harvest Interval (PHI): 7 days.

SUGAR BEETS For use only in CA			
FIELD SOIL APPLICATIONS			
PESTS	PESTS USE RATES fl oz product/A (lb a.i./A)		USE RATES il oz product/A (lb a.i./A)
Aphids Flea Beetles Leafhoppers Whiteflies	tles pers 3.0 – 6.0 es (0.09 – 0.19)		3.0 - 6.0 (0.09 - 0.19)
Suppression of Disease Symptoms of: Western Yellows Virus / Beet Curly Top Hybrigeminivirus (BCTV)	Suppression of Disease Symptoms of: Western Yellows Virus / Beet Curly Top Hybrigeminivirus (BCTV)		
 Field Soil Application Methods: Make an application directly below the eventual seed furrow during bedding operations immediately before or during planting. Apply using sufficient carrier volume to ensure uniform coverage. 			
 Field Soil Application Instructions: The low rate may be applied to aid the establishment of stands in whitefly areas, or for early season control of the other pests listed. 			
 Field Soil Use Restrictions: Only for use in CA. Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging. Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24(c) labelling. Annual Maximum: DO NOT exceed 6.0 fl oz of VCP-034 (0.19 lb a.i.) per acre per calendar year. DO NOT exceed 0.19 lb imidacloprid per acre per calendar year from all imidacloprid containing products. 			
TOBACCO			
SOIL OR TRAY DRENCH APPLICATIONS			
USE RATE USE RATE PESTS Seedling Tray Drench In-Furrow or Transplant Water fl oz product/1000 Plants fl oz product/1000 Plants			USE RATE In-Furrow or Transplant Water fl oz product/1000 Plants

	(lb a.i./1000 plants)	(lb a.i./1000 plants)
Aphids	0.5	0.7
Flea Beetles	(0.016)	(0.022)

Mole Crickets Whiteflies Wireworms	0.7 - 1.4 (0.022 - 0.044)	0.9 - 1.4 (0.028 - 0.044)
Suppression of Disease Symptoms of:	1.4	1.4
Tomato Spotted Wilt Virus (TSWV)	(0.044)	(0.044)

Soil Application Methods:

Make application by one of the following methods:

- As a broadcast uniform foliar spray to seedlings in trays (tray drench) up to 7 days prior to transplanting followed immediately by overhead irrigation with sufficient volume to wash VCP-034 from the foliage into the tray potting media. Failure to wash this product from the foliage into the tray media may result in reduced pest control. Handle transplants carefully during setting to avoid dislodging the tray media from the roots.
- As an in-furrow spray or transplant water drench during setting.
- By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment.

Soil Application Instructions:

- Tray drench applications have been shown to be the most efficacious application method, however VCP-034 may be applied as a combination of the plant-house tray drench and/or transplant water drench in the field following the applicable restrictions below. Adverse tobacco growing conditions may cause a delay in the uptake of this product into the plant and cause a delay in control.
- Handle transplants carefully during setting to avoid dislodging the tray media from the roots.

Soil Use Restrictions:

- Annual Maximum:
 - o **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.

Pre-Harvest Interval (PHI): 14 days.

FOLIAR APPLICATIONS

PESTS	USE RATE fl oz product/A (lb a.i./A)
Aphids	0.8 – 1.6 (0.025 – 0.05)
Flea Beetles Japanese Beetle	1.6 (0.05)

Foliar Application Methods:

• Apply as a broadcast or directed spray method through properly calibrated ground, aerial or chemigation application equipment. Thorough coverage of foliage is necessary.

Foliar Use Restrictions:

- Annual Maximum:
 - **DO NOT** exceed 9.0 fl oz of VCP-034 (0.28 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.28 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
 - Minimum Application Interval: DO NOT make applications less than 7 days apart.
- Pre-Harvest Interval (PHI): 14 days.

TREE NUTS (EXCEPT ALMOND) Beechnut; Brazil nut; butternut; cashew; chestnut; chinquapin; filbert (hazelnut); hickory nut; macadamia nut; pecan; pistachio; walnut, black and English	
SOIL APPLICATIONS	
PESTS	USE RATE fl oz product/A (lb a.i./A)
Aphids Leafhoppers / Sharpshooters Mealybugs Spittlebugs Whiteflies	8.0 – 16.0 (0.25 – 0.50)
Suppression: Thrips (Foliage Feeding Thrips Only) Suppression of Disease Symptoms of: Pecan Scab (From Reduction in Honeydew Deposition)	16.0 (0.50)
 Soil Application Methods Make application prior to or at the onset of pest infestation by one of the following methods: By chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment. The soil must be lightly prewetted prior to application to break soil surface tension. Allow the soil to dry following application and before any subsequent irrigations. By an emitter or spot application in a minimum of 4 fl oz solution volume 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. Ensure product placement is below sod or orchard floor debris. Irrigation covering entire treated area must follow within 48 hours to promote uptake by root system. 	
 Soil Application Instructions: Use higher specified rates within the rate range when applied by shank or subsurface side-dress, used on larger trees, soils with high clay content, for high plant populations, and/or 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. 	
 Soil Use Restrictions: Application Timing: DO NOT apply during bloor Annual Maximum: 	n or within 10 days prior to bloom or when bees are foraging. b a.i.) per acre per calendar year. e per calendar year from all imidacloprid containing products.

FOLIAR APPLICATIONS

PESTS

USE RATE

	fl oz product/A (lb a.i./A)
Aphids (Except Black Pecan Aphid) Leafhoppers <i>Phylloxera</i> spp. (Leaf Infestations) Sharphooters Spittlebugs Whiteflies	1.4 – 2.8 (0.044 – 0.09)
Black Pecan Aphid Mealybugs San Jose Scale ¹	3.2 (0.10)

Foliar Application Method:

• Apply specific dosage of this product as a broadcast or directed spray to infested area ensuring thorough coverage. Apply this product through properly calibrated ground or aerial equipment

Foliar Application Instructions:

• ¹San Jose Scale: Make applications to each successive generation timed according to the crawler stage. Two applications on a 10- to 14-day interval may be required to achieve control.

Foliar Use Restrictions:

- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
- Application Volume: Apply in a minimum of 50 gallons water per acre by ground or 25 gallons water per acre by air.
- Annual Maximum:
 - **DO NOT** exceed 11.5 fl oz of VCP-034 (0.36 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.36 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 6 days apart.
- Pre-Harvest Interval (PHI): 7 days.
- **DO NOT** apply in almonds.

TROPICAL FRUITS

Acerola; atemoya; avocado; birida; black sapote; canistel; cherimoya; custard apple; feijoa; jaboticaba; guava; ilama; Longan; lychee; mamey sapote; mango; papaya; passionfruit; persimmon; pulasan; rambutan; sapodilla; soursop; Spanish lime; star apple; starfruit; sugar apple; wax jambu

SOIL APPLICATIONS

PESTS	USE RATE fl oz product/A (lb a.i./A)
Aphids Avocado Lace Bug Leafhoppers Whiteflies	12.0 – 16.0 (0.38 – 0.50)
Suppression:	16.0

Scales Thrips (Foliage Feeding Thrips Only)	(0.50)
 Soil Application Methods Apply by chemigation into the root-zone through low-pressure drip, trickle, micro-sprinkler, or other equivalent equipment. 	
 Soil Use Restrictions: Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging. Annual Maximum: 	
FOLIAR APPLICATIONS	
PESTS	USE RATE fl oz product/A (lb a.i./A)
Aphids Leafhoppers / Sharpshooters Mealybugs Thrips (Foliage Feeding Thrips Only) Whiteflies Suppression:	3.2 (0.10)
Scales	
 Foliar Application Methods: Apply as a broadcast or directed spray through properly calibrated ground or aerial application equipment. Thorough coverage of foliage is necessary. 	

Foliar Use Restrictions:

- Application Timing: DO NOT apply during bloom or within 10 days prior to bloom or when bees are foraging.
- Annual Maximum:
 - **DO NOT** exceed 16.0 fl oz of VCP-034 (0.50 lb a.i.) per acre per calendar year.
 - **DO NOT** exceed 0.50 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 10 days apart.
- Pre-Harvest Interval (PHI): 7 days.

TUBEROUS AND CORM VEGETABLES (EXCEPT POTATO)

Arracacha; arrowroot; artichoke, Chinese; artichoke, Jerusalem; canna, edible (Queensland arrowroot); cassava, bitter and sweet¹; chayote (root); chufa; dasheen (taro)¹; ginger; leren; sweet potato¹; tanier¹; turmeric; yam bean; yam, true¹. (¹Tops or greens from these crops may be utilized for food or feed)

SOIL APPLICATIONS PESTS USE RATE fl oz product/A (lb a.i./A) USE RATE fl oz product/1000 row ft (lb a.i./1000 row ft)

Aphids Flea Beetles Leafhoppers Thrips (Foliage Feeding Thrips Only) Whiteflies	5.0 – 12.0 (0.16 – 0.38)		0.35 – 0.85 (0.011 – 0.027)
 Soil Application Methods: Make application by one of the following methods: As an in-furrow spray directed over the planting material (hulis) during planting. Shanked in 1" - 2" below the hulis depth during planting. As a side-dress of not more than 0.3 fl oz VCP-034/1000 row ft no later than 45 days after planting, following the pre-harvest interval listed below. 			
 Soil Application Instructions: Linear application rates affect the duration and degree of control. Use higher rate within the specified range where pest pressure is continuous or where infestations occur later during crop development. Rates less than 0.35 fl oz/1000 row ft will not provide adequate residual pest control. Applications to crops grown in very high organic matter soils (muck) may also require additional pest management solutions for control. 			
 Soil Use Restrictions: Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24(c) labelling. Annual Maximum: DO NOT exceed 1 application of VCP-034 per acre per calendar year. DO NOT exceed 12.0 fl oz of VCP-034 (0.38 lb a.i.) per acre per calendar year. DO NOT exceed 0.38 lb imidacloprid per acre per calendar year from all imidacloprid containing products. Pre-Harvest Interval (PHI): Corms: 125 days. Leaves: 3 days. 			
FOLIAR APPLICATIONS			
PESTS			USE RATE fl oz product/A (lb a.i./A)
Aphids Flea Beetles Leafhoppers Whiteflies			1.4 (0.044)
 Foliar Application Methods: Apply specified rate per acre as a broadcast or directed foliar spray to infested area as pest populations begin to build thorough uniform coverage is necessary to achieve optimum control. Use a spray adjuvant to improve coverage. This product may not knockdown established and heavy insect populations. Two applications may be 			

Foliar Use Restrictions:

knockdown of pests or for improved control of other pests.

• Application Restrictions: DO NOT use on crops grown for seed unless allowed by state approved 24(c) labelling.

required to achieve control. Scout fields and retreat if needed. Tank mix this product with other insecticides for

• Annual Maximum:

- **DO NOT** exceed 3 applications of VCP-034 per acre per calendar year.
- **DO NOT** exceed 4.2 fl oz of VCP-034 (0.13 lb a.i.) per acre per calendar year.
- **DO NOT** exceed 0.13 lb imidacloprid per acre per calendar year from all imidacloprid containing products.
- Minimum Application Interval: DO NOT make applications less than 5 days apart.
- Pre-Harvest Interval (PHI): 7 days.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in original containers only. Store in a cool and dry place, in such a manner as to avoid cross-contamination. Keep container closed when not in use. **DO NOT** store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label.

Pesticide Disposal

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

{Container handling depends on the container size being labeled as well as if the container is refillable or not. At least one set of the following 3 container handling instructions for HDPE containers will be placed on the printed label.}

Container Handling less than or equal to 5 gallons - Non-refillable {HDPE} container:

DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and 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.

[Container Handling greater than 5 gallons - Refillable {HDPE} container:

Refill this container with pesticide only. **DO NOT** reuse the container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.]

[Container Handling greater than 5 gallons - Non-refillable {HDPE} container:

DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. 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 by other procedures allowed by state and local authorities.]

CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.

IMPORTANT INFORMATION READ BEFORE USING PRODUCT

Conditions of Sale and Limitation of Warranty and Liability:

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

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control of Vive Crop Protection or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Vive Crop Protection and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, VIVE CROP PROTECTION MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT.

Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or Vive Crop Protection, and buyer assumes the risk of any such use.

To the extent consistent with applicable law, Vive Crop Protection or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF VIVE CROP PROTECTION 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 VIVE CROP PROTECTION OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement except as signed by an authorized representative of Vive Crop Protection.

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IMIDACLOPRID GROUP 4A INSECTICIDE

VCP-034

VCP-034 is a systemic and foliar insecticide for use on ornamentals listed vegetable transplants in nurseries and greenhouses, Christmas tree nurseries, sod farms, as well as grassy areas in nurseries, turfgrass and ornamentals (including listed fruit and nut trees) in residential, commercial, and industrial landscaped areas.

Active Ingredient:	By Wt
Imidacloprid, 1-[(6-Chloro-3-pyridinyl)methyl]-N-nitro-2-imidazolidinimine Other Ingredients:	40.0% 60.0%
Total:	. 100.0%

This product contains 4.0 pounds of active ingredient per gallon

KEEP OUT OF REACH OF CHILDREN CAUTION

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

Lot No.: EPA Reg. No. 89118-XX EPA Est. XXX-YY-Z Net Contents: [1, 2.5, 5, 15, 30, 130, or 265 Gallons]



Vive Crop Protection Inc. 500 Westover Dr. #10198 Sandford, NC 27330 1-416-260-8889

FIRST AID		
IF SWALLOWED	Call a poison control center or doctor immediately for treatment advice.	
	 Have person sip a glass of water if able to swallow. 	
	• DO NOT induce vomiting unless told to by a poison control center or doctor.	
	DO NOT give anything by mouth to an unconscious person.	
IF ON SKIN OR	Take off contaminated clothing.	
CLOTHING	Rinse skin immediately with plenty of water for 15 to 20 minutes.	
	Call a poison control center or doctor for treatment advice.	
IF INHALED	Move the 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 15-20 minutes. 	
	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing.	
	Call a poison control center or doctor for treatment advice.	
Note to Physician:		
No specific antidote is available. Treat the patient symptomatically.		

EMERGENCY INFORMATION

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

For information on this pesticide product (including general health concerns or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378 Monday through Friday, 8:00 AM to 12:00 PM Pacific Standard Time. In the event of a medical emergency, call your poison control center at 1-800-222-1222.

PRECAUTIONARY STATEMENTS

Hazards to Humans and Domestic Animals

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

Personal Protective Equipment (PPE)

Applicators and other handlers must wear:

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

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

Engineering Control Statements

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the 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 immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

Environmental Hazards

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

DO NOT apply directly to water, or 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 chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

Physical or Chemical Hazards

DO NOT mix or allow contact with oxidizing agents. Hazardous chemical reaction may occur.

PROTECTION OF POLLINATORS



APPLICATION RESTRICTIONS EXIST FOR THIS PRODUCT BECAUSE OF RISK TO BEES AND OTHER INSECT POLLINATORS. FOLLOWAPPLICATION 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://pesticidestewarship.org/pollinator-protection

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. Pesticide incidents should also be reported to the National Pesticide Information Center at: www.npic.orst.edu or directly to EPA at: beekill@epa.gov

DIRECTIONS FOR USE

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

DO NOT apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application.

DO NOT apply when wind speed favors drift beyond the area intended for treatment.

For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

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

For Crops Under Contracted Pollination Services



DO NOT apply this product while bees are foraging. **DO NOT** apply this product until flowering is complete and all petals have fallen unless the following condition has been met:

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

For Food Crops and Commercially Grown Ornamentals Not Under Contract for Pollination Services But Are Attractive To Pollinators



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

- The application is made to the target site after sunset.
 - The application is made to the target site when temperatures are below 55°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 the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.
- The application is made due to an imminent threat of significant crop loss, and a documented determination consistent with an IPM plan or predetermined economic threshold is met. Every effort should be made to notify beekeepers no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying.

NON-AGRICULTURAL USE SITES



DO NOT apply this product while bees are foraging. **DO NOT** apply this product to plants that are flowering. Only apply after all flower petals have fallen off.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR 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 in this labeling about personal protective equipment, restricted-entry intervals, and notification to works. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

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.

For early entry into 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, wear:

- Coveralls.
- Shoes plus socks.
- Gloves made of: barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥14 mils, neoprene rubber ≥14 mils, natural rubber ≥14 mils, polyethylene, polyvinylchloride (PVC) ≥14 mils or viton ≥14 mils.

NON-AGRICULTURAL USE REQUIREMENTS

The requirements of 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 children and pets off treated areas until sprays have dried.

RESTRICTIONS

- **DO NOT** graze treated areas or use clippings from treated areas for feed or forage, unless specified within a crop-specific section for a given crop.
- Prevent runoff or puddling of irrigation water following application.
- Keep children and pets off treated are until dry.
- **DO NOT** apply this insecticide to areas which are water logged or saturated, which will not allow penetration into the root zone of the plant.
- **DO NOT** apply more than 0.8 pts (12.8 fl. oz.) (0.4 lb imidacloprid) per acre per calendar year to outdoor plants/ornamentals.

Treated areas may be replanted with any crop specified on an imidacloprid label, or with any crop for which a tolerance exists for the active ingredient. 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.

Rotational Crops – Plant-Back Intervals

IMMEDIATE PLANT-BACK:

All crops on this label plus the following crops not on this label: artichokes (globe); bananas/plantains; barley; bushberries; caneberries; Christmas trees; citrus; coffee; corn (field, pop & sweet); cotton; cranberries; cucurbit vegetables; fruiting vegetables; grapes; head and stem brassica vegetables; herbs; hops; leafy greens and leafy petiole vegetables; legume vegetables (succulent or dried); peanuts; pome fruits; pomegranates; poplar/cottonwood; potatoes; root vegetables; rapeseed/canola; sorghum; soybeans; stone fruit; strawberries; sugar beets; tobacco; tree nuts (except almond); tuberous and corm vegetables; and wheat.

30-DAY PLANT-BACK:

Cereals (including buckwheat, millet, oats, rice, rye, and triticale), safflower.

10-MONTH PLANT-BACK:

Onions and bulb vegetables.

12-MONTH PLANT-BACK:

All Other Crops.

Cover crops for soil building or erosion control may be planted any time, but **DO NOT** graze or harvest for food or feed or seed production.

MANDATORY SPRAY DRIFT MANAGEMENT

Ground Boom Applications:

- User must only apply with the release height recommended by the manufacturer, but no more than 4 feet above the ground or crop canopy.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Boomless Ground Applications:

- Applicators are required to use a medium or coarser droplet size (ASABE S572.1) for all applications.
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- **DO NOT** apply during temperature inversions.

Aerial Applications:

- **DO NOT** release spray at a height greater than 10 ft above the ground or vegetative canopy unless a greater application height is necessary for pilot safety.
- Applicators are required to use a medium or coarser droplet size (ASABE S572.1).
- **DO NOT** apply when wind speeds exceed 15 mph at the application site. If the wind speed is greater than 10 mph, the boom length must be 65% or less of the wingspan for fixed wing aircraft and 75% or less of the rotor diameter for helicopters. Otherwise, the boom length must be 75% or less of the wingspan for fixed wing aircraft and 90% or less of the rotor diameter for helicopters.
- For aerial applicators, if the windspeed is 10 miles per hour or less, applicators must use ½ swatch displacement upwind at the downwind edge of the field. When the windspeed is between 11-15 miles per hour, applicators must use ¾ swatch displacement upwind at the downwind edge of the field.
- **DO NOT** apply during temperature inversions.

Airblast Applications:

- Sprays must be directed into the canopy foliage.
- **DO NOT** apply when wind speeds exceed 15 miles per hour at the application site.
- User must turn off outward pointing nozzles at row ends and when spraying outer row.
- **DO NOT** apply during temperature inversions.

OBSERVE 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 ADVISORIES

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

IMPORTANCE OF DROPLET SIZE

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

Controlling Droplet Size – Ground Boom

- Volume Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure Use the lowest spray pressure recommended for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce spray drift.

Controlling Droplet Size – Aircraft

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

BOOM HEIGHT – Ground Boom

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

RELEASE HEIGHT – Aircraft

Higher release heights increase the potential for spray drift.

SHIELDED SPRAYERS

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

TEMPERATURE AND HUMIDITY

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

TEMPERATURE INVERSIONS

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

WIND

Drift potential generally increases with wind speed.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

Boomless Ground Applications:

• Setting nozzles at the lowest effective height will help reduce the potential for spray drift.

Handheld Technology Applications:

• Take precautions to minimize spray drift.

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.

PRODUCT INFORMATION

VCP-034 is a versatile, broad-spectrum insecticide containing the active ingredient imidacloprid in a suspension concentrate (SC) product that is compatible with liquid fertilizers. VCP-034 provides activity against listed important crop insect pests and can be used alternated with other insecticides with a different mode of action or tank-mixed with such insecticides and other crop protection products.

RESISTANCE MANAGEMENT

VCP-034 contains the active ingredient imidacloprid which is a GROUP 4A INSECTICIDE and is effective against a variety of insect pests. Insects pests resistant to other chemical classes have not shown cross-resistance to imidacloprid or other neonicotinoids.

Some insect species are known to develop resistance to products used repeatedly for control. Because the development of resistance cannot be predicted, the use of this product should conform to resistance management strategies established for the use area. Consult your local or state agricultural authorities or universities for details.

For resistance management, VCP-034 contains a Group 4A insecticide. Any insect population may contain individuals naturally resistant to VCP-034 and other Group 4A insecticides. The resistant individuals may dominate the insect population if this group of insecticides are used repeatedly in the same fields. Appropriate resistance management strategies should be followed.

To delay insecticide resistance, take the following steps:

- Rotate the use of VCP-034 or other Group 4A insecticides within a growing season, or among growing seasons, with different groups that control the same pests.
- Use tank mixtures with insecticides from a different group that are equally effective on the target pest when such use is permitted. **DO NOT** rely on the same mixture repeatedly for the same pest population. Consider any known cross-resistance issues (for the targeted pests) between the individual components of a mixture. In addition, consider the following recommendations provided by the Insecticide Resistance Action Committee (IRAC):
 - Individual insecticides selected for use in mixtures should be highly effective and be applied at the rates at which they are individually registered for use against the target species.
 - Mixtures with components having the same IRAC mode of action classification are not recommended for insect resistance management.
 - When using mixtures, consider any known cross-resistance issues between the individual components for the targeted pest(s).
 - Mixtures become less effective if resistance is already developing to one or both active ingredients, but they may still provide pest management benefits.
 - The insect resistance management benefits of an insecticide mixture are greatest if the two components have similar periods of residual insecticidal activity. Mixtures of insecticides with unequal periods of residual insecticide activity may offer an insect resistance management benefit only for the period where both insecticides are active.
 - Adopt an integrated pest management program for insecticide use that includes scouting, uses historical information related to pesticide use, crop rotation, record keeping, and which considers cultural, biological and other chemical control practices.

- Monitor after application for unexpected target pest survival. If the level of survival suggests the presence of resistance, consult with your local university specialist or certified pest control advisor.
- Contact your local extension specialist or certified crop advisors for any additional pesticide resistance-management and/or IPM recommendations for the specific site and pest problems in your area.
- For further information or to report suspected resistance contact Vive Crop Protection at 1-888-760-0187.

Maintaining Susceptibility to These Classes of Chemistry

For insects with a high potential to develop resistance it is recommended to follow these practices in each crop season:

- Only make a single application when using a soil-applied program and **DO NOT** follow up with any additional foliar applications of VCP-034 or other Group 4A insecticides.
- Avoid making a block of more than 3 consecutive foliar applications of VCP-034 or other group 4A insecticides in the same crop season.
- Avoid making a foliar-applied program of VCP-034 or other Group 4A insecticides in the same crop season that a soilapplied program of VCP-034 or other group 4A insecticides has been applied targeting inspect species with a high potential to develop resistance.

Integrated Pest Management (IPM)

VCP-034 should be used as one component in an integrated pest management program including cultural practices that reduce insect pest pressure. Consult your local extension specialist or certified crop advisor for local best practices to manage insect pests.

Application and Mixing Instructions

VCP-034 is a suspension concentrate product. Shake [Stir] Well Before Use. {"Shake" will be used for containers 5 gallons or less. "Stir" will be used for containers > 5 gallons.} Like most suspension concentrate products, VCP-034 will thicken upon standing for long periods of time. VCP-034 will revert back to an easily flowable fluid after a brief shake or stir.

VCP-034 disperses finely in liquid fertilizer and micronutrient products without prior dilution with water. However, due to the wide variability in the composition and consistency of liquid fertilizers, it is recommended a jar-test be performed.

VCP-034 insecticide is designed for at-plant, soil, and foliar applications, and must be diluted with water and/or liquid fertilizer before application. Refer to **Specific Use Directions for Nursery, Greenhouse, and Ornamental Agricultural Production** for pest control or suppression instructions.

Make sure that application equipment is thoroughly cleaned and properly calibrated prior to application and thoroughly cleaned after application.

- Use spray nozzles appropriate for the crop to provide full coverage and uniform distribution of the spray mixture.
- Use screens where appropriate to protect sprayer equipment and prevent clogging.
- Use screens to protect pump on the suction side with no finer than 16-mesh.
- **DO NOT** fit the recirculation line of the spray system with a screen.
- Screens used on the spray nozzles are to be no finer than 50-mesh.
- Use a spray system pump with sufficient capacity to deliver 35-40 psi of pressure to the nozzles and recirculate at least 10% of the tank volume per minute to maintain a uniform mixture.
- Agitate the spray mixture with a jet agitator or liquid sparge tube.
- **DO NOT** use air sparge.

Consult manufacturers of spray equipment for more information on sprayer use, calibration, and recommendations. Consult state agricultural extension recommendations for local directions and spray schedules.

DO NOT prepare more mixture than is required for the treatment. For best results, use immediately after mixing. If the mixtures settles, agitate the mixture and assess to ensure thorough re-mixing prior to application.

Choose a rate within the listed label ranges for the crop being treated based on expected insect pest pressure. This can be determined by history and scouting of the field and whether weather conditions are expected to be favorable. Use lower listed rates when insect pest pressure is expected to be light and use higher rates when insect pest pressure is expected to be heavy.

As with any insecticide, care must be taken to minimize exposure of VCP-034 to honey bees and other pollinators. Additional information on VCP-034 uses for these crops and other questions may be obtained from the Cooperative Extension Service, PCAs, consultants or local Vive Crop Protection representatives.

Solo VCP-034 Application Mixing Instructions

- Determine the required volume of water or liquid fertilizer for application and fill the spray/mixing tank with ½ ¾ of this volume.
- Begin agitation of the tank and add the required volume of VCP-034 for the insecticide application. While pouring, avoid direct contact of VCP-034 with the mix tank wall to achieve the best dispersion.
- Continue agitation while adding the remaining $\frac{1}{2}$ $\frac{1}{3}$ volume of water or liquid fertilizer to complete the spray mixture.
- Apply the mixture after the contents of the tank are completely dispersed.
- Best practice is to maintain agitation of the spray tank until all of the spray mixture has been applied.
- Thoroughly rinse spray tank with water and dispose of the rinse water by spraying onto a section of the already treated crop.

Tank Mixture Application Instructions

VCP-034 may be applied in tank mixtures with adjuvants, micronutrients, and other products approved for use on registered crops.

It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

When an adjuvant is used, it is recommended to use an adjuvant that meets the standards of the Council of Producers and Distributors of Agrotechnology (CPDA) adjuvant certification.

Tank Mixing Order Instructions

This is the general recommendation for order of addition. Always follow any specific order of addition instructions on all the tank-mix partner labels. Jar tests (or other similar methods) to ensure order of addition compatibility between products should be conducted before use. Allow each tank-mix partner to fully mix prior to adding the next component.

- 1. Fill tank ¹/₃ to ¹/₂ full with mixing diluent (water, liquid fertilizer, etc.).
- 2. Begin tank agitation before adding any tank-mix partners and ensure good agitation as each component is added.
- 3. Add any water conditioner/anti-foam/compatibility agents.
- 4. Add any products packaged in water-soluble packaging and allow to completely dissolve/disperse.
- 5. Add any wettable powders/flowables (DC, DS, GR, SG, SP).
- 6. Add any microencapsulated suspensions (ME).
- 7. Add any liquids and solubles (SC, SU), including VCP-034.
- 8. Add any emusifiable concentrates (EC).
- 9. Add any adjuvants.

Jar Test Procedure

Test potential mixing partners, including adjuvants, for mixing compatibility using a standard jar test or other similar method and for crop safety prior to use on a crop.

The following jar test procedure is recommended to evaluate compatibility: Following any product specific instructions for order of addition, pour the recommended proportions of the products into a suitable container, mix thoroughly and allow to stand at least twenty (20) minutes. If the combination remains mixed, or can be re-mixed readily, the mixture is considered physically compatible. If the combination does not remain mixed, or cannot be re-mixed readily, the products are not physically compatible and should not be tank-mixed together.

Chemigation Use Directions

VCP-034 may be applied to crops through chemigation systems as specified in the **Specific use Directions for Nursey**, **Greenhouse**, **and Ornamentals Agricultural Production** sections. The normal dilution ratio is 1:100 or 1:200, depending on the system. Always meter the product into the irrigation water during the first part of the irrigation cycle. The product may be mixed separately prior to injection. Agitation may be necessary if the mixture is allowed to stand more than 24 hours.

- **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- Apply this product only through micro-irrigation (individual spaghetti tube), drip irrigation, overhead irrigation, and ebb and flood or hand-held or motorized calibrated irrigation equipment and only as directed in the specific directions. DO NOT apply this product through any other type of irrigation system.
- Be sure to remove scale, pesticide residue and other foreign matter from the tank and entire irrigation system prior to application.
- 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.
- If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

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

Specific Instructions for Public Water Systems

Public water system 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, discharge the water from the public water system 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 the 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 pipe.

- 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.
- DO NOT apply when wind speed favors drift beyond the area intended for treatment.

Water Volume

Chemigation applications of this product must be made as concentrated as possible. Retention of this product on target site of insect infestation is necessary for optimum activity. Chemigation of this product in water volumes exceeding 0.10 inch/Acre is not recommended.

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 State 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.

Specific Use Directions for Nursery, Greenhouse, and Ornamental Agricultural Production

NURSERY AND GREENHOUSE GROWN ORNAMENTALS AND LISTED VEGETABLE TRANSPLANTS

Use this product for foliar and systemic insect control in and around field-grown nursery and container stock, greenhouse and ornamentals grown in flats, benches, or beds. Make applications of this product using foliar or soil applications, including soil injection, drenches, and broadcast sprays. Foliar applications offer locally systemic activity against insect pests while soil applications result in translocation of the active ingredient upward into the plant system through root uptake. Where applicable, the addition of a nitrogen containing fertilizer into the solution may enhance the uptake of the active ingredient. When making soil applications to plants with woody stems the systemic activity will be delayed until after the active ingredient has translocated throughout the plant. In some cases, this translocation delay could take 60 days or longer. Soil applications must be made prior to the anticipated pest infestation to achieve optimum levels of control.

NURSERY AND GREENHOUSE: ORNAMENTAL TREES (INCLUDING NON-BEARING FRUIT AND NUT¹); SHRUBS; EVERGREENS; FLOWERS; FOLIAGE PLANTS (NON-FOOD); GROUNDCOVERS; AND VEGETABLE PLANTS FOR RESALE ONLY²

FOLIAR APPLICATIONS

PESTS	USE RATE fl oz product/100 gallons (lb a.i./100 gallons)
For control of larvae of: Adelgids Aphids Japanese beetles (adults) Lacebugs Leaf beetles (including Elm, Viburnum) Leafhoppers/Sharpshooters Leaf miners Mealybugs Sawfly larvae Whiteflies	0.75 (0.023)
Suppression: Thrips	
Foliar Application Methods:	

• Mix VCP-034 with the required amount of water and apply around field grown nurseries, outdoor containerized ornamentals, ornamentals grown in greenhouses, and vegetable transplants grown for resale.

Foliar Application Instructions:

- ¹Only apply to non-bearing fruit and nut trees. Non-bearing fruit and nut trees are those trees that will not bear fruit or nuts one year after application.
- The addition of a spreader/sticker is recommended when making applications on hard to wet foliage such as holly, pine, or ivy.
- If concentrate or mist type spray equipment is used, apply an amount of product on to the treatment area which is equivalent to the amount that would be used in a dilute application.
- Start treatments prior to establishment of high pest populations and make reapplications on an as needed basis.

BROADCAST APPLICATIONS

PESTS	USE RATE fl oz product/A (lb a.i./A)	USE RATE fl oz product/1000 sq ft (lb a.i./1000 sq ft)
White grub larvae such as: Japanese beetle larvae Chafers <i>Phyllophaga</i> spp. <i>Asiatic</i> garden beetle Oriental beetle	10.0 - 12.8 (0.3 - 0.4)	0.23 – 0.30 (0.007 – 0.009)

Broadcast Application Methods:

• Mix VCP-034 with sufficient amount of water to uniformly and accurately cover the treatment area. **DO NOT** use less than 2 gallons of water per 1,000 sq ft.

Broadcast Application Instructions:

- ¹Only apply to non-bearing fruit and nut trees. Non-bearing fruit and nut trees are those trees that will not bear fruit or nuts one year after application.
- For control of soil pests, immediately follow application with irrigation to move the imidacloprid into the upper portions of the root zone.
- Soil or potting media with 30% or more bark content may result in a shorter period of protection.

Foliar and Broadcast Use Restrictions:

- Annual Maximum: DO NOT exceed 12.8 fl oz of VCP-034 (0.40 lb a.i.) per acre per calendar year.
- **DO NOT** apply through any irrigation system.
- **DO NOT** harvest or consume fruits or nuts from trees that have been treated within 1 year of application.
- **DO NOT** apply this product by any application method to linden, basswood, or other *Tillia* species in the State of Oregon.
- Follow application restrictions for Agricultural Use Sites for commercially grown ornamentals not under contract for pollination services but are attractive to pollinators found in the **DIRECTIONS FOR USE** section of this label to protect bees and other insect pollinators.
- ²Only for use on the following vegetable plants for resale: broccoli; Chinese broccoli; broccoli raab; Brussel sprouts; cabbage; Chinese cabbage; cauliflower; collards; eggplant; ground cherry; kale; kohlrabi; lettuce; mustard greens; pepinos; peppers; potatoes; rape greens; sorghum; sugar beets; tomatillo; and tomato.

NURSERY AND GREENHOUSE: ORNAMENTAL TREES, SHRUBS, FLOWERS, AND GROUND COVERS

SOIL APPLICATIONS (INJECTION & DRENCH)

	USE RATES		
PESTS	TREES fl oz per inch of trunk diameter at breast height (DBH) (lb a.i./inch of trunk)	SHRUBS fl oz per ft of shrub height (Ib a.i./ft of height)	FLOWERS AND GROUND COVER fl oz product/1000 sq ft (lb a.i./1000 sq ft)
Adelgids Aphids Black vive weevil larvae Emerald ash borer ¹ Eucalyptus longlorned borer ¹ Flatheaded borers (including bronze birch and Alder) ¹ Japanese beetles Lace bugs Leaf beetled (including Elm and Viburnum) Leafhoppers/Sharpshooters Leafminers Mealybugs Pine tip moth larvae Psyllids Royal palm bugs Sawfly larvae Soft scales White grub larvae	0.05 – 0.20 (0.0016 – 0.0063)	0.05 – 0.10 (0.0016 – 0.0031)	0.23 – 0.30 (0.007 – 0.009)

Whiteflies			
Suppression of: Armored scales Thrips	0.20 (0.0063)	0.10 (0.0031)	0.30 (0.009)

Trees and Shrubs Application Methods:

- Soil Injection: Mix the required dosage into sufficient water and inject an equal amount of solution into each hole. Use sufficient solution for distribution of the liquid into the treatment zone and maintain a low-pressure during application. Keep the treated area moist for 7 to 10 days. **DO NOT** use less than 4 holes per tree or large shrub.
 - GRID System: Holes must be spaced on 2.5-foot centers, in a grid pattern, extending to the drip line of the tree.
 - CIRCLE System: Uniformly apply in holes evenly spaced in circles beneath the drip line of the tree extending in from that line. Use more than one circle depending upon the size of the tree.
 - BASAL System: Space injection holes evenly around the base of the tree trunk no more than 6- to 12-inches out from the base.
- Soil Drench: Uniformly apply the required dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree or shrub directed into the root zone. Remove any plastic or other barrier that would stop the solution from reaching the root zone.

Tree and Shrubs Application Instructions:

- Use higher specified rates for larger trees (over 8" DBH), or for difficult to control insects, or for trees with severe infestations.
- ¹Borers: applications to trees already heavily infested with listed borers may not prevent the eventual loss of the trees due to existing pest damage and tree stress.

Tree and Shrub Use Restrictions:

- Annual Maximum: DO NOT exceed 12.8 fl oz of VCP-034 (0.40 lb a.i.) per acre per calendar year.
- **DO NOT** apply using soil injection methods in Nassau or Suffolk Counties of New York.
- Do not apply VCP-034 to soils which are waterlogged or saturated, which will not allow penetration into the root zone of the plants.
- For use only on non-bearing fruit and nut trees. Non-bearing fruit and nut trees are those trees that will not bear fruit or nuts for one year after application.

Flowers and Groundcover Application Methods:

Make application by one of the following methods:

- Apply before planting as a broadcast application followed by incorporation into the soil.
- For established plants apply prior to bloom or after all flower petals have fallen off. If application is made to established plants, irrigate thoroughly after application.
- Soil or potting media with 30% or more bark content may result in a shorter period of protection.

Flowers and Groundcover Use Restrictions:

- Annual Maximum: DO NOT exceed 12.8 fl oz of VCP-034 (0.40 lb a.i.) per acre per calendar year.
- **DO NOT** apply using soil injection methods in Nassau or Suffolk Counties of New York.
- Follow application restrictions for Agricultural Use Sites for commercially grown ornamentals not under contract for pollination services but are attractive to pollinators found in the **DIRECTIONS FOR USE** section of this label to protect bees and other insect pollinators.
- **DO NOT** apply VCP-034 to soils which are waterlogged or saturated, which will not allow penetration into the root zone of the plants.

SOD FARMS

Use this product for the control of soil inhabiting pests of sod farms. Because the active ingredient has sufficient residual activity, applications can be made prior to the egg laying activity of the target pest. Use historical monitoring of the site, previous records and experience, current season adult trapping, and other methods to determine the need for application. Make applications prior to egg hatch of the target pests. Sufficient irrigation or rainfall is needed to move the active ingredient through the thatch.

SOD FARMS			
BROADCAST APPLICATIONS			
PESTS	USE RATE fl oz product/A (lb a.i./A)		
For control of larvae of: Annual bluegrass weevil ¹ Asiatic garden beetle Billbugs ¹ Black turfgrass ataenius Chafers (Northern masked, Southern masked, European) European crane fly ¹ Green June beetle Japanese beetle May or June beetle Oriental beetle <i>Phyllophaga</i> spp.	10.0 - 12.8 (0.3 - 0.4)		
Control of: Mole crickets ² Suppression of: Chinchbugs ³	12.8 (0.4)		
 Broadcast Application Methods: Apply this product in sufficient water to provide adequate distribution over the treatment area. The use of accurately calibrated equipment normally used for the application of soil insecticides is required. Use equipment which will produce a uniform, coarse spray droplet, use a low pressure setting to eliminate off target drift. Check calibration periodically to ensure that equipment is working properly. 			
 Broadcast Application Instructions: Irrigation or rainfall must occur within 24 hours of DO NOT mow treated turf or lawn areas until after 	the application to move the active ingredient through the thatch. sufficient irrigation or rainfall has occurred so that the		

- uniformity of the application will not be affected.
- ¹Grubs, European crane fly, billbugs and annual bluegrass-weevil: make application prior to egg hatch. Consult your local turf, state Agricultural Experiment Station, or State Extension Service Specialists for more information regarding the timing of the application.
- ²Mole crickets: make application prior to or during peak egg hatch period. When adults or large nymphs are present and actively tunneling make a curative insecticide application with this product.
- ³Chinchbugs: make application prior to or during the hatching of the first instar nymphs.

Broadcast Use Restrictions:

- Annual Maximum: DO NOT exceed 12.8 fl oz of VCP-034 (0.40 lb a.i.) per acre per calendar year.
- **DO NOT** make application when the treatment area is waterlogged or the soil is saturated with water. Adequate distribution of the active ingredient cannot be achieved when these conditions exist. The treatment area must be in a condition that the rainfall or irrigation will penetrate vertically into the soil profile.
- **DO NOT** allow this product to contact plants in bloom if bees are foraging the treatment area.
- DO NOT graze treated areas or use clippings from treated areas for feed or forage.
- DO NOT allow runoff or puddling of irrigation water following application. DO NOT use for seed production.

EBB AND FLOOD APPLICATIONS

- To ensure accurate uptake, prior to treatment bring a minimum of 10 plants up to a known field capacity and allow to dry out for one or two days. Re-wet these plants to determine how much water on average each plant will absorb to bring it back to field capacity.
- Multiply the number of pots being treated by the volume absorbed per plant (keeping pot size uniform) to determine the minimum treatment volume.
- Add this volume to the required minimum water to flood your smallest treatment area. Do not allow leachate run out for the first 10 days after application, in order to retain the product and facilitate the full plant update of the active ingredient. This will minimize the return back to the storage tank. Re-use the returned volume with subsequent irrigation or nutrients on the same plants.

NURSERY AND GREENHOUSE: ORNAMENTAL AND VEGETABLES TRANSPLANTS¹ GROWN IN CONTAINERS

EBB AND FLOOD APPLICATIONS

	USE RATES			
PESTS	Pot Size (inches)	Herbaceous species including vegetable transplants ¹ (1 or 2 plants/pot)	Woody perennials/ herbaceous species including vegetable transplants ¹ (3+ plants/pot)	
		mL per 100 plants		
For control of:	2	0.80	1.25	
Adelgids Aphids	3	1.25	1.85	
Armored scales (suppression) Fungus gnats (larvae only) ²	4	1.65	2.50	
Japanese beetles (adults) Lacebugs	5	2.10	3.15	
Leaf Beetles (including Elm and Viburnum)	6	2.50	3.85	
Leafhoppers/Sharpshooters Leafminers	7	2.95	4.55	
Mealybugs Psyllids	8	3.30	5.00	
Root mealybugs ³ Root weevil complex: (such as	9	3.70	5.55	
Apoka, Black vine, Citrus root) ⁴	10	4.15	6.25	
Thrips (suppression) ⁵	11	4.50	7.15	

Whiteflies White grub larvae (such as Japanese beetle, Masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)	12	5.00	8.35
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Ebb and Flood Application Instructions:

- ²Fungus gnat larvae: soil drench or incorporation will control larvae but will not control adult fungus gnats.
- **³Root mealybug:** make a thorough drenching of containerized media for control. Coverage is essential for control while also minimizing the amount of leachate. Use at a rate of 1.0 fl oz per 150 gallons of water.
- ⁴Citrus root weevil: for use on non-bearing citrus nursery stock.
- ⁵Thrips: suppression on foliage only. Thrips in the buds and flowers will not be suppressed.

Ebb and Flood Use Restrictions:

- ¹Only for use on the following vegetable transplants for resale: broccoli; Chinese broccoli; broccoli raab; Brussel sprouts; cabbage; Chinese cabbage; cauliflower; collards; eggplant; ground cherry; kale; kohlrabi; lettuce; mustard greens; pepinos; peppers; potatoes; rape
- **DO NOT** apply more than 12.8 fl oz of VCP-034 (0.40 lb a.i.) per acre per calendar year.
- Follow application restrictions for Agricultural Use Sites for commercially grown ornamentals not under contract for pollination services but are attractive to pollinators found in the **DIRECTIONS FOR USE** section of this label to protect bees and other insect pollinators.
- **DO NOT** apply VCP-034 to soils which are waterlogged or saturated, which will not allow penetration into the root zone of the plants.

DRENCH AND IRRIGATION APPLICATION

- Use as a drench and irrigation application only in greenhouse and on nursery grown ornamentals, vegetables transplants intended for resale using soil drenches, micro-irrigation, drip irrigation, overhead irrigation, ebb and flood irrigation, or hand-held calibrated motorized irrigation equipment.
- Use only through micro irrigation (individual spaghetti tubes), drip irrigation, overhead irrigation, ebb and flood, or handheld or motorized calibrated irrigation equipment. **DO NOT** apply this product through any other type of irrigation system.
- May be applied alone or in tank mixtures with other pesticides and chemicals registered for application through irrigation systems.
- Typically the dilution ratio is 1:100 to 1:200, depending on the irrigation system.
- This product may be mixed separately prior to injection. Always meter the product into the irrigation water during the first part of the irrigation cycle.
- For best results, use immediately after mixing. If the mixtures settles, agitate the mixture and assess to ensure thorough re-mixing prior to application. Agitation is necessary if the mixture is allowed to stand for more than 24 hours.
- Remove scale, pesticide residue, and other foreign matter from the tank and the entire irrigation system. Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.

NURSERY AND GREENHOUSE: ORNAMENTALS AND VEGETABLE TRANSPLANTS ¹ GROWN IN CONTAINERS			
DRENCH AND IRRIGATION APPLICATIONS			
		USE RATES	
PESTS	Container Size (inches)	Herbaceous species including vegetable transplants ¹	Woody perennials/ herbaceous species including vegetable

		(1 or 2 plants/pot)	transplants ¹ (3+ plants/pot)
		# of Containers tre	ated with 1.0 fl oz
	2	3000	2000
	3	2000	1350
	4	1500	1000
	5	1200	800
	6	1000	650
For control of:	7	850	550
Adelgids AphidsFungus gnats (larvae only) ² Japanese beetles (adults) Lacebugs	8	750	500
	9	675	450
Leaf Beetles (including Elm and Viburnum)	10	600	400
Leafminers Mealyburgs	11	550	350
Psyllids Root mealybugs ³ Root weevil complex: (such as Apoka, Black vine, Citrus root) ⁴ Soft scales Thrips (suppression) ⁵ Whiteflies White grub larvae (such as	12	500	300
	 Drench and Irrigation Application Methods for Transplants in Containers: Use sufficient volume to wet most of the potting media without loss of liquid from the bottom of the container. Follow the application with moderate irrigation. For the 10 days following application, irrigate carefully to avoid the loss of active ingredient due to leaching. 		
European chafer, Oriental beetle, Asiatic garden beetle)	Ornamental and Vegetable Transplants ¹ Grown in Flats, Benches, or Beds		
	USE RATE fl oz product/1000 sq ft (lb a.i./1000 sq ft)		
	0.34 (0.011)		
	 Flats, Benches, or Beds Broadcast Application Methods: Mix required amount of VCP-034 with sufficient amount of water to uniformly and accurately cover the treatment area. DO NOT use less than 2 gallons of final pray per 1,000 sq ft. 		

	 Apply as a broadcast to the planting media and incorporate before planting. DO NOT allow leaching or runout for 10 days following the application. 		
 Drench and Irrigation Application Instructions: ²Fungus gnat larvae: soil drench or incorporation will control larvae but will not control adult fungus gnats. ³Root mealybug: make a thorough drenching of containerized media for control. Coverage is essential for control while also minimizing the amount of leachate. Use at a rate of 1.0 fl oz per 150 gallons of water. ⁴Citrus root weevil: for use on non-bearing citrus nursery stock. ⁵Thrips: suppression on foliage only. Thrips in the buds and flowers will not be suppressed. 			
 Drench and Irrigation Use Restrictions: ¹Only for use on the following vegetable transplants for resale: broccoli; Chinese broccoli; broccoli raab; Brussel sprouts; cabbage; Chinese cabbage; cauliflower; collards; eggplant; ground cherry; kale; kohlrabi; lettuce; mustard greens; pepinos; peppers; potatoes; rape Do not apply more than 12.8 fl oz of VCP-034 (0.40 lb a.i.) per acre per calendar year. Follow application restrictions for Agricultural Use Sites for commercially grown ornamentals not under contract for pollination services but are attractive to pollinators found in the DIRECTIONS FOR USE section of this label to protect bees and other insect pollinators. Do not apply VCP-034 to soils which are waterlogged or saturated, which will not allow penetration into the root zone of the plants. 			

NURSERY AND GREEN HOUSE: LARGE CONTAINERIZED ORNAMENTAL PLANTS

DRENCH AND IRRIGATION APPLICATIONS

	USE RATES		
PESTS	Container Size (gallons)	# of Containers treated with 1.0 fl oz	
For control of: Adelgids	1	244 – 340	
Aphids Fungus gnats (larvae only) ¹ Japanese beetles (adults)	2	210 – 280	
Lacebugs Leaf Beetles (including Elm and Viburnum) Leafhoppers/Sharpshooters	3	185 – 220	
Leafminers Mealybugs Psyllids	5	110 – 160	
Root mealybugs ² Root weevil complex: (such as Apoka,	7	75 – 100	
Soft scales Thrips (suppression) ⁴	10	45 – 60	
Whiteflies White grub larvae (such as Japanese	15	30 – 40	

beetle, Masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)	20	15 – 20

Drench and Irrigation Application Methods:

- Use sufficient volume to wet the potting media. Make application prior to egg hatch of the target pest. Follow the application with moderate irrigation.
- Do not allow leachate run out for the first 10 days after application, in order to retain the product and facilitate the full plant uptake of the active ingredient.

Drench and Irrigation Application Instructions:

- ¹Fungus gnat larvae: soil drench or incorporation will control larvae but will not control adult fungus gnats.
- **²Root mealybug:** make a thorough drenching of containerized media for control. Coverage is essential for control while also minimizing the amount of leachate. Use at a rate of 1.0 fl oz per 150 gallons of water.
- ³Citrus root weevil: for use on non-bearing citrus nursery stock.
- **4Thrips:** suppression on foliage only. Thrips in the buds and flowers will not be suppressed.

Drench and Irrigation Use Restrictions:

- Do not apply more than 12.8 fl oz of VCP-034 (0.40 lb a.i.) per acre per calendar year.
- Follow application restrictions for Agricultural Use Sites for commercially grown ornamentals not under contract for pollination services but are attractive to pollinators found in the **DIRECTIONS FOR USE** section of this label to protect bees and other insect pollinators.

CHRISTMAS TREE NURSERIES		
PESTS	USE RATE fl oz product/1000 ft row (Ib a.i./1000 ft row)	USE RATE fl oz product/1000 sq ft (lb a.i./1000 sq ft) fl oz product/A (lb a.i./A)
For control of larvae of: White grub larvae ¹ (such as Japanese beetle, masked chafers, European chafer, Oriental beetle, Asiatic garden beetle)	1.0 (0.031)	0.34 (0.011) 12.8 fl oz/A (0.4 lb a.i/A)

Christmas Tree Nursery Application Methods:

• Make application as a uniform band on either side of the row using a band width which is 6 inches wider than the root ball diameter to be dug. **DO NOT** allow bands in adjacent rows to overlap.

Christmas Tree Nursery Application Instructions:

- Mowing vegetation prior to application in the area to be treated to a height of 3 inches or less will improve the consistency of control.
- Make application from May through July.
- Treatment must be followed by rainfall or irrigation for target pest control.
- ¹Grubs: in areas of turf, make an application as a broadcast spray using 0.25 0.34 fl oz per 1000 sq ft (10.9 12.8 fl oz/A).

Christmas Tree Nursery Use Restrictions:

- Annual Maximum: DO NOT exceed 12.8 fl oz of VCP-034 (0.40 lb a.i.) per acre per calendar year.
- DO NOT use less than 2 gallons of spray volume per 1,000 sq ft (85 GPA).

Specific Use Directions for Non-Agricultural Uses

TURFGRASS AND GRASSY AREAS IN NURSERIES

Turfgrass sites: home lawns, business and office complexes, shopping complexes, multi-family residential complexes, golf courses, airports, cemeteries, parks, playgrounds, and athletic fields. Grassy areas under and around field and container grown plants, on roadways and other grassy areas in and around nurseries.

Because the active ingredient has sufficient residual activity, applications can be made prior to the egg laying activity of the target pest. Use historical monitoring of the site, previous records and experience, current season adult trapping, and other methods to determine the need for application. Make applications prior to egg hatch of the target pests. Sufficient irrigation or rainfall is needed to move the active ingredient through the thatch.

GRASSY AREAS IN NURSERIES AND TURFGRASS IN RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL AREAS		
BROADCAST APPLICATIONS		
PESTS	USE RATE fl oz product/A (Ib a.i./A)	USE RATE fl oz product/1000 sq ft (lb a.i./1000 sq ft)
For control of larvae of: Annual bluegrass weevil ¹ Asiatic garden beetle Billbugs ¹ Black turfgrass ataenius Chafers (Northern masked, Southern masked, European) European crane fly ¹ Green June beetle Japanese beetle May or June beetle Oriental beetle <i>Phyllophaga</i> spp.	10.0 - 12.8 (0.3 - 0.4)	0.23 – 0.30 (0.007 – 0.009)
Control of: Mole crickets ² Suppression of: Chinchbugs ³	12.8 (0.4)	0.30 (0.009)

Broadcast Application Methods:

• Apply this product in sufficient water to provide adequate distribution over the treatment area. The use of accurately calibrated equipment normally used for the application of soil insecticides is required. Use equipment which will produce a uniform, coarse spray droplet, use a low pressure setting to eliminate off target drift. Check calibration periodically to ensure that equipment is working properly.

Broadcast Application Instructions:

• Irrigate if rainfall does not occur within 24 hours of the application to move the active ingredient through the thatch.

- **DO NOT** mow treated turf or lawn areas until after sufficient irrigation or rainfall has occurred so that the uniformity of the application will not be affected.
- ¹Grubs, European crane fly, billbugs and annual bluegrass-weevil: make application prior to egg hatch. Consult your local turf, state Agricultural Experiment Station, or State Extension Service Specialists for more information regarding the timing of the application.
- ²Mole crickets: make application prior to or during peak egg hatch period. When adults or large nymphs are present and actively tunneling make a curative insecticide application with this product.
- ³Chinchbugs: make application prior to or during the hatching of the first instar nymphs.

Broadcast Use Restrictions:

- Annual Maximum: DO NOT exceed 12.8 fl oz of VCP-034 (0.40 lb a.i.) per acre per calendar year.
- **DO NOT** make application when the treatment area is waterlogged or the soil is saturated with water. Adequate distribution of the active ingredient cannot be achieved when these conditions exist. The treatment area must be in a condition that the rainfall or irrigation will penetrate vertically into the soil profile.
- **DO NOT** allow this product to contact plants in bloom if bees are foraging the treatment area.
- DO NOT graze treated areas or use clippings from treated areas for feed or forage.
- **DO NOT** allow runoff or puddling of irrigation water following application.
- Keep children and pets off treated area until dry.
- **DO NOT** use for seed production.

RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL LANDSCAPE ORNAMENTALS AND PLANTINGS

Use this product for foliar and systemic insect control on ornamentals and plantings in commercial and residential landscapes and interior plantscapes. Make applications of this product using foliar or soil applications, including soil injection, drenches, and broadcast sprays. Foliar applications offer locally systemic activity against inspect pests while soil applications result in translocation of the active ingredient upward into the plant system through root uptake. Apply this product where the growing portion of the target plant can absorb the active ingredient. Where applicable, the addition of a nitrogen containing fertilizer into the solution may enhance the update of the active ingredient. When making soil applications to plants with woody stems the systemic activity will be delayed until after the active ingredient has translocated throughout the plant. In some cases, this translocation delay could take 60 days or longer. Therefore, soil applications must be made prior to the anticipated pest infestation to achieve optimum levels of control.

RESIDENTIAL, COMMERCIAL AND INDUSTRIAL LANDSCAPE ORNAMENTALS AND PLANTINGS USE SITES: TREES; SHRUBS; EVERGREENS; FLOWERS; FOLIAGE PLANTS (NON-FOOD); GROUNDCOVERS; INTERIOR PLANTSCAPES

PESTS	USE RATE fl oz product/100 gallons (lb a.i./100 gallons)	
For control of larvae of: Adelgids Aphids Japanese beetles (adults) Lacebugs Leaf beetles (including Elm, Viburnum) Leafhoppers/Sharpshooters Leaf miners Mealybugs Sawfly larvae Whiteflies	0.75 (0.023)	

Thrips		
 Nuisance Ant Management: Using this product to control aphids, scale insects, mealybugs, and other sucking pests will limit the honeydew available as a food source for nuisance ant populations. Other ant control tactics such as residual sprays, bait placements, or other tactics can then be used to further reduce the ant populations. 		
 Foliar Application Methods: Mix product with the required amount of water and apply as desired dependent upon the selected use pattern. When making foliar applications on hard-to-wet foliage such as holly, pine, or ivy, the addition of a spreader/sticker is recommended. If concentrate or mist type spray equipment is used, use an equivalent amount of product on the area sprayed, as would be used in a dilute application. This insecticide has been found to be compatible with commonly used fungicides, miticides, liquid fertilizers, and other commonly used insecticides. The physical compatibility of this product may vary with different sources of pesticide products and local cultural practices. Any tank mixture which has not been previously tested must be prepared on a small scale (pint or quart jar), using the proper proportions of pesticides and water to ensure the physical compatibility of the mixture. 		
 Foliar Application Restrictions: Do not apply more than 12.8 fl oz of VCP-034 (0.40 lb a.i.) per acre per calendar year. DO NOT apply this product while bees are foraging. DO NOT apply this product to plants that are flowering. Only apply after all flower petals have fallen off. 		
BROADCAST APPLICATIONS		
PESTS	USE RATE fl oz product/A (lb a.i./A)	USE RATE fl oz product/1000 sq ft (lb a.i./1000 sq ft)
White grub larvae such as:		
Chafers Phyllophaga spp. Asiatic garden beetle Oriental beetle	10.0 - 12.8 (0.3 - 0.4)	0.23 – 0.30 (0.007 – 0.009)
Chafers Phyllophaga spp. Asiatic garden beetle Oriental beetle Broadcast Application Methods: • Mix VCP-034 with sufficient amoun area. DO NOT use less than 2 gallo	10.0 – 12.8 (0.3 – 0.4) t of water or liquid fertilizer to uniforml ns of final pray per 1,000 sq ft.	0.23 – 0.30 (0.007 – 0.009) y and accurately cover the treatment
Chafers Phyllophaga spp. Asiatic garden beetle Oriental beetle Broadcast Application Methods: Mix VCP-034 with sufficient amoun area. DO NOT use less than 2 gallo Broadcast Application Instructions: For control of soil pests, immediate portions of the root zone. Soil or potting media with 30% or n	10.0 – 12.8 (0.3 – 0.4) t of water or liquid fertilizer to uniformins of final pray per 1,000 sq ft.	0.23 – 0.30 (0.007 – 0.009) y and accurately cover the treatment nove the imidacloprid into the upper r period of protection.

- **DO NOT** apply to Landscape Ornamentals and Plantings through any irrigation system.
- Follow application restrictions for Non-Agricultural Use Sites found in the **DIRECTIONS FOR USE** section of this label to protect bees and other insect pollinators.

and nut trees.

• Keep children and pets of treated area until dry.

Flowers and Groundcover Application Methods:

Make application by one of the following methods:

- Apply before planting as a broadcast application followed by incorporation into the soil.
- For established plants apply prior to bloom or after all flower petals have fallen off. If application is made to established plants, irrigate thoroughly after application.

Flowers and Groundcover Use Restrictions:

- Annual Maximum: DO NOT exceed 12.8 fl oz of VCP-034 (0.40 lb a.i.) per acre per calendar year.
- **DO NOT** apply using soil injection methods in Nassau or Suffolk Counties of New York.

RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL LANDSCAPE ORNAMENTAL USE SITES: TREES, SHRUBS, FLOWERS, AND GROUND COVERS

SOIL APPLICATIONS (INJECTION & DRENCH)			
	USE RATES		
PESTS	TREES fl oz per inch of trunk diameter at breast height (DBH) (Ib a.i./inch of trunk)	SHRUBS fl oz per ft of shrub height (Ib a.i./ft of height)	FLOWERS AND GROUND COVER fl oz product/1000 sq ft (Ib a.i./1000 sq ft)
Adelgids Aphids Black vine weevil larvae Emerald ash borer ¹ Eucalyptus longlorned borer ¹ Flatheaded borers (including bronze birch and Alder) ¹ Japanese beetles Lace bugs Leaf beetles (including Elm and Viburnum) Leafhoppers/Sharpshooters Leafminers Mealybugs Pine tip moth larvae Psyllids Royal palm bugs Sawfly larvae Soft scales White grub larvae	0.05 – 0.20 (0.0016 – 0.0063)	0.05 – 0.10 (0.0016 – 0.0031)	0.23 – 0.30 (0.007 – 0.009)
Suppression of: Armored scales Thrips	0.20 (0.0063)	0.10 (0.0031)	0.30 (0.009)

Trees and Shrubs Application Methods:

- Soil Injection: Mix the required dosage into sufficient water and inject an equal amount of solution into each hole. Use sufficient solution for distribution of the liquid into the treatment zone and maintain a low-pressure during application. Keep the treated area moist for 7 to 10 days. **DO NOT** use less than 4 holes per tree or shrub.
 - GRID System: Holes must be spaced on 2.5-foot centers, in a grid pattern, extending to the drip line of the tree.
 - CIRCLE System: Apply in holes evenly spaced in circles beneath the drip line of the tree extending in from that line. Use more than one circle depending upon the size of the tree.
 - BASAL System: Space injection holes evenly around the base of the tree trunk no more than 6- to 12-inches out from the base.
- Soil Drench: Apply the required dosage in no less than 10 gallons of water per 1,000 square feet as a drench around the base of the tree or shrub directed into the root zone. Remove any plastic or other barrier that would stop the solution from reaching the root zone.

Trees and Shrubs Application Instructions:

- Use higher specified rates for larger trees (over 8" DBH), or for difficult to control insects, or for trees with severe infestations.
- ¹Borers: applications to trees already infested with listed borers may not prevent the eventual loss of the trees due to existing pest damage and tree stress.

Trees and Shrubs Use Restrictions:

- Annual Maximum: DO NOT exceed 12.8 fl oz of VCP-034 (0.40 lb a.i.) per acre per calendar year.
- **DO NOT** apply using soil injection methods in Nassau or Suffolk Counties of New York.

RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL LANDSCAPE AREA USE SITES: POMEFRUITS (APPLE, CRABAPPLE, LOQUAT, MAYHEW, PEAR, PEAR (ORIENTAL), QUINCE)

PESTS	USE RATE fl oz product/100 gallons (lb a.i./100 gallons)	USE RATE fl oz product/A (lb a.i./A)
For control of: Aphids (except Wooly apple aphid) ¹ Leafhoppers/Sharpshooters ² Leafminers ³ Mealybugs ⁴ San Jose scale ⁵	0.75 (0.023)	3.0 (0.09)

Foliar Application Methods:

• Using the specified dosage, apply as needed as a foliar spray after petal-fall is complete.

Foliar Application Instructions:

- The amount of VCP-034 per acre will depend on the tree size and the amount of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees.
- ¹Rosy apple aphid: make application prior to leafrolling caused by the pest.
- ²Leafhoppers (late season): make application while most leafhoppers are in the nymphal stage.
- ³Leafminers (first generation): make the 1st application as soon as petal-fall is complete. The greatest control will result from the earliest possible application. For 2nd and subsequent generations of Leafminers optimal control is obtained from applications made early in the adult flight, against egg, and early instar larvae. A second application may be required 10 days later if severe pressure continues or if generations are overlapping. A single application may result in suppression only. This product will not control late stage larvae.

- **4Mealybugs:** ensure good spray coverage of the trunk and scaffolding limbs, or other resting sites of the mealybugs.
- ⁵San Jose scale: time the application for the crawler stage. Treat each generation.

Foliar Use Restrictions:

- **DO NOT** exceed 3.0 fl oz of VCP-034 (0.09 lb a.i.) per acre in a single application.
- Annual Maximum: DO NOT make more than 4 applications.
- Minimum Application Interval: Allow 10 or more days between applications.
- Preharvest Interval (PHI): 7 days.
- **DO NOT** use on pomefruits grown for commercial production.
- **DO NOT** use in California for control on Pears.
- Follow application restrictions for Non-Agricultural Use Sites found in the DIRECTIONS FOR USE section of this label to protect bees and other insect pollinators.
- Keep children and pets of treated area until dry.

RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL LANDSCAPE AREA USE SITE: PECAN TREES		
PESTS	USE RATE fl oz product/100 gallons (lb a.i./100 gallons)	USE RATE fl oz product/A (lb a.i./A)
For control of: Black margined aphid Pecan leaf phylloxera Pecan spittlebug Pecan stem phylloxera Yellow pecan aphid	0.75 (0.023)	3.0 (0.09)

Foliar Application Methods:

• Using the specified dosage, apply as a foliar spray as pests begin to build before the populations become extreme. Two applications on a 10- to 14-day interval may be required to achieve control. Scout and retreat if needed. Thorough coverage of the foliage is needed for optimal control. The addition of an organosilicone-based spray adjuvant at a rate not to exceed the adjuvant manufacturer's recommendations use rate may improve coverage.

Foliar Application Instructions:

• The amount of VCP-034 per acre will depend on the tree size and the amount of foliage present. The rate per acre is based on a standard of 400 gallons of dilute spray solution per acre for large trees.

Foliar Use Restrictions:

- **DO NOT** exceed 9.0 fl oz of VCP-034 (0.28 lb a.i.) per acre per calendar year.
- **DO NOT** make more than 3 applications per calendar year.
- Minimum Application Interval: Allow 10 or more days between applications.
- Preharvest Interval (PHI): 7 days.
- **DO NOT** use on pecans grown for commercial production.
- **DO NOT** use in California unless directed by state approved 24I labeling.
- Follow application restrictions for Non-Agricultural Use Sites found in the DIRECTIONS FOR USE section of this label to protect bees and other insect pollinators.
- Keep children and pets of treated area until dry.

RESIDENTIAL, COMMERCIAL, AND INDUSTRIAL LANDSCAPE AREA USE SITE: GRAPES		
PESTS	USE RATE fl oz product/100 gallons (lb a.i./100 gallons)	USE RATE fl oz product/A (lb a.i./A)
For control of: Leafhoppers/Sharpshooters Mealybugs	0.75 (0.023)	1.5 (0.047)
 Foliar Application Methods: Using the specified dosage, apply as a foliar spray using 200 gallons of finished spray per acre. 		
 Foliar Use Restrictions: Annual Maximum: DO NOT exceed 3.0 fl oz of VCP-034 (0.09 lb a.i.) per acre per calendar year. Minimum Application Interval: Allow 14 or more days between applications. Preharvest Interval (PHI): 0 days. 		

• Follow application restrictions for Non-Agricultural Use Sites found in the DIRECTIONS FOR USE section of this label to protect bees and other insect pollinators.

• Keep children and pets of treated area until dry.

STORAGE AND DISPOSAL

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

Pesticide Storage

Store in original containers only. Store in a cool and dry place, in such a manner as to avoid cross-contamination. Keep container closed when not in use. **DO NOT** store near food or feed. In case of spill on floor or paved surfaces, mop and remove to chemical waste storage area until proper disposal can be made if product cannot be used according to the label.

Pesticide Disposal

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative of the nearest EPA Regional Office for guidance.

{Container handling depends on the container size being labeled as well as if the container is refillable or not. At least one set of the following 3 container handling instructions for HDPE containers will be placed on the printed label.}

Container Handling less than or equal to 5 gallons - Non-refillable {HDPE} container:

DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use and 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.

[Container Handling greater than 5 gallons - Refillable {HDPE} container:

Refill this container with pesticide only. **DO NOT** reuse the container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.]

[Container Handling greater than 5 gallons - Non-refillable {HDPE} container:

DO NOT reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. 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 by other procedures allowed by state and local authorities.]

CONTAINER IS NOT SAFE FOR FOOD, FEED OR DRINKING WATER.

IMPORTANT INFORMATION READ BEFORE USING PRODUCT

Conditions of Sale and Limitation of Warranty and Liability:

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

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Crop injury, ineffectiveness, or other unintended consequences may result because of such factors as manner of use or application, weather or crop conditions beyond the control of Vive Crop Protection or Seller. All such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Vive Crop Protection and Seller harmless for any claims relating to such factors.

Seller warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the Directions for Use when used in accordance with the directions under normal conditions of use. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, VIVE CROP PROTECTION MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER EXPRESS OR IMPLIED WARRANTIES WITH RESPECT TO THE SELECTION, PURCHASE, OR USE OF THIS PRODUCT.

Any warranties, express or implied, having been made are inapplicable if this product has been used contrary to label instructions, or under conditions not reasonably foreseeable to (or beyond the control of) seller or Vive Crop Protection, and buyer assumes the risk of any such use.

To the extent consistent with applicable law, Vive Crop Protection or seller shall not be liable for any incidental, consequential or special damages resulting from the use or handling of this product. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF VIVE CROP PROTECTION 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 VIVE CROP PROTECTION OR SELLER, THE REPLACEMENT OF THE PRODUCT.

This Conditions of Sale and Limitation of Warranty and Liability may not be amended by any oral or written agreement except as signed by an authorized representative of Vive Crop Protection.

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OPTIONAL MARKETING LANGUAGE

{Optional marketing or other non-FIFRA related language}

- **1.** Liquid fertilizer compatible
- 2. Designed for liquid fertilizer compatibility
- **3.** VCP-034 provides the ability to mix this product directly with starter fertilizer [with no additional additives, blending agents, or additional equipment solutions]
- 4. Mixes well in liquid fertilizer
- 5. In chemigation systems, VCP-034 won't gum up lines and nozzles.
- 6. Sample product no commercial value. Not for resale. {Note to reviewer this labeling will apply to container sizes of 2.5 gallons or less. Either the full sublabel A or sublabel B will be attached to this sample product.}